

City of Riverside

HOUSING AND PUBLIC SAFETY ELEMENT UPDATES AND ENVIRONMENTAL JUSTICE POLICIES

DRAFT ENVIRONMENTAL IMPACT REPORT

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Matthew Taylor, Senior Planner
Community & Economic Development Department, Planning Division
3900 Main Street, 3rd Floor
Riverside, CA 92522

Prepared by:
ICF

Contents

Executive Summary	ES-1
ES.1 Project Location and Setting	ES-1
ES.1.1 Background.....	ES-2
ES.1.2 Regional Housing Needs Assessment.....	ES-2
ES.2 Project Overview.....	ES-3
ES.2.1 Housing Element Update	ES-3
ES.2.2 Public Safety Element Update	ES-4
ES.2.3 Environmental Justice Policies	ES-5
ES.2.4 Opportunity Sites	ES-6
ES.2.5 Specific Plan Amendments.....	ES-7
ES.3 Project Objectives.....	ES-7
ES.4 California Environmental Quality Act Summary and Project Impacts	ES-8
ES.4.1 Summary of Project Impacts and Mitigation	ES-9
ES.5 Significant and Unavoidable Impacts.....	ES-48
ES.6 Project Alternatives	ES-49
ES.7 Potential Areas of Controversy/Issues to Be Resolved.....	ES-49
ES.8 How to Comment on this Draft EIR.....	ES-50
Chapter 1 Introduction and Scope of Environmental Impact Report	1-1
1.1 Public Engagement During the Project and Environmental Review Process	1-1
1.1.1 Informational Meetings and Policy Workshops	1-1
1.1.2 CEQA-Focused Meetings and Summary of Comments	1-2
1.2 The California Environmental Quality Act	1-4
1.2.1 Level of Detail in this EIR	1-5
1.2.2 Document Format	1-5
1.3 Intended Use of this EIR	1-6
1.4 Reviewing an EIR	1-6
1.4.1 Making Effective Comments	1-6
1.4.2 Submitting Comments.....	1-6
1.5 Final EIR	1-7
Chapter 2 Project Description	2-1
2.1 Introduction	2-1
2.1 Project Location and Setting.....	2-1
2.1.1 Background.....	2-2
2.1.2 Regional Housing Needs Assessment (RHNA)	2-3
2.1.3 Environmental Justice Requirements.....	2-3
2.1.4 Opportunity Sites	2-4

- 2.2 Project Objectives 2-6
 - 2.2.1 Project Description 2-7
 - 2.2.2 Housing Element Update 2-7
 - 2.2.3 Public Safety Element Update 2-8
 - 2.2.4 Zoning Code Amendments 2-9
 - 2.2.5 Specific Plan Amendments 2-10
 - 2.2.6 Maximum Allowable Development under the Project 2-11
- 2.3 Other Public Agencies Whose Review or Approval Is Required 2-13
- 2.4 Assembly Bill 52/Senate Bill 18 Consultation 2-13
- 2.5 Other Environmental Reviews Incorporated by Reference in This Review 2-13
- Chapter 3 Impact Analysis 3-1**
 - 3.01 Introduction 3-1
 - 3.02 Environmental Elements Analyzed in the EIR 3-1
 - 3.03 CEQA Baseline 3-2
 - 3.04 Impacts and Mitigation 3-2
 - 3.1 Air Quality 3.1-1
 - 3.1.1 Introduction 3.1-1
 - 3.1.2 Environmental Setting 3.1-1
 - 3.1.3 Regulatory Setting 3.1-7
 - 3.1.4 Methodology and Thresholds of Significance 3.1-17
 - 3.1.5 Impacts and Mitigation Measures 3.1-23
 - 3.2 Biological Resources 3.2-1
 - 3.2.1 Introduction 3.2-1
 - 3.2.2 Environmental Setting 3.2-1
 - 3.2.3 Regulatory Setting 3.2-15
 - 3.2.4 Methodology and Thresholds of Significance 3.2-27
 - 3.2.5 Impacts and Mitigation Measures 3.2-30
 - 3.3 Cultural Resources 3.3-1
 - 3.3.1 Introduction 3.3-1
 - 3.3.2 Environmental Setting 3.3-1
 - 3.3.3 Regulatory Setting 3.3-12
 - 3.3.4 Methodology and Thresholds of Significance 3.3-28
 - 3.3.5 Impacts and Mitigation Measures 3.3-29
 - 3.4 Paleontological Resources 3.4-1
 - 3.4.1 Introduction 3.4-1
 - 3.4.2 Environmental Setting 3.4-1
 - 3.4.3 Regulatory Setting 3.4-2
 - 3.4.4 Methodology and Thresholds of Significance 3.4-4
 - 3.4.5 Impacts and Mitigation Measures 3.4-6
 - 3.5 Greenhouse Gas Emissions 3.5-1
 - 3.5.1 Introduction 3.5-1

3.5.2 Environmental Setting..... 3.5-1

3.5.3 Regulatory Setting 3.5-3

3.5.4 Methodology and Thresholds of Significance 3.5-14

3.5.5 Impacts and Mitigation Measures..... 3.5-20

3.6 Hazards and Hazardous Materials..... 3.6-1

3.6.1 Introduction..... 3.6-1

3.6.2 Environmental Setting..... 3.6-1

3.6.3 Regulatory Setting 3.6-5

3.6.4 Methodology and Thresholds of Significance 3.6-14

3.6.5 Impacts and Mitigation Measures..... 3.6-15

3.7 Land Use and Planning 3.7-1

3.7.1 Introduction..... 3.7-1

3.7.2 Environmental Setting..... 3.7-1

3.7.3 Regulatory Setting 3.7-2

3.7.4 Methodology and Thresholds of Significance 3.7-11

3.7.5 Impacts and Mitigation Measures..... 3.7-11

3.8 Noise..... 3.8-1

3.8.1 Introduction..... 3.8-1

3.8.2 Environmental Setting..... 3.8-6

3.8.3 Regulatory Setting 3.8-8

3.8.4 Methodology and Thresholds of Significance 3.8-15

3.8.5 Impacts and Mitigation Measures..... 3.8-19

3.9 Population and Housing 3.9-1

3.9.1 Introduction..... 3.9-1

3.9.2 Environmental Setting..... 3.9-1

3.9.3 Regulatory Setting 3.9-7

3.9.4 Methodology and Thresholds of Significance 3.9-15

3.9.5 Impacts and Mitigation Measures..... 3.9-16

3.10 Public Services 3.10-1

3.10.1 Introduction..... 3.10-1

3.10.2 Environmental Setting..... 3.10-1

3.10.3 Regulatory Setting 3.10-8

3.10.4 Methodology and Thresholds of Significance 3.10-16

3.10.5 Impacts and Mitigation Measures..... 3.10-17

3.11 Recreation 3.11-1

3.11.1 Introduction..... 3.11-1

3.11.2 Environmental Setting..... 3.11-1

3.11.3 Regulatory Setting 3.11-12

3.11.4 Methodology and Thresholds of Significance 3.11-19

3.11.5 Impacts and Mitigation Measures..... 3.11-19

3.12 Transportation 3.12-1

3.12.1 Introduction..... 3.12-1

- 3.12.2 Environmental Setting..... 3.12-1
- 3.12.3 Regulatory Setting 3.12-11
- 3.12.4 Methodology and Thresholds of Significance 3.12-16
- 3.12.5 Impacts and Mitigation Measures..... 3.12-19
- 3.13 Tribal Cultural Resources..... 3.13-1
 - 3.13.1 Introduction..... 3.13-1
 - 3.13.2 Environmental Setting 3.13-1
 - 3.13.3 Regulatory Setting 3.13-2
 - 3.13.4 Methodology and Thresholds of Significance 3.13-5
 - 3.13.5 Impacts and Mitigation Measures..... 3.13-9
- 3.14 Utilities and Service Systems 3.14-1
 - 3.14.1 Introduction..... 3.14-1
 - 3.14.2 Environmental Setting..... 3.14-1
 - 3.14.3 Regulatory Setting 3.14-8
 - 3.14.4 Methodology and Thresholds of Significance 3.14-19
 - 3.14.5 Impacts and Mitigation Measures..... 3.14-20
- 3.15 Effects Not Found to Be Significant 3.15-1
 - 3.15.1 Aesthetics 3.15-1
 - 3.15.2 Agricultural and Forestry Resources 3.15-4
 - 3.15.3 Air Quality..... 3.15-6
 - 3.15.4 Biological Resources 3.15-6
 - 3.15.5 Cultural Resources..... 3.15-7
 - 3.15.6 Energy..... 3.15-8
 - 3.15.7 Geology, Soils, and Paleontological Resources 3.15-12
 - 3.15.8 Hazards and Hazardous Materials..... 3.15-17
 - 3.15.9 Hydrology and Water Quality..... 3.15-19
 - 3.15.10 Mineral Resources..... 3.15-28
 - 3.15.11 Population and Housing 3.15-29
 - 3.15.12 Transportation..... 3.15-30
 - 3.15.13 Utilities and Service Systems..... 3.15-30
 - 3.15.14 Wildfire..... 3.15-31
- 3.16 Cumulative Impacts..... 3.16-1
 - 3.16.1 Air Quality..... 3.16-2
 - 3.16.2 Biological Resources 3.16-3
 - 3.16.3 Cultural Resources..... 3.16-5
 - 3.16.4 Paleontological Resources..... 3.16-7
 - 3.16.5 Greenhouse Gas Emissions 3.16-7
 - 3.16.6 Hazards and Hazardous Materials..... 3.16-8
 - 3.16.7 Land Use 3.16-9
 - 3.16.8 Noise..... 3.16-9
 - 3.16.9 Population and Housing 3.16-10
 - 3.16.10 Public Services 3.16-13
 - 3.16.11 Recreation 3.16-14

3.16.12	Transportation.....	3.16-15
3.16.13	Tribal Cultural Resources.....	3.16-16
3.16.14	Utilities and Service Systems.....	3.16-17
Chapter 4	Alternatives Analysis	4-1
4.1	Objectives and Impacts	4-1
4.1.1	Project Objectives	4-1
4.1.2	Significant Impacts	4-2
4.2	Methodology and Screening Criteria	4-2
4.3	Alternatives Considered but Rejected During the Scoping and Project Development Process.....	4-3
4.4	Alternatives Analyzed in this EIR	4-4
4.4.1	Alternative 1—No Project Alternative	4-4
4.4.2	Alternative 2—Dispersed Growth Alternative	4-11
4.4.3	Alternative 3—Focused Growth Alternative	4-17
4.4.4	Alternative 4—Limited Opportunity Sites Alternative (2020–2045 RTP/SCS Consistency Alternative)	4-24
4.5	Environmentally Superior Alternative.....	4-30
Chapter 5	Other CEQA Considerations	5-1
5.1	Overview.....	5-1
5.2	Growth-Inducing Impacts.....	5-1
5.3	Significant and Unavoidable Impacts	5-3
5.4	Significant Irreversible Environmental Changes.....	5-3
5.5	Future Use of this EIR	5-4
Chapter 6	Report Preparers	6-1
Chapter 7	References	7-1
 Appendices		
Appendix A	Notice of Preparation/Initial Study and Comment Letters	
Appendix B	Proposed Housing Element, Public Safety Element, and Environmental Justice Preliminary Policies	
Appendix C	Air Quality and Greenhouse Gas Modeling Inputs	
Appendix D	Potential for Special-Status Species Occurrence	
Appendix E	Locations Where Opportunity Site Is Present at Historical Resources	
Appendix F	Consistency Analysis with Relevant Plans and Policies	
Appendix G	Noise Field Measurement Data	

Tables

Table	Page
ES-1 Number of Acres to be Rezoned by Ward	ES-7
ES-2 Summary of Project Impacts.....	ES-10
1-1 NOP Comments and EIR Response	1-2
2-1 Number of Acres to be Rezoned by Ward	2-9
2-2 Summary of Potential Housing Development on Opportunity Sites	2-11
2-3 Potential Development in Mixed-Use Zones by Ward.....	2-12
3.1-1 Ambient Background Concentrations from the Riverside-Rubidoux Station	3.1-3
3.1-2 Federal and State Ambient Air Quality Standards	3.1-8
3.1-3 Federal and State Attainment Status for Riverside County.....	3.1-10
3.1-4 Relevant Riverside General Plan and Specific Plan Policies.....	3.1-14
3.1-5 Land Use Changes with Implementation of the Project	3.1-18
3.1-6 VMT Changes with Implementation of the Project	3.1-19
3.1-7 SCAQMD Regional Mass Emissions Significance Thresholds (pounds per day).....	3.1-20
3.1-8 Project Net Criteria Pollutant Operational Emissions.....	3.1-27
3.2-1 Natural Communities and Land-Cover Types in the City	3.2-2
3.2-2 Special-Status Plant and Animal Species with the Potential to Occur in the City	3.2-10
3.2-3 Critical Habitat in the City	3.2-13
3.2-4 WRC MSHCP Conservation Areas within the City	3.2-21
3.2-5 Relevant Riverside General Plan and Specific Plan Policies.....	3.2-23
3.2-6 Impacts on Natural Vegetation Communities under the Housing Element Update	3.2-37
3.2-7 WRC MSHCP Conservation Areas within Opportunity Sites under the Housing Element Update	3.2-45
3.2-8 WRC MSHCP Conservation Areas within the Fire Hazard Areas under the Public Safety Element Update	3.2-47
3.3-1 Relevant Riverside General Plan and Specific Plan Policies.....	3.3-21

3.3-2 Opportunity Sites Related to 2007 Applied Earthworks Archaeological Sensitivity Analysis 3.3-32

3.4-1 Relevant Riverside General Plan and Specific Plan Policies 3.4-4

3.5-1 Lifetimes, GWPs, and Abundances of Significant GHGs 3.5-2

3.5-2 Global, National, State, and Local GHG Emissions Inventories..... 3.5-3

3.5-3 City of Riverside Existing and Forecasted Community-Wide GHG Emissions by Sector (MTCO_{2e} per year) 3.5-11

3.5-4 Relevant Riverside General Plan, CAP, and Specific Plan Policies 3.5-11

3.5-5 Land Use Changes with Implementation of the Project 3.5-16

3.5-6 VMT Changes with Implementation of the Project 3.5-16

3.5-7 GHG-Reduction Targets and Efficiency Metrics 3.5-19

3.5-8 Operational GHG Emissions in 2029 (MTCO_{2e}) 3.5-21

3.5-9 Project Consistency with Applicable Policies from the 2017 Scoping Plan and Other Applicable Statewide Measures..... 3.5-28

3.6-1 Relevant Riverside General Plan and Specific Plan Policies 3.6-12

3.8-1 Definitions of Acoustical Terms 3.8-1

3.8-2 Typical A-Weighted Sound Levels 3.8-3

3.8-3 Summary of Noise Measurement Results (Long Term) 3.8-7

3.8-4 Summary of Noise Measurement Results (Short Term) 3.8-7

3.8-5 California Department of Health Services Community Noise Exposure (L_{dn} or CNEL)..... 3.8-8

3.8-6 Relevant Riverside County General Plan, GP 2025, and Specific Plan Policies 3.8-9

3.8-7 Land Use Compatibility Matrix for Noise Exposure 3.8-11

3.8-8 Municipal Code Exterior Noise Standards 3.8-13

3.8-9 Municipal Code Interior Noise Standards 3.8-13

3.8-10 Typical Construction Equipment 3.8-15

3.8-11 Construction Equipment Reference Vibration Levels 3.8-17

3.8-12 Guidelines Vibration Damage Potential Threshold Criteria 3.8-17

3.8-13 Guidelines Vibration Annoyance Potential Criteria 3.8-17

3.8-14 Estimated Traffic Noise Levels 3.8-21

3.8-15 Attenuated Vibration Levels at Distance3.8-26

3.9-1 Population, Housing, and Employment Projections for Riverside3.9-1

3.9-2 Population Growth Trends in the City and Riverside County3.9-2

3.9-3 Population for the City and Riverside County.....3.9-3

3.9-4 Race/Ethnicity Distribution for the City and Riverside County.....3.9-3

3.9-5 Housing Growth Trends in the City and Riverside County.....3.9-4

3.9-6 Housing Units in the City and Riverside County by Type (2020).....3.9-5

3.9-7 Vacancy Rate in the City and Riverside County3.9-5

3.9-8 Employment Growth Trends in the City and Riverside County3.9-6

3.9-9 City of Riverside Employment by Industry 2020.....3.9-7

3.9-10 City of Riverside 2021–2029 Regional Needs Assessment3.9-12

3.9-11 Relevant Riverside General Plan and Specific Plan Policies.....3.9-12

3.10-1 Fire Stations3.10-1

3.10-2 Police Stations.....3.10-4

3.10-3 Riverside Unified School District Schools in the City3.10-5

3.10-4 Alvord Unified School District Schools in the City3.10-6

3.10-5 Public Libraries in the City.....3.10-7

3.10-6 Relevant General Plan and Specific Plan Policies3.10-13

3.11-1 Acreage for Existing Parks and Recreation Facilities in the City of Riverside3.11-1

3.11-2 Existing Parks and Open Space by Ward and Distance from Opportunity Site3.11-4

3.11-3 Relevant General Plan and Specific Plan Policies3.11-13

3.11-4 City of Riverside Parkland Ratio Goals versus Parkland Ratios with Implementation
of the Housing Element Update.....3.11-21

3.12-1 Mode Share for Commute Trips and General Trips.....3.12-1

3.12-2 Riverside VMT Summary.....3.12-3

3.12-3 Relevant Riverside General Plan and Specific Plan Policies.....3.12-14

3.12-4 City of Riverside Project-Generated VMT Summary.....3.12-20

3.12-5 City of Riverside Project Effect on VMT Summary.....3.12-21

3.13-1 Relevant Riverside General Plan and Specific Plan Policies.....3.13-4

3.13-2 List of Tribes Sent AB 52 and/or SB 18 Letters 3.13-6

3.13-3 Native American Consultation 3.13-7

3.14-1 Riverside Public Utility Actual and Projected Water Supply 3.14-3

3.14-2 Riverside Public Utility Projected Supply and Demand 3.14-4

3.14-3 Western Municipal Water District Actual and Projected Water Supply (in acre-feet per year) 3.14-5

3.14-4 Existing Disposal Facilities 3.14-7

3.14-5 Relevant General Plan and Specific Plan Policies 3.14-17

3.16-1 Comparison of General Plan and SCAG Growth Projections (Cities Adjacent to the City of Riverside and Riverside County) 3.16-12

4-1 Summary of Comparison of Impacts for the Project and Its Alternatives 4-31

Figures

	Follows Page
ES-1 Local Vicinity Map	ES-2
ES-2 Opportunity Sites	ES-6
ES-3 Existing Zoning	ES-6
ES-4 Proposed Zoning	ES-6
2-1 Regional Vicinity Map	2-2
2-2 Local Vicinity Map	2-2
2-3 Existing General Plan Land Use Designations	2-2
2-4 Opportunity Sites	2-4
2-5 Opportunity Sites within the Innovation District	2-4
2-6 Existing Zoning	2-10
2-7 Proposed Zoning	2-10
2-8 Specific Plan Areas Subject to Zone Changes	2-10
2-9 Downtown Specific Plan Land Use Districts	2-10
2-10 Downtown Specific Plan Proposed Map Changes	2-10
2-11 Downtown Specific Plan Proposed Densities	2-10
3.2-1 Vegetation Communities and Land Cover Types within the City	3.2-2
3.2-2 Critical Habitat within the City	3.2-14
3.2-3 Habitat Conservation Plans within the City	3.2-22
3.2-4 Fire Hazard Zones	3.2-34
3.2-5 Housing Element Impacts on Vegetation Communities	3.2-38
3.3-1 Locations Where Opportunity Site Is Present	3.3-12
3.3-2 Archaeological Sensitivity	3.3-32
3.4-1 Paleontological Sensitivity in the Study Area	3.4-2
3.6-1 Opportunity Sites and Hazardous Material Sites	3.6-16
3.6-2 Location of Existing Hazardous Materials Sites and Opportunity Sites within One-quarter Mile of a School Site	3.6-20

3.7-1 General Plan Land Use Designations3.7-2

3.8-1 Short and Long-Term Field Measurements3.8-6

3.8-2 Riverside Municipal and Flabob Airport Noise Contours.....3.8-28

3.8-3 March Air Reserve Base/Inland Port Airport Noise Contours.....3.8-28

3.9-1 Environmental Justice Communities3.9-4

3.11-1 Opportunity Sites and Recreational Resources for City of Riverside.....3.11-2

3.12-1 Cumulative Build-out Daily VMT per Service Population Compared to Baseline City
Average3.12-22

Acronyms and Abbreviations

μPa	micropascals
°F	degrees Fahrenheit
SAFE	Safer Affordable Fuel-Efficient
A/RR	Agricultural/Rural Residential
AB	Assembly Bill
ACM	asbestos-containing material
ACS	American Community Survey
AF	acre-feet
AFY	acre-feet per year
AIA	Airport Influence Area
APN	Assessor's Parcel Number
AQMP	Air Quality Management Plan
ATP	Archaeological Treatment Plan
AUSD	Alvord Unified School District
B.P.	before present
Basin	South Coast Air Basin
BMP	best management practice
BNSF	BNSF Railway
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
Cal/EPA	California Environmental Protection Agency
Cal/OSHA	California Division of Occupational Safety and Health
CalEnviroScreen	California Communities Environmental Health Screening Tool
CALGreen	California Green Building Standards Code
Cal-ICP	California Invasive Plant Council
Caltrans	California Department of Transportation
CalVeg	Classification and Assessment with Landsat of Visible Ecological Groupings
CAP	<i>Economic Prosperity Action Plan and Climate Action Plan</i>
CARB	California Air Resources Board
CBC	California Building Code
CBSC	California Building Standards Code
CBU	California Baptist University
CBUSP	CBU Specific Plan Zone
CCAA	California Clean Air Act
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEHC	California Essential Habitat Connectivity Project
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act

CESA	California Endangered Species Act
CFC	California Fire Code
CFGC	California Fish and Game Code
CFR	Code of Federal Regulations
CH ₄	methane
CIP	Capital Improvement Program
City	City of Riverside
CIWMP	Countywide Integrated Waste Management Plan
CMP	Congestion Management Program
CMS	Congestion Management System
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	carbon monoxide
CO ₂	carbon dioxide
CO ₂ e	carbon dioxide equivalent
Construction General Permit	National Pollutant Discharge Elimination System General Permit for Stormwater Discharges Associated with Construction Activity
CRHR	California Register of Historical Resources
CRPR	California Rare Plant Rank
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
DAMP	Drainage Area Management Plan
dB	decibel
dBA	A-weighted decibel
DOF	California Department of Finance
DPM	diesel particulate matter
DSP	Downtown Specific Plan
DTSC	Department of Toxic Substances Control
DU	dwelling unit
DU/AC	dwelling unit per acre
ECA	Essential Connectivity Area
EIR	environmental impact report
EO	Executive Order
EPA	U.S. Environmental Protection Agency
ESA	Environmentally Sensitive Area
FAR	floor-area ratio
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FR	Federal Register
GHG	greenhouse gas
GIS	geographic information system
GP 2025	<i>Riverside General Plan 2025</i>

GP FPEIR	General Plan and Supporting Documents Final Program Environmental Impact Report
GWP	global warming potential
HCP	habitat conservation plan
HDR	High Density Residential
HFCs	hydrofluorocarbons
HMBP	hazardous materials business plan
“Hot Spots” Act	Air Toxics “Hot Spots” Information and Assessment Act of 1987
HOV	high-occupancy vehicle
HR	Hillside Residential
HRA	health risk assessment
HVAC	heating, ventilating, and air conditioning
Hz	Hertz
I-	Interstate
in/s	inches per second
IPCC	Intergovernmental Panel on Climate Change
ISO	Insurance Services Office
ITP	Incidental Take Permit
kHz	kilohertz
kV	kilovolt
LCFS	low-carbon fuel standard
L _{dn}	day/night noise level
LDR	Low Density Residential
L _{eq}	equivalent noise level
LID	low impact development
L _{max}	maximum sound level
L _{min}	minimum sound level
LOS	level of service
LST	Localized Significance Threshold
LT	long-term
LUST	leaking underground storage tank
M	magnitude
MATES	Multiple Air Toxics Exposure Study
MBTA	Migratory Bird Treaty Act
MDR	Medium Density Residential
MERV	Minimum Efficiency Report Value
mgd	million gallons per day
MHDR	Medium-High Density Residential
MPO	Metropolitan Planning Organization
MRZ	mineral resource zone
MS4	Municipal Separate Storm Sewer System
MSHCP	multiple-species habitat conservation plan
MTCO _{2e}	metric tons of carbon dioxide equivalent
MTCO _{2e} /SP	metric tons of carbon dioxide equivalent per service population

MU-N	Mixed-Use – Neighborhood
MU-U	Mixed-Use – Urban
MU-V	Mixed-Use – Village
MVUSD	Moreno Valley Unified School District
N ₂ O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAGPRA	Native American Graves Protection and Repatriation Act
NAHC	Native American Heritage Commission
NCCP	Natural Community Conservation Planning
NHTSA	National Highway Traffic Safety Administrative
NMFS	National Marine Fisheries Service
NNL	National Natural Landmarks
NO	nitric oxide
NO ₂	nitrogen dioxide
NOP	Notice of Preparation
NO _x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
NWI	National Wetlands Inventory
O ₃	ozone
OPR	Office of Planning and Research
PACT	Pedestrian Target Safeguarding Plan, Active Transportation Plan, a Complete Streets Ordinance, and a Trails Master Plan
Parks Master Plan	<i>City of Riverside Comprehensive Park, Recreation & Community Services Master Plan</i>
Pb	lead
PFCs	perfluorinated carbons
PM	particulate matter
PM ₁₀	particulate matter 10 microns or smaller in diameter
PM _{2.5}	particulate matter 2.5 microns or smaller in diameter
Porter-Cologne	Porter-Cologne Water Quality Control Act
ppm	part per million
PPV	peak particle velocity
PQP	Public/Quasi-Public
PRC	Public Resources Code
Project	Riverside Housing and Public Safety Element Updates and Environmental Justice Policies Project
RCA	Regional Conservation Authority
RCFCWCD	Riverside County Flood Control and Water Conservation District
RCFD	Riverside County Fire Department
RCHCA	Riverside County Habitat Conservation Agency
RCRA	Resource Conservation and Recovery Act
RCTC	Riverside County Transportation Commission
RFD	Riverside Fire Department
RHNA	Regional Housing Needs Assessment

RIVTAM	Riverside County Traffic Analysis Model
RMC	Riverside Municipal Code
RPD	Riverside Police Department
RPL	Riverside Public Library
RPS	Renewables Portfolio Standard
RPU	Riverside Public Utilities
RTA	Riverside Transit Agency
RTP	Regional Transportation Plan
RTRP	Riverside Transmission Reliability Project
RUSD	Riverside Unified School District
RWQCB	Regional Water Quality Control Board
RWQCP	Riverside Regional Water Quality Control Plant
SAFE	Safer Affordable Fuel-Efficient
SB	Senate Bill
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SCS	Sustainable Communities Strategy
SEMS	Standardized Emergency Management System
SF ₆	sulfur hexafluoride
SIP	State Implementation Plan
SJVAPCD	San Joaquin Valley Air Pollution Control District
SKR HCP	Stephens' Kangaroo Rat Habitat Conservation Plan
SLCP	Short-Lived Climate Pollutant
SO ₂	sulfur dioxide
SoCalGas	Southern California Gas Company
SOI	Sphere of Influence
SOI Standards	Secretary of the Interior's Standards for Rehabilitation
SO _x	sulfur oxides
SPA	Specific Plan area
SR-	State Route
SRR	Semi-Rural Residential
SRTS	Safe Routes to School
ST	short-term
SVP	Society of Vertebrate Paleontology
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
Tanner Act	Toxic Air Contaminant Identification and Control Act
TCR	tribal cultural resource
TDM	Transportation Demand Management
TNW	traditional navigable water
UCR	University of California, Riverside

USACE	U.S. Army Corps of Engineers
USC	United States Code
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UST	underground storage tank
UWMP	Urban Water Management Plan
UWMP Act	Urban Water Management Plan Act
VHDR	Very High Density Residential
VLDR	Very Low Density Residential
VMT	vehicle miles traveled
VOC	volatile organic compound
WDR	waste discharge requirement
WMWD	Western Municipal Water District
WQMP	Water Quality Management Plan
WRC MSHCP	Western Riverside County Multiple Species Habitat Conservation Plan
WRCOG	Western Riverside Council of Governments
WRCRWA	Western Riverside County Regional Wastewater Authority

Executive Summary

As stated in the California Environmental Quality Act (CEQA) Guidelines § 15123, “Summary,” an environmental impact report (EIR) must contain a brief summary of the proposed action and its consequences. The summary must identify each significant effect with proposed mitigation measures and alternatives that would reduce or avoid that effect, areas of controversy known to the lead agency including issues raised by agencies and the public, and issues to be resolved including the choice among alternatives and whether or how to mitigate the significant effects.

This Executive Summary complies with State CEQA Guidelines § 15123. This Draft EIR includes a description of the proposed Riverside Housing and Public Safety Element Updates and Environmental Justice Policies Project (Project) and evaluates the physical environmental effects that could result from the Project’s implementation. The City of Riverside (City) determined that the scope of this EIR should cover the entire City.

The Project would include (1) adopting and implementing an update of the Housing Element for the 2021–2029 planning period; (2) adopting and implementing a Public Safety Element Update; (3) developing associated Environmental Justice Policies; and (4) updating the Zoning Code and Specific Plans to address the requirements of the 6th Regional Housing Needs Assessment (RHNA) cycle. The Project is intended to accommodate the City’s RHNA obligation of 18,458 dwelling units (DUs), plus approximately 30 percent (approximately 5,500 DUs) to comply with Senate Bill 166 (No Net Loss) requirements, for an overall goal of 24,000 DUs.¹

The Project involves 239 acres that do not require zoning changes and 581 acres that would require general plan amendments, Zoning Code changes, and Specific Plan amendments, for a total of 870 parcels comprising 820 acres. The implementation of this Project could result in an increase of 31,564 new DUs² and 3,181,930 square feet of nonresidential development, or up to 31,175 dwelling units and 1,433,460 square feet over existing conditions.

This Draft EIR, having California State Clearinghouse No. 2021040089, was prepared in accordance with State CEQA Guidelines Article 9, § 15120 to § 15132, to evaluate the potential environmental impacts associated with planning, constructing, and operating the Project. This EIR does not recommend approval, approval with modification, or denial of the Project; rather, this EIR is a source of factual information regarding potential impacts that the Project may cause to the physical environment. The Draft EIR will be available for public review for a period of 45 days.

ES.1 Project Location and Setting

The City is in western Riverside County. It is bounded on the north by the Santa Ana River and the cities of Jurupa Valley, Colton, and Rialto (San Bernardino County); on the south by the

¹ For the purposes of RHNA, assumes that sites identified for housing development are developed to 75 percent of maximum zoned capacity.

² For the purposes of CEQA, assumes that sites identified for housing development are developed to 75 percent of maximum zoned capacity.

unincorporated communities of Woodcrest and Mockingbird Canyon; on the north and east by the unincorporated community of Highgrove and the city of Moreno Valley; and on the west by the unincorporated community of Home Gardens and the cities of Norco and Corona. State Route 91, a major regional freeway, traverses the City in an east-west orientation, while State Route 60 and Interstate 215 traverse the City's eastern portion in a north-south orientation. The Riverside Municipal Airport is within the western portion of the City limits. March Air Reserve Base and Flabob Airport are adjacent to the City in Riverside County. Figure ES-1 illustrates the local context.

The City's existing corporate boundaries include approximately 51,310 gross acres. The Northern Sphere of Influence (SOI) encompasses approximately 4,088 gross acres—from the existing City limits to the San Bernardino County line and east to the Box Springs Mountain Regional Park—and includes the Highgrove community. The Southern SOI encompasses approximately 36,826 gross acres and extends from the City's southern border to the Cajalco Ridge crest, just south of Cajalco Road. The area includes the communities of El Sobrante, Glen Valley, and Woodcrest, and limited portions of Gavilan Hills and Lake Mathews. In 2006, the Riverside Local Agency Formation Commission conducted a review of the City's SOI areas and affirmed the boundaries identified above.

The Housing and Public Safety Elements are citywide planning documents associated with *Riverside General Plan 2025 (GP 2025)*. A component of the Housing Element Update is a rezoning program that involves multiple sites identified for future housing development and Specific Plan amendments at various locations in all parts of the City. Environmental Justice Policies are an additional component of the Project. The geographic setting for the Project is the entire City.

ES.1.1 Background

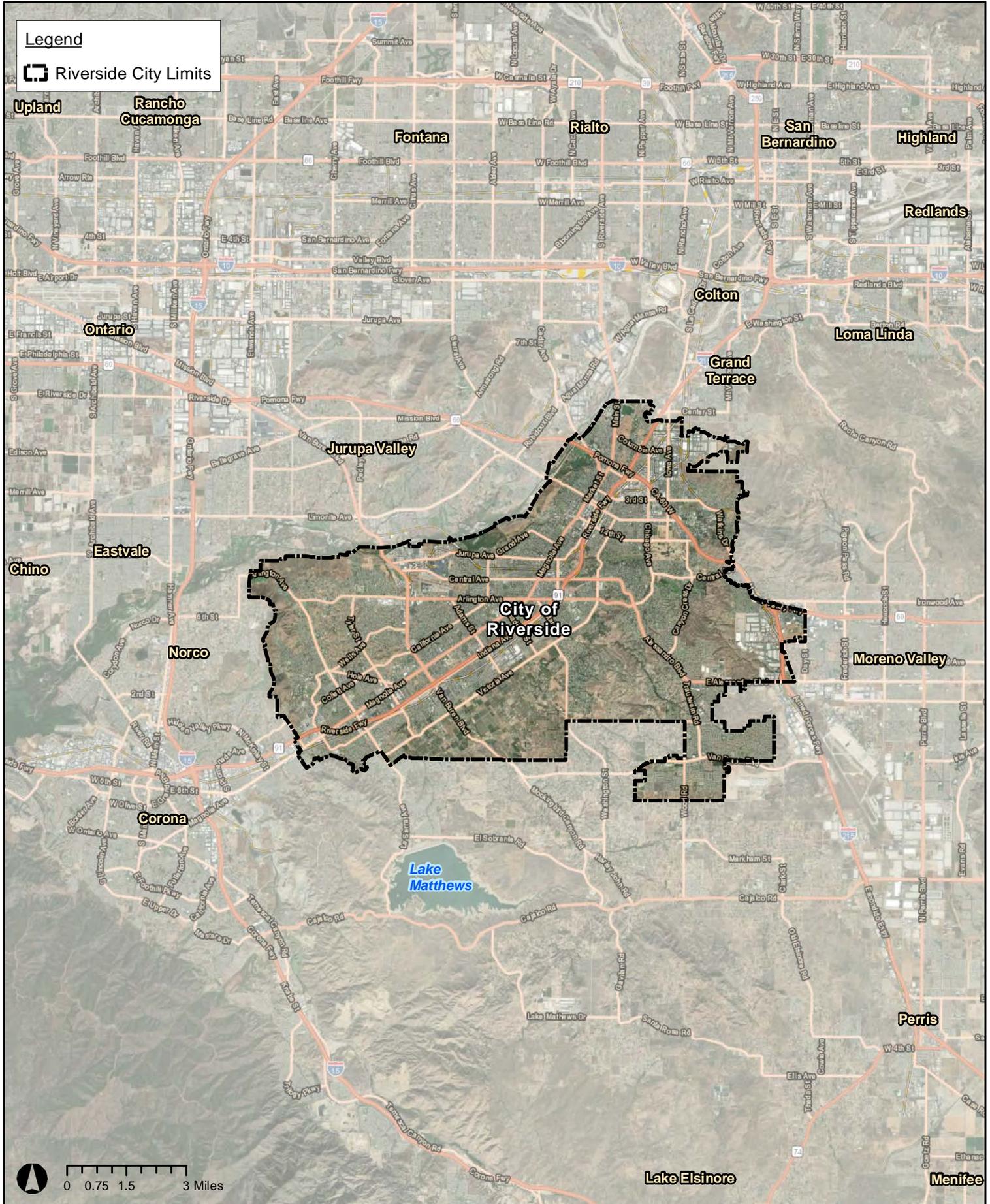
The City has a population of approximately 324,302 persons as of January 2021 (Department of Finance 2021). In the City's recent history, population growth has been constant, adding approximately 40,000 new residents each decade since the 1960s. Past growth has been fueled by the City's attractive housing market due to its historically affordable offerings. Despite periods of economic recession, the City has continued to experience consistent growth.

The City's population is anticipated to continue to grow. According to the *Final Program Environmental Impact Report for the City of Riverside General Plan and Supporting Documents*, the City has a projected population of 383,077 persons at general plan build-out (2025), including 346,867 persons within City limits and 36,210 persons within the City's SOI (City of Riverside 2007). According to the Southern California Association of Governments, the City's population is projected to increase to 395,800 by 2045 (SCAG 2020).

ES.1.2 Regional Housing Needs Assessment

The statewide RHNA is an assessment process performed every 8 years through which the State of California provides the number of housing units that must be planned for in the Southern California region. The RHNA represents the projected future housing need for all income levels in a region and is used in land use planning to prioritize local resource allocation and to assist with addressing existing and future housing needs. The City last updated the Housing Element in 2017 as a mid-5th cycle revision.

Figure ES-1
Local Vicinity Map



The Housing Element cycle covering the 2013–2021 period included an RHNA obligation of 8,283 units, of which only a portion were built during the last 8 years. The City’s previous Housing Element was adopted in 2017 and runs through 2021. This update cycle comes when California faces a major statewide housing shortage that is affecting all Californians by raising the price of housing and the cost of construction, and by increasing homelessness. In the 2021–2029 Housing Element cycle (6th cycle), the City’s RHNA obligation is a minimum of 18,458 new DUs. Given that 100 percent of potential housing sites will likely not be developed to full potential, the City has provided a buffer of approximately 5,500 DUs (approximately 30 percent over and above the RHNA obligation). Altogether, the City will identify space for up to 24,000 new homes for the 2021–2029 RHNA cycle.

ES.2 Project Overview

The Project consists of several components: Housing Element Update, Public Safety Element Update, GP 2025 amendments, Zoning Code amendments, and several Specific Plan amendments. Environmental Justice Policies will be included in both element updates. Details concerning each of these components are discussed below.

ES.2.1 Housing Element Update

The Housing Element Update addresses changes that have occurred since adoption of the 5th cycle (2014–2021) Housing Element. These changes include updated demographic information, housing needs data, and analysis of the availability sites for potential future housing development (Opportunity Sites). The locations of available Opportunity Sites in the Housing Element have been updated to identify sites that accommodate the City’s RHNA for the 2021–2029 planning period (6th cycle). The Project would also amend the GP 2025 land use and Specific Plan designations and rezone sites to accommodate the changes specified in the Housing Element Update.

The Housing Element identifies policies and actions that focus on:

- Matching housing supply with need
- Maximizing housing choice throughout the community
- Assisting in providing affordable housing
- Removing governmental and other constraints to housing production
- Promoting fair and equitable housing opportunities for all

The main components of the Housing Element Update are required by Government Code Section 65583 and include:

- A detailed analysis of the City’s demographic, economic, and housing characteristics
- A comprehensive analysis of the barriers to producing and preserving housing
- A review of the City’s progress in implementing its adopted housing policies and programs
- An identification of policies and actions, and a full list of programs that will help the City carry out the policies

- A list of Opportunity Sites that could accommodate new housing, demonstrating the City’s ability to meet its target number of new homes established in the RHNA

The updated Housing Element must show the exact locations where future housing can be built, called Opportunity Sites, and identify the potential number of homes that can be built at those locations. As part of the analysis, City has limited or eliminated sites:

- With sensitive habitat or species;
- Where the topography is not conducive to building;
- That are unsafe because they are in a flood zone, high-fire area, or airport land use area;
- Where voter-approved zoning rules restrict development, such as in the agricultural greenbelt and on hillsides and arroyos; or
- Of known soil or groundwater contamination.

Areas that could be designated for additional housing include:

- Vacant lots not designated as open space
- Underused sites, such as lots with buildings that are empty, deteriorated, or no longer needed
- Locations where more homes could easily fit within the same space than are there today
- Locations near public transit and essential services like libraries and neighborhood-serving shopping and amenities
- Areas where housing could be added near commercial buildings or in business parks, creating “live-work” neighborhoods
- Sites where infrastructure, such as water and sewer service, can support more housing

Because the Housing Element is updated every 8 years, the 5th cycle Housing Element provides a foundation for this 6th cycle update. This update gives the City the opportunity to evaluate the previous Housing Element to determine which parts have been effective and which should be improved.

ES.2.2 Public Safety Element Update

The Project also includes an update to the Public Safety Element to incorporate information on natural and human-caused hazards, along with new policies related to environmental justice, climate change, and pandemic preparedness and response, among others. The purpose of the Public Safety Element is to reduce the potential short- and long-term risk of death, injuries, property damage, and economic and social disruption resulting from fires, floods, droughts, earthquakes, landslides, climate change, and other hazards. Other locally relevant safety issues—such as emergency response, hazardous material spills, crime reduction, and response to global pandemics like COVID-19—are included. The Public Safety Element directly relates to topics mandated in the Land Use and Urban Design and Open Space and Conservation Elements as well as a key consideration for the Environmental Justice Policies of GP 2025. The Public Safety Element must identify hazards and ways to reduce those hazards to guide local decisions related to zoning and development regulations. Policies and implementable actions include methods for minimizing risks, as well as ways to minimize economic disruption and speed up recovery following disaster. The

City's updated Public Safety Element identifies public safety issues and needs anticipated to be of ongoing concern to people in the City and ensure that the City takes action to reduce natural and man-made hazards and safety threats as well as respond quickly to any public safety incident.

ES.2.3 Environmental Justice Policies

The Project includes a series of proposed GP 2025 policies and implementing actions that promote environmental justice within the City. As defined by the U.S. Environmental Protection Agency (2021), *environmental justice* is “the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of laws, regulations, and policies.” The need to promote environmental justice within and beyond California’s communities has arisen out of a history of disproportionate environmental harm borne by low-income and minority populations due to compounded exposure to environmental hazards, often leading to adverse health outcomes and compromised quality of life.

Senate Bill 1000 amended California Government Code Section 65302 to require that both cities and counties that have environmental justice communities, as defined, incorporate environmental justice policies into their general plans, either in a separate environmental justice element or by integrating related goals, policies, and objectives throughout the other elements upon the adoption or next revision of two or more elements concurrently. The purpose of the legislation is to address the “unique or compounded health risks” in environmental justice communities by decreasing pollution exposure, increasing community assets, and improving overall health. To address disproportionate effects and to comply with Senate Bill 1000, policies and actions are incorporated within each element of GP 2025, with the goal of affording affected communities an equal level of protection from environmental and health hazards and enhanced opportunities to engage in decision-making that affects environmental quality and health outcomes.

Environmental justice communities are those communities that fit either of the definitions below:

- Areas identified by the California Environmental Protection Agency as “(1) areas disproportionately affected by environmental pollution and other hazards that can lead to negative public health effects, exposure, or environmental degradation”; or “(2) areas with concentrations of people that are of low income, high unemployment, low levels of homeownership, high rent burden, sensitive populations, or low levels of educational attainment” (California Code, Health and Safety Code Section 39711)
- Low-income areas that are “disproportionately affected by environmental pollution and other hazards that can lead to negative health effects, exposure, or environmental degradation” (Gov. Code, § 65302, subdivision (h)(4)(A))

Environmental justice communities within the City were identified using the California Communities Environmental Health Screening Tool (CalEnviroScreen), a data tool developed by the California Environmental Protection Agency’s Office of Environmental Health Hazard Assessment pursuant to Health and Safety Code Section 39711 and other statutory requirements. CalEnviroScreen provides statewide data that can be used to identify communities disproportionately affected by, or vulnerable to, environmental pollution and contaminants. The mapping tool contains 12 indicators related to pollution burden and eight indicators that track population characteristics and other vulnerabilities.

ES.2.4 Opportunity Sites

The City has made a good-faith attempt to equitably distribute the Opportunity Sites throughout the City in each of the seven wards so as not to place an undue burden on any one ward. The process of identifying the Opportunity Sites involved eliminating sites with significant constraints to development. The total number of DUs that could result from implementation of the Zoning Code and Specific Plan amendments includes the 18,458 DUs that would be required to meet the RHNA and an additional approximately 5,500 DUs to account for less than 100 percent development of at least some of the Opportunity Sites. As the Project includes Zoning Code and Specific Plan amendments that affect a larger area than the Opportunity Sites, overall, the identified Opportunity Sites, with Zoning Code and Specific Plan amendments, could accommodate up to 31,564 DUs. Opportunity Sites are illustrated on Figure ES-2.

The Innovation District connects cutting-edge businesses with infrastructure and close-at-hand resources, builds off the character of historic and culturally rich neighborhoods, connects blue-collar workers to high-paying jobs, and contributes to the growth of affordable, eco-friendly public transportation. Residents will benefit from the diversification of housing options in their area, and the aim is to maintain affordable housing while creating opportunity for all residents to participate meaningfully in the economy. Specific development sites within the Innovation District are not identified, in order to give the City maximum flexibility in development in this area. Therefore, the development planned for the Innovation District is more generally described as providing up to 6,980 residential units and 7,762,000 square feet of nonresidential uses.

The Opportunity Sites inventory analysis was initially conducted using a data-driven process to identify as many sites as possible. A weighted suitability model was used to evaluate multiple criteria influencing the likelihood of development on a parcel-by-parcel basis. Each property was assigned a total weighted score, where the higher the score the greater the likelihood of development.

Zoning Code Amendments

Proposed rezoning of the Opportunity Sites would allow for fulfillment of the City's RHNA. The proposed Zoning Code and Specific Plan amendments include various multi-family and mixed-use land use categories, which would provide for development of some lower-story commercial/retail, office, and potentially live/work uses. Existing zoning is illustrated on Figure ES-3.

Areas proposed for rezoning are illustrated on Figure ES-4 and summarized in Table ES-1. For purposes of the CEQA analysis, the maximum development that could be allowed is analyzed in this EIR. The Project involves 239 acres that do not require zoning changes and 581 acres that would require general plan amendments, Zoning Code changes, and Specific Plan amendments, for a total of 870 parcels comprising 820 acres. Of the 581 acres, 460 acres would require Zone Code changes.

Figure ES-2
Opportunity Sites

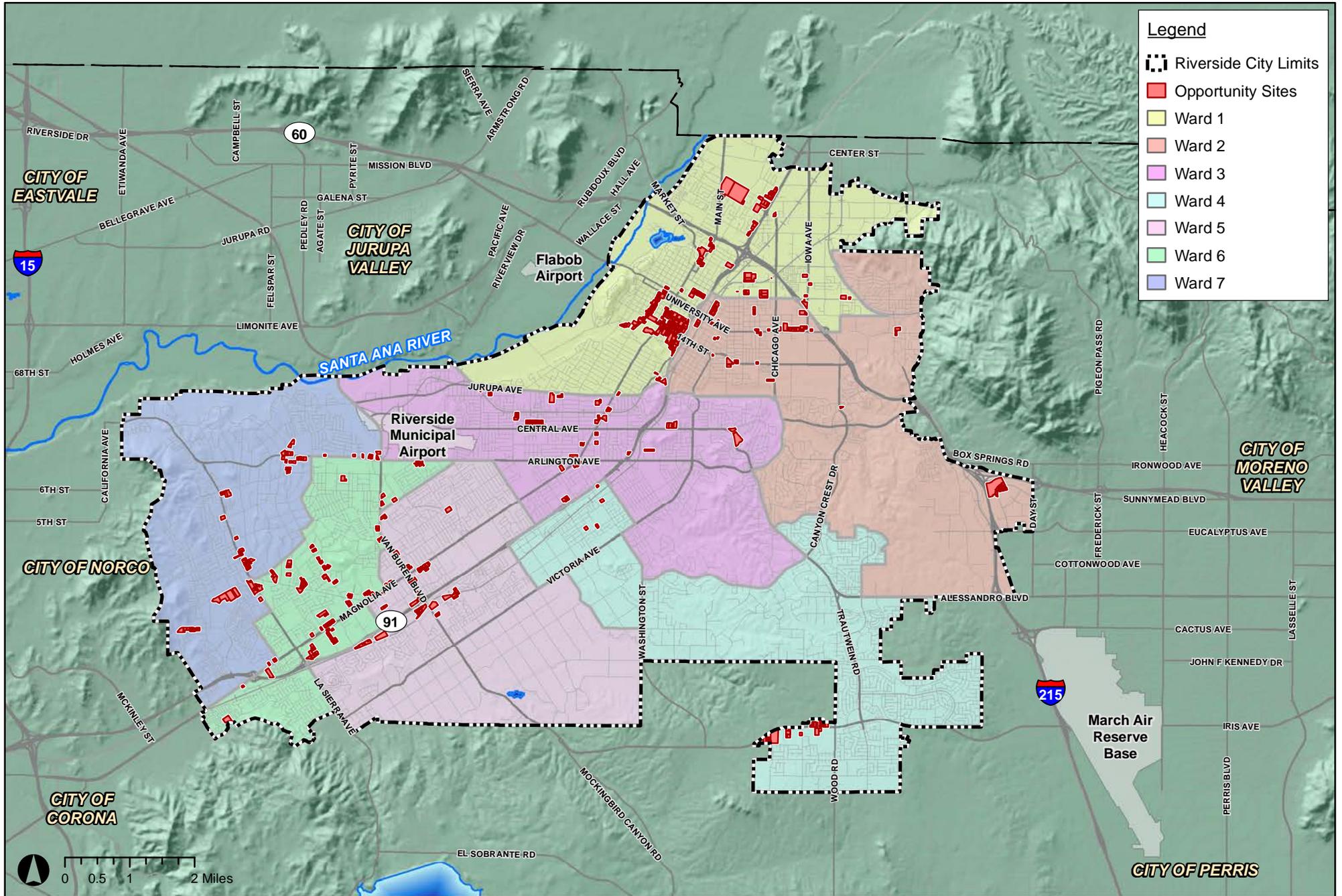


Figure ES-3
Existing Zoning

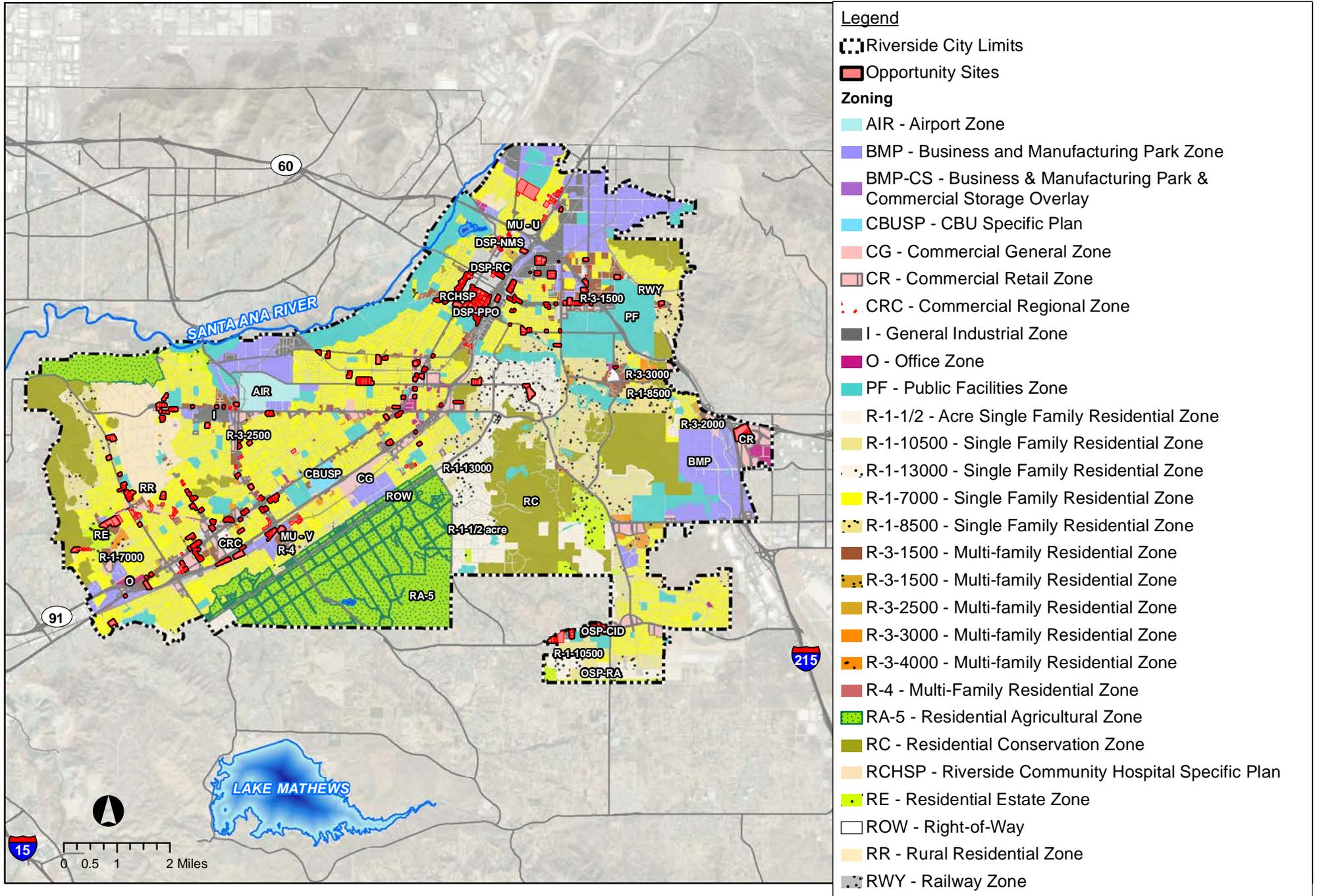


Figure ES-4
Proposed Zoning

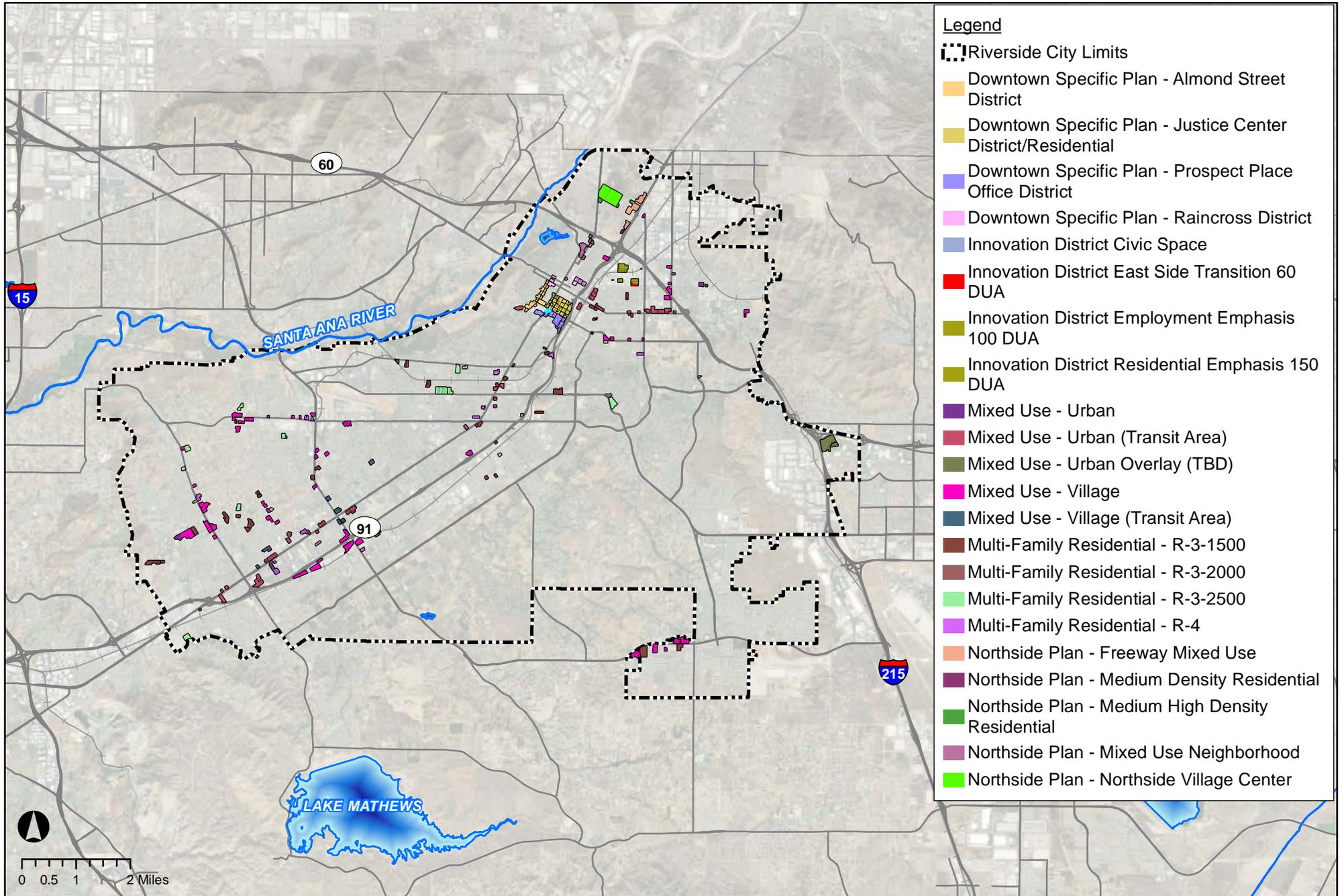


Table ES-1. Number of Acres to be Rezoned by Ward

Ward	Acres to be Rezoned
1	46
2	85
3	86
4	29
5	55
6	76
7	82
TOTAL	460

Source: City of Riverside 2021.

Not all Opportunity Sites identified in the preliminary inventory are currently zoned to allow for housing development. The next step in the process included developing scenarios to meet the City's RHNA obligation and refining the preliminary Opportunity Sites to develop a preferred alternative, or the Project, to accommodate the RHNA obligations. Potential Opportunity Sites were prioritized for inclusion, and others were selected for removal based on the refinement process of ensuring sites met identified criteria and were also distributed equitably throughout the City.

The Opportunity Sites' existing onsite conditions indicate that approximately 759 acres (approximately 80 percent) of the Opportunity Sites are developed to varying degrees with residential and nonresidential land uses, while the remaining approximately 152 acres are undeveloped. Approximately 166 DUs and approximately 13 million square feet of nonresidential land uses exist on the Opportunity Sites.

ES.2.5 Specific Plan Amendments

In addition to the Zoning Code amendments, the Housing Element update would require amendments to seven of the City's adopted Specific Plans. Please see Section 2.2.5 of Chapter 2, *Project Description*, for the Specific Plans that would require updates, including mapping and land use changes, to accommodate Opportunity Sites that have been identified within their boundaries.

ES.3 Project Objectives

Objectives of the Project are:

- Plan for a maximum allowable development under the Project (31,564 units) to meet the City's minimum RHNA obligation (18,458 units with a 30 percent No Net Loss buffer for approximately 24,000 units) across all wards.
- Affirmatively further fair housing and identify potential environmental justice and social equity issues to support positive economic, educational, and health outcomes for low-income families—particularly long-term outcomes for children.
- Ensure affordable housing is added across the City and not concentrated in areas with lower access to amenities or near sources of pollution.

- Add a variety of housing opportunities that will make Riverside a more accessible and resilient community.
- Locate new housing in areas readily accessible to services, parks and other amenities, transit, jobs, and activity centers.
- Identify vacant or under-developed sites, meaning sites with substantial unused land or development potential.
- Limit or prevent housing development in areas with development constraints, such as agricultural and conservation lands, airport influence areas, and, to the extent feasible, fire and flood hazard zones.
- Address the public safety and public health needs and concerns of its residents, businesses, institutions, and visitors, and set forth a proactive and coordinated program of protection for all foreseeable natural and human-caused hazards.
- Reduce the potential adverse impacts of housing near incompatible land uses, along major corridors, or near similar uses.

ES.4 California Environmental Quality Act Summary and Project Impacts

The preparation of an EIR is guided by the CEQA statutes and guidelines. CEQA was enacted in 1970 by the California Legislature to disclose to decision-makers and the public the significant environmental effects of proposed activities and the ways to avoid or reduce those effects by requiring implementation of feasible alternatives or mitigation measures. CEQA applies to all California government agencies at all levels, including local government agencies that must issue permits or provide discretionary approvals for projects proposed by private applicants. As such, the City is required to undertake the CEQA process before making a decision about the Project.

The Draft EIR must disclose environmental effects, including those that cannot be avoided; growth-inducing effects; effects found not to be significant; and significant cumulative impacts of all past, present, and reasonably anticipated future projects. The EIR neither approves nor denies a project. A public agency may approve a project, even if it would result in significant and unavoidable environmental impacts.

In April 2021, the City prepared a notice of preparation (NOP), and distributed it to responsible and affected agencies and other interested parties for a 30-day public review. The public review period for the NOP began on April 5, 2021, and ended on May 5, 2021. The NOP was also sent to the State Clearinghouse at the Governor's Office of Planning and Research (assigned State Clearinghouse No. 2021040089) to solicit statewide agency participation in determining the scope of the EIR. A public scoping meeting was held virtually at 6:00 p.m. on April 22, 2021. The contents of this Draft EIR were established based on the findings in the NOP and public and agency input. In accordance with CEQA, issues found to have no or less-than-significant impacts do not require further evaluation and are not addressed in this EIR. These issue areas include aesthetics, agriculture and forestry resources, energy, geology and soils, hydrology and water quality, mineral resources, and wildfire. All other environmental topics were evaluated in this Draft EIR and a summary of the impacts is provided below.

ES.4.1 Summary of Project Impacts and Mitigation

Table ES-2 describes the environmental impacts that could result from implementation of the Project. Additionally, the table describes the level of significance before mitigation, mitigation measures as applicable, and level of significance after mitigation. The complete impact analysis is presented in Chapter 3, *Impact Analysis*. The level of significance for each impact was determined using significance criteria (thresholds) developed for each category of impacts; these criteria are presented in the appropriate sections of Chapter 3. Significant impacts are those adverse environmental impacts that meet or exceed the significance thresholds; less-than-significant impacts would not exceed the thresholds.

Table ES-2. Summary of Project Impacts

Potential Environmental Impacts		Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
Air Quality				
Impact AQ-1: The Project would not conflict with or obstruct implementation of the applicable air quality plan.	<i>Housing Element Update, Zoning Code and Specific Plan Amendments, and Environmental Justice Policies</i>	Significant and unavoidable	<p>MM-AQ-1: Implement measures to reduce construction-related criteria air pollutant emissions.</p> <p>Prior to approval by the City for non-ministerial projects proposed on Opportunity Sites, applicants shall prepare and submit a technical assessment evaluating potential project construction-related air quality impacts to the Planning Division for review and approval. The evaluation shall be prepared in conformance with SCAQMD methodology for assessing air quality impacts. If construction-related criteria air pollutants are determined to have the potential to exceed the SCAQMD-adopted thresholds of significance, the City shall require that applicants for new development projects incorporate mitigation measures and/or project design features to reduce air pollutant emissions during construction activities. These identified measures shall be incorporated into all appropriate construction documents (e.g., construction management plans or construction drawings) submitted to the City and shall be verified by the City’s Building and Safety Division. While specific mitigation measures and/or project design features to reduce construction-related emissions would be determined during project-level analysis, potential mitigation could include, but is not limited to:</p> <ul style="list-style-type: none"> • Requiring fugitive-dust control measures that exceed SCAQMD’s Rule 403, such as: <ul style="list-style-type: none"> ○ Use of nontoxic soil stabilizers to reduce wind erosion ○ Applying water every 3 hours to active soil-disturbing activities ○ Tarping and/or maintaining a minimum of 24 inches of freeboard on trucks hauling dirt, sand, soil, or other loose materials • Using construction equipment rated by EPA as having Tier 3 (model year 2006 or newer) or Tier 4 (model year 2008 or 	Significant and unavoidable

Potential Environmental Impacts	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>newer) emission limits, applicable for engines between 50 and 750 horsepower</p> <ul style="list-style-type: none"> • Ensuring that construction equipment is properly serviced and maintained to the manufacturer’s standards • Limiting nonessential idling of construction equipment to no more than 5 consecutive minutes • Limiting onsite vehicle travel speeds on unpaved roads to 15 miles per hour • Installing wheel washers for all exiting trucks or washing all trucks and equipment leaving the project area • Using Super-Compliant VOC paints for coating of architectural surfaces whenever possible³ <p>MM-AQ-2: Implement measures to reduce criteria air pollutant emissions during operation.</p> <p>Prior to approval by the City for non-ministerial development projects proposed on Opportunity Sites, applicants shall prepare and submit a technical assessment evaluating potential project operation phase-related air quality impacts to the Planning Division for review and approval. The evaluation shall be prepared in conformance with SCAQMD methodology in assessing air quality impacts. If operations-related air pollutants are determined to have the potential to exceed the SCAQMD-adopted thresholds of significance, the Planning Division shall require incorporation of mitigation measures and/or project design features to reduce air pollutant emissions during operational activities, to be included as conditions of approval. Possible mitigation measures and/or project design features to reduce long-term emissions could include, but are not limited to, the following:</p> <ul style="list-style-type: none"> • Providing truck delivery and loading areas and truck parking spaces shall include signage as a reminder to limit idling of vehicles while parked for loading/unloading in accordance with 	

³ A list of Super-Compliant architectural coating manufactures can be found on SCAQMD’s website at <http://www.aqmd.gov/docs/default-source/planning/architectural-coatings/super-compliant-manf-list.pdf?sfvrsn=77>.

Potential Environmental Impacts	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation	
		<p>CARB Rule 2845 (13 California Code of Regulations Chapter 10 § 2485)</p> <ul style="list-style-type: none"> • Providing changing/shower facilities as specified in Section A5.106.4.3 of the California Green Building Standards Code (CALGreen) (Nonresidential Voluntary Measures) • Providing bicycle parking facilities per Section A4.106.9 (Residential Voluntary Measures) of CALGreen • Providing preferential parking spaces for low-emitting, fuel-efficient, and carpool/van vehicles per Section A5.106.5.1 of CALGreen (Nonresidential Voluntary Measures) • Encouraging facilities to support electric charging stations per Section A5.106.5.3 (Nonresidential Voluntary Measures) and Section A5.106.8.2 (Residential Voluntary Measures) of CALGreen • Providing Energy Star–certified appliances or appliances of equivalent energy efficiency (e.g., dishwashers, refrigerators, clothes washers, and dryers). Installation of Energy Star–certified or equivalent appliances shall be verified by Building & Safety during plan check • Equipping landscaped common areas with electrical outlets to enable use of electric landscaping equipment to the extent feasible 		
	Less than significant	None required.	N/A	
Impact AQ-2: The Project could result in a cumulatively considerable net increase in any criteria pollutant for which the	<i>Public Safety Element Update and Environmental Justice Policies</i>	Significant and unavoidable	MM-AQ-1: Implement measures to reduce construction-related criteria air pollutant emissions. MM-AQ-2: Implement measures to reduce criteria air pollutant emissions during operation.	Significant and unavoidable
	<i>Housing Element Update, Zoning Code and Specific Plan Amendments, and Environmental Justice Policies</i>			

Potential Environmental Impacts		Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
project region is classified as nonattainment under an applicable federal or state air quality standard.	<i>Public Safety Element Update and Environmental Justice Policies</i>	Less than significant	None required.	N/A
Impact AQ-3: The Project could expose sensitive receptors to substantial pollutant concentrations.	<i>Housing Element Update, Zoning Code and Specific Plan Amendments, and Environmental Justice Policies</i>	Significant and unavoidable	<p>MM-AQ-1: Implement measures to reduce construction-related criteria air pollutant emissions.</p> <p>MM-AQ-2: Implement measures to reduce criteria air pollutant emissions during operation.</p> <p>MM-AQ-3: Prepare a health risk assessment.</p> <p>Prior to approval by the City, applicants for Opportunity Site development that (1) have the potential to generate 100 or more diesel truck trips per day or have 40 or more trucks with operating diesel-powered transport refrigeration units, and (2) are within 1,000 feet of a sensitive land use (e.g., residences, schools, hospitals, or nursing homes), as measured from the property line of the project to the property line of the nearest sensitive use, shall submit an HRA to the Planning Division for review and approval. The HRA shall be prepared in accordance with policies and procedures of the state Office of Environmental Health Hazard Assessment and SCAQMD. If the HRA shows that the incremental cancer risk and/or noncancer hazard index exceeds the respective thresholds, as established by SCAQMD at the time a project is considered, the applicant will be required to identify and demonstrate that best available control technologies for toxics, including appropriate enforcement mechanisms, that are capable of reducing potential cancer and noncancer risks are implemented. Best available control technologies for toxics may include, but are not limited to, restricting idling on site or electrifying warehousing docks to reduce DPM or requiring use of newer equipment and/or vehicles. Best available control technologies for toxics identified in the HRA shall be identified as mitigation measures in the</p>	Significant and unavoidable

Potential Environmental Impacts	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
<i>Public Safety Element Update and Environmental Justice Policies</i>	Less than significant	environmental document and/or incorporated into the project plans. None required.	N/A
Biological Resources			
Impact BIO-1: The Project could have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.	Potentially significant	<p>MM-BIO-1: Conduct literature review, habitat assessment, and surveys.</p> <p><i>Preliminary Review:</i> Prior to construction on Opportunity Sites that are vacant or where the potential presence of biological or aquatic resources exists, a consistency review shall be performed to ensure that the project is consistent with the requirements of the WRC MSHCP. For the project-specific WRC MSHCP consistency process, the applicant shall employ a qualified biologist approved by the City to review the future Opportunity Site project. The qualified biologist shall conduct a preliminary site-specific literature review, which shall consider, at a minimum, the future development project, site location, GIS information, WRC MSHCP survey areas and requirements, and known sensitive biological resources. The review shall assess the site for special-status plants and/or wildlife, aquatic resources, sensitive natural communities, wildlife corridors or nurseries, or other regulated biological resources covered by the WRC MSHCP and/or pursuant to CEQA, FESA, or CESA that could be affected by the project. In some cases, a literature review would be sufficient for the biologist to make a no impact and/or a less-than-significant impact determination for all six of the thresholds of significance (Section 3.2.4) of biological resources and/or the determination that the project is consistent with the WRC MSHCP. In this case, no further work shall be required, and, if deemed necessary by the City, a summary report stating the basis for these findings, identifying each threshold of significance with a CEQA finding, shall be the only requirement.</p>	Less than significant

Potential Environmental Impacts	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p><i>Habitat Assessment Survey:</i> If, during the preliminary review, it is determined that potential biological resources exist on the individual Opportunity Site that could be affected, then a habitat assessment survey shall be required unless a qualified biologist determines that a field review/habitat assessment is not needed. If needed, and/or the project is in a WRC MSHCP designated survey area, this survey shall consist of a site visit conducted by a qualified biologist, where the proposed individual development project and adjacent buffer (as appropriate for the target species relative to the potential project direct and indirect impacts) shall be assessed for WRC MSHCP covered species and habitats; candidate, sensitive, or special-status plants and/or wildlife; aquatic resources; sensitive natural communities; and wildlife corridors or nurseries while identifying and mapping all vegetation communities and land-cover types. If suitable habitat is present for candidate, sensitive, or special-status plants or animals and cannot be avoided, then focused protocol surveys may be required, as determined by the qualified biologist, with appropriate reporting. If aquatic resources are present and cannot be avoided, a jurisdictional delineation may be required. Mitigation shall include an analysis of all the biological resources identified in the thresholds of significance, with a determination made regarding significance for each threshold. Reporting shall include regulatory assessment, impact analyses, and identification and implementation of appropriate measures based on the presence of biological resources.</p> <p><i>Reduce and Avoid Impacts:</i> If, following the literature review and surveys for Opportunity Sites, it is determined that the site would not directly or indirectly affect any WRC MSHCP covered species or habitats; candidate, sensitive, or special-status plants and/or wildlife; aquatic resources; sensitive natural communities; or wildlife corridors or nurseries, then no further action or WRC MSHCP consistency analysis shall be required. If, however, it is determined that impacts on WRC MSHCP covered species or habitats; candidate, sensitive, or special-status plants and/or wildlife; aquatic resources; sensitive natural communities; or</p>	

Potential Environmental Impacts		Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
			wildlife corridors or nurseries would occur and therefore would be considered significant, then additional mitigation measures as recommended by the qualified biologist and approved by the Planning Division shall be implemented to avoid or reduce impacts to the maximum extent feasible.	
	<i>Public Safety Element Update and Environmental Justice Policies</i>	Less than significant	None required.	N/A
Impact BIO-2: The Project could have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.	<i>Housing Element Update, Zoning Code and Specific Plan Amendments, and Environmental Justice Policies</i>	Potentially significant	MM-BIO-1: Conduct literature review, habitat assessment, and surveys.	Less than significant
	<i>Public Safety Element Update and Environmental Justice Policies</i>	Less than significant	None required.	N/A
Impact BIO-3: The Project could have a substantial adverse effect on state- or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal wetlands) through direct removal, filling, hydrological	<i>Housing Element Update, Zoning Code and Specific Plan Amendments, and Environmental Justice Policies</i>	Potentially significant	MM-BIO-1: Conduct literature review, habitat assessment, and surveys.	Less than significant
	<i>Public Safety Element Update and Environmental Justice Policies</i>	Less than significant	None required.	N/A

Potential Environmental Impacts		Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
interruption, or other means.				
Impact BIO-4: The Project could 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.	<i>Housing Element Update, Zoning Code and Specific Plan Amendments, and Environmental Justice Policies</i>	Potentially significant	MM-BIO-1: Conduct literature review, habitat assessment, and surveys.	Less than significant
	<i>Public Safety Element Update and Environmental Justice Policies</i>	Less than significant	None required.	N/A
Impact BIO-5: The Project could conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.	<i>Housing Element Update, Zoning Code and Specific Plan Amendments, and Environmental Justice Policies</i>	Potentially significant	MM-BIO-1: Conduct literature review, habitat assessment, and surveys.	Less than significant
	<i>Public Safety Element Update and Environmental Justice Policies</i>	Less than significant	None required.	N/A
Cultural Resources				
Impact CUL-1: The Project could cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5.	<i>Housing Element Update, Zoning Code and Specific Plan Amendments, and Environmental Justice Policies</i>	Potentially significant	MM-CUL-1: Conduct a historical resource assessment. The individual applicants shall hire a Secretary of the Interior-qualified historic preservation professional to conduct a historical resource assessment if a structure to be affected by a subsequent development project, at the time of application, is not in a previously surveyed area, is not a historical resource for the purposes of CEQA, and is at least 50 years old. The assessment shall formally evaluate the potential resource’s eligibility for listing to the CRHR, its potential eligibility as a Landmark or Structure of	Less than significant

Potential Environmental Impacts	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
<p><i>Public Safety Element Update and Environmental Justice Policies</i></p>	<p>Less than significant</p>	<p>None required.</p>	<p>N/A</p>
<p>Impact CUL-2: The Project could cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.</p>	<p>Potentially significant</p>	<p>MM-CUL-2: Conduct an archaeological study. For Opportunity Site development projects that require CEQA analysis (non-ministerial projects), prior to construction, and if it is determined that the development project will involve ground disturbance of some type, the applicant shall conduct an archaeological study. This study will be conducted during project-specific CEQA analyses at Opportunity Sites that have not been studied in such a manner in the previous 5 years. The archaeological study shall follow the guidelines set forth by the City of Riverside Community & Economic Development Department in the document titled <i>Consultant Requirements for Cultural Resources Survey, Studies and Reports Information Sheet</i> (City of Riverside Community & Economic Development Department 2011) or successor document. The cultural resources archaeological recommendations shall be valid for 5 years after the date of the record search. After 5 years, the applicant shall retain an archaeologist who shall acquire an updated record search from the Eastern Information Center and review the cultural resources technical report recommendations.</p>	<p>Less than significant</p>

Potential Environmental Impacts	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>For proposed development locations where only a record search and/or a site visit have already been conducted prior to this EIR, the project applicant shall retain an archaeologist to:</p> <ul style="list-style-type: none"> • Review record search results, site visit results, and any recommendations. • Obtain an updated record search from the Eastern Information Center if the record search is older than 5 years. • Review available historic maps, historic aerials, and other archival materials. • Prepare a cultural resources memo with existing or updated record search results; a summary of background research of historic maps, aerials, etc.; and potential for historic and prehistoric archaeological resources to be present at the proposed development location. Additionally, the memo shall identify potential impacts and provide recommendations. <p>The City shall review these findings and make a determination regarding the significance of project-level impacts prior to approval of any future development. Should the archaeological study result in the identification of archaeological resources on the proposed development site, or should unanticipated discoveries of previously unknown archaeological resources be made during ground-disturbing activities at an Opportunity Site, Mitigation Measures MM-CUL-3 through MM-CUL-6 would be applicable.</p> <p>MM-CUL-3: Avoid archaeological sites through establishment of Environmentally Sensitive Areas (ESAs).</p> <p>If archaeological resources are identified either through an archaeological study or as unanticipated discoveries during construction, implementation of Mitigation Measure MM-CUL-3 would be required. Avoidance is always the preferred method of treatment for archaeological sites. Additionally, should sacred objects or objects of religious importance to Native American tribes be identified, preservation in place avoids conflicts with traditional values of tribes who ascribe meaning to these resources and their locations. Impacts on cultural resources can be avoided through</p>	

Potential Environmental Impacts	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>establishing fencing around cultural resources with a buffer and delineating these locations as ESAs. The appropriate buffer size shall be delineated upon consultation with Native American tribes and the City (for prehistoric resources). The City and the consultant archaeologist for individual development projects shall determine appropriate buffers for historical-period (non-Native American) archaeological resources on a case-by-case basis based on the known extent of archaeological sites and the relationship to proposed ground disturbance.</p> <p>MM-CUL-4: Develop and implement an Archaeological Treatment Plan (ATP) for evaluation of newly discovered and/or unevaluated archaeological resources.</p> <p>Mitigation Measure MM-CUL-4 shall apply as follows:</p> <ul style="list-style-type: none"> • The results of an archaeological study conducted under Mitigation Measure MM-CUL-2 are unable to determine the eligibility of newly identified archaeological sites for inclusion to the CRHR and it is determined by the consulting archaeologist that additional study through Phase II testing is required; • It is not possible to avoid impacts through the establishment of ESAs; or • Unanticipated archaeological resources are discovered during construction on Opportunity Sites. <p>If it is necessary to properly evaluate such properties in such a manner, an ATP shall be developed that describes methods and procedures for conducting subsurface excavations to determine the vertical and horizontal extents of an archaeological site. The ATP shall define the parameters of archaeological testing at the site and the extent of excavation and analysis of any materials recovered. The ATP shall also include guidelines for treatment and curation of any materials recovered during the testing process. Subsequent to implementation of the ATP, a technical report describing the methods and results of archaeological testing and formal evaluations of the archaeological sites and recommendations for further treatment shall be completed. The ATP shall be approved</p>	

Potential Environmental Impacts	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>by the City and should involve consultation and review by Native American tribes consulting on the proposed development project. An ATP shall only be necessary for newly discovered archaeological sites that require additional information to make determinations of eligibility.</p> <p>MM-CUL-5: Implement data recovery for CRHR-eligible sites that cannot be avoided.</p> <p>If archaeological studies identify a cultural resource as being potentially eligible for listing in the CRHR and ESAs cannot be established or project design cannot be altered, resulting in impacts on the site, then a Phase III data recovery program shall be developed, when mutually agreed upon by Native American representatives (for prehistoric or historic-period Native American sites) and the City. The data recovery program shall be outlined in a Data Recovery Treatment Plan that details the procedures and objectives for mitigation of impacts on the archaeological site. The Data Recovery Treatment Plan shall include a research design with testable hypotheses and data requirements necessary to address these hypotheses. Additionally, the Data Recovery Treatment Plan shall identify methods of excavation, analysis, and curation of any archaeological materials recovered. The Data Recovery Treatment Plan shall also identify the treatment of any human remains discovered during data recovery procedures. If the archaeological resource is Native American (prehistoric or historic-period in age), then the City, the applicant, and the archaeologist shall engage in consultation so that Native American representatives can be involved in the development of the data recovery plan.</p> <p>Data recovery shall involve analysis of a representative sample of the materials recovered during excavation. For prehistoric archaeological sites, all excavations should be monitored by a representative from a geographically appropriate Native American group. At the conclusion of the data recovery program, a data recovery technical report shall be completed detailing the results of the excavations and analysis. Curation of recovered archaeological materials shall be conducted per the guidance in the Data Recovery</p>	

Potential Environmental Impacts	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>Treatment Plan and with consultation between the City and appropriate Native American tribes. Other forms of mitigation could include additional research with archival sources, landscape studies, designation of open space, public outreach programs, and public education/public displays.</p> <p>MM-CUL-6: Retain an on-call archaeologist for monitoring. For Opportunity Site development projects that require CEQA analysis, Mitigation Measure MM-CUL-6 shall be implemented when archaeological studies completed under Mitigation Measure MM-CUL-2 determine that a project has a less-than-significant potential for archaeological discoveries. Additionally, upon agreement between Native American representatives (for prehistoric or historic-period Native American sites) and the City for archaeological resources that have not been determined eligible for listing in the CRHR or NRHP that are unavoidable at an Opportunity Site, Mitigation Measure MM-CUL-6 shall be implemented. Prior to the issuance of a grading permit, the applicant shall provide a letter from a qualified archaeologist stating that the applicant has retained their services, and that the archaeologist shall be on call during all grading and other significant ground-disturbing activities in native sediments.</p> <p>MM-CUL-7: Conduct archaeological and Native American monitoring. If cultural resource studies have identified archaeological resources determined eligible for the CRHR or NRHP that are unavoidable at an Opportunity Site, Mitigation Measure MM-CUL-7 shall be implemented upon agreement among Native American representatives (for prehistoric or historic-period Native American sites). At least 30 days prior to application for a grading permit and before any grading, excavation, and/or ground-disturbing activities take place, the applicant shall retain an SOI Standards-qualified archaeological monitor to monitor all ground-disturbing activities in an effort to identify any unknown archaeological resources.</p>	

Potential Environmental Impacts	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>The archaeologist, in consultation with consulting tribes, the applicant, and the City, shall develop an Archaeological Monitoring Plan to address the details, timing, and responsibility of all archaeological and cultural activities that occur on a development site. Details in the plan shall include:</p> <ol style="list-style-type: none"> 1. Project grading and development scheduling: <ol style="list-style-type: none"> a. The development of a rotating or simultaneous schedule in coordination with the applicant and the project archaeologist for designated Native American tribal monitors (if resources are prehistoric in age) from the consulting tribes during grading, excavation, and ground-disturbing activities on the site, including the scheduling, safety requirements, duties, scope of work, and Native American tribal monitors’ authority to stop and redirect grading activities in coordination with all project archaeologists b. The protocols and stipulations that the applicant, tribes, and project archaeologist for the individual development project shall follow in the event of inadvertent cultural resource discoveries, including any newly discovered cultural resource deposits that shall be subject to a cultural resources evaluation c. Treatment and final disposition of any cultural resources, sacred sites, and human remains if discovered on a development site <p>The scheduling and timing of the Cultural Sensitivity Training</p> <p>MM-CUL-8: Employ procedures for treatment and disposition of cultural resources.</p> <p>If cultural resources are inadvertently discovered during the course of grading for individual Opportunity Sites, the following procedures shall be carried out for treatment and disposition of the discoveries:</p> <ol style="list-style-type: none"> 1. Consulting Tribe(s) Notified: Within 24 hours of discovery, and if the resources are Native American in origin, the 	

Potential Environmental Impacts	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>consulting tribe(s) shall be notified via email and phone. The applicant shall provide the City evidence of notification to consulting tribes. Consulting tribe(s) shall be allowed access to the discovery in order to assist with the significance evaluation.</p> <ol style="list-style-type: none"> 2. Temporary Curation and Storage: During the course of construction, all discovered resources shall be temporarily curated in a secure location on site or at the offices of the project archaeologist. The removal of any artifacts from a development site shall be thoroughly inventoried with tribal monitor oversight of the process. 3. Treatment and Final Disposition: The landowner(s) shall relinquish ownership of all cultural resources, including sacred items, burial goods, and all archaeological artifacts and non-human remains, as part of the required mitigation for impacts on cultural resources. The applicant shall relinquish the artifacts through one or more of the following methods and provide the City of Riverside Community & Economic Development Department with evidence of same: <ol style="list-style-type: none"> a. Accommodate the process for onsite reburial of the discovered items with the consulting Native American tribes or bands. This shall include measures and provisions to protect the future reburial area from any future impacts. Reburial shall not occur until all cataloguing and basic recordation have been completed. b. Execute a curation agreement with an appropriate qualified repository within Riverside County that meets federal standards per 36 CFR Part 79 and therefore will ensure professional curation and availability to other archaeologists/researchers for further study. The collections and associated records shall be transferred, including title, to an appropriate curation facility within Riverside County, to be accompanied by payment of the fees necessary for permanent curation. 	

Potential Environmental Impacts	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>c. If more than one Native American tribe or band is involved with the subsequent development project and cannot come to a consensus as to the disposition of cultural materials, curate the discovered items at the Western Science Center or Museum of Riverside by default.</p> <p>At the completion of grading, excavation, and ground-disturbing activities on the site, provide to the City a Phase IV Monitoring Report documenting monitoring activities conducted by the project archaeologist and Native American tribal monitors within 60 days of completion of grading. This report shall document the impacts on the known resources on the property; describe how each mitigation measure was fulfilled; document the type of cultural resources recovered and the disposition of such resources; provide evidence of the required Cultural Sensitivity Training for the construction staff held during the required pre-grade meeting; and, in a confidential appendix, include the daily/weekly monitoring notes from the archaeologist. All reports produced shall be submitted to the City, the Eastern Information Center, and consulting tribes.</p>	
		<p>MM-CUL-9: Conduct cultural sensitivity training.</p> <p>For Opportunity Site development projects where either Mitigation Measures MM-CUL-6 or MM-CUL-7 are implemented, Mitigation Measure MM-CUL-9 shall also be implemented. Prior to the commencement of construction activities, the SOI Standards-certified archaeologist and Native American monitors shall attend the pre-grading meeting with the applicant/permit holder’s contractors to provide Cultural Sensitivity Training for all construction personnel. This shall include the procedures to be followed during ground disturbance in sensitive areas and protocols that apply in the event unanticipated resources are discovered. Only construction personnel who have received this training can conduct construction and disturbance activities in</p>	

Potential Environmental Impacts		Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
<i>Public Safety Element Update and Environmental Justice Policies</i>		Less than significant	None required. sensitive areas. A sign-in sheet for attendees of this training shall be included in the Phase IV Monitoring Report.	N/A
Paleontological Resources				
Impact PAL-1: The Project could directly or indirectly destroy a unique paleontological resource or site.	<i>Housing Element Update, Zoning Code and Specific Plan Amendments, and Environmental Justice Policies</i>	Potentially significant	<p>MM-PAL-1: Conduct paleontological resources investigations.</p> <p>During the development review process and prior to construction on Opportunity Sites that are located on geologic units with Undetermined, High A, or High B paleontological sensitivity, the project applicant shall conduct paleontological resource investigations consistent with SVP guidelines. This process shall include:</p> <ul style="list-style-type: none"> • Conducting a paleontological records search through the Los Angeles County Natural History Museum to identify previously recorded paleontological localities and the presence of sensitive deposits in the City • Reviewing Opportunity Site design and maximum depths and extents of Project ground disturbance components • Reviewing publicly available geotechnical reports for information concerning subsurface deposits and deposit depths across the City • Identifying the potential for sensitive paleontological deposits underlying the Opportunity Site that project implementation could affect • Determining whether impacts on sensitive deposits, if present, would be significant. <p>If no sensitive deposits are identified or if they are sufficiently deeper than the Opportunity Site excavations and would not be encountered during construction, no further steps shall be required. If sensitive deposits are identified and could be affected</p>	Less than significant

Potential Environmental Impacts	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>by development of the Opportunity Sites, implement Mitigation Measure MM-PAL-2.</p> <p>MM-PAL-2: Avoid paleontological resources or conduct monitoring.</p> <p>The applicant shall redesign the Opportunity Site development to avoid sensitive paleontological resources and deposits that could potentially contain these resources. If avoidance and/or Opportunity Site redesign is infeasible, then paleontological monitoring shall be implemented and shall include the following implementation steps:</p> <ul style="list-style-type: none"> • The applicant shall retain a qualified paleontologist, who shall attend the preconstruction meeting(s) to consult with the grading and excavation contractors or subcontractors concerning excavation schedules, paleontological field techniques, and safety issues. A qualified paleontologist is defined as an individual who (1) has an MS or PhD in paleontology or geology and/or a publication record in peer-reviewed journals; (2) also has demonstrated familiarity with paleontological procedures and techniques; (3) is knowledgeable in the geology and paleontology of the county; (4) has proficiency in recognizing fossils in the field, determining their significance, and collecting vertebrate fossils in the field; and (5) has worked as a paleontological mitigation project supervisor in the county for at least 1 year. • A paleontological monitor or a qualified paleontologist shall be on site on a full-time basis during excavation and ground-disturbing activities that occur in any undisturbed deposits below ground surface, to inspect exposures for contained fossils. The paleontological monitor shall work under the direction of the qualified paleontologist. A paleontological monitor is defined as an individual selected by the qualified paleontologist who has experience in the collection and salvage of fossil materials. If fossils that have significance for the scientific record are discovered on a development site, the qualified paleontologist 	

Potential Environmental Impacts	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>shall recover them and temporarily direct, divert, or halt grading to allow recovery of fossil remains.</p> <ul style="list-style-type: none"> • The qualified paleontologist shall be responsible for the cleaning, repairing, sorting, and cataloguing of fossil remains collected during the monitoring and salvage portion of the mitigation program. • Prepared fossils, along with copies of all pertinent field notes, photos, and maps, shall be deposited (as a donation) at a scientific institution with permanent paleontological collections, such as the Los Angeles County Natural History Museum. • Within 30 days after the completion of excavation and ground-disturbing activities, the qualified paleontologist shall prepare and submit to the City of Riverside Community & Economic Development Department, Planning Division a paleontological resource recovery report that documents the results of the mitigation program. This report shall include discussions of the methods used, stratigraphic section(s) exposed, fossils collected, and significance of recovered fossils. <p>MM-PAL-3: Avoid/minimize impacts on paleontological resources during operations.</p> <p>If significant paleontological resources and sensitive deposits with the potential to contain significant paleontological resources are identified within an Opportunity Site area during design/planning (Mitigation Measures MM-PAL-1 and MM-PAL-2), and deposits that are sensitive for significant paleontological resources remain exposed at or near the ground surface or become exposed during project operations, then an avoidance and minimization plan shall be prepared to avoid/minimize potential impacts during operations. This plan may include, but not be limited to:</p> <ul style="list-style-type: none"> • Securing sensitive deposits from accessibility through the development of exclusion zones • Preparing an operations and maintenance plan to minimize degradation and exposure of sensitive deposits 	

Potential Environmental Impacts	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
<p><i>Public Safety Element Update and Environmental Justice Policies</i></p>	<p>Potentially significant</p>	<ul style="list-style-type: none"> Designing and developing interpretive exhibits to provide education and understanding of the importance of avoiding and protecting sensitive deposits and paleontological resources <p>If significant impacts on a newly exposed or existing significant paleontological resource cannot be avoided, then Mitigation Measure MM-PAL-2 shall be implemented.</p> <p>MM-PAL-1: Conduct paleontological resources investigations. MM-PAL-2: Avoid paleontological resources or conduct monitoring. MM-PAL-3: Avoid/minimize impacts on paleontological resources during operations.</p>	<p>Less than significant</p>
Greenhouse Gas Emissions			
<p>Impact GHG-1: The Project would generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.</p>	<p><i>Housing Element Update, Zoning Code and Specific Plan Amendments, and Environmental Justice Policies</i></p>	<p>Potentially significant</p> <p>MM-GHG-1: Implement diesel emission-reduction measures during construction.</p> <p>The applicant and/or contractor associated with future development of Opportunity Sites shall implement the following measures during construction and, where specified below, shall submit reports demonstrating compliance to the Planning Division for its review and approval.</p> <ul style="list-style-type: none"> The applicant shall limit all equipment and delivery truck idling times by shutting down equipment when not in use and reducing the maximum idling time to less than 3 minutes. The applicant shall also install clear signage regarding the limitation on idling time at the delivery driveway and loading areas. The applicant shall verify that all construction equipment is maintained and properly tuned in accordance with manufacturers' specifications. Prior to the commencement of construction activities using diesel-powered vehicles or equipment, the applicant shall verify that all vehicles and equipment have been checked by a certified mechanic and determined to be running in proper condition prior to admittance into the delivery driveway and loading areas. The applicant shall submit a report by the certified mechanic of the 	<p>Significant and Unavoidable</p>

Potential Environmental Impacts		Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
			<p>condition construction-related vehicles and equipment to the Planning Division prior to commencement of their use.</p> <p>MM-GHG-2: Restrict use of natural gas in new development. Future development on Opportunity Sites shall utilize electrical lighting and heating to the maximum extent feasible or to the extent required by existing or future regulations. Natural gas appliances are to be avoided to the extent feasible as determined by the availability and capacity of electrical power distribution infrastructure.</p> <p>MM-GHG-3: Implement measures to reduce GHG emissions during operation. Prior to discretionary approval by the City for Opportunity Site projects subject to CEQA review (i.e., non-ministerial projects), each applicant shall be required to demonstrate that all feasible Tier 1 and Tier 2 CALGreen voluntary measures (Appendix A4 and Appendix A5 of the 2019 CALGreen) shall be implemented.</p>	
	<i>Public Safety Element Update and Environmental Justice Policies</i>	Less than significant	None required.	N/A
Impact GHG-2: The Project would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.	<i>Housing Element Update, Zoning Code and Specific Plan Amendments, and Environmental Justice Policies</i>	Potentially significant	<p>MM-GHG-1: Implement diesel emission-reduction measures during construction.</p> <p>MM-GHG-2: Restrict use of natural gas in new development.</p> <p>MM-GHG-3: Implement measures to reduce GHG emissions during operation.</p>	Significant and unavoidable
	<i>Public Safety Element Update and Environmental Justice Policies</i>	Less than significant	None required.	N/A
Hazards and Hazardous Materials				
Impact HAZ-1: The Project could create a	<i>Housing Element Update, Zoning Code</i>	Potentially significant	MM-HAZ-1: Conduct project-level hazardous material site assessment for construction of Opportunity Sites involving soil	Less than significant

Potential Environmental Impacts	<i>and Specific Plan Amendments, and Environmental Justice Policies</i>	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
<p>significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.</p>	<p><i>and Specific Plan Amendments, and Environmental Justice Policies</i></p>		<p>disturbance at sites listed on hazardous materials databases and implement measures.</p> <p>For development of Opportunity Sites at or adjacent to hazardous materials sites that are listed on hazardous materials databases (see Section 3.6.2, <i>Environmental Setting</i>), prior to construction activities associated with any Opportunity Site involving ground disturbance, the specific applicant shall be required to retain a professional hazardous materials specialist specializing in hazardous material impact assessment. The professional hazardous materials specialist shall conduct a project-level analysis to verify the presence or absence of hazardous material conditions (including Cortese List sites) in the vicinity of the ground-disturbance area and if there is potential for existing hazardous material conditions to be disturbed or released as a result of construction activities.</p> <p>This assessment shall consist of a search for environment-related information present in publicly accessible databases. The information shall be reviewed to determine if the construction footprint or adjacent properties are the site of (or in the vicinity of) contaminated soil or groundwater that has been left in place. If the professional hazardous materials specialist determines that the site (where ground disturbance is to occur) or hazardous material conditions in the vicinity of the site do not pose a risk, additional steps in this measure would not be required.</p> <p>If the construction footprint or adjacent properties are the site of contaminated soil or groundwater, the professional hazardous materials specialist shall determine the potential risk to construction workers, the public, or the environment from construction activities. The determination of risk would consider, among other factors, regulatory status, the type of project, the type of contaminated property, distance and direction to the project, and appropriate measures. If the hazardous materials specialist concludes that the subsequent project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the</p>	

Potential Environmental Impacts	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>release of hazardous materials into the environment, then no further action would be required.</p> <p>If a site is considered a risk to construction workers, the public, or the environment, the applicant shall implement measures to reduce risk including one or more of the following:</p> <ul style="list-style-type: none"> • Implementation of engineering controls and BMPs during construction to minimize human exposure to potentially contaminated soils during construction. Engineering controls and construction BMPs could include, but are not limited to, the following: <ul style="list-style-type: none"> ○ Contractor employees working on site handling potentially contaminated media shall be certified in the Occupational Health and Safety Administration’s 40-hour Hazardous Waste Operations and Emergency Response training. ○ Contractors shall water or mist soil as it is being excavated and stockpiled or loaded onto transport trucks. ○ Contractors shall place any stockpiled soil in areas shielded from prevailing winds or cover stockpiles with staked and/or anchored sheeting. • Conducting a soil and/or groundwater sampling program to determine the type and extent of contaminants. The sampling program could include: <ul style="list-style-type: none"> ○ A scope of work for preparation of a Health and Safety Plan that specifies pre-field activity marking of boring locations and obtainment of utility clearance; and field activities, such as identifying appropriate sampling procedures, health and safety measures, chemical testing methods, and quality assurance/quality control procedures ○ Necessary permits for well installation and/or boring advancement ○ A Soil Sampling and Analysis Plan in accordance with the scope of work ○ Laboratory analyses conducted by a state-certified laboratory 	

Potential Environmental Impacts	<i>Public Safety Element Update and Environmental Justice Policies</i>	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
Impact HAZ-2: The Project would not emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile	<i>Housing Element Update, Zoning Code and Specific Plan Amendments, and Environmental Justice Policies</i>	Potentially significant	<p>o Disposal processes, including transport by a state-certified hazardous material hauler to a state-certified disposal or recycling facility licensed to accept and treat hazardous waste</p> <p>• Implementation of a Soil Management Plan. The purpose of a Soil Management Plan is to provide administrative, procedural, and analytical guidance to expedite and clarify decisions and actions if contaminated soils are encountered. Typically, procedures and protocols are included to ensure that contaminated soil is excavated properly and efficiently, and that unacceptable risks are not posed to human health or the environment from contaminated soils. Additionally, the Soil Management Plan shall contain procedures for handling, stockpiling, screening, and disposing of the excavated soil. The Soil Management Plan is a site-specific technical plan that could be required depending on other screening activities conducted (listed above) and is not included as part of this EIR.</p> <p>If dewatering would be necessary in areas where contaminated groundwater exists, then dewatering procedures could be subject to permit requirements of the National Pollutant Discharge Elimination System. In addition, wastewater profiling shall be conducted to determine proper handling and disposal.</p> <p>None required.</p>	N/A
	<i>Public Safety Element Update and</i>	Less than significant	None required.	N/A
			<p>MM-HAZ-1: Conduct project-level hazardous material site assessment for construction of Opportunity Sites involving soil disturbance at sites listed on hazardous materials databases and implement measures.</p>	Less than significant

Potential Environmental Impacts		Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
of an existing or proposed school.	<i>Environmental Justice Policies</i>			
Impact HAZ-3: The Project would be located on a site that is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, could create a significant hazard to the public or the environment.	<i>Housing Element Update, Zoning Code and Specific Plan Amendments, and Environmental Justice Policies</i>	Potentially significant	MM-HAZ-1: Conduct project-level hazardous material site assessment for construction of Opportunity Sites involving soil disturbance at sites listed on hazardous materials databases and implement measures.	Less than significant
	<i>Public Safety Element Update and Environmental Justice Policies</i>	Less than significant	None required.	N/A
Land Use and Planning				
Impact LU-1: The Project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface water or groundwater quality.	<i>Housing Element Update, Zoning Code and Specific Plan Amendments, and Environmental Justice Policies</i>	Less than significant	None required.	N/A
	<i>Public Safety Element Update and Environmental Justice Policies</i>	Less than significant	None required.	N/A
Impact LU-2: The Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project would impede	<i>Housing Element Update, Zoning Code and Specific Plan Amendments, and Environmental Justice Policies</i>	Less than significant	None required.	N/A
	<i>Public Safety Element Update and</i>	Less than significant	None required.	N/A

Potential Environmental Impacts		Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
sustainable groundwater management of the basin.	<i>Environmental Justice Policies</i>			
Noise				
Impact NOI-1: The Project would generate temporary or permanent increases in ambient noise levels in the vicinity of the Project in excess of standards established in a local general plan or noise ordinance or applicable standards for the City	<i>Housing Element Update, Zoning Code and Specific Plan Amendments, and Environmental Justice Policies</i>	Potentially significant	<p>MM-NOI-1: Prepare a focused noise study and implement findings to reduce traffic noise.</p> <p>For Opportunity Site projects that would exceed the 60 or 65 dBA CNEL threshold (based on the noise contour maps included in GP 2025), the applicant shall prepare a detailed analysis and implement mitigation to comply with the applicable City standards outlined in GP 2025. This could include but would not be limited to actions such as:</p> <ul style="list-style-type: none"> • Installation of soundwalls to break the line of sight from noise sources such as traffic noise • Installation of noise-reducing insulation • Installation of windows with STC ratings appropriate to reduce exterior-to-interior noise transmission • Installation of HVAC systems <p>MM-NOI-2: For any development where stationary noise sources may exceed interior or exterior noise standards, prepare a focused noise study and implement findings to reduce HVAC noise.</p> <p>The applicant shall design HVAC systems for Opportunity Sites to comply with the applicable City Municipal Code standards. This could include but would not be limited to actions such as:</p> <ul style="list-style-type: none"> • Preparation of a focused noise study to analyze HVAC noise, which shall identify a location for HVAC systems at appropriate distances so as to not exceed a noise level of 55 dBA L_{eq} (exterior) and 45 dBA L_{eq} (interior) between the hours of 7:00 a.m. and 10:00 p.m. and 45 dBA L_{eq} (exterior) and 35 dBA L_{eq} (interior) between the hours of 10:00 p.m. and 7:00 a.m. at the closest noise-sensitive land use. Design features that could be used to 	Significant and unavoidable

Potential Environmental Impacts	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>comply with the relevant threshold could include but are not limited to:</p> <ul style="list-style-type: none"> ○ Locating HVAC systems far enough from residences so as to allow noise to attenuate to below the relevant standards ○ Installing housings or structural parapets around HVAC systems ○ Installing noise-reducing insulation ○ Installing windows with STC ratings appropriate to reduce exterior-to-interior noise transmission 	
	Less than significant	None required.	Less than significant
<p>Impact NOI-2: The Project could generate excessive groundborne vibration or groundborne noise levels.</p>	<p>Significant and unavoidable</p>	<p>MM-NOI-3: Reduce construction-generated groundborne vibration to the extent possible.</p> <p>The City of Riverside Community & Economic Development Department, Planning Division shall, to the extent possible, require that heavy construction equipment (representative equipment such as large bulldozers) is not operated within 25 feet of onsite or offsite sensitive receptors (including, but not limited to, single- and multi-family residences, institutional or care facilities, etc.). If construction is anticipated within 25 feet of onsite or offsite sensitive receptors, the City shall require pre- and post-construction surveys to confirm that vibration did not result in damage to surrounding structures. Additionally, the City shall require vibration monitoring at the structure to determine if vibration levels exceed the 0.08 PPV threshold at the structure. Should an exceedance be identified, construction would be halted and additional measures would be implemented in order to reduce vibration levels. These additional measures could include, but are not limited to:</p> <ul style="list-style-type: none"> ● Using smaller or less vibration-intensive equipment ● Maximizing the distance from the vibration source 	<p>Significant and unavoidable</p>

Potential Environmental Impacts		Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
	<i>Public Safety Element Update and Environmental Justice Policies</i>	Potentially significant	MM-NOI-3: Reduce construction-generated groundborne vibration to the extent possible.	Less than significant
Impact NOI-3: The Project would be in the vicinity of a private airstrip and an airport land use plan, and within 2 miles of a public airport or public use airport but would not expose people residing or working in the City to excessive noise levels.	<i>Housing Element Update, Zoning Code and Specific Plan Amendments, and Environmental Justice Policies</i>	Less than significant	None required.	N/A
	<i>Public Safety Element Update and Environmental Justice Policies</i>	Less than significant	None required.	N/A
Population and Housing				
Impact POP-1: The Project would result in substantial unplanned population growth either directly or indirectly.	<i>Housing Element Update, Zoning Code and Specific Plan Amendments, and Environmental Justice Policies</i>	Significant and unavoidable	No mitigation is available to reduce this impact to a less-than-significant level.	Significant and unavoidable
	<i>Public Safety Element Update and Environmental Justice Policies</i>	Less than significant	None required.	N/A
Public Services				
Impact PS-1: The Project would not result in substantial adverse physical impacts	<i>Housing Element Update, Zoning Code and Specific Plan Amendments, and</i>	Less than significant	None required.	N/A

Potential Environmental Impacts		Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
<p>associated with the provision of new or physically altered governmental facilities or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:</p> <ul style="list-style-type: none"> a. Fire protection b. Police protection c. Schools d. Other facilities, including libraries 	<p><i>Environmental Justice Policies</i></p> <p><i>Public Safety Element Update and Environmental Justice Policies</i></p>	Less than significant	None required.	N/A
Recreation				
Impact REC-1: The Project could potentially increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the	<p><i>Housing Element Update, Zoning Code and Specific Plan Amendments, and Environmental Justice Policies</i></p> <p><i>Public Safety Element Update and Environmental Justice Policies</i></p>	Less than significant	None required.	Less than significant
		Less than significant	None required.	N/A

Potential Environmental Impacts		Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
facility would occur or be accelerated				
Impact REC-2: The Project could include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment.	<i>Housing Element Update, Zoning Code and Specific Plan Amendments, and Environmental Justice Policies</i>	Less than significant	None required.	N/A
	<i>Public Safety Element Update and Environmental Justice Policies</i>	Less than significant	None required.	N/A
Transportation				
Impact TRA-1: The Project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.	<i>Housing Element Update, Zoning Code and Specific Plan Amendments, and Environmental Justice Policies</i>	Less than significant	None required.	N/A
	<i>Public Safety Element Update and Environmental Justice Policies</i>	Less than significant	None required.	N/A
Impact TRA-2: The Project would conflict or be inconsistent with State CEQA Guidelines Section 15064.3, subdivision (b), as the Project would affect the VMT in the City of Riverside.	<i>Housing Element Update, Zoning Code and Specific Plan Amendments, and Environmental Justice Policies</i>	Significant and unavoidable	MM-TRA-1: Implement VMT mitigation options. As individual Opportunity Sites are developed, future development projects shall implement all feasible mitigation measures to reduce VMT. The amount and type of mitigation needed will vary based on the type and location of projects, as development in some areas of the City will generate VMT that is 15 percent below the existing VMT, some will generate VMT that is 0–15 percent below the City average, and others are in areas with VMT higher than the City average. Figure 3.12-1 shows the VMT per service population for	Significant and unavoidable

Potential Environmental Impacts	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>each transportation analysis zone in the City and summarizes these three different efficiency areas of the City.</p> <p>Opportunity Site development projects in very efficient areas (e.g., more than 15 percent below the City average) shown in blue on the figure can be presumed not to have a significant VMT impact and would not need any VMT mitigation due to their location efficiency.</p> <p>Opportunity Site development projects in moderately efficient areas (e.g., between 0 percent and 15 percent below the City average) proposed pursuant to the Project shown in yellow on the figure shall incorporate a moderate amount of VMT mitigation. Potential measures for each individual development include, but are not limited to:</p> <ul style="list-style-type: none"> • Consider incorporating affordable housing into the Opportunity Site project (expected range of effectiveness 0.04–1.20 percent VMT reduction).⁴ • Connect the Opportunity Site project to transit, bicycle, and pedestrian facilities (expected range of effectiveness 0.25–0.5 percent VMT reduction).⁵ • Provide bicycle parking (expected range of effectiveness 0.05–0.14 percent VMT reduction).⁵ • Consider unbundling parking costs (expected range of effectiveness 2.6–13.0 percent VMT reduction).⁵ • Provide car-sharing, bike sharing, or ride-sharing programs (expected range of effectiveness 0.4–15.0 percent VMT reduction).⁵ • Provide transit passes (expected range of effectiveness 0.3–20.0 percent VMT reduction).⁵ • Increase Opportunity Site project density up to maximum zoning density to the extent feasible (expected range of effectiveness 0.8–30.0 percent VMT reduction).⁵ 	

⁴ Expected range of effectiveness in VMT reduction from *Quantifying Greenhouse Gas Mitigation Measures* (CAPCOA 2010). Expected range of effectiveness will vary based on specific project implementation. Measures’ effectiveness will dampen as multiple measures are applied together.

Potential Environmental Impacts	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<ul style="list-style-type: none"> • For Opportunity Site projects that are 2 acres or larger, provide publicly accessible shared-mobility zones.⁵ <p>Opportunity Site development projects in the least-efficient areas (e.g., higher VMT per service population than the City average) shown in red on the figure shall be subject to the maximum amount of TDM considered feasible in the City. These measures⁶ include, but are not limited to:</p> <ul style="list-style-type: none"> • Identify measures for moderately efficient areas. • Improve or increase access to transit (expected range of effectiveness 0.5–24.6 percent VMT reduction).⁵ • Increase access to common goods and services, such as groceries, schools, and daycare (expected range of effectiveness 6.7–20.0 percent VMT reduction).⁵ • Improve pedestrian or bicycle networks or transit service (expected range of effectiveness 0.02–8.2 percent VMT reduction).⁵ • For Opportunity Site projects that are 3 acres or larger, provide traffic calming on site in accordance with the Complete Streets Ordinance (expected range of effectiveness 0.25–1.0 percent VMT reduction).⁵ • Increase connectivity and/or intersection density on the Opportunity Site projects that are 3 or more acres (expected range of effectiveness 3.0–21.3 percent VMT reduction).⁵ <p>The maximum total reduction potential for suburban development from TDM strategies described above is 15 percent (CAPCOA 2010). Recent research indicates that other factors such as building tenants play a substantial role in maximum TDM reduction potential. For the City, outside of the Downtown core, a maximum</p>	

⁵ The California Air Pollution Control Officers Association does not provide an estimated range of effectiveness for shared-mobility zones.

⁶ TDM measures are consistent with those identified in the WRCOG Implementation Pathway Study as documented in the TDM Strategy Assessment (Fehr & Peers 2019).

Potential Environmental Impacts	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation	
		<p>TDM reduction potential of between 3 percent and 5 percent is expected.</p> <p>In addition to onsite TDM measures noted above, Opportunity Sites could potentially contribute to future VMT mitigation fee programs, banks, or exchanges. No regional VMT mitigation programs currently exist; however, if a relevant program that provides VMT mitigation is available through the City, the County of Riverside, or other regional entity, development projects could potentially pay into a fee program or purchase mitigation credits to achieve needed VMT mitigation instead of, or in addition to, onsite TDM measures.</p> <p>It should be noted that the California Air Resources Board’s Scoping Plan has shown that VMT per person has continued to grow throughout California even though the regional 2020–2045 RTP/SCS predicted that VMT would decrease. The Scoping Plan supports two key observations that are relevant to the findings in this EIR:</p> <ol style="list-style-type: none"> 1. VMT is influenced by a variety of factors that are outside of local land use control and are not sensitive enough in regional travel demand forecasting tools, including the price of fuel, income levels, and auto accessibility, among other factors. 2. California has more ability to influence VMT reduction through legislative action (e.g., VMT tax, increase in fuel tax, vehicle registration fees) than the regional agencies or the City of Riverside Community & Economic Development Department, Planning Division does through their regional planning and local land use authority. 		
<p><i>Public Safety Element Update and Environmental Justice Policies</i></p>	<p>Less than significant</p>	<p>None required.</p>	<p>N/A</p>	
Tribal Cultural Resources				
<p>Impact TCR-1: The Project could cause a substantial adverse</p>	<p><i>Housing Element Update, Zoning Code and Specific Plan</i></p>	<p>Potentially significant</p>	<p>MM-CUL-2: Conduct an archaeological study.</p>	<p>Less than significant</p>

Potential Environmental Impacts	<i>Amendments, and Environmental Justice Policies</i>	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
<p>change in the significance of a tribal cultural resource that has cultural value to a California Native American tribe and that is listed or eligible for listing in the California Register of Historical Resources or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k).</p>	<p><i>Amendments, and Environmental Justice Policies</i></p>		<p>MM-CUL-3: Avoid archaeological sites through establishment of Environmentally Sensitive Areas (ESAs). MM-CUL-4: Develop and implement an Archaeological Treatment Plan (ATP) for evaluation of newly discovered and/or unevaluated archaeological resources. MM-CUL-5: Implement data recovery for CRHR-eligible sites that cannot be avoided. MM-CUL-6: Retain an on-call archaeologist for monitoring. MM-CUL-7: Conduct archaeological and Native American monitoring. MM-CUL-8: Employ procedures for treatment and disposition of cultural resources. MM-CUL-9: Conduct cultural sensitivity training. MM-TCR-1: Implement tribal cultural resources protocols and measures determined through consultation.</p> <p>During Project-level CEQA review of Opportunity Site projects that would cause a substantial adverse change in the significance of a TCR, the City of Riverside Community & Economic Development Department, Planning Division can and should develop Project-level protocols and mitigation measures with consulting tribes, consistent with PRC Section 21080.3.2(a), to avoid or reduce impacts on TCRs during construction and operation of future Opportunity Site projects. Individual project proponents shall fund the effort to identify these resources through records searches, survey, consultation, or other means, to develop minimization and avoidance methods where possible and to consult with Native American tribes participating in AB 52 consultation to develop mitigation measures for TCRs that may experience substantial adverse changes.</p> <p>In the absence of any specific mitigation measures developed during AB 52 consultation, the City of Riverside Community & Economic Development Department, Planning Division shall develop standard mitigation measures set forth in PRC Section 21084.3(b).</p>	

Potential Environmental Impacts	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>The following are standard mitigation measures for TCRs.</p> <ol style="list-style-type: none"> 1. Avoid and preserve the resources in place, including, but not limited to, planning and constructing to avoid the resources and protect the cultural and natural context, or planning greenspace, parks, or other open space to incorporate the resources with culturally appropriate protection and management criteria. 2. Treat the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to: <ol style="list-style-type: none"> a. Protecting the cultural character and integrity of the resource b. Protecting the traditional use of the resource c. Protecting the confidentiality of the resource d. Creating permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or using the resources or places e. Protecting the resource <p>MM-TCR-2: Conduct consultation with City and applicant. Prior to grading permit issuance, if there are any changes to Opportunity Site design and/or proposed grades, the applicant and the City of Riverside Community & Economic Development Department, Planning Division shall contact consulting tribes to provide an electronic copy of the revised plans for review. Additional consultation shall occur among the City of Riverside Community & Economic Development Department, Planning Division, applicant, and consulting tribes to discuss any proposed changes and review any new impacts and/or potential avoidance/preservation of the cultural resources on the Opportunity Sites. The City of Riverside Community & Economic Development Department, Planning Division and the applicant shall make all attempts to avoid and/or preserve in place as many cultural resources as possible on the Opportunity Site if the site</p>	

Potential Environmental Impacts		Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
	<i>Public Safety Element Update and Environmental Justice Policies</i>	Less than significant	design and/or proposed grades should be revised. In the event of inadvertent discoveries of archaeological resources, work shall temporarily halt until agreements are executed with consulting tribe to provide tribal monitoring for ground-disturbing activities. None required.	N/A
Impact TCR-2: The Project could cause a substantial adverse change in the significance of a tribal cultural resource that has cultural value to a California Native American tribe and that is listed or eligible for listing in the California Register of Historical Resources or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k).	<i>Housing Element Update, Zoning Code and Specific Plan Amendments, and Environmental Justice Policies</i>	Potentially significant	MM-CUL-2: Conduct an archaeological study. MM-CUL-3: Avoid archaeological sites through establishment of Environmentally Sensitive Areas (ESAs). MM-CUL-4: Develop and implement an Archaeological Treatment Plan (ATP) for evaluation of newly discovered and/or unevaluated archaeological resources. MM-CUL-5: Implement data recovery for CRHR-eligible sites that cannot be avoided. MM-CUL-6: Retain an on-call archaeologist for monitoring. MM-CUL-7: Conduct archaeological and Native American monitoring. MM-CUL-8: Employ procedures for treatment and disposition of cultural resources. MM-CUL-9: Conduct cultural sensitivity training. MM-TCR-1: Implement tribal cultural resources protocols and measures determined through consultation. MM-TCR-2: Conduct consultation with City and applicant.	Less than significant
	<i>Public Safety Element Update and Environmental Justice Policies</i>	Less than significant	None required.	N/A
Utilities and Service Systems				
Impact UT-1: The Project would not result	<i>Housing Element Update, Zoning Code</i>	Less than significant	None required.	N/A

Potential Environmental Impacts		Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electrical power, natural gas, or telecommunications facilities.	<i>and Specific Plan Amendments, and Environmental Justice Policies</i> <i>Public Safety Element Update and Environmental Justice Policies</i>	Less than significant	None required.	N/A
Impact UT-2: The Project would have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years.	<i>Housing Element Update, Zoning Code and Specific Plan Amendments, and Environmental Justice Policies</i> <i>Public Safety Element Update and Environmental Justice Policies</i>	Less than significant	None required.	N/A
Impact UT-3: The Project has adequate capacity to serve the Project’s projected wastewater treatment demand in addition to the provider’s existing commitments.	<i>Housing Element Update, Zoning Code and Specific Plan Amendments, and Environmental Justice Policies</i> <i>Public Safety Element Update and Environmental Justice Policies</i>	Less than significant	None required.	N/A

Potential Environmental Impacts		Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
Impact UT-4: The Project would not generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.	<i>Housing Element Update, Zoning Code and Specific Plan Amendments, and Environmental Justice Policies</i>	Less than significant	None required.	N/A
	<i>Public Safety Element Update and Environmental Justice Policies</i>	Less than significant	None required.	N/A

AB = Assembly Bill, AQMP = air quality management plan, BMP = best management practice, CAP = *Economic Prosperity Action Plan and Climate Action Plan*, CARB = California Air Resources Board, CESA = California Endangered Species Act, CNEL = Community Noise Equivalent Level, CRHR = California Register of Historical Resources, dBA = A-weighted decibel, DPM = diesel particulate matter, EPA = U.S. Environmental Protection Agency, FESA = federal Endangered Species Act, GIS = geographic information systems, HRA = health risk assessment, HVAC = heating, ventilating, and air conditioning, L_{eq} = noise equivalent level, NRHP = National Register of Historic Places, PPV = peak particle velocity, PRC = California Public Resources Code, RMC = Riverside Municipal Code, RTP = Regional Transportation Plan, SCAG = Southern California Association of Governments, SCAQMD = South Coast Air Quality Management District, SCS = Sustainable Communities Strategy, SIP = State Implementation Plan, SOI = Secretary of the Interior, SVP = Society of Vertebrate Paleontology, TCR = tribal cultural resource, TDM = Transportation Demand Management, VMT = vehicle miles traveled, VOC = volatile organic compound, WRCOG = Western Riverside Council of Governments

ES.5 Significant and Unavoidable Impacts

While the specific mitigation measures summarized above would reduce the level of many significant impacts to a less-than-significant level, the Draft EIR identified the following areas where, after implementation of feasible mitigation, the Project may nonetheless result in impacts that cannot be fully mitigated. Various benefits would accrue from implementation of the Project, which must be weighed against the potential adverse effects of Project implementation in deciding whether to approve the Project. These potential benefits will be set forth in a “Statement of Overriding Considerations,” which is required by CEQA prior to approving a project with unavoidable significant impacts.

Section 15126.2(b) of the State CEQA Guidelines requires that an EIR describe any significant impacts that cannot be avoided even with implementation of feasible mitigation measures. Based on the environmental analysis in Chapter 3, the Project would result in the following significant and unavoidable impacts after the implementation of mitigation measures:

- **Impact AQ-1:** The Project would conflict with or obstruct implementation of the applicable air quality plan. This impact would be significant and unavoidable with implementation of mitigation.
- **Impact AQ-2:** The Project could result in a cumulatively considerable net increase of criteria pollutants for which the Project region is a nonattainment area for an applicable federal or state ambient air quality standard. This impact would be significant and unavoidable with implementation of mitigation.
- **Impact AQ-3:** The Project could result in the exposure of sensitive receptors to substantial pollutant concentrations. The impact would be significant and unavoidable with implementation of mitigation.
- **Impact GHG-1:** The Project would generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment. This impact would be significant and unavoidable with implementation of mitigation.
- **Impact GHG-2:** The Project would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. This impact would be significant and unavoidable with implementation of mitigation.
- **Impact NOI-1:** The Project would generate temporary or permanent increases in ambient noise levels in the vicinity of the Project in excess of standards established in a local general plan or noise ordinance or applicable standards for the City. Implementation of Mitigation Measures **MM-NOI-1** and **MM-NOI-2** would reduce this impact, but not to less-than-significant levels. The impact would be significant and unavoidable.
- **Impact NOI-2:** The Project could generate excessive groundborne vibration or groundborne noise levels. Implementation of Mitigation Measure **MM-NOI-3** would reduce this impact, but not to less-than-significant levels. The impact would be significant and unavoidable.
- **Impact POP-1:** The Project would result in substantial unplanned population growth either directly or indirectly. This impact would be significant and unavoidable.

- **Impact TRA-2:** The Project would conflict or be inconsistent with State CEQA Guidelines Section 15064.3, subdivision (b), as the Project would affect the vehicle miles traveled in the City. This impact would be significant and unavoidable.

ES.6 Project Alternatives

CEQA requires that an EIR examine a reasonable range of feasible alternatives to a project or project location that could substantially reduce one or more of the project's significant environmental impacts while meeting most or all of its objectives. The EIR is required to analyze the potential environmental impacts of each alternative, although not at the same level of detail as the project. However, there must be sufficient detail to enable comparison of the merits of the respective alternatives.

CEQA generally requires analysis of a No Project Alternative (i.e., the environmental impacts of continuing existing conditions). As such, the No Project Alternative would include what would be reasonably expected to occur in the foreseeable future if the Project were not approved, based on current plans and consistent with available infrastructure and community services. Additional alternatives also considered include Alternative 2, Dispersed Growth Alternative; Alternative 3, Focused Growth Alternative; and Alternative 4, Limited Opportunity Sites Alternative. Each of these alternatives vary by density and intensity of proposed land uses, distribution of Opportunity Sites, housing types, or a combination of these factors. These alternatives are considered in the EIR and described in detail in Chapter 4, *Alternatives*.

ES.7 Potential Areas of Controversy/Issues to Be Resolved

According to the State CEQA Guidelines, the EIR is required to contain a brief summary that identifies areas of controversy known to the lead agency, including issues raised by agencies and the public (Section 15123(b)(2)); and issues to be resolved, including the choice among alternatives and whether or how to mitigate the significant effects (Section 15123(b)(3)).

Based on the City's review of available information and comments received from the general public and other public agencies in response to the NOP and virtual scoping meeting held on April 22, 2021, the following issues may either be controversial or require resolution:

- CEQA process, environmental review, and environmental justice:
 - Environmental hazards, including contamination sites associated with housing
 - Vehicle miles traveled as a major impact on carbon emissions and air pollution and ways to minimize vehicle miles traveled
 - Impacts on public services and facilities like schools, infrastructure, roads, hospital bed, parking, walkways, public safety, utilities, water, power, sewer, water storage, etc.
 - Race-based environmental impacts with housing near high-pollution areas like freeways and bus stations, and other impacts on environmental justice areas

- Engagement of environmental justice affected communities especially involving the Latin community
- Other cumulative development in adjacent cities
- **Housing-related comments:**
 - Housing Element, RHNA obligation numbers and tracking and reporting of the RHNA goals
 - Number of housing units and their locations within the City
 - Low-income housing
 - Consideration of major City centers like Downtown, Magnolia Center, University, and Arlington and new potential centers to be developed with medium- and high-density and mixed-use development
 - Alternatives considered for accessory DUs
 - Green spaces being incorporated into housing development
 - Transparency regarding demographics in policy development
 - Housing units developed at market versus affordable housing rates

ES.8 How to Comment on this Draft EIR

The Draft EIR is now being made available for review and comment by public agencies and the public. The review period begins Monday, July 19, 2021, and ends Thursday, September 2, 2021, at 5:00 p.m. Pacific Time. Please submit your comments to the City of Riverside Community & Economic Development Department, Planning Division by the close of the public review period.

Copies of this Draft EIR are available for review at the following locations:

- City of Riverside Community & Economic Development Department, Planning Division, 3900 Main Street, 3rd Floor Riverside, CA 92522
- Riverside Public Library
 - Main Branch: 3900 Mission Inn Avenue
 - Arlington Branch: 9556 Magnolia Avenue
 - Arlanza Branch: 8267 Philbin Avenue
 - SSgt. Salvador J. Lara Casa Blanca Branch: 2958 Madison Street
 - Spc. Jesus S. Duran Eastside Branch: 4033 Chicago Avenue, Suite C
 - La Sierra Branch: 4600 La Sierra Avenue
 - Orange Terrace Branch: 20010 Orange Terrace Parkway

The Draft EIR is also available online at the City of Riverside Community & Economic Development Department's website.

- <https://riversideca.gov/cedd/planning/riverside-housing-public-safety-element-and-environmental-justice-approach>

The Project will be discussed, and public comments can be provided during a Planning Commission meeting scheduled for August 5, 2021, beginning at 9 a.m. in the Art Pick Council Chamber. Agencies and the public are invited to attend and provide comments during the meeting.

All written comments should be directed to:

Matthew Taylor, Senior Planner
City of Riverside Community & Economic Development Department, Planning Division
3900 Main Street, 3rd Floor
Riverside, CA 92522
Email: mtaylor@riversideca.gov

After consideration of public comments, the City will prepare and publish responses to comments it received on the environmental effects of the Project. The Final EIR will then be considered by the City of Riverside Planning Commission prior to deciding to approve, approve with modification, or reject the Project. Following Planning Commission recommendation, the Riverside City Council will consider certifying the Final EIR and adopting required findings in conjunction with Project approval.

Introduction and Scope of Environmental Impact Report

The City of Riverside (City) has prepared this draft environmental impact report (EIR) to evaluate the potential environmental impacts related to the implementation of Phase 1 update of *Riverside General Plan 2025*, consisting of the Housing and Public Safety Element Updates and Environmental Justice Policies (Project). The Project includes (1) adopting and implementing the Housing Element Update for the 2021–2029 planning period; (2) adopting and implementing a Public Safety Element Update; (3) developing associated Environmental Justice Policies; and (4) updating the Zoning Code and multiple Specific Plans to address the requirements of the 6th Regional Housing Needs Assessment cycle. The City is the lead agency under the California Environmental Quality Act (CEQA) for the preparation of the EIR and will be taking primary responsibility for conducting the environmental review and certifying the EIR.

The EIR includes an analysis of the potentially significant environmental impacts that could occur as a result of implementing the Project and is meant to inform agencies and the public of any significant environmental effects associated with the Project, describe and evaluate reasonable alternatives to the Project, and propose mitigation measures that would avoid or reduce any significant effects associated with the Project.

1.1 Public Engagement During the Project and Environmental Review Process

1.1.1 Informational Meetings and Policy Workshops

Prior to the start of the CEQA process, several public meetings were held to engage agencies and the public during the development phase of the Project to inform the community of the Project details and to solicit input and feedback. Three total public informational meetings were held virtually. The first meeting occurred on January 7, 2021, with the intent to introduce the Project to the community and describe the potential locations of Opportunity Sites to be evaluated as potential locations for future housing and mixed-use development in the City associated with the Housing Element Update. The second workshop was held on January 27, 2021, to introduce and solicit input on three potential Regional Housing Needs Assessment (RHNA) scenarios for the development of the preferred alternative to eventually be selected as the Project. The final informational meeting was held on February 25, 2021, detailing the preferred alternative to be evaluated as the Project in this EIR. During each of these meetings, the CEQA process was introduced to the community and comments and questions were provided by the audience and were addressed during the meetings.

Two policy workshops were also held to solicit input from the community on the draft policies and actions for the individual components of the Project. A workshop held on June 10, 2021, was focused on soliciting feedback on the draft policies and actions for the Public Safety Element and Environmental Justice Policies. A second workshop was held on June 17, 2021, to solicit input on the draft policies and actions for the Housing Element Update and Environmental Justice Policies.

1.1.2 CEQA-Focused Meetings and Summary of Comments

The City prepared a Notice of Preparation (NOP) of a Draft EIR and distributed it for the required 30-day agency and public review period on April 5, 2021. The City received seven written responses to the NOP during the public review period. The NOP and an Initial Study prepared for the Project and the NOP responses received are included in Appendix A. The intent of the NOP was to provide interested individuals, groups, public agencies, and others a forum to provide input to the City regarding the scope and focus of the EIR. A virtual scoping meeting was held on April 22, 2021, at which time the public was given an additional opportunity to comment on the issues to be analyzed in the EIR. Table 1-1 lists the issues relevant to the EIR that were brought up in the NOP written comments, as well as the EIR sections where the issues are addressed.

Table 1-1. NOP Comments and EIR Response

Commenter	Comment/Request	Where It Was Addressed
Agua Caliente Band of Cahuilla Indians	Copies of any cultural resource documentation (report and site records) generated in connection with this Project.	Section 3.3, <i>Cultural Resources</i> ; Section 3.13, <i>Tribal Cultural Resources</i>
Robin Whittington	Consideration of the average number of vehicles per unit and just where and what will accommodate them. Project would create a greater hazard for people walking, on bikes, and on horses. Increased traffic would be detrimental to emergency vehicle access. Strained utilities (electricity, gas, water, etc.) because of the increase in housing and population.	Section 3.10, <i>Public Services</i> ; Section 3.12, <i>Transportation</i> ; Section 3.15, <i>Effects Not Found to Be Significant</i>
Mary Humboldt	The Project would decrease agriculture and open space with more housing. Environmental and economic injustice by gentrifying the City. Air quality will decrease from an increase of population that has to commute to work. Traffic is already congested under existing conditions. Open space and parks are already congested. Libraries are underfunded. Project would increase the number of renters that would decrease the quality of life and neighborhood stability. The Project would densify the City, which would violate voter initiatives.	Section 3.1, <i>Air Quality</i> ; Section 3.10, <i>Public Services</i> ; Section 3.11, <i>Recreation</i> ; Section 3.12, <i>Transportation</i> ; Section 3.15, <i>Effects Not Found to Be Significant</i>
Elizabeth Pinney Muglia	Questions regarding any existing City environmental justice (EJ) policies, particularly regarding disadvantaged communities; comparison of existing policies compared to advocacy group recommendations or to other jurisdictions; mechanisms in place to enforce EJ policies; plans to have a public meeting to review EJ efforts; address limitations of Ward 4; and review Proposition R and Measure C voter initiatives as a practice of exclusionary zoning. Recommendations include having a map of opportunity sites with contamination sites; using CalEnviroScreen to map EJ communities and consider zoning overlays; using SB 330 to create opportunities for multifamily zoning; and having more City engagement/initiatives to fund additional public transit and expansion of transit corridors for housing.	Chapter 1, <i>Introduction and Scope of Environmental Impact Report</i> ; Chapter 2, <i>Project Description</i> ; Section 3.6, <i>Hazards and Hazardous Materials</i> ; Section 3.7, <i>Land Use and Planning</i> ; Section 3.9, <i>Population and Housing</i>

Commenter	Comment/Request	Where It Was Addressed
Native American Heritage Commission	Recommends consultation with local tribes in accordance with Senate Bill 18 and Assembly Bill 52.	Section 3.3, <i>Cultural Resources</i> ; Section 3.13, <i>Tribal Cultural Resources</i>
Southern California Association of Governments	Recommends a consistency table with Connect SoCal goals. Recommends a review of the Final Program EIR for Connect SoCal for mitigation measure guidance, as appropriate. Recommends preparing the Housing Element before the California Department of Housing and Community Development October 15, 2021, deadline.	Section 3.7, <i>Land Use and Planning</i> ; Section 3.9, <i>Population and Housing</i>
South Coast Air Quality Management District (SCAQMD)	Recommends that the lead agency use SCAQMD's CEQA Air Quality Handbook and website as guidance. Recommends that the lead agency use the CalEEMod 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. Recommends that the lead agency quantify criteria pollutant emissions and compare the emissions to SCAQMD's CEQA regional pollutant emissions significance thresholds and localized significance thresholds. Recommends the lead agency 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. 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 assessment. 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.	Section 3.1, <i>Air Quality</i> ; Section 3.5, <i>Greenhouse Gas Emissions</i>

Public comments provided during the scoping meeting on April 22, 2021, included the following comments, separated into two categories of comments and questions:

- CEQA process, environmental review, and environmental justice:
 - Purpose of a scoping meeting
 - Mapping contamination sites
 - Environmental hazards associated with housing
 - Vehicle miles traveled as a major impact on carbon emissions and air pollution and ways to minimize vehicle miles traveled
 - Inclusion of the Northside Specific Plan in the EIR
 - Impacts on schools
 - Impacts on environmental justice areas

- Impacts related to parking, roadways, and lack of walkways
- Impacts on property values
- Evaluation of impacts on City services like public safety, utilities, sewer, etc.
- Race-based environmental impacts with housing near high-pollution areas like freeways and bus stations
- Funding of infrastructure, roads, water, power, hospital beds, and schools
- Consideration of major public works projects for water storage
- Other cumulative development in adjacent cities (i.e., Colton)
- Engagement of environmental justice communities especially involving the Latin community
- Potential changes to the existing *Riverside General Plan 2025* or local Specific Plans
- Housing-related comments:
 - Housing Element and RHNA obligation numbers
 - Results of the last RHNA cycle
 - Tracking and reporting of the proposed RHNA goals
 - Low-income housing
 - Number of elected officials in attendance at the meeting
 - Number of housing anticipated in Ward 1
 - Housing sites required only on Opportunity Sites
 - Consideration of major City centers like Downtown, Magnolia Center, University, and Arlington and new potential centers to be developed with medium- and high-density and mixed-use development
 - Alternatives considered for accessory dwelling units
 - Green spaces being incorporated into housing development
 - Transparency regarding demographics in policy development
 - Housing units to be developed at market versus affordable housing rates

1.2 The California Environmental Quality Act

The preparation of an EIR is guided by the CEQA statutes and guidelines. CEQA was enacted in 1970 by the California Legislature to disclose to decision-makers and the public the significant environmental effects of proposed activities and the ways to avoid or reduce those effects by requiring implementation of feasible alternatives or mitigation measures. CEQA applies to all California government agencies at all levels, including local government agencies that must issue permits or provide discretionary approvals for projects proposed by private applicants. As such, the City is required to undertake the CEQA process before making a decision about the Project.

This EIR has been prepared pursuant to CEQA and the State CEQA Guidelines (14 California Code of Regulations 15000 et seq.). The purpose of this EIR is to analyze the environmental impacts of the

Project, indicate ways to reduce or avoid potential environmental damage of the Project, and identify alternatives. CEQA requires that each public agency mitigate or avoid the significant environmental effects of projects it approves or implements whenever feasible.

The Draft EIR must disclose environmental effects, including those that cannot be avoided; growth-inducing effects; effects found not to be significant; and significant cumulative impacts of all past, present, and reasonably anticipated future projects. The EIR neither approves nor denies a project. A public agency may approve a project, even if it would result in significant and unavoidable environmental impacts.

1.2.1 Level of Detail in this EIR

The level of detail in the Draft EIR matches the level of detail available in the plans available for the Project. The EIR contains analysis of the Project's potential impacts on the environment. The mitigation measures identified in the EIR are sufficiently detailed to ensure that they will be effectively carried out to reduce the Project's impacts.

It should be noted that this is a programmatic EIR, and, as such, does not identify specific development projects that could occur as a result of approval of the Project. The Project would not provide individual project approvals or entitlements for any specific private or public development or infrastructure project. While this EIR does not preclude future environmental review required under CEQA for subsequent development projects (i.e., Opportunity Sites), the analysis in this EIR and provision of program-level mitigation measures would streamline further CEQA review for specific projects to support facilitation of future development of individual Opportunity Sites. Projects that are within the scope of the analysis of this EIR, whereby all Project-specific impacts could be adequately minimized or avoided through application of program-level mitigation, may be able to proceed without subsequent CEQA documentation. A predevelopment checklist (environmental development checklist) will be developed as part of the Project to support the development review process for applicants proposing development on Opportunity Sites that is consistent with the Project.

1.2.2 Document Format

The content and organization of this Draft EIR are designed to meet the current requirements of CEQA and the State CEQA Guidelines. The Draft EIR is organized as described below.

Executive Summary presents a summary of the Project and alternatives, potential impacts and mitigation measures, and conclusions regarding growth inducement and cumulative impacts.

Chapter 1, Introduction and Scope of Environmental Impact Report, provides an overview of the EIR process, describes the purpose and scope of this Draft EIR, and outlines required Draft EIR contents and organization.

Chapter 2, Project Description, describes the Project location, Project details, and objectives for the Project.

Chapter 3, Impact Analysis, describes the existing conditions for each environmental issue before Project implementation, methods and assumptions used in the impact analysis, criteria for determining significance, impacts that would result from the Project, and applicable mitigation measures that would eliminate or reduce significant impacts. Chapter 3 is divided into Sections 3.1–

3.16, with each section focusing on a specific environmental resource topic. Section 3.16, *Cumulative Impacts*, describes impacts that could occur from the combined effect of the Project and other past, present, and reasonably foreseeable future development projects.

Chapter 4, Alternatives, describes a range of feasible alternatives to the Project, including no project, that would reduce one or more of the Project's potential environmental impacts.

Chapter 5, Other CEQA Considerations, describes direct and indirect growth-inducing impacts that could be caused by the Project. In addition, this chapter includes a discussion of significant adverse impacts that cannot be reduced to less-than-significant levels due to unavailable or infeasible mitigation measures, as well as irreversible commitments of resources caused by the Project.

Chapter 6, List of Preparers, lists the individuals involved in preparing this Draft EIR.

Chapter 7, References, lists the references used in the preparation of this Draft EIR.

Appendices provide information and technical studies that support the environmental analysis contained within this document.

1.3 Intended Use of this EIR

This Draft EIR provides the primary source of environmental information for the City and other public agencies to consider when exercising any permitting authority or approval power directly related to implementation of the Project. As stated in the State CEQA Guidelines, Section 15121(a):

An EIR is an informational document which will inform public agency decisionmakers and the public generally of the significant environmental effect of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project. The public agency shall consider the information in the EIR along with other information which may be presented to the agency.

1.4 Reviewing an EIR

1.4.1 Making Effective Comments

Readers are invited to review and comment on the adequacy and completeness of this Draft EIR in describing the potential impacts of the Project, their level of severity, the mitigation measures being proposed to reduce or avoid those impacts, and the Project alternatives being considered. The most effective comments are those that focus on the adequacy and completeness of the environmental analysis and that are supported by factual evidence. Comments that focus on whether the Project should be approved or denied are not comments on the adequacy of the Draft EIR.

1.4.2 Submitting Comments

Written comments are to be submitted by mail or e-mail to the following address:

Community & Economic Development Department, Planning Division
3900 Main Street, 3rd Floor, Riverside, CA 92522

Attention: Matthew Taylor, Senior Planner
E-mail: mtaylor@riversideca.gov

1.5 Final EIR

After the end of the review period, the City will review the comments received, prepare written responses to those comments, make any related revisions to the Draft EIR, and publish the Final EIR. The Final EIR will be considered by the City decision-makers when taking action on the Project.

If the Project is approved, CEQA requires the City to adopt findings describing how each of the significant impacts identified in the EIR is being mitigated. The findings will describe the reasons why significant unavoidable impacts, if any, cannot be mitigated. The findings will also describe the reasons why Project alternatives that were analyzed in the EIR have not been adopted. If the Project has significant and unavoidable impacts, the City will also adopt a statement of overriding considerations describing the benefits of the Project that outweigh its environmental impacts. Finally, the City will adopt a mitigation monitoring and reporting plan that describes how it will ensure the mitigation measures being required of the Project will be carried out.

If the Project is denied, no additional CEQA action is required of the City.

2.1 Introduction

The City of Riverside (City) is proposing the Project. The Project includes (1) adopting and implementing an update of the Housing Element for the 2021–2029 planning period; (2) adopting and implementing a Public Safety Element Update; (3) developing associated Environmental Justice Policies; and (4) updating the Zoning Code and Specific Plans to address the requirements of the 6th Regional Housing Needs Assessment (RHNA) cycle. The Project is intended to accommodate the City’s RHNA obligation of 18,458 dwelling units (DUs), plus approximately 30 percent (approximately 5,500 DUs) to comply with Senate Bill (SB) 166 (No Net Loss) requirements, for an overall goal of 24,000 DUs. The Project involves 239 acres that do not require zoning changes and 581 acres that would require *Riverside General Plan 2025* (GP 2025) amendments, Zoning Code changes, and Specific Plan amendments, for a total of 870 parcels comprising 820 acres. The implementation of this Project could result in an increase of up to 31,564 new DUs¹ and 3,181,930 square feet of nonresidential development, or up to 31,175 DUs and 1,433,460 square feet over existing conditions.

This chapter of the EIR provides a description of the Project. It also describes the requirements of CEQA and other regulatory considerations for the development of the Project. The analysis of the alternatives to the Project are discussed in Chapter 4, *Alternatives*.

2.1 Project Location and Setting

The City is in western Riverside County. It is bounded on the north by the Santa Ana River and the cities of Jurupa Valley, Colton, and Rialto (San Bernardino County); on the south by the unincorporated communities of Woodcrest and Mockingbird Canyon; on the north and east by the unincorporated community of Highgrove and the city of Moreno Valley; and on the west by the unincorporated community of Home Gardens and the cities of Norco and Corona. State Route 91, a major regional freeway, traverses the City in an east-west orientation, while State Route 60 and Interstate 215 traverse the City’s eastern portion in a north-south orientation. The Riverside Municipal Airport is within the western portion of the City limits. March Air Reserve Base and Flabob Airport are proximate to Riverside, but outside the City limits. Figure 2-1 illustrates the regional context for the City, and Figure 2-2 illustrates the local context.

The City’s existing corporate boundaries include approximately 51,310 gross acres. The Northern Sphere of Influence (SOI) encompasses approximately 4,088 gross acres—from the existing City limits to the San Bernardino County line and east to the Box Springs Mountain Regional Park—and includes the Highgrove community. The Southern SOI encompasses approximately 36,826 gross acres and extends from the City’s southern border to the Cajalco Ridge crest, just south of Cajalco Road. The area includes the communities of El Sobrante, Glen Valley, and Woodcrest, and limited

¹ For the purposes of CEQA, assumes that sites identified for housing development are developed to 75 percent of maximum zoned capacity.

portions of Gavilan Hills and Lake Mathews. In 2006, the Riverside Local Agency Formation Commission conducted a review of the City's SOI areas and affirmed the boundaries identified above. Overall, the City's Planning Area encompasses approximately 92,224 gross acres.

The Housing and Public Safety Elements are citywide planning documents associated with GP 2025. A component of the Housing Element Update is a rezoning program that involves multiple sites identified for future housing and mixed-use development and Specific Plan amendments at various locations in all parts of the City. Environmental Justice Policies are an additional component of the Project. The geographic setting for the Project is the entire City. Figure 2-3 illustrates the GP 2025 land use designations.

2.1.1 Background

The City has a population of approximately 324,302 persons as of January 2021 (Department of Finance 2021). In the City's recent history, population growth has been constant, adding approximately 40,000 new residents each decade since the 1960s. Past growth has been fueled by the City's attractive housing market due to its historically affordable offerings. Despite periods of economic recession, the City has continued to experience consistent growth.

The City's population is anticipated to continue to grow. According to the *Final Program Environmental Impact Report for the City of Riverside General Plan and Supporting Documents*, the City has a projected population of 383,077 persons at general plan build-out (2025), including 346,867 persons within City limits and 36,210 persons within the City's SOI (City of Riverside 2007). According to the Southern California Association of Governments, the City's population is projected to increase to 395,800 by 2045 (SCAG 2020).

According to California Department of Finance estimates, as of January 2020, the City's housing stock was estimated at 101,414 DUs, with a projected increase to 115,100 DUs by 2045 (SCAG 2020). Single-family detached units compose the majority (68 percent) of housing in the City. Within this general category, single-family DUs can range from smaller detached units or attached homes with two to four units to larger estate homes. Multi-family units, primarily apartments, compose approximately 30 percent of the City's housing stock, while mobile homes compose approximately 2 percent. The City also has a substantial number of units targeted for seniors (both independent and group), students, and people with disabilities.

State law requires each city and county to adopt a general plan containing at least eight elements, including a housing element, although each jurisdiction can establish its general plan elements in a way that best fits its individual needs. The housing element, required to be updated regularly, is subject to detailed statutory requirements and mandatory review by the California Department of Housing and Community Development. Housing and Public Safety are two of the 12 elements that constitute GP 2025. GP 2025 serves as the City's blueprint for future growth and is a key tool for influencing and improving the quality of life for residents and businesses. GP 2025 helps the City plan for important community issues such as new growth, housing needs, and environmental protection, and for sustainability plans for future social, physical, and economic development. It also addresses issues that affect the entire City, such as how land is used, where buildings are constructed, and how the transportation network works. The City's update to the Housing and Public Safety Elements—in conjunction with Zoning Code and Specific Plan amendments and the addition of Environmental Justice Policies—will be evaluated as the Project. An update to the Public

Figure 2-1
Regional Vicinity Map

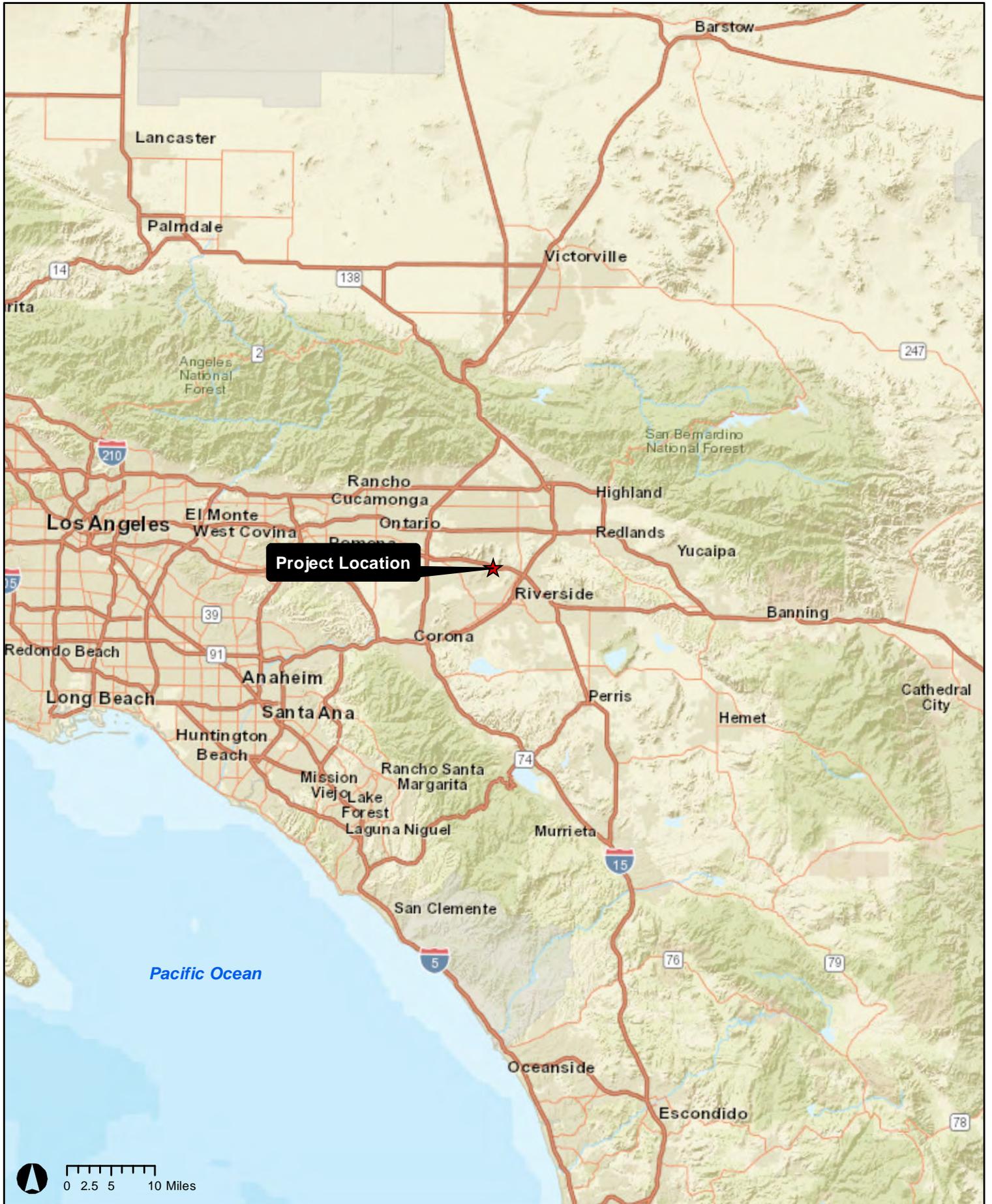


Figure 2-2
Local Vicinity Map

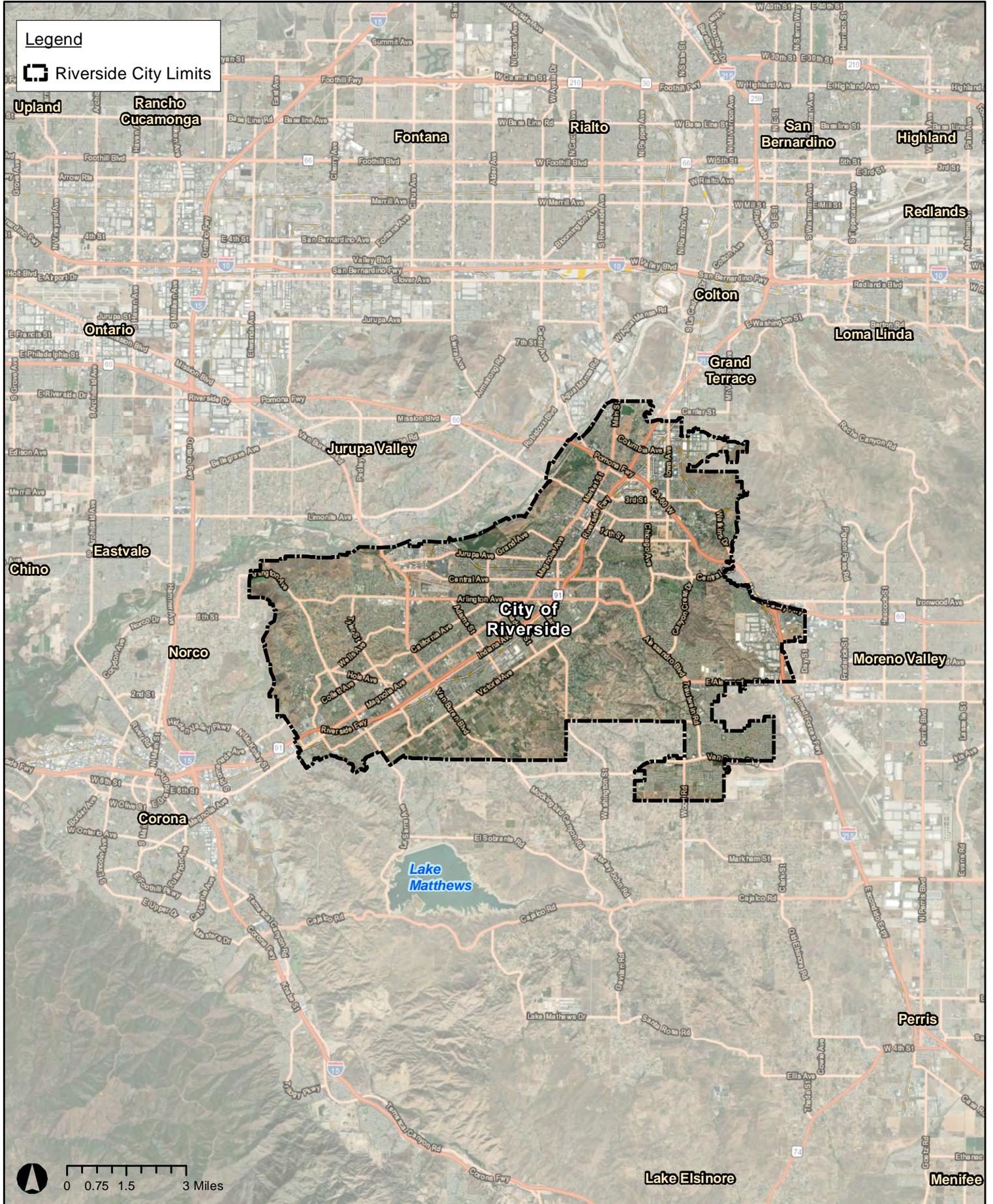
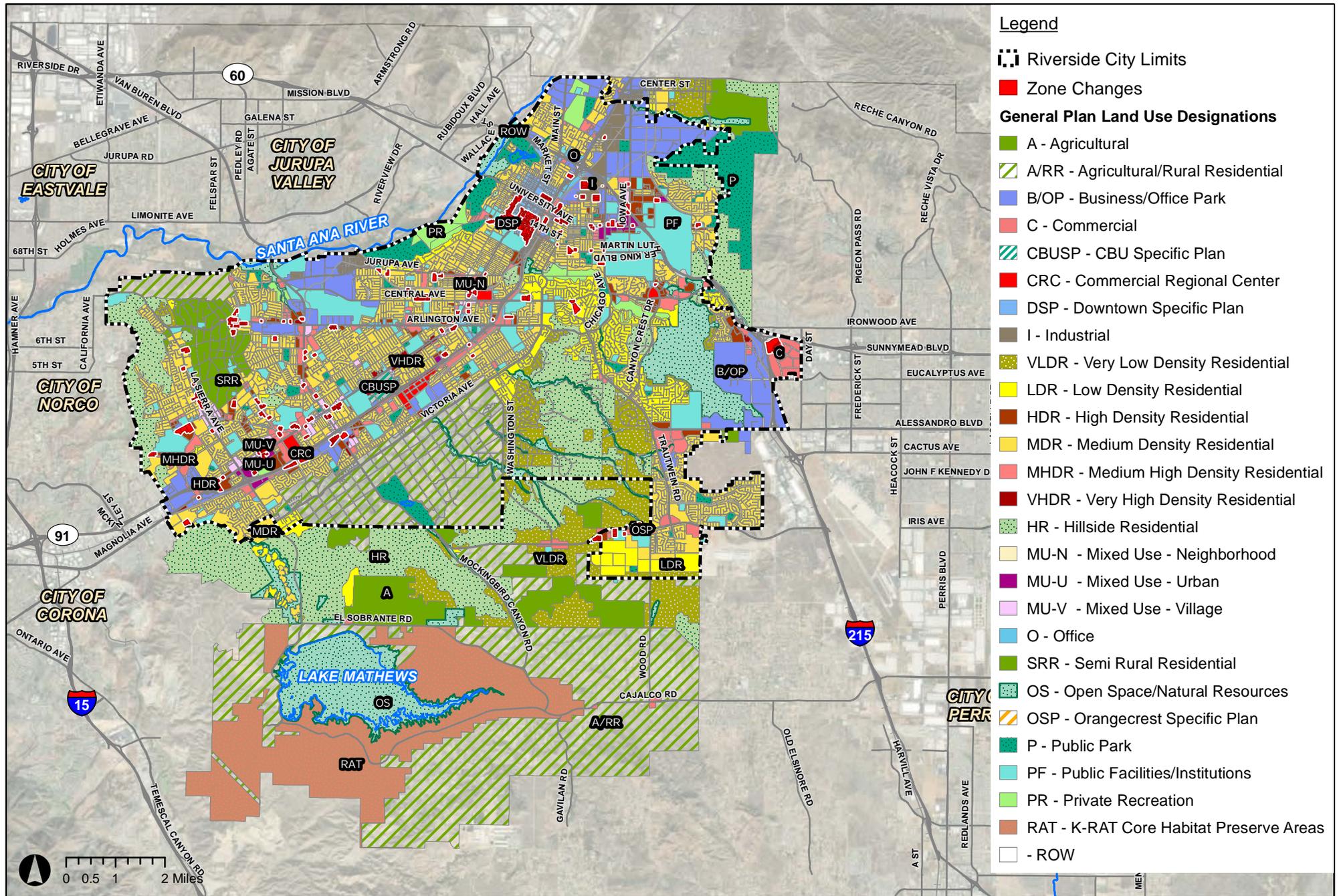


Figure 2-3
Existing General Plan Land Use Designations



Safety Element is required at the time the Housing Element is updated, per SB 1035.² The Project is the first phase of an overall update to GP 2025. Once this phase has been completed, the City will pursue comprehensively updating the remaining 10 elements of GP 2025 as a separate project during a later phase.

2.1.2 Regional Housing Needs Assessment (RHNA)

The statewide RHNA is an assessment process performed every 8 years through which the State of California provides the number of housing units that must be planned for in the Southern California region. The RHNA represents the projected future housing need for all income levels in a region and is used in land use planning to prioritize local resource obligation and to assist with addressing existing and future housing needs. The City last updated the Housing Element in 2018 as a mid-5th cycle revision.

The Housing Element cycle covering the 2013–2021 period included an RHNA obligation of 8,283 units, of which only a portion were built during the last 8 years. The City’s previous Housing Element was adopted in 2017 and runs through 2021. This update cycle comes when California faces a major statewide housing shortage that is affecting all Californians by raising the price of housing and the cost of construction, and by increasing homelessness. In the 2021–2029 Housing Element cycle (6th cycle), the City’s RHNA obligation is a minimum of 18,458 new housing units. Given that 100 percent of potential housing sites will likely not be developed to full potential, the City has provided a buffer of approximately 5,500 DUs (approximately 30 percent over and above the RHNA obligation). Altogether, the City will identify space for up to 24,000 new homes for the 2021–2029 RHNA cycle.

2.1.3 Environmental Justice Requirements

The Project includes a series of proposed GP 2025 policies and implementing actions that promote environmental justice within the City. As defined by the U.S. Environmental Protection Agency (2021), *environmental justice* is “the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of laws, regulations, and policies.” The need to promote environmental justice within and beyond California’s communities has arisen out of a history of disproportionate environmental harm borne by low-income and minority populations due to compounded exposure to environmental hazards, often leading to adverse health outcomes and compromised quality of life.

SB 1000 amended California Government Code Section 65302 to require that both cities and counties that have environmental justice communities, as defined, incorporate environmental

² State Bill No. 1035, Jackson. General plans. The Planning and Zoning Law requires the legislative body of a city or county to adopt a comprehensive, long-term general plan that includes various elements, including, among others, a housing element and a safety element for the protection of the community from unreasonable risks associated with the effects of various geologic and seismic hazards, flooding, and wildland and urban fires. Existing law requires the housing element to be revised according to a specific schedule. Existing law requires, after the initial revision of the safety element to identify flood hazards and address the risk of fire in certain lands upon each revision of the housing element, the planning agency to review and, if necessary, revise the safety element to identify new information relating to flood and fire hazards that was not previously available during the previous revision of the safety element. Existing law also requires the safety element to be reviewed and updated as necessary to address climate adaptation and resiliency strategies applicable to the city or county.

justice policies into their general plans, either in a separate environmental justice element or by integrating related goals, policies, and objectives throughout the other elements upon the adoption or next revision of two or more elements concurrently. The purpose of the legislation is to address the “unique or compounded health risks” in environmental justice communities by decreasing pollution exposure, increasing community assets, and improving overall health. To address disproportionate effects and to comply with SB 1000, policies and actions are incorporated within each element of GP 2025, with the goal of affording affected communities an equal level of protection from environmental and health hazards and enhanced opportunities to engage in decision-making that affects environmental quality and health outcomes.

Environmental justice communities are those communities that fit either of the definitions below:

- Areas identified by the California Environmental Protection Agency as “(1) areas disproportionately affected by environmental pollution and other hazards that can lead to negative public health effects, exposure, or environmental degradation”; or “(2) areas with concentrations of people that are of low income, high unemployment, low levels of homeownership, high rent burden, sensitive populations, or low levels of educational attainment” (California Code, Health and Safety Code Section 39711)
- Low-income areas that are “disproportionately affected by environmental pollution and other hazards that can lead to negative health effects, exposure, or environmental degradation” (Gov. Code, § 65302, subdivision (h)(4)(A))

Environmental justice communities within the City were identified using the California Communities Environmental Health Screening Tool (CalEnviroScreen), a data tool developed by the California Environmental Protection Agency’s Office of Environmental Health Hazard Assessment pursuant to Health and Safety Code Section 39711 and other statutory requirements. CalEnviroScreen provides statewide data that can be used to identify communities disproportionately affected by, or vulnerable to, environmental pollution and contaminants. The mapping tool contains 12 indicators related to pollution burden and eight indicators that track population characteristics and other vulnerabilities.

2.1.4 Opportunity Sites

The City has made a good-faith attempt to equitably distribute the Opportunity Sites throughout the City in each of the seven wards so as not to place an undue burden on any one ward. The process of identifying the Opportunity Sites involved eliminating sites with significant constraints to development. The total number of housing units that could result from implementation of the Zoning Code and Specific Plan amendments includes the 18,458 housing units that would be required to meet the RHNA and an additional approximately 5,500 housing units to account for less than 100 percent development of at least some of the Opportunity Sites. As the Project includes Zoning Code and Specific Plan amendments that affect a larger area than the Opportunity Sites, overall, the identified Opportunity Sites, with Zoning Code and Specific Plan amendments, could accommodate up to 31,564 housing units. Opportunity Sites are illustrated on Figure 2-4.

The Innovation District (shown on Figure 2-5) connects cutting-edge businesses with infrastructure and close-at-hand resources, builds off the character of historic and culturally rich neighborhoods, connects blue-collar workers to high-paying jobs, and contributes to the growth of affordable, eco-friendly public transportation. Residents will benefit from the diversification of housing options in their area, and the aim is to maintain affordable housing while creating opportunity for all residents

Figure 2-4
Opportunity Sites

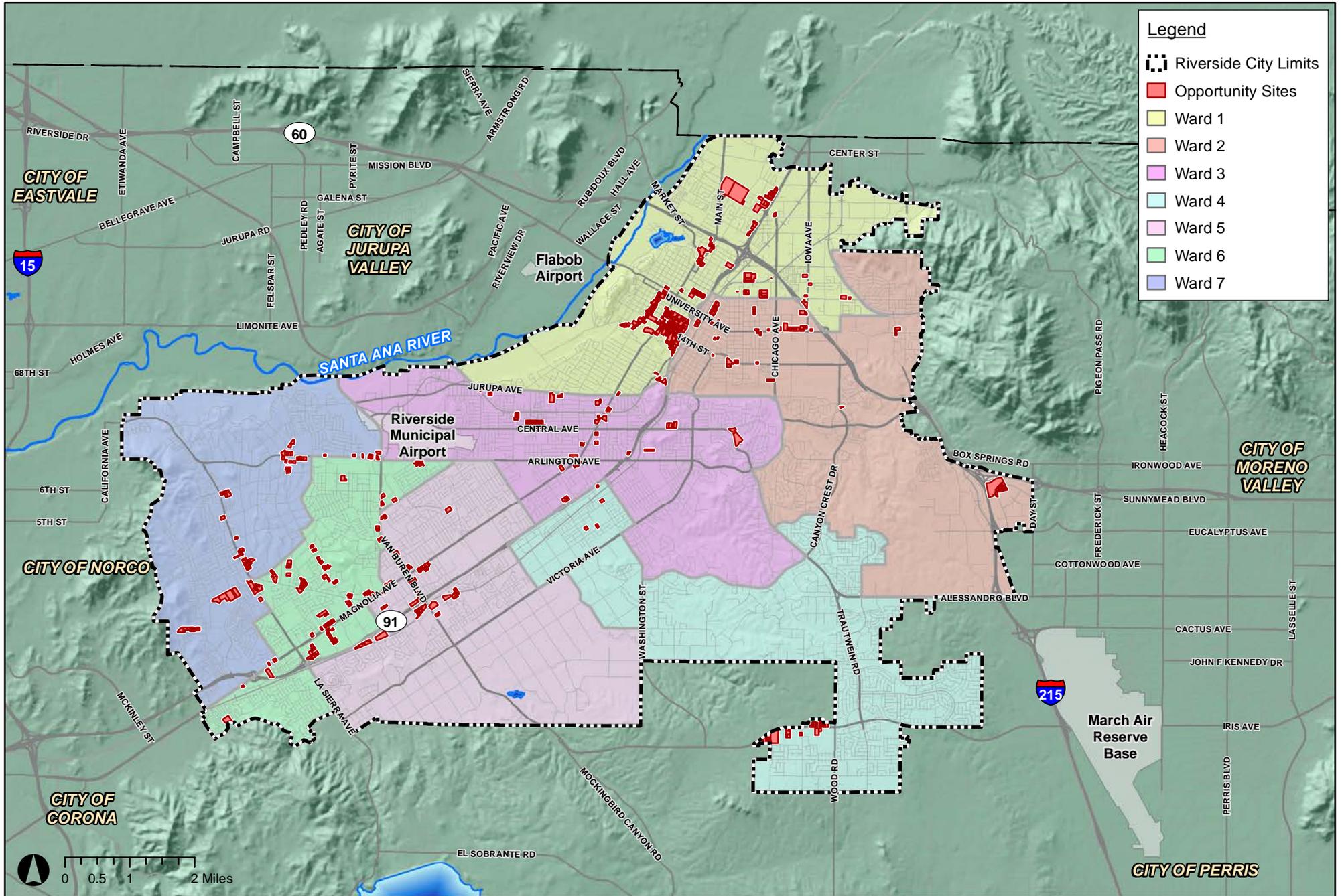
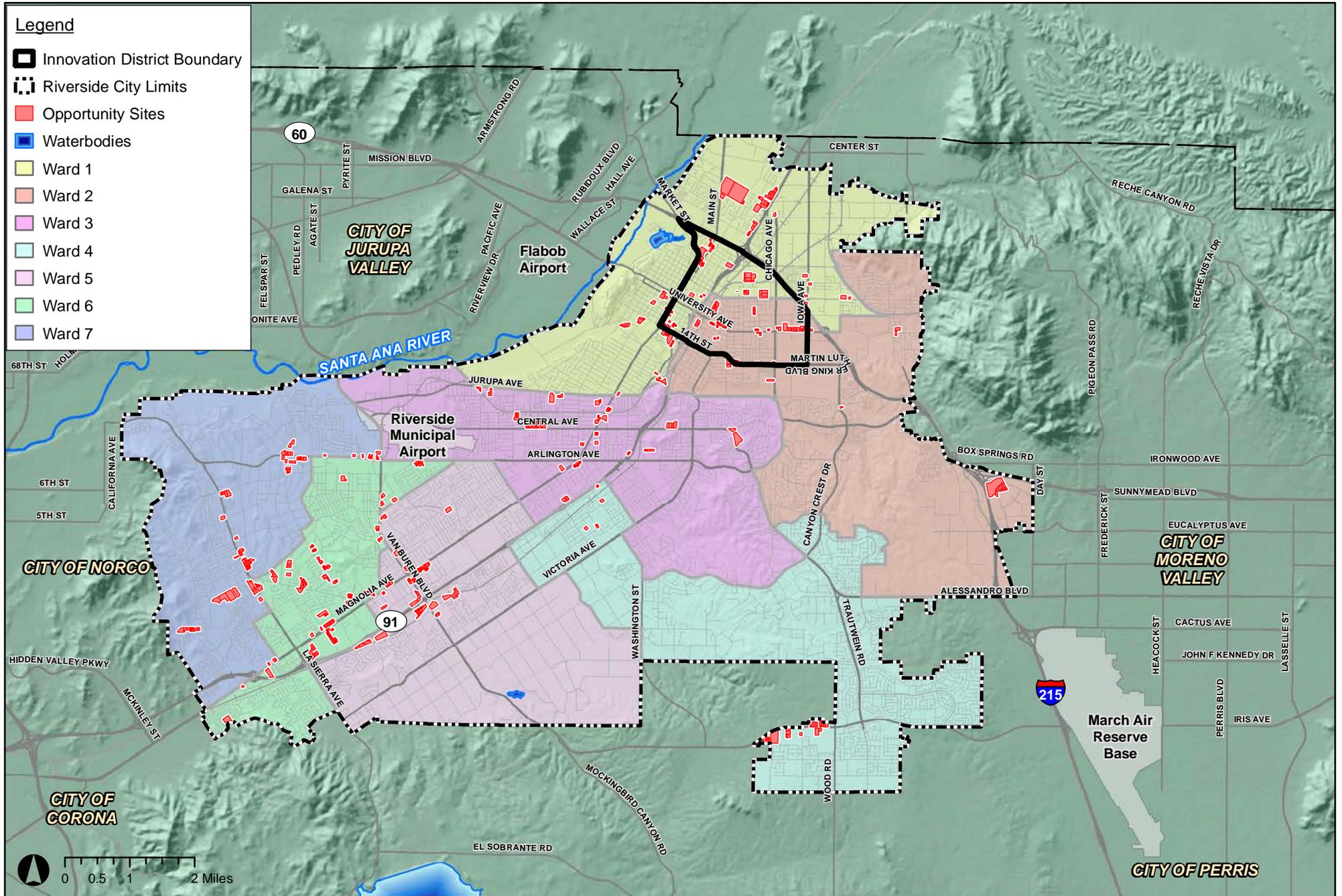


Figure 2-5
 Opportunity Sites within the Innovation District



to participate meaningfully in the economy. Specific development sites within the Innovation District are not identified, in order to give the City maximum flexibility in development in this area. Therefore, the development planned for the Innovation District is more generally described as providing up to 6,980 residential units and 7,758,000 square feet of nonresidential uses.

The Opportunity Sites inventory analysis was initially conducted using a data-driven process to identify as many sites as possible. A weighted suitability model was used to evaluate multiple criteria influencing the likelihood of development on a parcel-by-parcel basis. Each property was assigned a total weighted score, where the higher the score the greater the likelihood of development. The following factors were used in this process:

- **Existing Land Use** was used to identify properties with industrial, commercial, office, and mixed-use uses active on the site as defined by the County of Riverside. These uses either currently allow for housing production or could support housing in the future with zoning amendments. Single-family residential existing land use properties were generally excluded from further consideration, except for large sites located on arterial corridors with access to services and amenities..
- **General Plan Land Use** looks at what is allowed within the general designation, which may allow for future housing on a site that currently does not support housing. Targeted land uses include multi-family residential, industrial, commercial, office, and mixed use.
- **Year Constructed** of developments on the property as defined by the County of Riverside Assessor was used to identify older properties more likely to redevelop as opposed to newer properties less likely to redevelop.
- **Improvement Ratio**, which looks at the ratio between the value of improvements (buildings or other construction) versus the value of the underlying land (improvement value/land value), is considered a market factor influencing the likelihood of development. When the underlying land is worth more than the improvements on the land, the property is more likely to redevelop.
- **Lot Acreage** was evaluated given the importance of lot size according to the California Department of Housing and Community Development site inventory criteria for the 6th cycle RHNA process. Lots with an area less than 0.5 acre are considered too small to produce enough housing to support affordability. Lots larger than 10 acres were considered too expensive for affordable housing developers to purchase. Therefore, the analysis looked for properties greater than 0.5 acre and smaller than 10 acres, with exceptions for sites in strategic locations with unique development potential.
- **Lot Vacancy** is a key driver for identifying potential opportunity sites because of the ease of developing housing on vacant lots. Geographic information system data on existing land use information were used and manually verified to ensure accuracy.
- **Underutilization Index** determines a site's build potential and compares it to what exists on the site currently. The index assesses the amount of actual lot coverage, actual building height, and actual floor area developed on a property and compares the existing to what could be allowed under the current zoning. The greater the difference between the existing conditions and what is allowed, the greater the property is underutilized and is, therefore, a candidate for redevelopment.

- **Airport Compatibility Zones** constraints remove properties from consideration if the properties are in the most restrictive airport land use areas: A, B1, B2, C, C1, and C2 as set forth in the Riverside County Airport Land Use Compatibility Plan.
- **Current Zoning** identifies the current zoning designation of the potential Opportunity Sites.
- **City Opportunity Sites** contain a list of target sites identified by the City for consideration based on City staff's expert local knowledge.
- **Pipeline Projects** contain a list of active development projects known and currently tracked by the City. These sites were eliminated from consideration.
- **5th Cycle RHNA Sites** were automatically included in the analysis as long as the sites were not already developed.
- A **Manual Override Flag** was used to include or exclude properties based on detailed manual evaluation of each site for characteristics or conditions not captured by the methods described above.

A predevelopment checklist (environmental development checklist) will be developed as part of the Project to support the development review process for applicants proposing Opportunity Sites that are consistent with the Project.

2.2 Project Objectives

Objectives of the Project are:

- Plan for a maximum allowable development under the Project (31,564 units) to meet the City's minimum RHNA obligation (18,458 units with a 30 percent No Net Loss buffer for approximately 24,000 units) across all wards.
- Affirmatively further fair housing and identify potential environmental justice and social equity issues to support positive economic, educational, and health outcomes for low-income families—particularly long-term outcomes for children.
- Ensure affordable housing is added across the City and not concentrated in areas with lower access to amenities or near sources of pollution.
- Add a variety of housing opportunities that will make Riverside a more accessible and resilient community.
- Locate new housing in areas readily accessible to services, parks and other amenities, transit, jobs, and activity centers.
- Identify vacant or under-developed sites, meaning sites with substantial unused land or development potential.
- Limit or prevent housing development in areas with development constraints, such as agricultural and conservation lands, airport influence areas, and, to the extent feasible, fire and flood hazard zones.
- Address the public safety and public health needs and concerns of its residents, businesses, institutions, and visitors, and set forth a proactive and coordinated program of protection for all foreseeable natural and human-caused hazards.

- Reduce the potential adverse impacts of housing near incompatible land uses, along major corridors, or near similar uses.

2.2.1 Project Description

The Project, as noted, consists of several components: Housing Element Update, Public Safety Element Update, GP 2025 amendments, Zoning Code amendments, and several Specific Plan amendments. Environmental Justice Policies will be included in both element updates. Details concerning each of these components are discussed below. Proposed policies and implementing actions to be incorporated in the element updates are included in Appendix B.

2.2.2 Housing Element Update

The Housing Element Update addresses changes that have occurred since adoption of the 5th cycle (2014–2021) Housing Element. These changes include updated demographic information, housing needs data, and analysis of the availability of sites for potential future housing development (Opportunity Sites). The locations of available Opportunity Sites in the Housing Element have been updated to identify sites that accommodate the City’s RHNA for the 2021–2029 planning period (6th cycle). The Project would also amend the GP 2025 land use and Specific Plan designations and rezone sites to accommodate the changes specified in the Housing Element Update.

The Housing Element identifies policies and actions that focus on:

- Matching housing supply with need
- Maximizing housing choice throughout the community
- Assisting in providing affordable housing
- Removing governmental and other constraints to housing production
- Promoting fair and equitable housing opportunities for all

The main components of the Housing Element Update are required by Government Code Section 65583 and include:

- A detailed analysis of the City’s demographic, economic, and housing characteristics
- A comprehensive analysis of the barriers to producing and preserving housing
- A review of the City’s progress in implementing its adopted housing policies and programs
- An identification of policies and actions, and a full list of programs that will help the City carry out the policies
- A list of Opportunity Sites that could accommodate new housing, demonstrating the City’s ability to meet its target number of new homes established in the RHNA

The updated Housing Element must show the exact locations where future housing can be built, called Opportunity Sites, and identify the potential number of homes that can be built at those locations. As part of the analysis, City has limited or eliminated sites:

- With sensitive habitat or species
- Where the topography is not conducive to building

- That are unsafe because they are in a flood zone, high-fire area, or airport land use area
- Where voter-approved zoning rules restrict development, such as in the agricultural greenbelt and on hillsides and arroyos
- Of known soil or groundwater contamination

Areas that could be designated for additional housing include:

- Vacant lots not designated as open space
- Underused sites, such as lots with buildings that are empty, deteriorated, or no longer needed
- Locations where more homes could easily fit within the same space than are there today
- Locations near public transit and essential services like libraries and neighborhood-serving shopping and amenities
- Areas where housing could be added near commercial buildings or in business parks, creating “live-work” neighborhoods
- Sites where infrastructure, such as water and sewer service, can support more housing

Because the Housing Element is updated every 8 years, the 5th cycle Housing Element provides a foundation for this 6th cycle update. This update gives the City the opportunity to evaluate the previous Housing Element to determine which parts have been effective and which should be improved.

The Housing Element is organized into two primary pieces: the Housing Plan and the Technical Background Report. The Housing Plan outlines the City’s commitment to providing and preserving housing opportunities in the community. The Background Technical Report supports the Housing Plan.

2.2.3 Public Safety Element Update

The Project also includes an update to the GP 2025 Public Safety Element to incorporate information on natural and human-caused hazards, along with new policies related to environmental justice, climate change, and pandemic preparedness and response, among others. The purpose of the Public Safety Element is to reduce the potential short- and long-term risk of death, injuries, property damage, and economic and social disruption resulting from fires, floods, droughts, earthquakes, landslides, climate change, and other hazards. Other locally relevant safety issues—such as emergency response, hazardous material spills, crime reduction, and response to global pandemics like COVID-19—are included. The Public Safety Element directly relates to topics mandated in the Land Use and Urban Design and Open Space and Conservation Elements as well as a key consideration for the Environmental Justice Policies of GP 2025. The Public Safety Element must identify hazards and ways to reduce those hazards to guide local decisions related to zoning and development regulations. Policies and implementable actions may include methods for minimizing risks, as well as ways to minimize economic disruption and speed up recovery following disaster. The City’s updated Public Safety Element identifies public safety issues and needs anticipated to be of ongoing concern to people in the City and ensure that the City takes action to reduce natural and man-made hazards and safety threats as well as respond quickly to any public safety incident.

The guiding principle and policies that are proposed for inclusion in the Public Safety Element Update are included in Appendix B.

The Public Safety Element is organized into two primary pieces: the Public Safety Element and the Technical Background Report. The Public Safety Element comprehensively addresses the public safety needs and concerns of its Riverside residents, businesses, institutions, and visitors in a proactive and coordinated way to ensure protection from foreseeable natural and human-caused hazards. The Background Technical Report supports the Public Safety Element.

2.2.4 Zoning Code Amendments

Proposed rezoning of the Opportunity Sites will allow for fulfilment of the City’s RHNA obligation. The proposed Zoning Code and Specific Plan amendments include various multi-family and mixed-use land use categories, which would provide for development of some lower-story commercial/retail, office, and potentially live/work uses. Existing zoning is illustrated on Figure 2-6.

Areas proposed for rezoning are illustrated on Figure 2-7 and summarized in Table 2-1. For purposes of the CEQA analysis, the maximum development that could be allowed is analyzed in this EIR. The process for identifying Opportunity Sites is described in detail in Section 2.2.2.

Table 2-1. Number of Acres to be Rezoned by Ward

Ward	Acres to be Rezoned
1	46
2	85
3	86
4	29
5	55
6	76
7	82
TOTAL	460

Source: City of Riverside 2021.

The Project involves 239 acres that do not require zoning changes and 581 acres that would require general plan amendments, Zoning Code changes, and Specific Plan amendments, for a total of 870 parcels comprising 820 acres. Of the 581 acres, 460 acres would require Zone Code changes.

Not all Opportunity Sites identified in the preliminary inventory are currently zoned to allow for housing development. The next step in the process included development of scenarios to meet the City’s RHNA obligation and refining the preliminary Opportunity Sites to develop a preferred alternative, or the Project, to accommodate the RHNA obligations. Potential Opportunity Sites were prioritized for inclusion, and others were selected for removal based on the refinement process of ensuring sites met identified criteria and were also distributed equitably throughout the City.

The Opportunity Sites’ existing onsite conditions indicate that approximately 759 acres (approximately 80 percent) of the Opportunity Sites are developed to varying degrees with residential and nonresidential land uses, while the remaining approximately 152 acres are undeveloped.³ Approximately 166 DUs and approximately 13 million square feet of nonresidential land uses exist on the Opportunity Sites.

³ The summary includes all sites being considered in the environmental review.

2.2.5 Specific Plan Amendments

In addition to the Zoning Code amendments, the Housing Element would require amendments to seven of the City's adopted Specific Plans. The following Specific Plans would require updates, including mapping and land use changes, to accommodate Opportunity Sites that have been identified within their boundaries. Figure 2-8 illustrates the Specific Plans subject to change.

The **Downtown Specific Plan (DSP)** consists of approximately 640 acres in the northern portion of the City and encompasses Downtown Riverside and its immediate surroundings. The DSP was created to facilitate and encourage development and improvements that help the community's vision of Downtown. Figure 2-9 illustrates the land use districts in the DSP. Amendments for the DSP include boundary changes as well as increased densities to accommodate housing. Figures 2-10 and 2-11 illustrate the changes proposed for the DSP.

The **Magnolia Avenue Specific Plan**, developed in 1999 as part of the Magnolia/Market Corridor Study, focuses on the portion of Magnolia Avenue from the western City limits to the northern side of Riverside Community College at the southern boundary of Downtown, for an area totaling approximately 1,588 acres. The plan area consists of the following six Specific Plan districts:

- La Sierra (Buchanan Street to just east of Banbury Drive)
- Galleria (just east of Banbury Drive to Harrison Street)
- Arlington (Harrison Street to Jackson Street)
- Magnolia Heritage (Jackson Street to Arlington Avenue)
- Magnolia Center (Arlington Avenue to Jurupa Avenue)
- Wood Streets (Jurupa Avenue to north side of Riverside Community College)

Proposed amendments would be to Table 2.1, *General Plan Land Use Designation by Acreage*, of Chapter 2, *Context*; Chapter 3, *Vision, Objectives, Goals and Policies*; Figures 3.1, 3.3, 3.5, 3.7, and 3.9 and Tables 3.1, 3.2, 3.3, and 3.4; and Chapter 4, *Land Use Regulations, Development Standards and Design Guidelines*, to incorporate additional multi-family and mixed-use development on Housing Element Opportunity Sites throughout the Specific Plan, and to make other non-substantive technical and clarifying changes as necessary.

The **University Avenue Specific Plan** totals approximately 179 acres and is located on University Avenue, a main thoroughfare connecting the University of California, Riverside, campus and Riverside's historic Downtown. The Specific Plan promotes the long-term viability and rejuvenation of the University Avenue corridor, establishes and maintains a viable mix of land uses, encourages high-quality development, accommodates pedestrian activity, maintains visual continuity, and recognizes the interdependence of land values and aesthetics. Proposed amendments include Table 2, *Land Uses Permitted in Each Subdistrict*, and Table 3, *Additional Use Regulations*, of Chapter 6, *Land Use Regulations*, to accommodate multi-family and mixed-use development on Housing Element Opportunity Sites throughout the Specific Plan and to make other non-substantive technical and clarifying changes as necessary.

The **Riverside Marketplace Specific Plan** totals approximately 200 acres. It establishes standards and guidelines for development within the plan area with the purpose of creating incentive to:

- Redevelop the Riverside Marketplace area

Figure 2-6
Existing Zoning

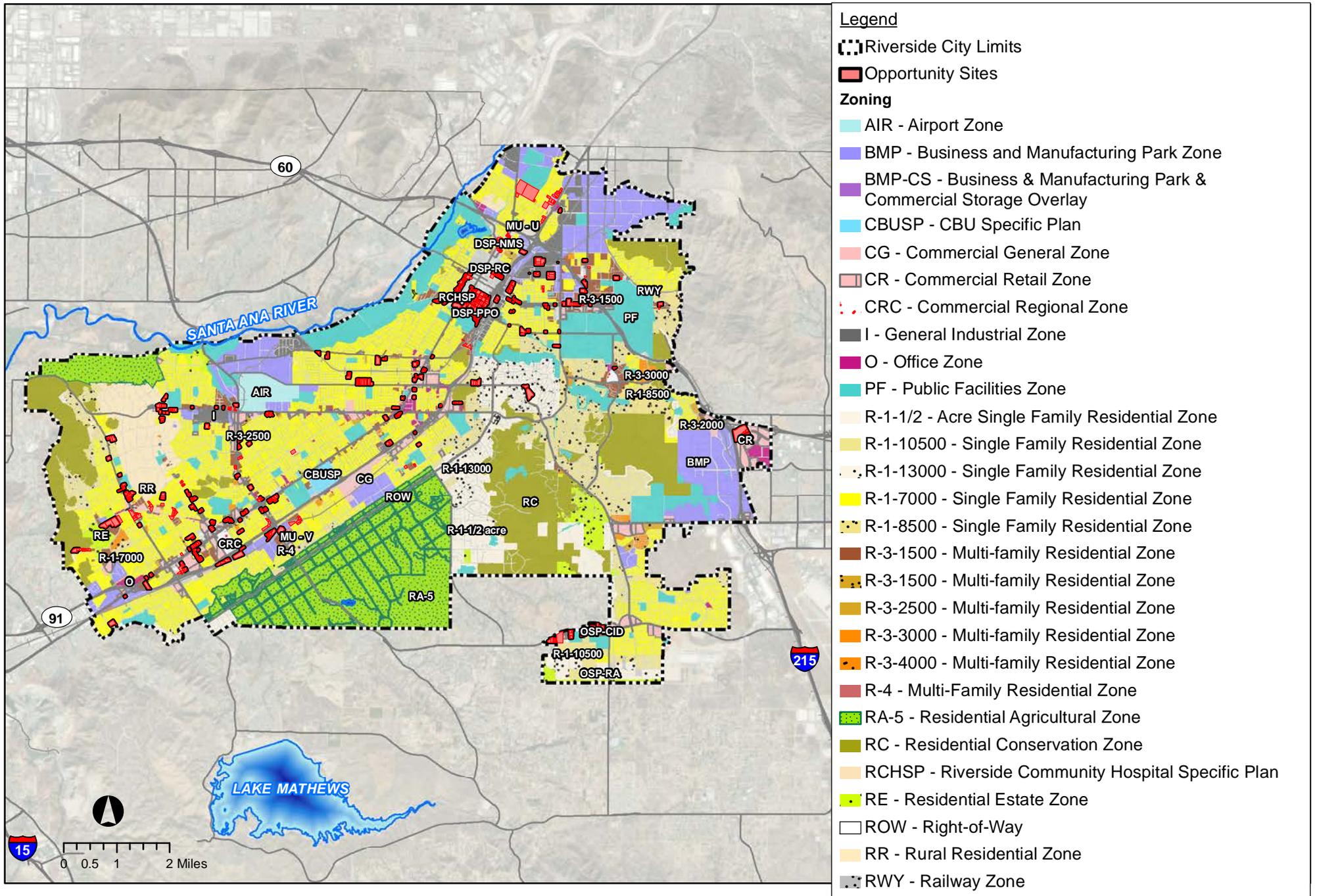


Figure 2-7
Proposed Zoning

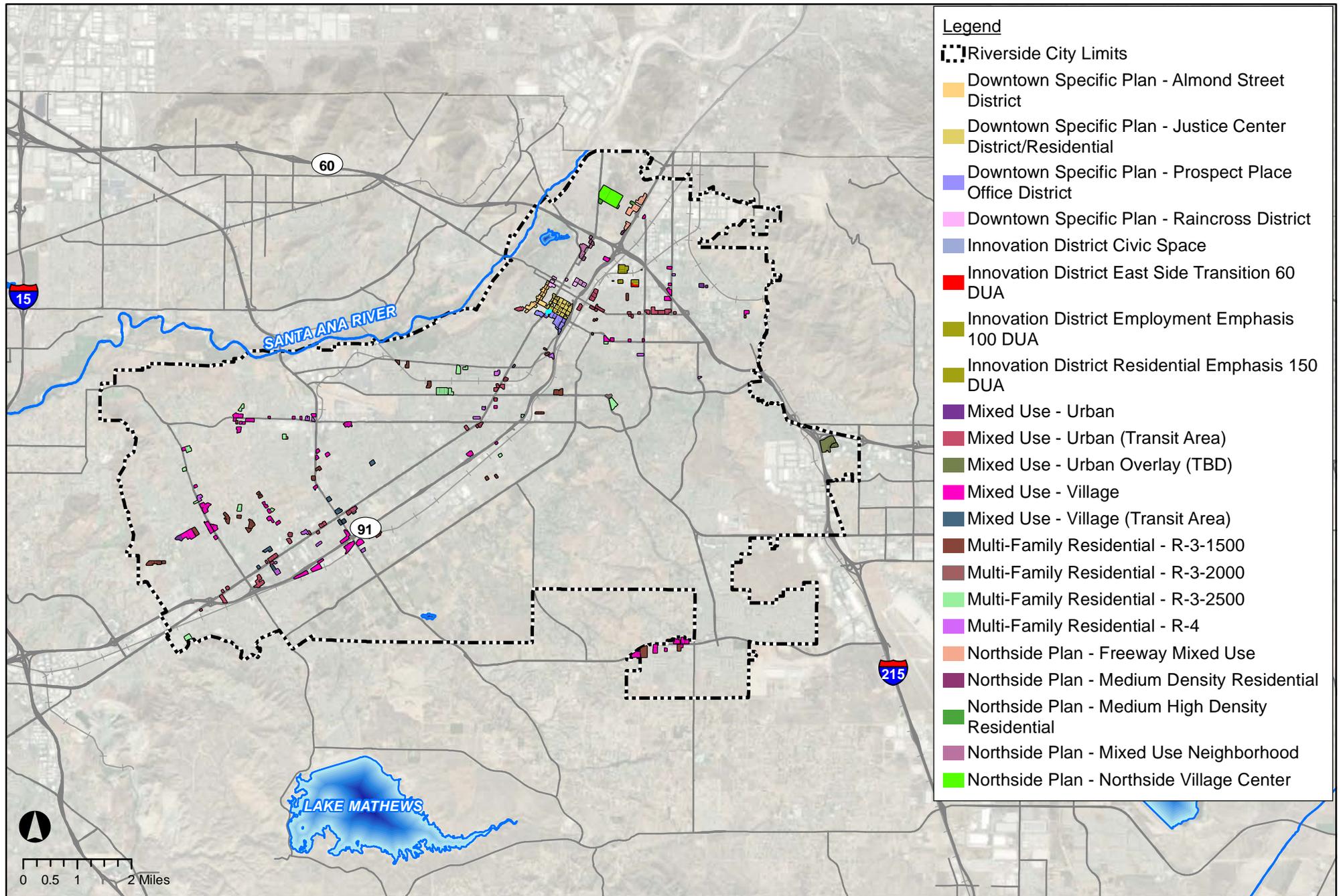


Figure 2-8
 Specific Plan Areas Subject to Zone Changes

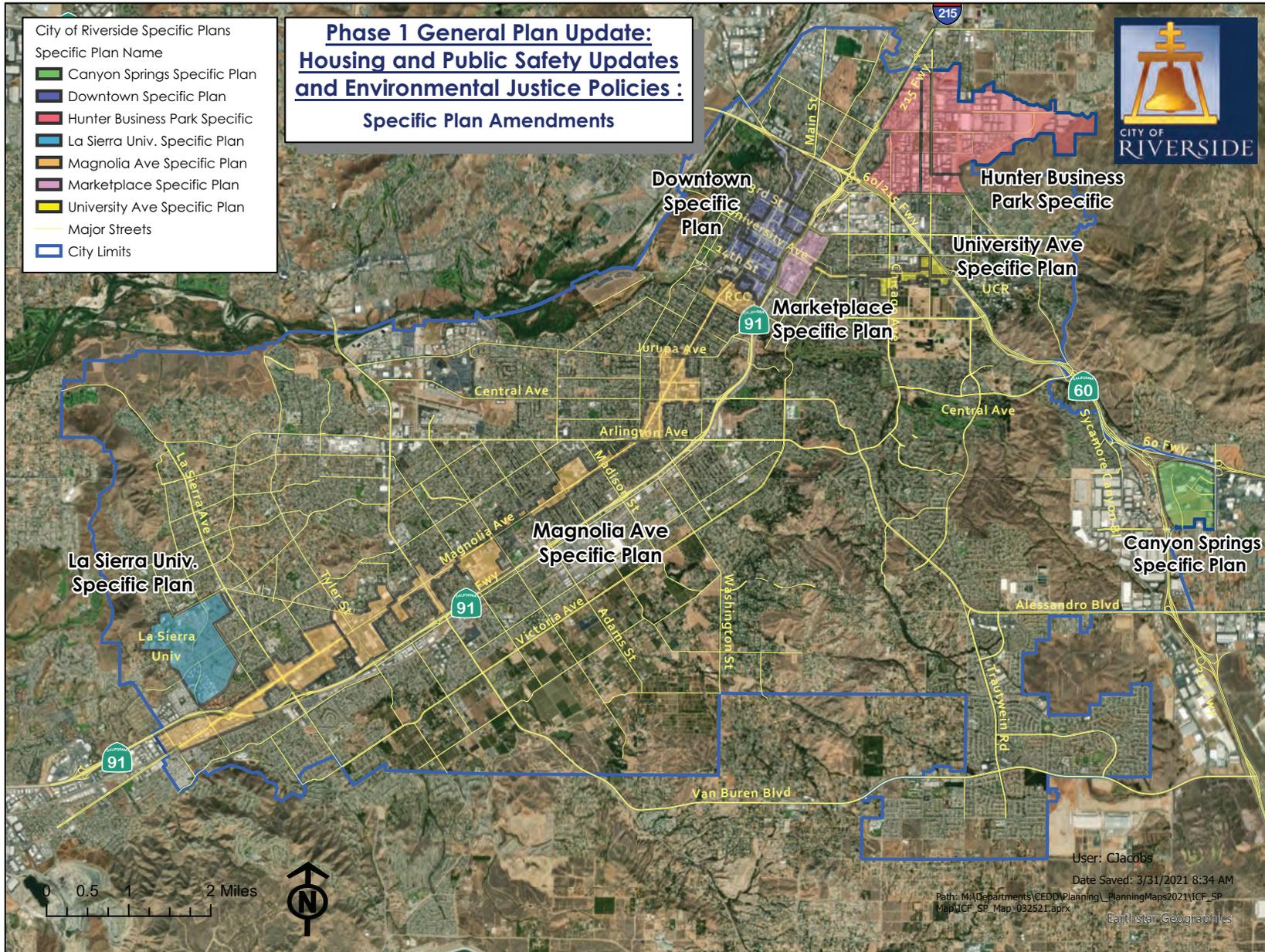
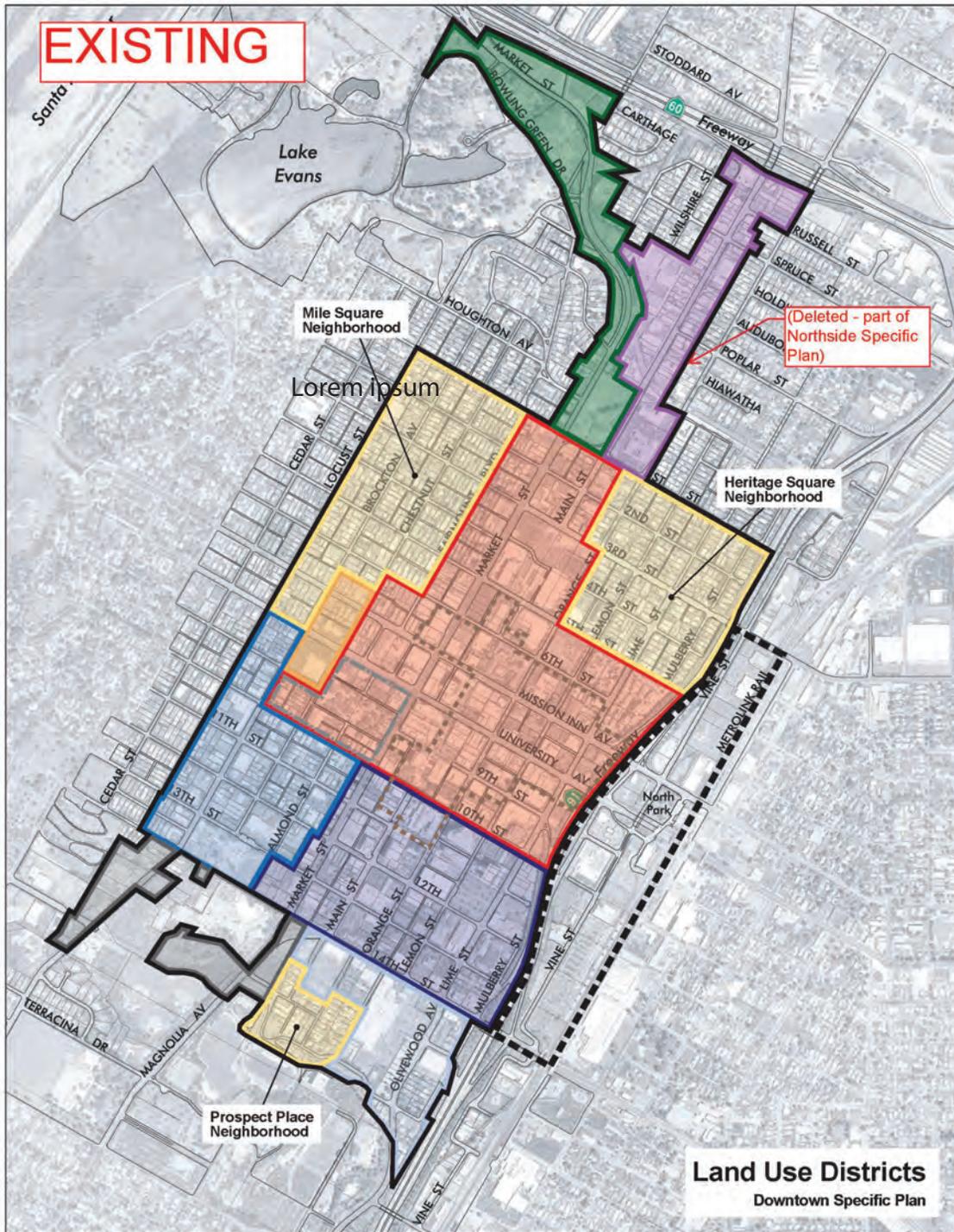


Figure 2-9
Downtown Specific Plan Land Use Districts



LEGEND

- LAND USE DISTRICTS**
- Raincross
 - Justice Center
 - Almond Street
 - Prospect Place Office
 - Health Care
 - North Main Street Specialty Services
 - Market Street Gateway
 - Residential
 - Neighborhood Commercial

- Downtown Specific Plan Boundary (Revised May 2014)
- Mission Inn Historic District (area of special development standards)
- Master Plan Area for the Riverside School for the Arts
- Riverside Marketplace

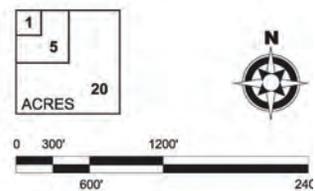
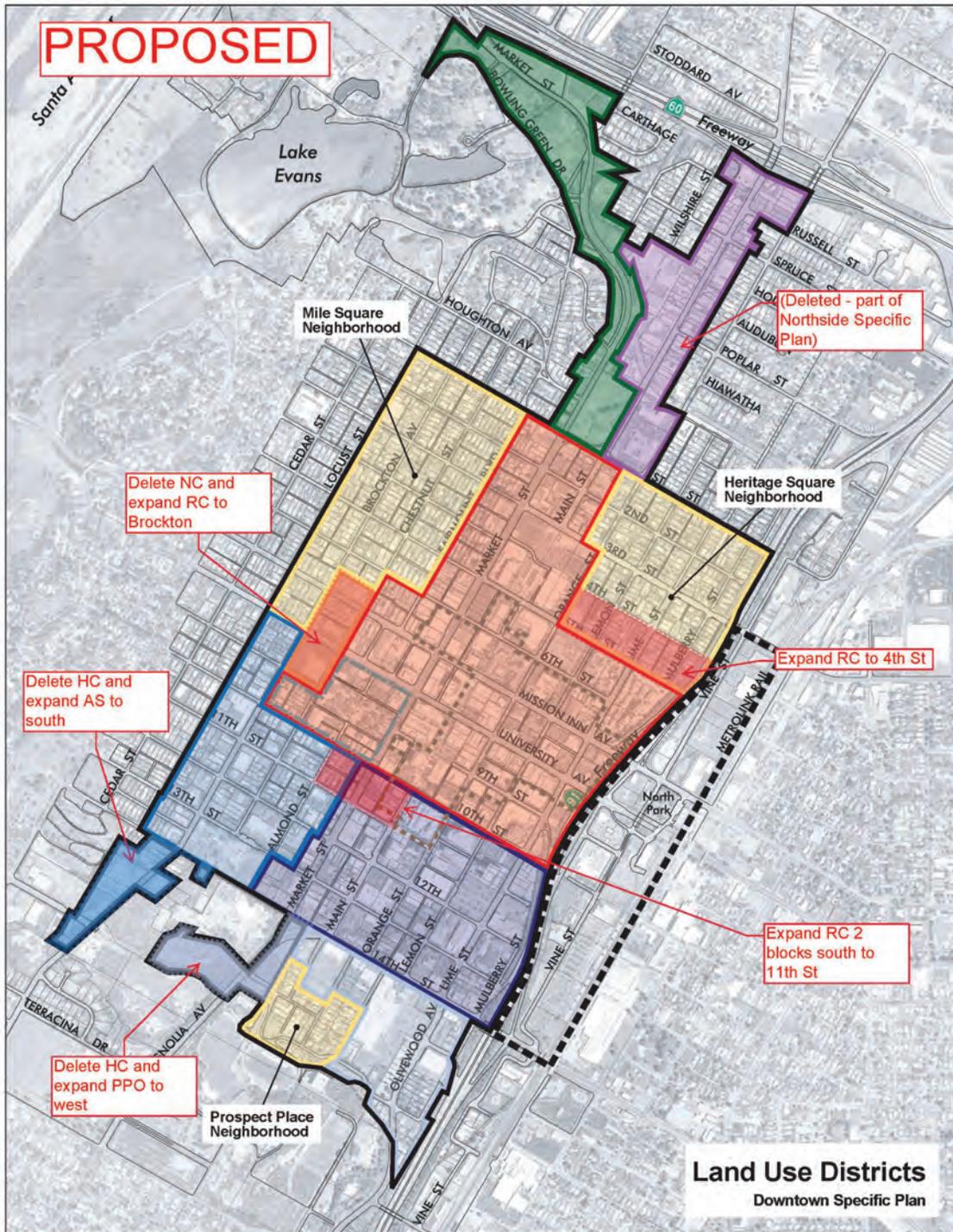


Figure 2-10
 Downtown Specific Plan Proposed Map Changes



LEGEND

- | | |
|--|---|
| LAND USE DISTRICTS | — Downtown Specific Plan Boundary (Revised May 2014) |
| ■ Raincross | ■ Mission Inn Historic District (area of special development standards) |
| ■ Justice Center | --- Master Plan Area for the Riverside School for the Arts |
| ■ Almond Street | ■ Riverside Marketplace |
| ■ Prospect Place Office | |
| ■ Health Care | |
| ■ North Main Street Specialty Services | |
| ■ Market Street Gateway | |
| ■ Residential | |
| ■ Neighborhood Commercial | |

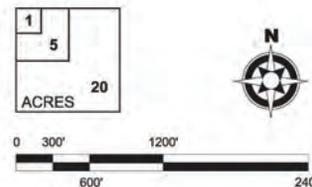
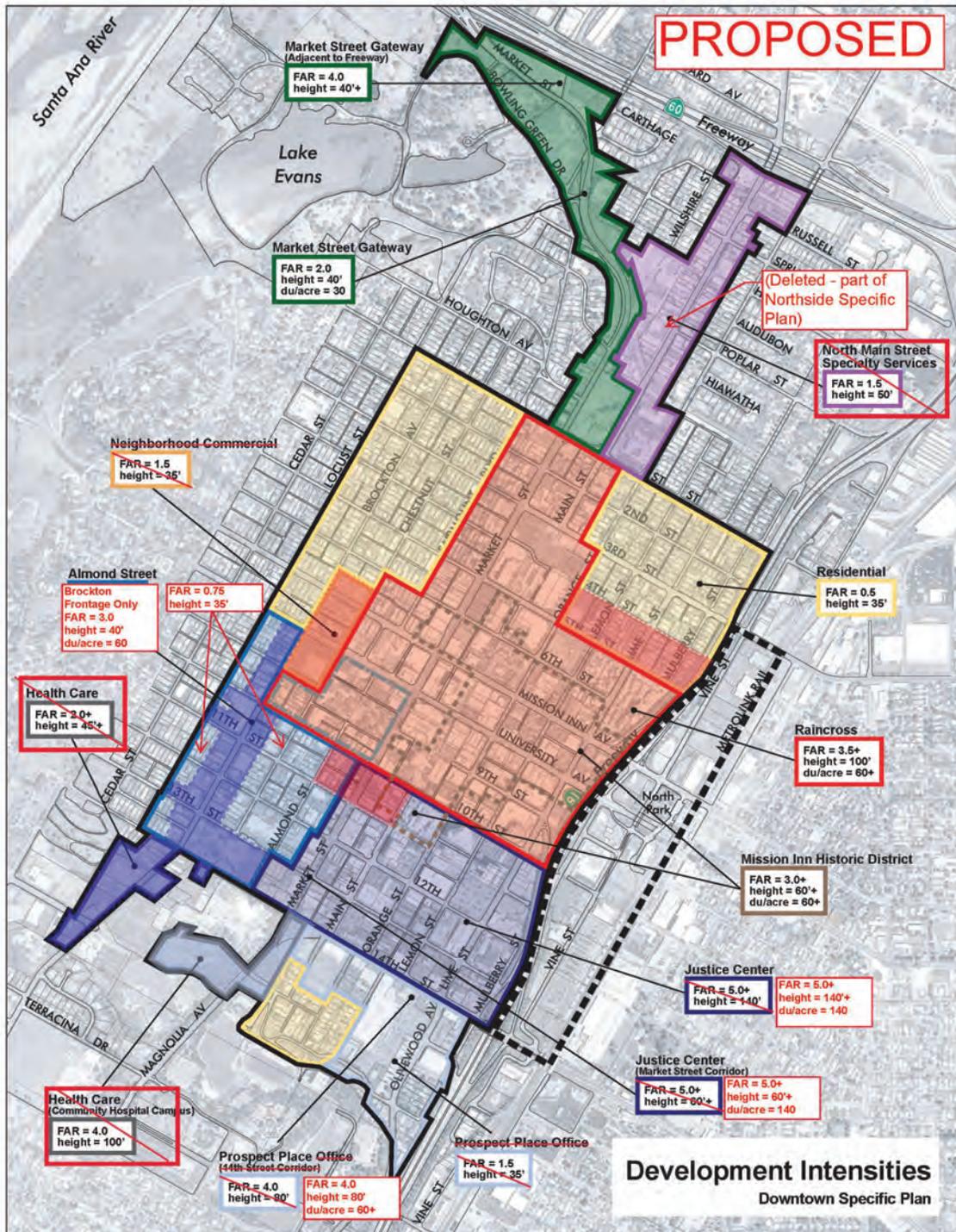


Figure 2-11
 Downtown Specific Plan Proposed Densities

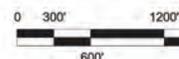
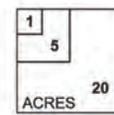


LEGEND

- LAND USE DISTRICTS**
- █ Raincross
 - █ Justice Center
 - █ Almond Street
 - █ Prospect Place Office
 - █ Health Care
 - █ North Main Street Specialty Services
 - █ Market Street Gateway
 - █ Residential
 - █ Neighborhood Commercial

- Downtown Specific Plan Boundary (Revised May 2014)
- Mission Inn Historic District (area of special development standards)
- Master Plan Area for the Riverside School for the Arts
- Riverside Marketplace

FAR	Maximum Floor Area Ratio Permitted
height	Maximum Height Permitted
du/acre	Maximum Dwelling Units per Acre Permitted
+	Intensity or height may be increased with additional approvals



- Preserve and enhance historic buildings and elements
- Beautify the entrances to Downtown and University Avenue
- Provide additional commerce and employment opportunities for the Eastside community
- Complement the redevelopment efforts occurring within the Downtown area

Proposed amendments would be to Figures 4, *Land Use Plan*; 4a, *General Plan Designations*; 5, *Phasing Plan*; and 8, *Sub Area Plan*, to add approximately 4.72 acres to the Mixed Use Marketplace Sub Area.

The **Canyon Springs Business Park Specific Plan** is a regionally oriented mixed-use development that combines commercial, office, entertainment, and recreational uses within an area of approximately 222 acres. This plan includes 10 planning areas for a commerce center of retail commercial, office, and recreational uses with appropriate public, quasi-public, and private services and facilities necessary to accommodate shopping, employment, service, and recreational needs. Proposed amendments would be to Section 1, *Introduction and Background*, to incorporate approximately 34.4 acres of mixed-use development within Planning Area 1 and to make other non-substantive technical and clarifying changes as necessary.

The **Hunter Business Park Specific Plan** is an approximately 1,300-acre planned industrial park northeast of Downtown. The Specific Plan includes an Industrial Area Framework that establishes the basic structure of the development and concepts for open space, public services, land use, and circulation. Proposed amendments would be to Chapter III, *Development Standards and Design Guidelines*, to incorporate 1.38 acres of mixed-use development within the General Industrial subdistrict.

The **La Sierra University Specific Plan** is approximately 531 acres in the western portion of the City. The Specific Plan envisions a mixed-use community that allows for the expansion of the La Sierra campus and development of the university's surplus lands. It includes a diverse mix of residential types and densities to provides opportunities for faculty, staff, and retirees from the La Sierra University community, and others. Proposed amendments would be to Chapters 1 through 5 (*Introduction, Existing Conditions and Planning Context, Overall Plan and Polices, Land Use Regulations and Development Standards, and Design Standards and Guidelines*) to accommodate multi-family and mixed-use development on approximately 22.9 acres and to make other non-substantive technical and clarifying changes as necessary.

2.2.6 Maximum Allowable Development under the Project

Table 2-2 summarizes maximum housing development that could occur on the Opportunity Sites identified by the City and in the other areas proposed for increased residential and nonresidential development capacity under the Project (i.e., portions of the Downtown Specific Plan and the Innovation District).

Table 2-2. Summary of Potential Housing Development on Opportunity Sites

Ward	Total Acreage	Maximum DUs Allowed
Ward 1	289	16,808
Ward 2	95	3,770
Ward 3	89	2,309

Ward	Total Acreage	Maximum DUs Allowed
Ward 4	50	2,203
Ward 5	82	3,375
Ward 6	111	2,066
Ward 7	104	1,033
Total	820	31,564

Source: City of Riverside 2021.

With the removal of 389 existing dwelling units, implementation of this Project could result in a net increase of up to 31,175 DUs over existing conditions.

Rezoning some of the Opportunity Sites would also result in nonresidential development in those areas to be designated as mixed-use. Mixed-use zones include:

- Mixed-Use Urban (MU-U/MU-U-TA⁴)
- Mixed-Use Village (MU-V/MU-V-TA)

Mixed-use zoning permits either residential, nonresidential, or combined residential and nonresidential development. To estimate the proportion of each type of development that would result from the Opportunity Sites identified for mixed-use zoning, the analysis assumed that 33 percent of sites would develop with nonresidential uses, 33 percent would develop with residential uses, and 34 percent would develop with a mix of residential and nonresidential uses. Of the 34 percent that would develop with a mix of uses, it was further assumed that the resulting development would comprise 80 percent residential uses and 20 percent nonresidential uses by floor area. Residential floor area was then converted to an estimated number of DUs by assuming an average unit size of 1,050 square feet. Table 2-3 summarizes the total amount of nonresidential square footage and number of DUs that could be developed in the proposed mixed-use zones by ward.

Table 2-3. Potential Development in Mixed-Use Zones by Ward

Ward	Total Residential (DUs)	Total New Nonresidential (Square Feet)
1	1,895	117,739
2	3,509	418,716
3	749	333,210
4	546	200,821
5	1,730	463,098
6	2,163	825,975
7	1,485	461,053
Total	12,077¹	2,820,612

Source: City of Riverside 2021.

¹This total is included in the total in Table 2-2.

⁴ The TA designation means Transit Adjacent, applies to parcels within 0.5 mile of a transit stop, and provides a density bonus.

The City is planning for a maximum allowable development under the Project (31,564 units) to meet the City's minimum RHNA obligation (18,458 units with a 30 percent No Net Loss buffer for approximately 24,000 units) across all wards.

This is because the maximum allowable development calculations used for the purposes of this EIR assume that all Opportunity Sites will develop up to 100 percent of their zoned capacity. State housing element law, on the other hand, requires a more conservative estimate of development potential based on realistic development capacity to account for factors like site constraints, market fluctuations, and other variables. To account for this, the Housing Element Update assumes that any given Opportunity Site will only develop to approximately 75 percent of the maximum development capacity established by zoning.

2.3 Other Public Agencies Whose Review or Approval Is Required

In addition to City Council review and adoption of the Project and the EIR, other agencies will be involved for a review and/or adoption of Project-related element updates:

- **California Department of Housing and Community Development (HUD)** will review the Housing Element Update prior to its adoption and then certify it after.
- **California Geological Survey of the Department of Conservation** will review the Public Safety Element Update prior to its adoption.
- **State Board of Forestry and Fire Protection** will review the Public Safety Element Update prior to its adoption.
- **County of Riverside Fire Department** will review the Public Safety Element Update prior to its adoption.

2.4 Assembly Bill 52/Senate Bill 18 Consultation

The City sent out Assembly Bill 52 and SB 18 consultation notices to tribes to initiate consultation on April 1, 2021. The full list of tribes that were contacted is presented in Section 3.13. The following tribes responded with requests to consult:

- Soboba Band of Luiseño Indians
- Pechanga Cultural Resources Department
- Rincon Band of Luiseño Indians
- San Manuel Band of Mission Indians

2.5 Other Environmental Reviews Incorporated by Reference in This Review

- *Riverside General Plan 2025* (City of Riverside 2019)

- *Final Program Environmental Impact Report for the City of Riverside General Plan and Supporting Documents* (City of Riverside 2007)
- *2014–2021 Final Housing Element Update Housing Implementation Plan Environmental Impact Report* (Michael Baker International 2017)
- *Northside Neighborhood & Pellissier Ranch Specific Plan Final Program Environmental Impact Report* (City of Riverside 2020).
- Title 19, *Zoning Code*
- Title 20, *Cultural Resources*

3.01 Introduction

This chapter examines the environmental and regulatory setting, evaluates the potential significant environmental impacts, and identifies appropriate mitigation measures for each environmental element discussed in this Draft EIR.

3.02 Environmental Elements Analyzed in the EIR

As discussed in Chapter 1, *Introduction and Scope of Environmental Impact Report*, the scope of this EIR is based on the input from the public, as well as from responsible and affected agencies through the EIR scoping process. This chapter of the EIR addresses 14 environmental resources that were determined to be potentially significant in the Notice of Preparation and Initial Study and scoping process. These environmental elements are addressed in the following sections:

- Section 3.1, Air Quality
- Section 3.2, Biological Resources
- Section 3.3, Cultural Resources
- Section 3.4, Paleontological Resources
- Section 3.5, Greenhouse Gas Emissions
- Section 3.6, Hazards and Hazardous Materials
- Section 3.7, Land Use and Planning
- Section 3.8, Noise
- Section 3.9, Population and Housing
- Section 3.10, Public Services
- Section 3.11, Recreation
- Section 3.12, Transportation
- Section 3.13, Tribal Cultural Resources
- Section 3.14, Utilities and Service Systems
- Section 3.15, Effects Not to Be Found Significant
- Section 3.16, Cumulative Impacts

Sections 3.1 through 3.14 provide a detailed discussion of the environmental setting, regulatory setting, methodology and thresholds of significance, impacts associated with the Project, and mitigation measures designed to reduce significant impacts where required.

Topics required by CEQA in addition to the resource topics addressed in Chapter 3 are addressed in Section 3.15, *Effects Not Found to Be Significant*; Section 3.16, *Cumulative Impacts*; Chapter 4, *Alternatives*; and Chapter 5, *Other CEQA Considerations*.

- **Section 3.15, Effects Not Found to Be Significant**, describes topics that were found to have no or less-than-significant impacts. Based on the Notice of Preparation and Initial Study (refer to Appendix A), no or less-than-significant impacts involving the following environmental topics are anticipated:
 - Aesthetics
 - Agricultural and Forestry Resources
 - Energy
 - Geology and Soils
 - Hydrology and Water Quality
 - Mineral Resources
 - Wildfire
- **Section 3.16, Cumulative Impacts**, describes potential environmental changes to the existing physical conditions that may occur as a result of the incremental impact of the Project when added to other closely related past, present, and reasonably foreseeable, planned, and approved future projects. “Cumulatively considerable” means that the incremental effects of the Project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects (State CEQA Guidelines Section 15065(a)(3)). Sections 15126 and 15130 of the State CEQA Guidelines provide that EIRs consider the significant environmental effects of a proposed project, as well as cumulative impacts. “Cumulative impacts” are two or more individual effects that, when considered together, are considerable or compound and increase other environmental impacts (State CEQA Guidelines Section 15355).

3.03 CEQA Baseline

An EIR assesses the significance of a project’s impacts in comparison to a baseline, consisting of the existing physical environmental conditions at or near a project site. As stated in the State CEQA Guidelines, Section 15125(a), CEQA provides that the existing environmental setting at the time of publication of the Notice of Preparation establishes the baseline for determining whether a project’s environmental impacts may be significant. The City of Riverside published the Notice of Preparation for the Project on April 5, 2021.

3.04 Impacts and Mitigation

Each section in Chapter 3 includes an evaluation of the direct and reasonably foreseeable indirect impacts associated with implementation of the Project. Under CEQA, the significance of the impact needs to be described. A significant impact on the environment is defined as a substantial, or potentially substantial, adverse change in the environment (Public Resources Code Section 21068). The impact findings used in this document are as follows.

- **No Impact.** This impact would cause no discernible change in the environment as measured by the applicable significance criteria; therefore, no mitigation would be required.
- **Less than Significant.** This impact would cause no substantial adverse change in the environment as measured by the applicable significance criteria; therefore, no mitigation would be required.
- **Significant.** This impact would cause a substantial adverse change in the physical conditions of the environment. Impacts determined to be significant based on the applicable significance criteria fall into two categories: (1) those impacts for which there is feasible mitigation available that would avoid or reduce the environmental impacts to less-than-significant levels, and (2) those impacts for which there is either no feasible mitigation available or for which, even with implementation of feasible mitigation measures, there would remain a significant impact on the environment. Those impacts that cannot be reduced to a less-than-significant level by mitigation are identified as *significant and unavoidable*.
- **Significant and Unavoidable.** This impact would cause a substantial adverse change in the environment and cannot be avoided or mitigated to a less-than-significant level if the Project is implemented. Even if the impact finding is still considered significant with the application of mitigation, the applicant or implementing agency is obligated to incorporate all feasible measures to reduce the severity of the impact.

Mitigation measures are proposed in this EIR to meet CEQA's specific requirement that, whenever possible, agency decision-makers adopt feasible mitigation to reduce a project's significant impacts to a less-than-significant level. The term *mitigation* denotes measures required to reduce residual environmental impacts after considering the application of all policies and actions set forth in the Housing and Public Safety Element Updates.

Each impact statement for the Project within each resource section includes any mitigation measures recommended to reduce the impact.

3.1 Air Quality

3.1.1 Introduction

This section describes the environmental and regulatory setting for air quality for the Project, discusses local and regional air quality impacts that would result from the Project, determines if there are significant impacts, and provides mitigation measures that would avoid or reduce these impacts to less-than-significant levels, where feasible. The City of Riverside (City) and identified Opportunity Sites for potential future development are the areas evaluated in this EIR for air quality. The analysis methods, data sources, significance thresholds, and terminology used are described. Details on the location of the Project and a description of Project activities are included in Chapter 2, *Project Description*, of this EIR. Refer to Section 3.5, *Greenhouse Gas Emissions*, for a discussion of greenhouse gas (GHG) emissions.

3.1.2 Environmental Setting

Climate and Atmospheric Conditions

Regional

The City is in the South Coast Air Basin (Basin), an area covering approximately 6,745 square miles and bounded by the Pacific Ocean to the west and south and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The Basin includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties, in addition to the San Geronio Pass area in Riverside County. The terrain and geographical location determine the distinctive climate of the Basin, which is a coastal plain with connecting broad valleys and low hills.

The Southern California region lies in the semi-permanent high-pressure zone of the eastern Pacific. As a result, the climate is mild and tempered by cool sea breezes. The usually mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or Santa Ana winds. The extent and severity of the air pollution problem in the Basin is a function of the area's natural physical characteristics (i.e., weather and topography) as well as human-made influences (i.e., development patterns and lifestyle). Factors such as wind, sunlight, temperature, humidity, rainfall, and topography all affect the accumulation and dispersion of pollutants throughout the Basin, making it an area of high pollution potential.

The greatest air pollution impacts in the Basin occur from June through September and are generally attributed to the large amount of pollutant emissions, light winds, and shallow vertical atmospheric mixing. These conditions frequently reduce pollutant dispersion, thereby causing elevated air pollution levels. Pollutant concentrations in the Basin vary with location, season, and time of day; ozone (O₃) concentrations, for example, tend to be lower along the coast, higher in the near-inland valleys, and lower in the far-inland areas of the Basin and adjacent desert.

Local Climate

Data from two climate monitoring stations, Riverside Fire Station 3 (COOP 047470) and Riverside Citrus Experiment Station (COOP 047473), within the City were used to characterize the climate conditions for the Project. Fire Station 3 monitoring station is centrally located within the City on Riverside Avenue, south of Central Avenue, and to the west of State Route 91. The Citrus Experiment monitoring station is in the northeastern portion of the City on Sedgwick Avenue, south of Pennsylvania Avenue, and to the east of State Route 91.

At the Fire Station 3 climate monitoring station between 1893 and 2016, the average summer high and low temperatures were 91.9 degrees Fahrenheit (°F) and 58.0°F, respectively. The average winter high and low temperatures were 67.6°F and 39.8°F, respectively. Rainfall varies year to year, with an annual average of 10.21 total inches and an average of 34 days with measurable rainfall (greater than or equal to 0.01 inch) (WRCC 2021a).

At the Citrus Experiment monitoring station between 1948 and 2009, the average summer high and low temperatures were 91.6°F and 59.5°F, respectively. The average winter high and low temperatures were 67.3°F and 42.1°F, respectively. Rainfall varies from year to year with an annual average of 9.86 inches and an average of 36 days with measurable rainfall (greater than or equal to 0.01 inch) (WRCC 2021b).

The closest wind monitoring station is within the City at the Riverside Municipal Airport. Wind patterns in the Project vicinity arise primarily from the northwest with seasonal and diurnal variations resulting during Santa Ana wind events and winter storms. Average wind speeds at the Riverside Municipal Airport average 8 miles per hour (Windfinder 2021).

Local Air Quality

The South Coast Air Quality Management District (SCAQMD) has divided the Basin into general forecast and air monitoring areas and maintains a network of air quality monitoring stations throughout. The City is in the Metropolitan Riverside County source receptor area (SRA 23), and the monitoring station representative of the area is the Riverside-Rubidoux station at 5888 Mission Boulevard in Riverside County, approximately 1.5 miles northwest of the City. The air pollutants measured at the Riverside-Rubidoux station site include O₃, carbon monoxide (CO), particulate matter 10 microns or smaller in diameter (PM₁₀), particulate matter 2.5 microns or smaller in diameter (PM_{2.5}), and nitrogen dioxide (NO₂). Information regarding concentrations of pollutants over the last 3 years (2017–2019) is summarized in Table 3.1-1.

The monitoring data show the following trends for pollutant concentrations:

- The 1-hour O₃ state standard as well as the 8-hour O₃ state and federal standards were exceeded in each of the most recent years (2017–2019) for which data are available.
- The 24-hour PM₁₀ state standard was exceeded during the most recent 3-year period.
- The 24-hour PM_{2.5} federal standard was exceeded during the most recent 3-year period.
- There were no exceedances of the 1-hour NO₂, 1-hour CO, 8-hour CO, or PM₁₀ federal standards during the most recent 3-year period.

As discussed in Section 3.1.3, *Regulatory Setting*, the California Ambient Air Quality Standards (CAAQS) and National Ambient Air Quality Standards (NAAQS) define clean air and represent the maximum amount of pollution that can be present in outdoor air without any harmful effects on

people and the environment. Existing violations of the O₃ and particulate matter (PM) ambient air quality standards indicate that certain individuals exposed to this pollutant may experience certain health effects, including increased incidence of cardiovascular and respiratory ailments.

Table 3.1-1. Ambient Background Concentrations from the Riverside-Rubidoux Station

Pollutant Standards	2017	2018	2019
1-Hour Ozone (O₃)			
State Maximum Concentration (ppm)	0.145	0.123	0.123
<i>Number of Days Standard Exceeded</i>			
CAAQS 1-hour Standard (>0.09 ppm)	47	22	24
8-Hour Ozone (O₃)			
State Maximum Concentration (ppm)	0.119	0.101	0.096
National Maximum Concentration (ppm)	0.118	0.101	0.096
National Fourth-Highest Concentration (ppm)	0.102	0.096	0.092
National Design Value (ppm)	0.098	0.098	0.096
<i>Number of Days Standard Exceeded</i>			
CAAQS 8-hour Standard (>0.070 ppm)	82	57	63
NAAQS 8-hour Standard (>0.070 ppm)	81	53	59
Carbon Monoxide (CO)			
Maximum Concentration 8-hour Period (ppm)	1.8	2.0	1.2
Maximum Concentration 1-hour Period (ppm)	2.4	2.2	1.5
<i>Number of Days Standard Exceeded</i>			
NAAQS 8-hour Standard (≥9 ppm)	0	0	0
CAAQS 8-hour Standard (≥9.0 ppm)	0	0	0
NAAQS 1-hour Standard (≥35 ppm)	0	0	0
NAAQS 1-hour Standard (≥20 ppm)	0	0	0
Nitrogen Dioxide (NO₂)			
Maximum National 1-hour Concentration (ppm)	0.063	0.055	0.056
Maximum State 1-hour Concentration (ppm)	0.063	0.055	0.056
Annual Average Concentration (ppm)	0.014	0.014	0.014
<i>Number of Days Standard Exceeded</i>			
CAAQS 1-Hour Standard (0.18 ppm)	0	0	0
NAAQS 1-Hour Standard (100 ppb)	0	0	0
Suspended Particulates (PM₁₀)			
Maximum State 24-hour Concentration (µg/m ³)	137.6	126.0	182.4
Maximum National 24-hour Concentration (µg/m ³)	92.0	86.5	132.5
State Annual Average Concentration (µg/m ³)	41.3	43.9	40.9
<i>Number of Days Standard Exceeded</i>			
CAAQS 24-hour Standard (>50 µg/m ³)	98	127	110
NAAQS 24-hour Standard (>150 µg/m ³) (estimated days)	0.0	0.0	0.0

Pollutant Standards	2017	2018	2019
Suspended Particulates (PM_{2.5})			
Maximum National 24-hour Concentration (µg/m ³)	50.3	66.3	55.7
24-hour Standard 98 th Percentile (µg/m ³)	30.7	28.2	32.7
National Annual Average Concentration (µg/m ³)	12.2	12.5	11.2
State Annual Average Concentration (µg/m ³)	14.5	12.6	11.2
<i>Number of Days Standard Exceeded</i>			
NAAQS 24-hour Standard (>35 µg/m ³)	7	3	5

Sources: CARB 2021a; EPA 2021.

ppm = parts per million; ppb = parts per billion; µg/m³ = micrograms per cubic meter; N/A = data not available

Local Health Risk

SCAQMD conducts ambient air monitoring, and its evaluation studies in the Basin are compiled in the regularly updated Multiple Air Toxics Exposure Study (MATES), the most recent of which is the MATES IV study; the final draft was released to the public in May 2015. The MATES IV study estimated that the average carcinogenic risk throughout the Basin attributed to toxic air contaminants (TACs) is approximately 367 in 1 million. Approximately 80 percent of all risk is attributed to diesel particulate matter (DPM) emissions, but the MATES IV study showed a 70-percent reduction in DPM compared to MATES III. According to MATES IV, the City is within Riverside County, which has an average cancer risk of 223 in 1 million (SCAQMD 2015a). MATES V is currently being conducted and will include a fixed site monitoring program with 10 stations, an updated emissions inventory of TACs, and a modeling effort to characterize cancer risk across the Basin. The draft MATES V study was released on June 7, 2021, and will be presented to the board on August 6, 2021.

Sensitive Receptors and Locations

SCAQMD defines sensitive receptor locations as residential, commercial, and industrial land use areas, as well as other places where sensitive populations may be located, such as schools, hospitals, convalescent homes, daycare centers, and other places where children, chronically ill individuals, or other sensitive persons could be exposed (SCAQMD 2005). Sensitive receptors exist throughout the City.

Description of Relevant Air Pollutants

Criteria Pollutants

Air pollutants emitted into the ambient air by stationary and mobile sources are regulated by federal and state law. These regulated air pollutants, which are known as *criteria air pollutants*, are categorized as primary and secondary pollutants. Primary air pollutants are those that are emitted directly from sources. CO, volatile organic compounds (VOCs), nitrogen oxides (NO_x), sulfur dioxide (SO₂), and most PM (PM₁₀ and PM_{2.5}), lead (Pb), and fugitive dust are primary air pollutants. Of these, CO, SO₂, PM₁₀, and PM_{2.5} are criteria air pollutants. VOCs and NO_x are criteria pollutant precursors that form secondary pollutants through chemical and photochemical reactions in the atmosphere. NO_x reacts with other chemicals to form PM and O₃. O₃ and NO₂ are the principal secondary pollutants and are criteria air pollutants. The following descriptions of each criteria air pollutant and its health effects are based on information provided by SCAQMD (2017).

Ozone (O₃)

O₃ is a photochemical oxidant that is formed when VOC and NO_x (both byproducts of the internal combustion engine) react with sunlight.

- **VOCs.** VOCs are compounds made up primarily of hydrogen and carbon atoms (hydrocarbons). Internal combustion associated with motor vehicle usage is the major source of hydrocarbons. Other sources of VOC are emissions associated with the use of paints and solvents, the application of asphalt paving, and the use of household consumer products such as aerosols.
- **NO_x.** The two major forms of NO_x are nitric oxide (NO) and NO₂. NO is a colorless, odorless gas formed from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure. NO₂ is a reddish-brown, irritating gas formed by the combination of NO and oxygen. In addition to serving as an integral participant in O₃ formation, NO_x also directly acts as an acute respiratory irritant and increases susceptibility to respiratory pathogens.

Ground-level O₃, the main pollutant in smog, poses a higher risk to those who already suffer from respiratory diseases (e.g., asthma), children, older adults, and people who are active outdoors. Exposure to O₃ at certain concentrations can make breathing more difficult, cause shortness of breath and coughing, inflame and damage the airways, aggregate lung diseases, increase the frequency of asthma attacks, and cause chronic obstructive pulmonary disease. Studies show associations between short-term O₃ exposure and non-accidental mortality, including deaths from respiratory issues. Studies also suggest long-term exposure to O₃ may increase the risk of respiratory-related deaths (EPA 2019). The concentration of O₃ at which health effects are observed depends on an individual's sensitivity, level of exertion (i.e., breathing rate), and duration of exposure. Studies show large individual differences in the intensity of symptomatic responses, with one study finding no symptoms in the least responsive individual after a 2-hour exposure to 400 parts per billion of O₃ and a 50-percent reduction in forced airway volume in the most responsive individual. Although the results vary, evidence suggests that sensitive populations (e.g., people who suffer from asthma) may be affected on days when the 8-hour maximum O₃ concentration reaches 80 parts per billion (EPA 2016).

In addition to its deleterious human health effects, O₃ has been tied to crop damage, typically in the form of stunted growth, leaf discoloration, cell damage, and premature death. O₃ can also act as a corrosive and oxidant, resulting in property damage, such as the degradation of rubber products and other materials.

Carbon Monoxide (CO)

CO, a colorless, odorless, relatively inert gas, is a trace constituent in the unpolluted troposphere produced by natural processes and human activities. In remote areas far from human habitation, CO occurs in the atmosphere at an average background concentration of 0.04 part per million (ppm), primarily as a result of natural processes, such as forest fires and the oxidation of methane. Global atmospheric mixing of CO from urban and industrial sources creates higher background concentrations (up to 0.20 ppm) near urban areas. The major source of CO in urban areas is incomplete combustion of carbon-containing fuels, mainly gasoline.

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 worsening oxygen supply to the heart. Inhaled CO has no

direct toxic effect on the lungs, but exerts its effect on tissues by interfering with oxygen transport by competing with oxygen to combine with hemoglobin present in the blood to form carboxyhemoglobin. Hence, conditions with an increased demand for oxygen supply can be adversely affected by exposure to CO. Individuals most at risk include those with diseases involving heart and blood vessels, fetuses, and people with chronic hypoxemia (oxygen deficiency) as seen in high altitudes. Exposure to CO at high concentrations can also cause fatigue, headaches, confusion, dizziness, and chest pain. Ambient CO has no ecological or environmental effects (CARB 2020).

Sulfur Dioxide (SO₂)

SO₂ is a colorless gas with a sharp odor. It reacts in air to form sulfuric acid, which contributes to acid rain, and sulfates, which are components of PM. Main sources of SO₂ include coal and oil used in power plants and industries. Exposure of a few minutes to low levels of SO₂ can result in airway constriction in some asthmatics, the vast majority of whom are sensitive to the effects of SO₂. In asthmatics, increase in resistance to airflow, as well as reduction in breathing capacity leading to severe breathing difficulties, is observed after acute higher exposure to SO₂. In contrast, healthy individuals do not exhibit similar acute responses, even after exposure to higher concentrations of SO₂.

Particulate Matter (PM₁₀ and PM_{2.5})

PM consists of finely divided solids or liquids such as soot, dust, aerosols, fumes, and mists. Two forms of particulates are now generally considered: inhalable coarse particles 10 microns or less in diameter, or PM₁₀; and inhalable fine particles 2.5 microns or less in diameter, or PM_{2.5}. Particulate discharge into the atmosphere results primarily from industrial, agricultural, construction, and transportation activities. However, wind on arid landscapes also contributes substantially to local particulate loading.

Particulate pollution can be transported over long distances and may adversely affect humans, especially people who are naturally sensitive or susceptible to breathing problems. Numerous studies have linked PM exposure to premature death in people with preexisting heart or lung disease. Other symptoms of exposure may include nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms (SCAQMD 2017). Depending on its composition, both PM₁₀ and PM_{2.5} can also affect water quality and acidity, deplete soil nutrients, damage sensitive forests and crops, affect ecosystem diversity, and contribute to acid rain (EPA 2018).

Lead (Pb)

Pb in the atmosphere is present as a mixture of a number of lead compounds. Leaded gasoline and lead smelters have been the main sources of Pb emitted into the air, but due to the phasing out of leaded gasoline, there has been a dramatic reduction in atmospheric Pb over the past three decades. 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. Fetuses, infants, and children are more sensitive than others to the adverse effects of Pb exposure. In adults, increased Pb levels are associated with increased blood pressure. Pb poisoning can also cause anemia, lethargy, seizures, and death. There is no evidence to suggest that Pb has direct effects on the respiratory system.

Toxic Air Contaminants

TACs are generally defined as those contaminants that are known or suspected to cause serious health problems, but do not have a corresponding ambient air quality standard. TACs do not result in an immediate health hazard, but instead may increase a person's risk of developing cancer and/or other serious health effects in the long term. TACs are emitted by a variety of industrial processes, including petroleum refining, electric utility and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust. TACs may exist as PM₁₀ and PM_{2.5} or as vapors (gases). To date, the California Air Resources Board (CARB) has identified 21 TACs and adopted the U.S. Environmental Protection Agency's (EPA's) list of hazardous air pollutants as TACs. In August 1998, CARB identified DPM emissions as a TAC (CARB 1998). In September 2000, CARB approved a comprehensive diesel risk-reduction plan to reduce emissions from both new and existing diesel-fueled engines and vehicles. The goal of the plan was to reduce DPM emissions and the associated health risk by 75 percent by 2010 and by 85 percent by 2020 (CARB 2000).

TACs include metals, other particles, gases absorbed by particles, and certain vapors from fuels and other sources. According to the 2013 *California Almanac of Emissions and Air Quality*, the majority of the estimated health risks from TACs can be attributed to relatively few compounds, the most important being DPM, which differs from other TACs in that it is a complex mixture of hundreds of substances rather than a single substance (CARB 2013). DPM is composed of two phases, gas and particle, and both phases contribute to health risks. The gas phase is composed of many of the urban hazardous air pollutants, such as acetaldehyde, acrolein, benzene, 1,3-butadiene, formaldehyde, and polycyclic aromatic hydrocarbons. The particle phase is also composed of many different types of particles by size or composition. Fine (PM less than 2.5 micrograms per cubic meter [PM_{2.5}]) and ultra-fine (PM less than 0.1 microgram per cubic meter) PM is of the greatest health concern and may be composed of elemental carbon with adsorbed compounds, such as organic compounds, SO₂, nitrates, metals, and other trace elements. DPM is emitted from a broad range of diesel engines: the on-road diesel engines of trucks, buses, and cars and the off-road diesel engines that include locomotives, marine vessels, and heavy-duty equipment. Although DPM is emitted by diesel-fueled internal combustion engines, the composition of the emissions varies depending on engine type, operating conditions, fuel composition, lubricating oil, and presence of an emission control system.

Acute exposure to diesel exhaust may cause irritation to the eyes, nose, throat, and lungs and has some neurological effects, such as lightheadedness. Acute exposure may also elicit a cough or nausea, as well as exacerbate asthma. Chronic exposure to DPM in experimental animal inhalation studies has shown a range of dose-dependent lung inflammation and cellular changes in the lung and immunological effects. Based upon human and laboratory studies, there is considerable evidence that DPM is a likely carcinogen. Human epidemiological studies have demonstrated an association between DPM exposure and increased lung cancer rates in occupational settings.

3.1.3 Regulatory Setting

This section identifies laws, regulations, and ordinances that are relevant to the impact analysis of air quality for the Project.

Federal

Clean Air Act and National Ambient Air Quality Standards

The Clean Air Act (CAA) was first enacted in 1963 and has been amended numerous times in subsequent years (1965, 1967, 1970, 1977, and 1990). The CAA establishes federal air quality standards, known as NAAQS, for six criteria air pollutants and specifies future dates for achieving compliance. The CAA also mandates that the states submit and implement a State Implementation Plan (SIP) for local areas not meeting those standards. The SIPs must include pollution control measures that demonstrate how the standards will be met.

The 1990 amendments to the CAA identify specific emission-reduction goals for areas not meeting the NAAQS. These amendments require both a demonstration of reasonable further progress toward attainment and incorporation of additional sanctions for failure to attain or meet interim milestones. Table 3.1-2 shows the NAAQS currently in effect for each criteria pollutant, as well as the CAAQS (discussed further below).

Table 3.1-2. Federal and State Ambient Air Quality Standards

Criteria Pollutant	Average Time	California Standards	National Standards ¹	
			Primary	Secondary
Ozone	1-hour	0.09 ppm	None ²	None ²
	8-hour	0.070 ppm	0.070 ppm	0.070 ppm
Particulate Matter (PM ₁₀)	24-hour	50 µg/m ³	150 µg/m ³	150 µg/m ³
	Annual mean	20 µg/m ³	None	None
Fine Particulate Matter (PM _{2.5})	24-hour	None	35 µg/m ³	35 µg/m ³
	Annual mean	12 µg/m ³	12.0 µg/m ³	15 µg/m ³
Carbon Monoxide	8-hour	9.0 ppm	9 ppm	None
	1-hour	20 ppm	35 ppm	None
Nitrogen Dioxide	Annual mean	0.030 ppm	0.053 ppm	0.053 ppm
	1-hour	0.18 ppm	0.100 ppm	None
Sulfur Dioxide ³	Annual mean	None	0.030 ppm	None
	24-hour	0.04 ppm	0.014 ppm	None
	3-hour	None	None	0.5 ppm
	1-hour	0.25 ppm	0.075 ppm	None
Lead	30-day Average	1.5 µg/m ³	None	None
	Calendar quarter	None	1.5 µg/m ³	1.5 µg/m ³
	3-month average	None	0.15 µg/m ³	0.15 µg/m ³
Sulfates	24-hour	25 µg/m ³	None	None
Visibility-reducing Particles	8-hour	See footnote 4	None	None
Hydrogen Sulfide	1-hour	0.03 ppm	None	None
Vinyl Chloride	24-hour	0.01 ppm	None	None

Source: CARB 2016.

¹ National standards are divided into primary and secondary standards. Primary standards are intended to protect public health, whereas secondary standards are intended to protect public welfare and the environment.

² The federal 1-hour standard of 12 parts per hundred million was in effect from 1979 through June 15, 2005. The revoked standard is referenced because it was employed for such a long period and is a benchmark for SIPs.

³ The annual and 24-hour NAAQS for SO₂ only apply for 1 year after designation of the new 1-hour standard to those areas that were previously in nonattainment for 24-hour and annual NAAQS.

⁴ CAAQS for visibility-reducing particles is defined by an extinction coefficient of 0.23 per kilometer – visibility of 10 miles or more due to particles when relative humidity is less than 70%.

µg/m³ = micrograms per cubic meter

Non-road Diesel Rule

EPA has established a series of increasingly strict emission standards for new off-road diesel equipment, on-road diesel trucks, and locomotives. New equipment used within the City, including heavy-duty trucks and off-road construction equipment, are required to comply with these emission standards.

Corporate Average Fuel Economy Standards

The Corporate Average Fuel Economy Standards were first enacted in 1975 to improve the average fuel economy of cars and light duty trucks.

On August 2, 2018, the National Highway Traffic Safety Administrative (NHTSA) and EPA proposed to amend the fuel efficiency standards for passenger cars and light trucks and establish new standards covering model years 2021 through 2026 by maintaining the current model year 2020 standards through 2026 (Safer Affordable Fuel-Efficient [SAFE] Vehicles Rule). On September 19, 2019, EPA and NHTSA issued a final action on the One National Program Rule, which is consider Part One of the SAFE Vehicles Rule and a precursor to the proposed fuel efficiency standards. The One National Program Rule enables EPA/NHTSA to provide nationwide uniform fuel economy and GHG vehicle standards, specifically by (1) clarifying that federal law preempts state and local tailpipe GHG standards, (2) affirming NHTSA's statutory authority to set nationally applicable fuel economy standards, and (3) withdrawing California's CAA preemption waiver to set state-specific standards.

EPA and NHTSA published their decisions to withdraw California's waiver and finalize regulatory text related to the preemption on September 27, 2019 (84 *Federal Register* 51310). California, 22 other states, the District of Columbia, and two cities filed suit against Part One of the SAFE Vehicles Rule on September 20, 2019 (*California et al. v. United States Department of Transportation et al.*, 1:19-cv-02826, U.S. District Court for the District of Columbia). On October 28, 2019, the Union of Concerned Scientists, Environmental Defense Fund, and other groups filed a protective petition for review after the federal government sought to transfer the suit to the D.C. Circuit (*Union of Concerned Scientists v. National Highway Traffic Safety Administration*). The lawsuit filed by California and others is stayed pending resolution of the petition.

EPA and NHTSA published final rules to amend and establish national CO₂ and fuel economy standards on April 30, 2020 (Part Two of the SAFE Vehicles Rule) (85 *Federal Register* 24174). The revised rule changes the national fuel economy standards for light-duty vehicles from 50.4 to 40.5 miles per gallon in future years. This new rule rolls back California fuel efficiency standards for on-road passenger vehicles. California, 22 other states, and the District of Columbia filed a petition for review of the final rule on May 27, 2020, to challenge this new rule in the court system; it is reasonably foreseeable that the state will be successful in its legal challenges, for the reasons outlined in the state's lawsuit and on the CARB website. Furthermore, on January 20, 2021, President Biden signed an executive order directing the government to revise fuel economy standards with the goal of further reducing emissions. In February 2021, the Biden Administration's Department of Justice also asked courts to put the litigation on hold while the administration

“reconsidered the policy decisions of a prior administration.” Most recently, on April 22, 2021, the Biden Administration proposed to formally roll back portions of the SAFE Rule, thereby restoring California’s right to enforce more stringent fuel efficiency standards.

State

California Clean Air Act and California Ambient Air Quality Standards

In 1988, the State Legislature adopted the California Clean Air Act (CCAA), which established a statewide air pollution control program. The CCAA requires all air districts in the state to endeavor to meet the CAAQS by the earliest practical date. Unlike the CAA, the CCAA does not set precise attainment deadlines. Instead, the CCAA establishes increasingly stringent requirements for areas that will require more time to achieve the standards. CAAQS are generally more stringent than NAAQS and incorporate additional standards for sulfates, hydrogen sulfide, visibility-reducing particles, and vinyl chloride. The CAAQS and NAAQS are shown in Table 3.1-2. Table 3.1-3 provides the Riverside County portion of the Basin’s attainment status with respect to the NAAQS and CAAQS.

Table 3.1-3. Federal and State Attainment Status for Riverside County

Criteria Pollutant	Federal Designation	State Designation
Ozone (O ₃) (8-hour)	Nonattainment (Extreme)	Nonattainment
Carbon Monoxide (CO)	Attainment	Attainment
Respirable Particulate Matter (PM ₁₀)	Attainment/Serious Maintenance	Nonattainment
Fine Particulate Matter (PM _{2.5})	Nonattainment (Serious)	Nonattainment
Nitrogen Dioxide (NO ₂)	Attainment	Attainment
Sulfur Dioxide (SO ₂)	Attainment	Attainment
Lead (Pb)	Attainment	Attainment
Sulfates	(No federal standard)	Attainment
Hydrogen Sulfide	(No federal standard)	Unclassified
Visibility	(No federal standard)	Unclassified

Sources: CARB 2021b; SCAQMD 2021.

Note: At the time of designation, if the available data do not support a designation of attainment or nonattainment, the area is designated as unclassified.

CARB and local air districts bear responsibility for meeting the CAAQS, which are to be achieved through district-level air quality management plans (AQMPs) incorporated into the SIP. In California, EPA has delegated authority to prepare SIPs to CARB, which, in turn, has delegated that authority to individual air districts. CARB traditionally has established state air quality standards, maintaining oversight authority in air quality planning, developing programs for reducing emissions from motor vehicles, developing air emission inventories, collecting air quality and meteorological data, and approving SIPs.

The CCAA substantially adds to the authority and responsibilities of air districts. The CCAA designates air districts as lead air quality planning agencies, requires air districts to prepare air quality plans, and grants air districts authority to implement transportation control measures. The CCAA also emphasizes the control of “indirect and area-wide sources” of air pollutant emissions. The CCAA gives local air pollution control districts explicit authority to regulate indirect sources of air pollution and to establish traffic control measures.

State Tailpipe Emission Standards

Like EPA at the federal level, CARB has established a series of increasingly strict emission standards for new off-road diesel equipment, on-road diesel trucks, and harbor craft operating in California. New equipment used during construction of development facilitated by the Project would be required to comply with the standards.

Carl Moyer Memorial Air Quality Standards Attainment Program

The Carl Moyer Memorial Air Quality Standards Attainment Program is a voluntary program that offers grants to owners of heavy-duty vehicles and equipment. The program is a partnership between CARB and the local air districts throughout the state to reduce air pollution emissions from heavy-duty engines. Locally, the air districts administer the program. The program is available for on-road projects that include public agency and utility vehicles, among other vehicle types.

Toxic Air Contaminant Regulations

California regulates TACs primarily through the Toxic Air Contaminant Identification and Control Act (Tanner Act) and the Air Toxics “Hot Spots” Information and Assessment Act of 1987 (“Hot Spots” Act). In the early 1980s, CARB established a statewide comprehensive air toxics program to reduce exposure to air toxics. The Tanner Act created California’s program to reduce exposure to air toxics. The “Hot Spots” Act supplements the Tanner Act by requiring a statewide air toxics inventory, notification of people exposed to a significant health risk, and facility plans to reduce these risks.

CARB has identified DPM as a TAC and has approved a comprehensive diesel risk-reduction plan (CARB 2000) to reduce emissions from both new and existing diesel-fueled engines and vehicles. The goal of the plan is to reduce DPM emissions and the associated health risk by 75 percent by 2010 and by 85 percent by 2020. The plan identifies 14 measures that CARB will implement to reduce DPM. The Project would be required to comply with any applicable diesel control measures from the diesel risk-reduction plan.

Senate Bill 535 and Assembly Bill 1550

Senate Bill (SB) 535 requires the California Environmental Protection Agency to identify environmental justice communities based on geographic, socioeconomic, public health, and environmental hazard criteria. It also requires that the investment plan developed and submitted to the Legislature pursuant to Assembly Bill (AB) 1550 allocate no less than 25 percent of available proceeds from the carbon auctions held under AB 32 to projects that will benefit these environmental justice communities. At least 10 percent of the available funds from these auctions must be directly invested in such communities. Because CalEnviroScreen has been developed to identify areas disproportionately affected by pollution and those areas whose populations are socioeconomically disadvantaged, it is well suited for the purposes described by SB 535 (Cal/EPA 2017).

Figure 3.9-1 in Section 3.9, *Population and Housing*, summarizes SB 535 environmental justice communities within the City and its Sphere of Influence. As shown, those communities with the highest pollution burden percentile are generally in the northern and central portions of the City along State Route 91 and Interstate 215.

Regional

South Coast Air Quality Management District

The City lies within the Riverside County portion of the Basin, which is under the jurisdiction of SCAQMD. SCAQMD has jurisdiction over an area of approximately 10,743 square miles, including all of Orange County, Los Angeles County (except for the Antelope Valley), the non-desert portion of western San Bernardino County, and the western and Coachella Valley portions of Riverside County. The Basin is a sub-region of SCAQMD's jurisdiction. Although air quality in this area has improved, the Basin requires continued diligence to meet air quality standards.

SCAQMD has adopted a series of AQMPs to meet the CAAQS and NAAQS. These plans require, among other emissions-reducing activities, control technology for existing sources, control programs for area sources and indirect sources, an SCAQMD permitting system that allows no net increase in emissions from any new or modified (i.e., previously permitted) emissions sources, and transportation control measures. The most recent publication is the 2016 AQMP, which is intended to serve as a regional blueprint for achieving the federal air quality standards for healthful air.

The 2016 AQMP represents a thorough analysis of existing and potential regulatory control options and includes available, proven, and cost-effective strategies to pursue multiple goals in promoting reductions in GHG emissions and toxic risk, as well as efficiencies in energy use, transportation, and goods movement. The 2016 AQMP focuses on demonstrating NAAQS attainment dates for the 2008 8-hour O₃ standard, the 2012 annual PM_{2.5} standard, and the 2006 24-hour PM_{2.5} standard. The 2016 AQMP includes both stationary and mobile source strategies to ensure that rapidly approaching attainment deadlines are met, that public health is protected to the maximum extent feasible, and that the region is not faced with burdensome sanctions if the NAAQS are not met by the established date (SCAQMD 2017).

SCAQMD published the *CEQA Air Quality Handbook* in November 1993 to help local governments analyze and mitigate project-specific air quality impacts. This handbook provides standards, methodologies, and procedures for conducting air quality analyses as part of CEQA documents prepared within SCAQMD's jurisdiction (SCAQMD 1993). In addition, SCAQMD has several supplemental documents, including *Air Quality Significance Thresholds* (2019), *Localized Significance Threshold Methodology* (2003, revised 2008), and *Final Methodology to Calculate Particulate Matter (PM) 2.5 and PM_{2.5} Significance Thresholds* (2006). These documents provide guidance for evaluating localized effects from mass emissions, and were used in the preparation of this analysis (SCAQMD 2006, 2008, 2019).

The Project is also required to comply with all applicable SCAQMD rules and regulations pertaining to construction activities including, but not limited to, the following:

- **SCAQMD Rule 402—Nuisance:** This rule prohibits the discharge of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, endanger the comfort, repose, health, or safety of any such persons or the public, or cause, or have a natural tendency to cause, injury or damage to business or property. Odors are regulated under this rule.
- **SCAQMD Rule 403—Fugitive Dust:** This rule prohibits emissions of fugitive dust from any active operation, open storage pile, or disturbed surface area that remains visible beyond the property line of the emission's source. During construction, best available control measures

identified in the rule would be required to minimize fugitive dust emissions from proposed earthmoving and grading activities. These measures would include site pre-watering and re-watering as necessary to maintain sufficient soil moisture content. Additional requirements apply to construction projects on properties with 50 or more acres of disturbed surface area or any earthmoving operation with a daily earthmoving or throughput volume of 5,000 cubic yards or more three times during the most recent 365-day period. These requirements include submittal of a dust control plan, maintenance of dust control records, and designation of an SCAQMD-certified dust control supervisor.

- **SCAQMD Rule 445—Wood-Burning Devices:** This rule prohibits the installation of wood-burning devices in new development.
- **SCAQMD Rule 1108—Cutback Asphalt:** This rule specifies VOC content limits for cutback asphalt.
- **SCAQMD Rule 1113—Architectural Coatings:** This rule specifies VOC content limits for architectural coatings.
- **SCAQMD Rule 1403—Asbestos Emissions from Demolition/Renovation Activities:** This rule specifies work practices to limit asbestos emissions from building demolition and renovation activities including the removal and disturbance of asbestos-containing material (ACM). This rule is generally designed to protect uses surrounding demolition or renovation activity from exposure to asbestos emissions.

Southern California Association of Governments

The Southern California Association of Governments (SCAG) is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial Counties. SCAG addresses regional issues related to transportation, the economy, community development, and the environment and is the federally designated metropolitan planning organization for a majority of the region and the largest metropolitan planning organization in the nation. As required by federal and state law, SCAG develops plans pertaining to transportation, growth management, hazardous waste management, housing, and air quality. SCAG data are used in the preparation of air quality forecasts and the conformity analysis included in the AQMP.

On May 7, 2020, SCAG's Regional Council adopted the 2020–2045 Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS) (SCAG 2020) (also known as *Connect SoCal*) for federal transportation conformity purposes only. The Regional Council approved the 2020–2045 RTP/SCS on September 3, 2020. The RTP/SCS is a long-range visioning plan that balances future mobility and housing needs with economic, environmental, and public health goals. The RTP/SCS charts a course for closely integrating land use and transportation so the region can grow smartly and sustainably.

The 2020–2045 RTP/SCS includes a strong commitment to reduce emissions from transportation sources to comply with SB 375, improve public health, and meet the NAAQS as set forth by the CAA. While 2020 is the most current RTP/SCS for the SCAG region, the most recent AQMP (2016) was developed using the 2016 SCAG RTP/SCS.

Local

Riverside General Plan 2025

Riverside General Plan 2025 (GP 2025) was adopted in November 2007 and considers the continued growth of the City through 2025. GP 2025’s Air Quality Element summarizes air quality issues and outlines policies that will improve air quality in the City. The Air Quality Element is also a planning tool for protecting the public’s health and welfare. The element identifies the City’s role in helping the Basin meet federal and state air quality standards and identifies provisions and programs to protect the City’s residents and businesses from air quality impacts.

The policies of the Air Quality Element focus on meeting air quality standards and reducing vehicle miles traveled (VMT).

Table 3.1-4 presents an overview of GP 2025 and other Specific Plans policies related to air quality.

Table 3.1-4. Relevant Riverside General Plan and Specific Plan Policies

Plan	Policy
Riverside General Plan 2025	
Air Quality Element	Policy AQ-1.3: Separate, buffer and protect sensitive receptors from significant sources of pollution to the greatest extent possible.
	Policy AQ-1.5: Encourage infill development projects within urbanized areas, which include job centers and transportation nodes.
	Policy AQ-1.6: Provide a mechanism to create opportunities for mixed- use development that allows the integration of retail, office, institutional and residential uses for the purpose of reducing costs of infrastructure construction and maximizing the use of land.
	Policy AQ-1.7: Support appropriate planned residential developments and infill housing, which reduce vehicle trips.
	Policy AQ-1.15: Establish land use patterns that reduce the number and length of motor vehicle trips and promote alternative modes of travel.
	Policy AQ-1.17: Avoid locating multiple-family developments close to commercial areas that emit harmful air contaminants.
	Policy AQ-1.18: New residential subdivisions shall be designed to encourage “walkable” neighborhoods with pedestrian walkways and bicycle paths to facilitate pedestrian travel.
	Policy AQ-1.23: Increase residential and commercial densities around rail and bus transit stations.
	Policy AQ-2.4: Monitor and strive to achieve performance goals and/or VMT reduction which are consistent with SCAG’s goals.
	Policy AQ-2.7: Use incentives, regulations and Transportation Demand Management in cooperation with surrounding jurisdictions to eliminate vehicle trips that would otherwise be made.
	Policy AQ-3.6: Support “green” building codes that require air conditioning/filtration installation, upgrades or improvements for all buildings, but particularly for those associated with sensitive receptors.
Policy AQ-4.2: Reduce particulate matter from agriculture (e.g., require use of clean non-diesel equipment and particulate traps), construction, demolition,	

Plan	Policy
	<p>debris hauling, street cleaning, utility maintenance, railroad rights-of-way and off-road vehicles to the extent possible, as provided in SCAQMD Rule 403.</p> <p>Policy AQ-4.5: Require the suspension of all grading operations when wind speeds (as instantaneous gusts) exceed 25 miles per hour.</p> <p>Policy AQ-5.1: Utilize source reduction, recycling and other appropriate measures to reduce the amount of solid waste disposed of in landfills.</p> <p>Policy AQ-5.3: Continue and expand use of renewable energy resources such as wind, solar, water, landfill gas, and geothermal sources.</p> <p>Policy AQ-5.6: Support the use of automated equipment for conditioned facilities to control heating and air conditioning.</p> <p>Policy AQ-5.7: Require residential building construction to meet or exceed energy use guidelines in Title 24 of the California Administrative Code.</p> <p>Policy AQ-8.23: Apply urban planning principles that encourage higher density, mixed use, walkable/bikeable neighborhoods, and coordinate land use and transportation with open space systems in 2008.</p>
Specific Plans	
Canyon Springs Business Park Specific Plan	There are no applicable policies relevant to the Project regarding air quality.
Downtown Specific Plan	There are no applicable policies relevant to the Project regarding air quality.
Hunter Business Park Specific Plan	There are no applicable policies relevant to the Project regarding air quality.
La Sierra University Specific Plan	<p>Policy LSU-2.3. As the Specific Plan and its Environmental Impact Report addresses in a comprehensive fashion issues such as land use, traffic, noise, hydrology, earth, air quality, biological resources, public services, cultural resources, aesthetics, infrastructure and grading, a Conditional Use Permit shall not be required for development of uses on the La Sierra University campus which are described in this Specific Plan. Plot plan review by the Planning Commission will be required for significant alteration, expansion and new construction in Subareas 1 and 2.</p> <p>Environmental Impact Report Mitigation Monitoring Program Require that contractors:</p> <ul style="list-style-type: none"> • Use low emission on-site mobile construction equipment. • Maintain equipment in tune, per manufacturer's specifications. • Use catalytic converters on gasoline powered equipment. • Retard diesel engine injection timing by four degrees. • Use reformulated, low emission diesel fuel. • Substitute electric and gasoline powered equipment for diesel powered equipment where feasible. • Where applicable, do not leave equipment idling for prolonged periods. • Curtail (cease or reduce) construction during periods of high ambient pollutant concentrations (i.e., Stage 2 smog alerts). • Configure construction parking to minimize traffic interference. • Provide temporary traffic control during all phases of construction activities to improve traffic flow (e.g., flag person). <p>Fugitive Dust. The contractor shall:</p>

Plan	Policy
	<ul style="list-style-type: none"> • Spread soil binders on site, on unpaved roads, and in parking areas. • Water the site and the equipment in the morning and evening. • Reestablish ground cover on the construction site through seeding and watering. • Pave on-site haul roads. • Phase grading to prevent the susceptibility of large areas to erosion over extended periods of time. • Schedule activities to minimize the amount of exposed excavated soil during and after the end of work periods. • Sweep streets on a daily basis, if silt is carried over to adjacent public thoroughfares or occurs as a result of hauling. • Suspend grading operations during high winds in accordance with Rule 403 requirements. • Wash trucks leaving site. • Maintain a minimum 24 inch freeboard ratio on haul trucks. • Cover payloads on haul trucks using tamps or other suitable means. • Traffic speeds on all unpaved roads to be reduced to 15 mph or less. • Where applicable, specify the use of concrete, asphaltic cement, or emulsified asphalt. Avoid cut-back asphalt wherever feasible. • Consider the use of high volume low pressure or manual application of paints and coatings on structures. Where applicable, use pre-finished or pre-primed, sanded wood molding and trim products, and pre-primed wallboard. • Where applicable, specify the use of low VOC paints and coating now offered by many of the major brands (e.g., Frazee) • Where applicable, specify the use of nonpolluting, powder coating operations and powder coated metal products. • When possible, specify the use of natural finishes, such as brick, clay tile, and uncoated concrete.
Magnolia Avenue Specific Plan	There are no applicable policies relevant to the Project regarding air quality.
Riverside Marketplace Specific Plan	There are no applicable policies relevant to the Project regarding air quality.
University Avenue Specific Plan	There are no applicable policies relevant to the Project regarding air quality.

Sources: City of Riverside 1991, 2002, 2005, 2007a, 2007b, 2009, 2017a, 2017b.

Policy Consistency

The Project would be generally consistent with GP 2025 and Specific Plan goals and policies as described in Table 3.1-4. As discussed in Chapter 2, *Project Description*, one of the objectives of the Project is to ensure affordable housing is added across the City and not concentrated in areas with lower access to amenities or near sources of pollution. The Housing Element Update includes a guiding principle that seeks to equitably distribute a mix of housing types, including ownership and rental, that is safe and affordable for people of all income levels, backgrounds, and ages and that meets the needs of current and future Riverside residents.

The principles, policies, actions, and programs within the Housing Element Update relate directly to and must be consistent with other elements of GP 2025. As the Project comprises Phase 1 of a comprehensive update of GP 2025, the principles, policies, actions, and programs of the Housing Element and Public Safety Element will serve as a platform for developing updates of the remaining GP 2025 elements in the forthcoming Phase 2 update. The Project may result in development that may be inconsistent with City policies relating to air quality in the Air Quality Element (City of Riverside 2007a), as described in Table 3.1-4. Implementation of Mitigation Measures **MM-AQ-1** through **MM-AQ-4** would help to address policy inconsistencies. These measures require future development projects enabled by the Project to implement emissions-reducing measures during construction and operation, and to evaluate for health risk to reduce impacts from the Project, where necessary.

3.1.4 Methodology and Thresholds of Significance

Methods for Analysis

Air quality impacts associated with construction and operation of the various Project components were assessed and quantified where possible using industry standard and accepted software tools, techniques, and emission factors. A summary of the methodology is provided below. The methodology used to estimate air quality emissions discussed below is the same that was used to estimate GHG emissions, as described in Section 3.5, *Greenhouse Gas Emissions*.

Construction

Implementation of the Project would generate emissions of VOC, NO_x, CO, sulfur oxides (SO_x), PM₁₀, and PM_{2.5} during construction activities. Implementation of the Project could result in up to 31,564 dwelling units and approximately 3,181,930 square feet of nonresidential uses within Opportunity Sites, which is 31,175 dwelling units and approximately 1,433,460 square feet above existing uses, as shown in Table 3.1-5. These new land uses would be developed over an assumed 8-year period, which could result in short-term impacts on ambient air quality within the City. Sources of construction emissions would include mobile and stationary construction equipment exhaust, employee and haul truck vehicle exhaust, land clearing and material movement, paving, and application of architectural coatings. However, the specific size, location, and construction techniques and scheduling that would be used for each individual development project occurring in the City from implementation of the Project is not currently known. With a horizon year of 2029, development of the various land uses associated with the Project would occur over an extended period and would depend on factors such as local economic conditions, market demand, and other financing considerations. As such, without specific project-level details, it is not possible to develop a refined construction inventory.¹ Consequently, the determination of construction air quality impacts for each individual development project, or a combination of these projects, would require the City to speculate regarding such potential future project-level environmental impacts. Therefore, in the absence of the necessary construction information required to provide an informative and meaningful analysis, the evaluation of potential construction-related impacts resulting from implementation of the Project is conducted qualitatively. The analysis discusses the potential for

¹ Project-level information includes details such as the size and scale of the project to be constructed, construction schedule, equipment fleet, construction worker crew estimates, and demolition and grading quantities.

future individual developments in the City to generate construction emissions that, where necessary, would apply mitigation measures to reduce those emissions.

Operation

Build-out of the Project would result in a change in emissions relative to the development proposed in GP 2025. Operation of the potential dwelling units and nonresidential uses summarized in Table 3.1-5 would generate criteria pollutants and precursor emissions that could result in long-term impacts on ambient air quality within the City. Emissions would result from motor vehicle travel; area sources, such as landscaping, consumer products, architectural coatings; and natural gas consumption associated with space and water heating. Due to the adoption of SCAQMD Rule 445, *Wood-Burning Devices*, in 2008, it was assumed that new development would be constructed without the installation of permanent wood-burning fireplaces, stoves, or other devices.

Given that the Project requires rezoning of land throughout the City to fulfill the proposed development goals, the operational emissions analysis accounts for the net change in emissions from GP 2025. The land use changes and proposed land use assumptions are outlined in Table 3.1-5. Area and energy (natural gas) emissions for these land uses were estimated using CalEEMod, version 2016.3.2.

Table 3.1-5. Land Use Changes with Implementation of the Project

Land Use Type	Amount
Land Uses Removed from GP 2025	
Housing	-389 dwelling units
Non-Residential	-1,748,470 square feet
Land Uses Proposed for GP 2025	
Housing	31,564 dwelling units
Non-Residential	3,181,930 square feet
Net Land Use Development	
Housing	31,175 dwelling units
Non-Residential	1,433,460 square feet

Source: Data provided by Fehr & Peers 2021.

Air quality impacts from motor vehicles associated with the Project were evaluated using the EMFAC2021 emissions model. The mobile source emission factors (grams per mile and grams per trip) were averaged in EMFAC2021 based on vehicle and fuel types at aggregated speeds for the vehicle fleet operating within the Basin at the full build year of 2029. The emission factors were applied to the Project-specific VMT estimates outlined in Table 3.1-6 to generate mobile-source emission estimates. Refer to Appendix C for additional information on the assumptions and model data used to estimate the Project's potential future operational emissions.

Table 3.1-6. VMT Changes with Implementation of the Project

General Plan Build-Out Scenario	VMT
Existing Conditions	12,311,159
Future Project Conditions	13,985,353
<i>Net VMT</i>	<i>1,674,194</i>

Source: Data provided by Fehr & Peers 2021.

Thresholds of Significance

An Initial Study was prepared for the Project in April 2021. The following environmental threshold was scoped out from detailed review in this section of the Draft EIR because the impact was determined to be less than significant in the Initial Study:

- Would the project result in other emissions (such as those leading to odors) affecting a substantial number of people?

For a complete discussion of the environmental issues that were scoped out from this Draft EIR, refer to Section 3.15, *Effects Not Found to Be Significant*.

In accordance with Appendix G of the State CEQA Guidelines, the Project would be considered to have a significant effect if it 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 project region is a nonattainment area for an applicable federal or state ambient air quality standard
- Expose sensitive receptors to substantial pollutant concentrations

Appendix G, Section III, of the State CEQA Guidelines states that, where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make determinations regarding air quality impacts. Given SCAQMD's regulatory role in the Basin, the significance thresholds and analysis methodologies established by SCAQMD are relied upon to make determinations regarding air quality impacts.

Criteria Pollutants

Regional Air Quality

In its CEQA Air Quality Handbook, SCAQMD has established significance thresholds to assess the impact of project-related air pollutant emissions. Table 3.1-7 presents these significance thresholds. There are separate thresholds for short-term construction and long-term operational emissions. A project with daily emission rates below these thresholds is considered to have a less-than-significant effect on regional air quality. It should be noted that these SCAQMD significance thresholds were developed to analyze emissions generated by a single project.

Table 3.1-7. SCAQMD Regional Mass Emissions Significance Thresholds (pounds per day)

Project Phase	VOC	NO_x	CO	SO₂	PM₁₀	PM_{2.5}	Pb¹
Construction	75	100	550	150	150	55	3
Operation	55	55	550	150	150	55	3

Source: SCAQMD 2019.

¹ The Project would result in no Pb emissions during construction or operations due to the prohibition of Pb in fuels. As such, Pb emissions are not evaluated herein.

Local Air Quality

Localized Significance Thresholds (LSTs) were developed in response to the SCAQMD Governing Board's Environmental Justice Enhancement Initiative. SCAQMD provided *the Final Localized Significance Threshold Methodology* (revised July 2008) for guidance. The LST methodology assists lead agencies in analyzing localized impacts associated with proposed development projects. SCAQMD provides the LST lookup tables for 1-, 2-, and 5-acre projects emitting CO, NO_x, PM₁₀, and PM_{2.5}. The LST methodology and associated mass rates are not designed to evaluate localized impacts from mobile sources traveling over the roadways. Furthermore, LSTs are applicable to individual development projects at the project-specific level and are not applicable to regional projects such as general plans.

Health-Based Thresholds for Project-Generated Pollutants of Human Health Concern

In December 2018, the California Supreme Court issued its decision in *Sierra Club v. County of Fresno* (6 Cal. 5th 502), hereafter referred to as the Friant Ranch Decision. The case reviewed the long-term regional air quality analysis contained in the EIR for the proposed Friant Ranch development project, which is a 942-acre master plan development in unincorporated Fresno County within the San Joaquin Valley Air Basin that is currently in nonattainment for the O₃ and PM_{2.5} NAAQS and CAAQS. The court found that the air quality analysis was inadequate because it failed to provide enough detail "for the public to translate the bare [criteria pollutant emissions] numbers provided into adverse health impacts or to understand why such a translation is not possible at this time." The court's decision clarifies that environmental documents must connect a project's air quality impacts to specific health effects or explain why it is not technically feasible to perform such an analysis.

All criteria pollutants that would be generated by the Project are associated with some form of health risk (e.g., asthma). Criteria pollutants can be classified as either regional or localized pollutants: regional pollutants can be transported over long distances and affect ambient air quality far from the emissions source, and localized pollutants affect ambient air quality near the emissions source. O₃ is considered a regional criteria pollutant, whereas CO, NO₂, SO₂, and Pb are localized pollutants. PM can be both a local and a regional pollutant, depending on its composition. As discussed above, the primary criteria pollutants of concern generated by the Project are O₃ precursors (ROG and NO_x), CO, and PM (including DPM).

Regional Project-Generated Criteria Pollutants (O₃ Precursors and Regional PM)

Adverse health effects induced by regional criteria pollutant emissions generated by the Project (O₃ precursors and PM) would be highly dependent on a multitude of interconnected variables (e.g., cumulative concentrations, local meteorology and atmospheric conditions, the number and character of exposed individuals [e.g., age, gender]). For these reasons, O₃ precursors (ROG and NO_x)

contribute to the formation of ground-borne O₃ on a regional scale, where emissions of ROG and NO_x generated in one area may not equate to a specific O₃ concentration in that same area. Similarly, some types of particulate pollutant may be transported over long distances or formed through atmospheric reactions. As such, the magnitude and locations of specific health effects from exposure to increased O₃ or regional PM concentrations are the product of emissions generated by numerous sources throughout a region, as opposed to an individual project.

Moreover, exposure to regional air pollution does not guarantee that an individual will experience an adverse health effect—as discussed above, there are large individual differences in the intensity of symptomatic responses to air pollutants. These differences are influenced, in part, by the underlying health condition of an individual, which cannot be known.

Models and tools have been developed to correlate regional criteria pollutant emissions to potential community health impacts. While there are models capable of quantifying O₃ and secondary PM formation and associated health effects, these tools were developed to support regional planning and policy analysis and have limited sensitivity to small changes in criteria pollutant concentrations induced by individual projects. Therefore, translating Project-generated criteria pollutants to the locations where specific health effects could occur or the resultant number of additional days of nonattainment cannot be estimated with a high degree of accuracy for relatively small projects or growth within specific Opportunity Sites (relative to the regional air basin).

Technical limitations of existing models to correlate project-level regional emissions to specific health consequences are recognized by air quality management districts throughout the state, including the San Joaquin Valley Air Pollution Control District (SJVAPCD) and SCAQMD, both of which provided *amici curiae* briefs for the Friant Ranch legal proceedings. In its brief, SJVAPCD acknowledges that while health risk assessments for localized TACs, such as DPM, are commonly prepared, “it is not feasible to conduct a similar analysis for criteria air pollutants because currently available computer modeling tools are not equipped for this task” (SJVAPCD 2015a). SJVAPCD further notes that emissions solely from the Friant Ranch project (which equate to less than 0.1 percent of the total NO_x and VOC in the San Joaquin Valley) are not likely to yield valid information, and that any such information should not be “accurate when applied at the local level.” SCAQMD presents similar information in its brief, stating that “it takes a large amount of additional precursor emissions to cause a modeled increase in ambient ozone levels”² (SCAQMD 2015b).

As discussed above, air districts develop region-specific CEQA thresholds of significance in consideration of existing air quality concentrations and attainment or nonattainment designations under the NAAQS and CAAQS, both of which are informed by a wide range of scientific evidence that demonstrates there are known safe concentrations of criteria pollutants. While recognizing that air quality is a cumulative problem, air districts typically consider projects that generate criteria pollutant and O₃ precursor emissions below these thresholds to be minor in nature and to not adversely affect air quality such that the NAAQS or CAAQS would be exceeded. Emissions generated by the Project could increase photochemical reactions and the formation of tropospheric O₃ and secondary PM, which, at certain concentrations, could lead to increased incidence of specific health consequences. Although these health effects are associated with O₃ and particulate pollution, the

² For example, SCAQMD’s analysis of its 2012 Air Quality Attainment Plan showed that modeled NO_x and ROG reductions of 432 and 187 tons per day, respectively, only reduced O₃ levels by 9 parts per billion. Analysis of SCAQMD’s Rule 1315 showed that emissions of NO_x and ROG of 6,620 and 89,180 pounds per day, respectively, contributed to 20 premature deaths per year and 89,947 school absences (SCAQMD 2015b).

effects are a result of cumulative and regional emissions. As such, an individual development project's incremental contribution, including that from growth facilitated by the identified Opportunity Sites, cannot be traced to specific health outcomes on a regional scale, and a quantitative correlation of Project-generated regional criteria pollutant emissions to specific human health impacts is not included in this analysis.

Localized Project-Generated Criteria Pollutants (PM, NO₂, and CO)

Localized pollutants generated by an individual development project are deposited and potentially affect population near the emissions source. Because these pollutants dissipate with distance, emissions from individual projects can result in direct and material health impacts on adjacent sensitive receptors. Models and thresholds are readily available to quantify these potential health effects and evaluate their significance. As discussed above, SCAQMD has developed LSTs for NO_x, CO, PM₁₀, and PM_{2.5} that represent the maximum emissions from an individual development project's onsite activities that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standards, and thus would not cause or contribute to localized air quality impacts related to public health.

Toxic Air Contaminants

The California Supreme Court has held that lead agencies are not required to analyze the impacts of the environment on a project's future users or residents, unless the project exacerbates existing environmental hazards (see *California Building Industry Association v. Bay Area Air Quality Management District (2015) 62 Cal.41h 369*) or when the legislature has indicated by specific California Public Resources Code sections (21096, 21151.8, 21155.1, 21159.21, 21159.22, 21159.23, and 21159.24) that specifically defined environmental hazards associated with airport noise and safety, school projects, certain kinds of infill housing, and transit priority projects must be addressed. Certain land use types proposed under the Project may introduce emission sources (e.g., generators, delivery trucks) that would exacerbate existing environmental TAC hazards.

Regarding sensitive receptors' exposure to substantial pollutant concentrations, SCAQMD states that a project would have a significant impact from TACs if:

- The project emits carcinogenic materials or TACs that exceed the maximum incremental cancer risk of 10 in 1 million or a cancer burden greater than 0.5 excess cancer cases (in areas greater than or equal to 1 in 1 million or an acute or chronic hazard index of 1.0)

Carbon Monoxide Hot Spots

Heavy traffic congestion can contribute to high levels of CO. Individuals exposed to these CO "hot spots" may have a greater likelihood of developing adverse health effects. The potential for the Project to result in localized CO impacts at intersections resulting from addition of its traffic volumes is assessed against the health-based CAAQS and NAAQS for CO. SCAQMD states that a project impact is significant if it causes or contributes to an exceedance of the following attainment standards:

- 1-hour standards of 20 ppm (state) and 35 ppm (federal)
- 8-hour standards of 9.0 ppm (state) and 9 ppm (federal)

Asbestos

There are no quantitative thresholds related to receptor exposure to asbestos. However, SCAQMD Rule 1403 (Asbestos Emissions from Demolition/Renovation Activities) specifies work practices to limit asbestos emissions from building demolition and renovation activities including the removal and disturbance of ACM. This rule is generally designed to protect uses surrounding demolition or renovation activity from exposure to asbestos emissions. Rule 1403 requires surveys of any facility being demolished or renovated for the presence of ACM. Rule 1403 also establishes notification procedures, handling operations, warning label requirements, and removal procedures, including complying with the limitations of the National Emission Standards for Hazardous Air Pollutants regulations as listed in Code of Federal Regulations, Title 40, Part 61.

3.1.5 Impacts and Mitigation Measures

Impact AQ-1: The Project would conflict with or obstruct implementation of the applicable air quality plan. This impact would be significant and unavoidable with implementation of mitigation.

Housing Element Update, Zoning Code Amendments, and Environmental Justice Policies

In general, a development is deemed consistent with the applicable air quality plan if the project proposes development that is consistent with the growth anticipated by the relevant land use plans that were used in the formulation of the air quality attainment plans. The Project is a policy-level planning effort that encourages and facilitates the development and redevelopment of a range of housing types and affordability levels while facilitating mixed-use development and public safety infrastructure. The Housing Element Update includes Environmental Justice Policies to facilitate equitable distribution of housing throughout the City. These policies promote housing in response to the needs and desires of the residents of environmental justice communities and facilitate the development of affordable and supportive housing. Due to the Environmental Justice Policies being a policy-level planning effort, these policies would not create growth directly or indirectly that is inconsistent with the relevant land use plan. Additionally, the Project does not include specific development proposals. Future development facilitated by the Project would occur as market conditions allow and at the discretion of individual property owners.

Opportunity Sites have been identified to accommodate future housing and mixed-use development; this includes potential redevelopment sites that will help the City meet housing demand and its Regional Housing Needs Assessment (RHNA) obligation. The Housing Element Update proposes to implement general plan amendments, Zoning Code changes, and Specific Plan amendments on 581 acres within City boundaries to accommodate a variety of housing types and densities to accommodate the needs of all income levels. Seven existing Specific Plans will require updates, including mapping and land use changes, to accommodate Opportunity Sites that have been identified within their boundaries. Overall, the Zoning Code and Specific Plan amendments associated with the Project could result in an increase of 31,175 new dwelling units over existing conditions (31,564 dwelling units total) and as much as 1,433,460 square feet of nonresidential uses above what is currently assumed in GP 2025. The Project's intent is not to generate the full build-out of housing within the planning cycle, but to provide the capacity (i.e., through land use designation

and zoning) for the housing market to adequately address housing needs for all income groups and direct that capacity where planned growth is best suited to occur.

The 2016 AQMP was adopted by SCAQMD as a program to lead the Basin into compliance with criteria pollutant standards and other federal requirements for which the Basin is not in compliance. The 2016 AQMP relies on emissions forecasts based on the demographic and economic growth projections provided by the SCAG 2016 RTP/SCS (SCAQMD 2017). SCAG is charged by California law to prepare and approve “the portions of each 2016 AQMP relating to demographic projections and integrated regional land use, housing, employment, and transportation programs, measures and strategies” (SCAQMD 2017). A project is considered to be consistent with the 2016 AQMP and not obstruct its implementation if, in part, it is consistent with the demographic and economic growth projections used in the formulation of the 2016 AQMP. SCAQMD recommends that, when determining whether a project is consistent with the current 2016 AQMP, a lead agency must assess (1) whether the project would directly obstruct implementation of the plan through an increase in the frequency or severity of existing air quality violations, or cause or contribute to new violations, or delay timely attainment of air quality standards; and (2) whether it is consistent with the demographic and economic assumptions (typically land use–related, such as resultant employment or residential units) upon which the plan is based (SCAQMD 1993).

Criterion No. 1

The Basin is currently designated as a nonattainment area for the federal and state O₃ and PM_{2.5} standards and a nonattainment area for the state PM₁₀ standard. As discussed below under Impact AQ-2, SCAQMD’s project-level thresholds were developed to analyze emissions generated by a single project. While the construction emission impacts associated with each new residential and nonresidential development project would be short term in nature, the concurrent construction of a multitude of individual development projects that could occur at any one time in the City under the Project could generate combined criteria pollutant emissions on a daily basis that could exceed SCAQMD’s project-level thresholds. Additionally, the long-term operational emissions from the build-out of the Project would exceed SCAQMD’s daily emissions thresholds for ROG, NO_x, and CO. In order to reduce potential impacts, the Project would implement Mitigation Measures **MM-AQ-1** and **MM-AQ-2** (described under Impact-AQ-2 below) to help reduce criteria air pollution emissions from future construction-related and operational activities due to new development facilitated by the Project. As discussed under Impact AQ-3, the individual development occurring within the City may exceed the construction and operational SCAQMD LSTs. As such, the Project’s emissions would increase concentrations of criteria pollutants or their precursors in a manner that could obstruct SCAQMD’s efforts to achieve attainment of ambient air quality standards for any criteria pollutant for which it is currently in nonattainment, or jeopardize the current attainment status of the Basin for other criteria pollutants. Therefore, the general plan amendments, Zoning Code changes, and Specific Plan amendments under the Project would not be consistent with the 2016 AQMP under this criterion.

Criterion No. 2

As discussed previously, the 2016 AQMP relies on emissions forecasts based on the demographic and economic growth projections provided by the SCAG 2016 RTP/SCS. In turn, SCAG’s population, housing, and employment forecasts are based on data from local general plans, which in this case would be the existing GP 2025. However, under the Project, general plan amendments, Zoning Code changes, and Specific Plan amendments are proposed to fulfill the City’s 6th cycle RHNA

requirements. Specifically, the Project has identified 239 acres across the City where new potential housing development could occur under existing zoning and 581 acres for future development that would require general plan amendments, Zoning Code changes, and/or Specific Plan amendments. In total, 870 potential parcels totaling 820 acres have been identified for new housing and nonresidential development that would result in an increase of 31,175 new dwelling units over existing conditions and as much as 1,433,460 net square feet of nonresidential uses above what is currently assumed in GP 2025. Given that none of these changes to the existing GP 2025 resulting in additional growth were considered in SCAG's growth assumptions in the 2016 RTP/SCS, the emissions inventory in the 2016 AQMP would not have accounted for this additional growth. Therefore, future development under the Project would exceed SCAG's projections in the 2016 RTP/SCS upon which the regional emissions inventory for the Basin in the AQMP was based. As such, the Project would not be consistent with the 2016 AQMP under this criterion. It should be noted that in future updates to the AQMP, the updated growth projections resulting from the Project would eventually be incorporated by SCAG and SCAQMD into their regional planning projections and they would become consistent with the AQMP. However, the growth projects (i.e., Opportunity Sites) facilitated by the Project would not be consistent with the current 2016 AQMP.

Overall, based on the discussion provided for the two criteria above, the Project would not be consistent with the 2016 AQMP. Therefore, this impact is potentially significant. While implementation of Mitigation Measures **MM-AQ-1** and **MM-AQ-2** as discussed under Impact AQ-2 below for future development projects would reduce criteria air pollutant emissions, they would not be able to reduce the emissions associated with build-out of the Project to below SCAQMD's significance thresholds. Additionally, although the general plan amendments, Zoning Code changes, and Specific Plan amendments under the Project would need to be implemented in order to fulfill the City's 6th RHNA cycle requirements, the additional growth facilitated by the Project would remain inconsistent with the current 2016 AQMP.

The City will coordinate with SCAQMD and SCAG to update the AQMP and SIP with the new growth projections due to the implementation of the Project. However, because updates to the regional growth projections and the AQMP would be completed by external agencies (SCAG and SCAQMD) and completed on a fixed schedule, the revisions may not be completed before construction of new development facilitated by the Project (i.e., before any conflict or impact occurs). Until the AQMP and SIP are revised, the Project would result in a significant impact with respect to consistency with the AQMP and SIP. Therefore, impacts would be significant and unavoidable.

Public Safety Element Update and Environmental Justice Policies

As mentioned above, according to SCAQMD, a project is deemed consistent with the 2016 AQMP if it would not result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timely attainment of air quality standards; and if it is consistent with the demographic and economic assumptions upon which the plan is based. The Public Safety Element Update policies and implementing actions address natural hazards; transportation hazards; police, fire, and emergency services; pandemic preparedness and response; homelessness; and climate change and resiliency. These policies and implementing actions aim to reduce risk to the community and to ensure protection from foreseeable natural and human-caused hazards. Proposed new residential and mixed-use development would be predominantly located in more urbanized areas of the City. Public Safety Element policies and implementing actions could affect the design and construction of planned developments, such as addition of design elements

related to emergency access and pedestrian safety. Public Safety Element policies do not include specific development proposals that would create growth through extension of roads or other infrastructure that is inconsistent with the relevant land use plan.

The Public Safety Element Update policies and implementing actions would also involve additional Environmental Justice Policies to address public safety issues within environmental justice communities. Many Public Safety Element Update policies could result in community benefits. No specific infrastructure improvements or projects are identified in the Public Safety Element Update. As this is a policy document, this update would not conflict with or obstruct implementation of the AQMP. Impacts would be less than significant.

Impact AQ-2: The Project could result in a cumulatively considerable net increase of criteria pollutants for which the Project region is a nonattainment area for an applicable federal or state ambient air quality standard. This impact would be significant and unavoidable with implementation of mitigation.

Housing Element Update, Zoning Code Amendments, and Environmental Justice Policies

Short-Term Construction Emissions

The Project is a policy-level planning document and does not include specific development proposals. However, implementation of the Zoning Code and Specific Plan amendments associated with the Project could allow for additional development over existing conditions, and above what is currently assumed in GP 2025. The Environmental Justice Policies associated with the Housing Element Update, which serve to facilitate equitable distribution of housing throughout the City by promoting housing in response to the needs and desires of the residents of environmental justice communities and facilitate the development of affordable and supportive housing, would not in themselves result in specific development proposals.

The Basin is currently designated as a nonattainment area for the federal and state O₃ and PM_{2.5} standards and a nonattainment area for the state PM₁₀ standard. Construction associated with new residential and nonresidential developments accommodated under the Project have the potential to result in cumulatively considerable net increases in O₃ precursors (ROG and NO_x), PM₁₀, and PM_{2.5}. Emissions would originate from mobile and stationary construction equipment exhaust, employee and haul truck vehicle exhaust, and activities such as land clearing, demolition, architectural coatings, and asphalt paving. Construction-related emissions would vary substantially depending on the level of activity, length of the construction period, specific construction operations, types of equipment, number of personnel, wind and precipitation conditions, and soil moisture content.

By its nature as a policy-level document, the Project does not propose any specific development projects. Rather, construction of new residential and nonresidential developments allowable under the proposed general plan amendments, Zoning Code changes, and Specific Plan amendments would occur intermittently on the identified Opportunity Sites throughout the course of the build-out period. As the timing and intensity of future development projects are not known at this time, the precise effects of construction activities associated with build-out of the Project cannot be accurately quantified at this time. While the details of future development within the Opportunity Sites within the City are currently unknown because development would be driven by market forces and applicants, it is known that implementation of the Project could result in an increase of 31,175 new

dwelling units over existing conditions and as much as 1,433,460 square feet of nonresidential uses at build-out in 2029. As such, it is anticipated that in any given year, multiple residential and/or nonresidential development projects would be constructed on identified Opportunity Sites within the City.

As noted previously, SCAQMD’s project-level thresholds were developed to analyze emissions generated by a single development project. While the construction emission impacts associated with each new residential and nonresidential development would be short term in nature (relative to the build-out year) and limited to the period of time when construction activity is taking place for that particular development, the concurrent construction of a multitude of individual development projects that could occur at any one time in the City facilitated by the Project could generate combined criteria pollutant emissions on a daily basis that could exceed SCAQMD’s project-level thresholds. Therefore, the Project would implement Mitigation Measure **MM-AQ-1** to help reduce criteria air pollution emissions from future construction-related activities due to the development of the new residential and nonresidential land uses allowable under the Project.

Implementation of Mitigation Measure **MM-AQ-1** would help reduce exhaust- and dust-related criteria air pollution emissions from construction-related activities to the extent feasible. However, construction time frames and equipment for site-specific development projects are not available at this time, and there is a potential for multiple development projects to be constructed at one time, potentially resulting in significant construction-related emissions. The City would need to consider all future Opportunity Site developments subject to CEQA accommodated by the Project requiring approval on a case-by-case basis to ascertain whether an individual development would generate potentially significant air quality impacts during construction, and, where necessary, would require implementation of additional mitigation measures to minimize air emissions and reduce potentially significant impacts. Therefore, despite adherence to Mitigation Measure **MM-AQ-1**, impacts would remain significant and unavoidable. Given the extent of construction activities that would occur in the City over the Housing Element cycle, the construction-related regional air quality impacts would be potentially significant.

Operational Emissions

As noted in Table 3.1-5, adoption of the Project could result in the removal of 389 dwelling units and 1,748,470 square feet of nonresidential uses. These existing and proposed land uses were modeled in CalEEMod for the baseline year of 2021. The implementation of the general plan, Zoning Code, and Specific Plan amendments associated with the Project would allow for the development of up to 31,564 dwelling units and 3,181,930 square feet of nonresidential use, for a new increase of 31,175 dwelling units and 1,433,460 square feet of nonresidential uses over what is currently assumed in GP 2025. These land uses could be built over an 8-year period, starting in 2021, and are assumed for the purposes of this analysis to be fully operational by the year 2029. Table 3.1-8 summarizes the net change in criteria air pollutant emissions associated with operation of the Project.

Table 3.1-8. Project Net Criteria Pollutant Operational Emissions

Source	Pollutant Emissions (pounds per day)					
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Area Sources	678	22	2,372	<1	(15)	(15)
Energy sources	12	97	33	1	8	8

Source	Pollutant Emissions (pounds per day)					
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Mobile Sources	45	239	2,747	11	76	26
Total Net Project Emissions	734	358	5,151	12	68	19
<i>Regional Significance Thresholds</i>	<i>55</i>	<i>55</i>	<i>550</i>	<i>150</i>	<i>150</i>	<i>55</i>
Threshold Exceeded?	Yes	Yes	Yes	No	No	No

Source: CalEEMod modeling output provided in Appendix C.

Note: Totals may not add up exactly due to rounding.

As shown in Table 3.1-8, implementation of the Project would result in increases of certain criteria air pollutant emissions as compared to existing conditions. These increases would exceed SCAQMD regional significance thresholds for ROG, NO_x, and CO. Conversely, the Project would result in a decrease in PM₁₀ and PM_{2.5} emissions as compared to existing conditions if the Opportunity Sites are developed to full build-out. This is due to the adoption of SCAQMD Rule 445 in 2008, which prohibits the installation of wood-burning fireplaces and stoves in new development.

The exceedances of ROG, NO_x, and CO emissions with Project operation are largely due to area sources, which result from architectural coatings (i.e., periodic painting), use of consumer products (i.e., household cleaning products, aerosols), and landscaping associated with both residential and nonresidential uses. Mitigation Measure **MM-AQ-2** contains several strategies for reducing emissions from operational sources, including installation of electrical outlets in residential common areas and use of electrical landscaping equipment. These measures have not been quantified, and it cannot be stated with certainty that emissions would be reduced below significance thresholds with implementation of this mitigation. For this reason, operational emissions would remain significant and unavoidable.

Health Effects

As noted above, the California Supreme Court concluded in the Friant Ranch Decision that environmental documents must attempt to connect a project's regional air quality impacts to specific health effects or explain why it is not technically feasible to perform such an analysis. Models and tools have been developed to correlate regional criteria pollutant emissions to potential community health impacts. Appendix C summarizes many of these tools, describes their intended application, and analyzes whether they could be used to reasonably correlate project-level emissions to specific health consequences. As described in Appendix C, although models are capable of quantifying data regarding O₃ and secondary PM formation, as well as associated health effects, the tools were developed to support regional planning and policy analysis and have limited sensitivity with respect to small changes in criteria pollutant concentrations induced by individual projects. Therefore, correlating Project-generated criteria pollutants to locations where specific health effects could occur or the resultant number of additional days of nonattainment cannot be achieved with any degree of accuracy for relatively small projects (i.e., relative to the regional air basin).

The technical limitations of existing models for correlating project-level regional emissions to specific health consequences are recognized by air quality management districts throughout the state, including SJVAPCD and SCAQMD, which provided *amici curiae* briefs for the Friant Ranch legal proceedings. In its brief, SJVAPCD acknowledged that health risk assessments (HRAs) for localized air toxics, such as DPM, are commonly prepared; however, "it is not feasible to conduct a similar

analysis for criteria air pollutants because currently available computer modeling tools are not equipped for this task.” SJVAPCD further noted that emissions solely from the Friant Ranch project, which equate to less than one-tenth of 1 percent of total NO_x and VOCs in the San Joaquin Valley, are not likely to “yield valid information,” and that any such information “would not be accurate when applied at the local level” (SJVAPCD 2015b). SCAQMD presents similar information in its brief, stating that “it takes a large amount of additional precursor emissions to cause a modeled increase in ambient ozone levels” (SCAQMD 2015b).

As discussed above, SCAQMD’s regional thresholds, presented in Section 3.1.3, consider existing air quality concentrations and attainment or nonattainment designations under the NAAQS and CAAQS. The NAAQS and CAAQS are informed by a wide range of scientific evidence that demonstrates that there are known safe concentrations of criteria pollutants. While recognizing that air quality is a cumulative problem, SCAQMD considers projects that generate criteria pollutant and O₃ precursor emissions below the thresholds to be minor in nature. Such future development projects would not adversely affect air quality to the extent that the health-protective NAAQS or CAAQS would be exceeded. Regional emissions generated by a development project could increase photochemical reactions and the formation of tropospheric O₃ and secondary PM, which, at certain concentrations, could lead to an increased incidence of specific health consequences. Although the health effects are associated with O₃ and particulate pollution, they result from cumulative and regional emissions.

As discussed above, construction time frames and equipment for site-specific development projects within the City are not available at this time and there is a potential for multiple development projects to be constructed at one time, resulting in significant construction-related emissions. Additionally, the Project’s operational emissions would exceed SCAQMD’s regional significance thresholds for ROG, NO_x, and CO. Implementation of Mitigation Measures **MM-AQ-1** and **MM-AQ-2** would help ensure that the individual developments within the City would not contribute a significant level of air pollution such that regional air quality within the Basin would be degraded. However, because cumulative development within the City would exceed the SCAQMD regional significance thresholds, the Project could contribute to an increase in health effects in the Basin until the attainment standards are met. Accordingly, health impacts related to regional criteria pollutants would be significant and unavoidable.

Public Safety Element Update and Environmental Justice Policies

The Public Safety Element Update policies and implementing actions address natural hazards; transportation hazards; police, fire, and emergency services; pandemic preparedness and response; homelessness; and climate change and resiliency. These policies and implementing actions aim to reduce the risk to the community and to ensure protection from foreseeable natural and human-caused hazards. Proposed new residential and mixed-use development would be predominantly located in more urbanized areas of the City. Public Safety Element policies and implementing actions could affect the design and construction of planned developments, such as addition of design elements related to emergency access and pedestrian safety. Public Safety Element policies do not include specific development proposals that would create growth through extension of roads or other infrastructure that is inconsistent with the relevant land use plan.

The Public Safety Element Update policies and implementing actions would also involve additional Environmental Justice Policies to address public safety issues within environmental justice communities. Many Public Safety Element Update policies could result in community benefits. No specific infrastructure improvements or projects are identified in the Public Safety Element Update.

As this is a policy document, this update would not produce construction or operational criteria air emissions. Impacts would be less than significant.

Mitigation Measures

The potential impacts of the Project described in this section would be reduced with implementation of the following mitigation measures.

MM-AQ-1: Implement measures to reduce construction-related criteria air pollutant emissions.

Prior to approval by the City for non-ministerial projects proposed on Opportunity Sites, applicants shall prepare and submit a technical assessment evaluating potential project construction-related air quality impacts to the Planning Division for review and approval. The evaluation shall be prepared in conformance with SCAQMD methodology for assessing air quality impacts. If construction-related criteria air pollutants are determined to have the potential to exceed the SCAQMD-adopted thresholds of significance, the City shall require that applicants for new development projects incorporate mitigation measures and/or project design features to reduce air pollutant emissions during construction activities. These identified measures shall be incorporated into all appropriate construction documents (e.g., construction management plans or construction drawings) submitted to the City and shall be verified by the City's Building and Safety Division. While specific mitigation measures and/or project design features to reduce construction-related emissions would be determined during project-level analysis, potential mitigation could include, but is not limited to:

- Requiring fugitive-dust control measures that exceed SCAQMD's Rule 403, such as:
 - Use of nontoxic soil stabilizers to reduce wind erosion
 - Applying water every 3 hours to active soil-disturbing activities
 - Tarping and/or maintaining a minimum of 24 inches of freeboard on trucks hauling dirt, sand, soil, or other loose materials
- Using construction equipment rated by EPA as having Tier 3 (model year 2006 or newer) or Tier 4 (model year 2008 or newer) emission limits, applicable for engines between 50 and 750 horsepower
- Ensuring that construction equipment is properly serviced and maintained to the manufacturer's standards
- Limiting nonessential idling of construction equipment to no more than 5 consecutive minutes
- Limiting onsite vehicle travel speeds on unpaved roads to 15 miles per hour
- Installing wheel washers for all exiting trucks or washing all trucks and equipment leaving the project area
- Using Super-Compliant VOC paints for coating of architectural surfaces whenever possible³

³ A list of Super-Compliant architectural coating manufactures can be found on SCAQMD's website at <http://www.aqmd.gov/docs/default-source/planning/architectural-coatings/super-compliant-manf-list.pdf?sfvrsn=77>.

MM-AQ-2: Implement measures to reduce criteria air pollutant emissions during operation.

Prior to approval by the City for non-ministerial development projects proposed on Opportunity Sites, applicants shall prepare and submit a technical assessment evaluating potential project operation phase-related air quality impacts to the Planning Division for review and approval. The evaluation shall be prepared in conformance with SCAQMD methodology in assessing air quality impacts. If operations-related air pollutants are determined to have the potential to exceed the SCAQMD-adopted thresholds of significance, the Planning Division shall require incorporation of mitigation measures and/or project design features to reduce air pollutant emissions during operational activities, to be included as part of the conditions of approval. Possible mitigation measures and/or project design features to reduce long-term emissions could include, but are not limited to, the following:

- Providing truck delivery and loading areas and truck parking spaces shall include signage as a reminder to limit idling of vehicles while parked for loading/unloading in accordance with CARB Rule 2845 (13 California Code of Regulations Chapter 10 § 2485)
- Providing changing/shower facilities as specified in Section A5.106.4.3 of the California Green Building Standards Code (CALGreen) (Nonresidential Voluntary Measures)
- Providing bicycle parking facilities per Section A4.106.9 (Residential Voluntary Measures) of CALGreen
- Providing preferential parking spaces for low-emitting, fuel-efficient, and carpool/van vehicles per Section A5.106.5.1 of CALGreen (Nonresidential Voluntary Measures)
- Encouraging facilities to support electric charging stations per Section A5.106.5.3 (Nonresidential Voluntary Measures) and Section A5.106.8.2 (Residential Voluntary Measures) of CALGreen
- Providing appliances shall be Energy Star–certified appliances or appliances of equivalent energy efficiency (e.g., dishwashers, refrigerators, clothes washers, and dryers). Installation of Energy Star–certified or equivalent appliances shall be verified by Building & Safety during plan check
- Equipping landscaped common areas with electrical outlets to enable use of electric landscaping equipment to the extent feasible

Impact AQ-3: The Project could result in the exposure of sensitive receptors to substantial pollutant concentrations. The impact would be significant and unavoidable with implementation of mitigation.**Housing Element Update, Zoning Code Amendments, and Environmental Justice Policies**

The term *sensitive receptors* refer to uses associated with people who are considered to be more sensitive than others to air pollutants. The reasons for greater-than-average sensitivity include pre-existing health problems, proximity to emissions sources, or duration of exposure to air pollutants. Schools, hospitals, and convalescent homes are considered to be relatively sensitive to poor air quality because children, elderly people, and the infirm are more susceptible to respiratory distress and other air quality–related health problems on average than the general public. Residential areas

are considered sensitive to poor air quality because people usually stay home for extended periods of time, with associated greater exposure to ambient air quality. Recreational uses are also considered sensitive due to the greater exposure to ambient air quality conditions because vigorous exercise associated with recreation places a high demand on the human respiratory system.

Localized Significance Thresholds

LSTs were developed in response to the SCAQMD Governing Board's Environmental Justice Enhancement Initiative. SCAQMD provided the *Final Localized Significance Threshold Methodology* (revised July 2008) for guidance. The LST methodology assists lead agencies in analyzing localized impacts associated with project-specific level proposed development projects. SCAQMD provides the LST lookup tables for 1-, 2-, and 5-acre projects emitting CO, NO_x, PM_{2.5}, or PM₁₀. The LST methodology and associated mass rates are not designed to evaluate localized impacts from mobile sources traveling over the roadways. LSTs are applicable at the project-specific level and generally are not applicable to regional projects such as local general plans.

Construction

The Project is a policy-level planning document with implementing actions and does not include specific development proposals. However, implementation of the general plan, Zoning Code, and Specific Plan amendments associated with the Project would facilitate an increase of new development compared to the existing conditions in the City. The Environmental Justice Policies associated with the Housing Element Update, which serve to facilitate equitable distribution of housing throughout the City by promoting housing in response to the needs and desires of the residents of environmental justice communities and facilitate the development of affordable and supportive housing, would not in themselves result in specific development at the Opportunity Sites.

Because an LST analysis can only be conducted at a project level, quantification of LSTs is not applicable for the program-level environmental analysis of the Project. Because potential development and redevelopment could occur close to existing sensitive receptors, future development projects that would be accommodated by the Project have the potential to expose sensitive receptors to substantial pollutant concentrations. Larger development projects or projects that exceed the LST thresholds within the City would be required to conduct air dispersion modeling, consistent with SCAQMD's LST guidance document, and mitigate impacts accordingly. However, construction equipment exhaust combined with fugitive PM emissions has the potential to expose sensitive receptors to substantial concentrations of criteria air pollutant emissions, as well as DPM, and could result in a significant impact.

Mitigation Measure **MM-AQ-1** would reduce the regional construction emissions associated with build-out of the Project and therefore also result in a reduction of localized construction-related criteria air pollutant and DPM emissions to the extent feasible. However, because existing sensitive receptors may be close to project-related construction activities, construction generated by individual development projects have the potential to exceed SCAQMD's LSTs and a significant and unavoidable impact would occur.

Operations

According to SCAQMD localized significance threshold methodology, LSTs would apply to the operational phase of a proposed development project if the development includes stationary sources or attracts mobile sources that may spend extended periods queuing and idling at the site

(e.g., warehouse or transfer facilities). Future individual development projects facilitated by the Project could involve combustion of natural gas for space and water heating (i.e., “stationary” sources), and may include nonresidential uses that require queuing and idling of mobile sources for extended periods. However, individual development within the City associated with the Project would occur in incremental phases over time, and these individual projects would each be required to analyze operational LSTs pursuant to SCAQMD guidance. Furthermore, the Project would implement Mitigation Measure **MM-AQ-2**, which would help reduce operational criteria air emissions from individual projects to the extent feasible. However, because existing sensitive receptors may be close to new emissions sources, operational emissions generated by individual development projects have the potential to exceed SCAQMD’s LSTs and a significant and unavoidable impact would occur.

Health Risk Assessment

Construction and operation of future development allowed under the Project would increase activities that may expose sensitive receptors to substantial pollutant concentrations. Land uses include a variety of multi-family residential and mixed-use zoning designations, which would include commercial, retail, and office uses within infill areas. Any development projects that propose uses subject to SCAQMD permitting for air toxics (e.g., industrial facilities, dry cleaners, and gasoline-dispensing facilities) would ensure that health risks are minimized. Additionally, Mitigation Measure **MM-AQ-3** would ensure mobile sources of TACs not covered under SCAQMD permits are considered during subsequent project-level environmental review by the City. Individual development projects subject to CEQA that result in emissions below the incremental risk thresholds established by SCAQMD would have TAC impacts that are less than significant. Individual proposed development projects within the City would be required to comply with the most current version of Title 24 of the California Building Standards Code and CALGreen. Currently, these codes require that newer construction include building filtration systems with Minimum Efficiency Report Value (MERV) 13 or higher. MERV 13 filters help reduce PM_{2.5} and PM₁₀ emissions by approximately 85 percent. However, implementation of the Project would result in land uses that could generate TACs from both permitted and non-permitted (e.g., trucks) sources that could contribute to elevated levels in the Basin. All construction would be required to comply with SCAQMD rules regulating construction activities, and implementation of Mitigation Measure **MM-AQ-1** would serve to substantially reduce DPM emission from construction activities. While individual projects that are subject to the CEQA process or to SCAQMD permitting requirements would be required to comply with SCAQMD rules and regulations, the Project may introduce uses that could increase TAC emissions that would contribute to the higher levels of risk in the Basin. Therefore, the Project’s contribution to health risk is significant and unavoidable.

Carbon Monoxide Hot Spots

A CO hot spot is a localized concentration of CO that is above the state or national 1-hour or 8-hour ambient air standards for the pollutant. CO hot spots at roadway intersections are typically found in areas with substantial traffic congestion. CO is a public health concern because at high enough concentrations, it can cause health problems such as fatigue, headache, confusion, dizziness, and even death. However, it should be noted that ambient concentrations of CO have declined dramatically in California because of existing controls and programs.

As part of SCAQMD’s 2003 AQMP, which is the most recent AQMP that addresses CO concentrations, a revision to the Federal Attainment Plan for Carbon Monoxide that was originally approved in 1992

was provided that included a CO hot spots analysis at four specified heavily traveled intersections in Los Angeles at the peak morning and afternoon time periods. These four intersection locations selected by SCAQMD for CO modeling were considered to be the worst-case intersections that would likely experience the highest CO concentrations in the Basin. SCAQMD did not analyze any intersections within Riverside County. The CO hot spots analysis in the 2003 AQMP did not predict a violation of CO standards at the four intersections. Of these four intersections, the busiest intersection evaluated was that at Wilshire Boulevard and Veteran Avenue, which was described as the most heavily congested intersection in Los Angeles County, and subsequently the Basin, with an average daily traffic volume of approximately 100,000 vehicles per day. Based on the CO modeling, the 2003 AQMP estimated that the 1-hour and 8-hour concentrations at this intersection were 4.6 ppm and 3.5 ppm, respectively, which would not exceed the most stringent 1-hour CO standard of 20.0 ppm and 8-hour CO standards of 9 ppm.

According to data provided by Fehr and Peers, the roadway segment within the City that would experience the highest level of average daily trips would be Van Buren Boulevard, north of Jurupa Avenue. During the 2040 plus Project scenario, this roadway segment would experience 81,400 average daily trips, which is below the 100,000 vehicles per day modeled in the 2003 AQMP. In addition, the Basin is in attainment for the NAAQS and CAAQS CO standard; as shown in Table 3.1-1, the highest recorded CO hourly concentration at the Riverside-Rubidoux monitoring station was 2.4 ppm in 2017, which is substantially lower than the CAAQS 1-hour threshold of 20 ppm. Therefore, the Project would not contribute a significant level of CO such that localized air quality and human health would be substantially degraded and impacts would be less than significant.

Asbestos

Asbestos is a naturally occurring mineral that was previously used in building construction because of its heat resistance and strong insulating properties. Exposure to airborne dust containing asbestos, however, has been shown to cause many disabling and fatal diseases, including lung cancer, mesothelioma, and pleural plaques. Demolition of existing buildings and hardscape (asphalt and concrete) within the City may expose workers and nearby receptors to asbestos if the material was used during construction of the original buildings and hardscape. However, future development within the City would comply with SCAQMD Rule 1403 (Asbestos Emissions from Demolition/Renovation Activities). SCAQMD Rule 1403 specifies work practices to limit asbestos emissions from building demolition and renovation activities including the removal and disturbance of ACM. Because the future development projects facilitated by the Project would be required to control asbestos emissions according to SCAQMD regulations, receptors would not be exposed to substantial asbestos risks, and impacts associated with asbestos emissions would be less than significant.

Public Safety Element Update and Environmental Justice Policies

The Public Safety Element Update policies and implementing actions address natural hazards; transportation hazards; police, fire, and emergency services; pandemic preparedness and response; homelessness; and climate change and resiliency. These policies and implementing actions aim to reduce the risk to the community and to ensure protection from foreseeable natural and human-caused hazards. Proposed new residential and mixed-use development would be predominantly located in more urbanized areas of the City. Public Safety Element policies and implementing actions could affect the design and construction of planned developments, such as addition of design elements related to emergency access and pedestrian safety. Public Safety Element policies do not

include specific development proposals that would create growth through extension of roads or other infrastructure that is inconsistent with the relevant land use plan.

The Public Safety Element Update policies and implementing actions would also involve additional Environmental Justice Policies to address public safety issues within environmental justice communities. Many Public Safety Element Update policies could result in community benefits. No specific infrastructure improvements or projects are identified in the Public Safety Element Update. As this is a policy document, this update would not expose sensitive receptors to substantial pollutant concentration and a less-than-significant impact would occur.

Mitigation Measures

The potential impacts of the Project described in this section would be reduced with implementation of the following mitigation measure.

Mitigation Measure MM-AQ-3: Prepare a health risk assessment.

Prior to approval by the City, applicants for Opportunity Site development that (1) have the potential to generate 100 or more diesel truck trips per day or have 40 or more trucks with operating diesel-powered transport refrigeration units, and (2) are within 1,000 feet of a sensitive land use (e.g., residences, schools, hospitals, or nursing homes), as measured from the property line of the project to the property line of the nearest sensitive use, shall submit an HRA to the Planning Division for review and approval. The HRA shall be prepared in accordance with policies and procedures of the state Office of Environmental Health Hazard Assessment and SCAQMD. If the HRA shows that the incremental cancer risk and/or noncancer hazard index exceeds the respective thresholds, as established by SCAQMD at the time a project is considered, the applicant will be required to identify and demonstrate that best available control technologies for toxics, including appropriate enforcement mechanisms, that are capable of reducing potential cancer and noncancer risks are implemented. Best available control technologies for toxics may include, but are not limited to, restricting idling on site or electrifying warehousing docks to reduce DPM or requiring use of newer equipment and/or vehicles. Best available control technologies for toxics identified in the HRA shall be identified as mitigation measures in the environmental document and/or incorporated into the project plans.

3.2 Biological Resources

3.2.1 Introduction

This section describes the environmental and regulatory settings for biological resources for the Project, including land cover types, special-status species, sensitive natural communities, aquatic resources, conservation areas, and wildlife movement and corridors. It also describes the CEQA thresholds of significance and potential impacts on biological resources resulting from implementation of the Project. Where needed, this section identifies mitigation measures that would reduce or avoid any significant impacts on biological resources. Analysis methods, data sources, significance thresholds, and terminology used are described. Details on the location of the Project and a description of Project activities are included in Chapter 2, *Project Description*, of this EIR.

3.2.2 Environmental Setting

Natural Communities and Land Cover Types

The Project is in the South Coast subregion of the southwestern California region and within the California Floristic Province (Baldwin et al. 2012). The natural vegetation of the subregion consists primarily of chaparral, sage scrub, and annual grasslands, with smaller areas of woodland, and riparian scrub and forest. Much of the natural vegetation occurs in preserved open space or fragmented patches in areas that are not developed.

Within Mediterranean climates there can be dramatic differences in rainfall from year to year. As a result, the plant communities growing in these regions often consist of drought-tolerant, woody shrubs and trees, and fall-sprouting grasses.

The majority of the undeveloped lands, open space, and conserved land is at the northern border, along the Santa Ana River corridor, and in the undeveloped foothills, canyons, arroyos, and mountains of Sycamore Canyon Park, Mockingbird Canyon, and Alessandro Heights in the southern portion. These open space areas contain native riparian, grassland, and scrubland habitats that support many native plants and animals, including special-status species and sensitive natural communities. These lands serve as wildlife corridors, which provide areas of undisturbed open space for regional wildlife migration between natural habitats, thereby promoting the proliferation of indigenous animal species. The remainder of the land cover types within the City are residential, commercial, and industrial, including infrastructure-related land cover. There are also agricultural lands within the Arlington Heights Greenbelt.

There are nine major vegetation communities/land cover types within the City (RCA 2012): urban/developed (77 percent); agriculture (7 percent); grassland (6 percent); coastal sage scrub (7 percent); riparian scrub, woodland, and forest (2 percent); woodlands and forest (<1 percent); meadows and marshes (< 1 percent); rock outcrops (< 1 percent); and water (< 1 percent). Each major vegetation community is composed of several habitat types, each with distinctly different plant species compositions, as depicted in Table 3.2-1. Information on vegetation communities and land cover types was obtained from the Western Riverside County Multiple Species Habitat Conservation Plan (WRC MSHCP), Volumes I & II (RCA 2003), Western Riverside County Regional

Conservation Authority (RCA) Western Riverside Vegetation Map (RCA 2012), and Section 5.4 of the *Riverside General Plan 2025 (GP 2025) EIR* (City of Riverside 2007a). This information was based on extensive land cover mapping conducted for the WRC MSHCP study area, which includes the City, and, therefore, represents the best available landscape-scale data on biological resources in the City (see Section 3.2.4, *Methodology and Thresholds of Significance*, for land cover mapping methods and data sources used).

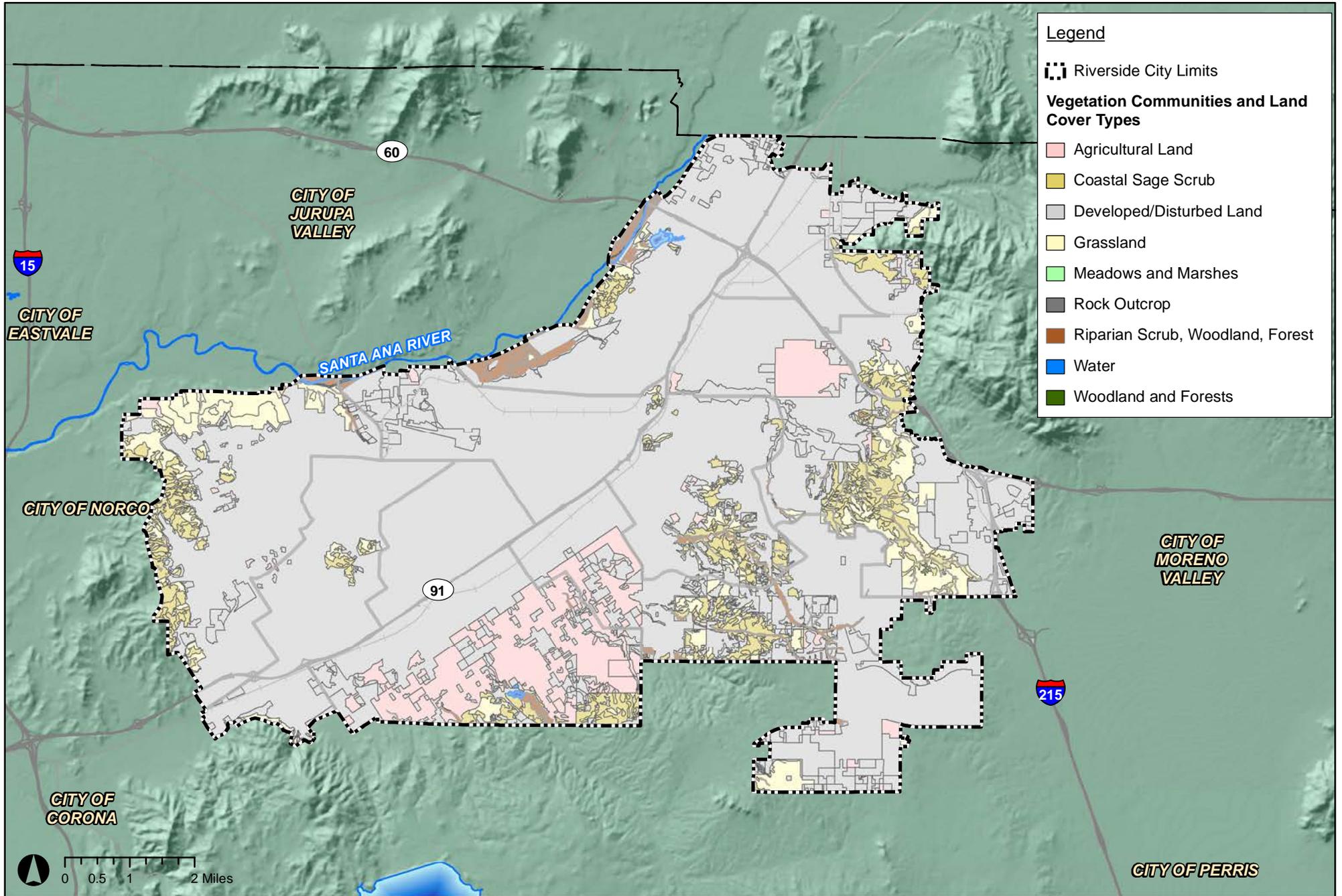
Table 3.2-1. Natural Communities and Land-Cover Types in the City

Natural Community/Land Cover Type	Total Acres in City
Natural Communities	
Riparian Scrub, Woodland, and Forest	1,098.90 (2% of City)
Arundo/Riparian Forest	6.21
Mulefat Scrub	206.96
Southern Willow Scrub	388.65
Southern Riparian Forest	54.86
Southern Cottonwood-Willow Riparian Forest	388.26
Southern Sycamore-Alder Riparian Woodland	53.96
Meadows and Marshes	0.72 (<1% of City)
Marsh	0.72
Coastal Sage Scrub	3,406.78 (7% of City)
Coastal Scrub	3,386.97
Riversidean Sage Scrub	19.81
Woodlands and Forest	5.93 (<1% of City)
Peninsular Juniper Woodland and Scrub	5.93
Grassland	3,301.52 (6% of City)
Non-Native Grassland	3,301.52
Rock Outcrops	0.98 (<1% of City)
Rock Outcrops	0.98
Water	93.46 (<1% of City)
Open Water/Reservoir	93.46
<i>Natural Communities Subtotal</i>	<i>7,908.29</i>
Other Land Cover Types	
Agricultural Land	3,833.84 (7% of City)
Grove/Orchard	3,833.84
Developed	40,444.95 (77% of City)
Urban/Developed	40,444.95
Total	52,187.09

Source: RCA 2012.

Descriptions of the natural communities and other land cover types occurring within the City are provided below and illustrated on Figure 3.2-1. These descriptions contain information summarized from WRC MSHCP, Volumes I & II (RCA 2003) and Section 5.4 of the GP 2025 EIR (City of Riverside 2007a), which contain additional detailed information about these communities and their habitat types.

Figure 3.2-1
Vegetation Communities and Land Cover Types within the City



Riparian Scrub, Woodland, and Forest

Riparian vegetation, including scrub, woodland, and forest subtypes, is distributed in waterways and drainages throughout the City, covering approximately 2 percent (1,098.90 acres) of the City. This community includes the sub-categories of arundo/riparian forest, mulefat scrub, southern willow scrub, southern riparian forest, southern cottonwood-willow riparian forest, and southern sycamore-alder riparian woodland.

As described in the WRC MSHCP, riparian communities typically consist of one or more deciduous tree species with an assorted understory of shrubs and herbs (Holland and Keil 1995). Depending on community type, a riparian community may be dominated by any of several trees/shrubs, including box elder (*Acer negundo*), big-leaf maple (*A. macrophyllum*), coast live oak (*Q. agrifolia*), white alder (*Alnus rhombifolia*), western sycamore (*Platanus racemosa*), Fremont's cottonwood (*Populus fremontii*), California walnut (*Juglans californica*), Mexican elderberry (*Sambucus mexicana*), wild grape (*Vitis girdiana*), giant reed (*Arundo donax*), mulefat (*Baccharis salicifolia*), tamarisk (*Tamarix* spp.), or any of several species of willow (*Salix* spp.). In addition, various understory herbs may be present, such as salt grass (*Distichlis spicata*), wild cucumber (*Marah macrocarpus*), mugwort (*Artemisia douglasiana*), stinging nettle (*Urtica dioica*), and poison oak (*Toxicodendron diversilobum*).

Riparian woodlands are dependent on the presence of or proximity to non-seasonal water sources. The water may be surface water or shallow ground water. Riparian woodlands may measure a few meters in width to much broader depending on water flow. Where non-seasonal streams flow out of the mountains and onto flatter grasslands, the riparian woodland community may be a relatively broad one, but in the higher elevations where water flows down a narrow passageway often confined by steep hillsides, this community may be very narrow. Riparian woodland may also occupy areas surrounding human-made lakes and reservoirs.

The presence of perennial water in the Santa Ana River, Tequesquite Arroyo, Sycamore Canyon, and Box Springs Canyon has supported the development of riparian woodland plant communities at scattered locations throughout the City.

Arundo/Riparian Forest

Arundo/riparian forests are characterized by dense impenetrable stands of riparian vegetation dominated or exclusively composed of giant reed. The California Invasive Plant Council (Cal-ICP) includes giant reed on its "Exotic Pest Plants of Greatest Ecological Concern in California" list. Giant reed is documented as a widespread, aggressive invader that displaces native plant species and disrupts natural habitats. Giant reed is suited to tropical, subtropical, and warm temperate climates of the world. Although it tolerates some salt and can grow on sand dunes, giant reed grows best along riverbanks and in other wet places. Giant reed is best developed in poor sandy soil but is tolerant of all types of soils, from heavy clays to loose sands and gravelly soils.

Arundo/riparian forests are known to occur along the Santa Ana River near Van Buren Boulevard at the City's northern boundary. This community is also found along lakes, rivers, and other drainages throughout the City.

Mulefat Scrub

Mulefat scrub is characterized by tall, herbaceous riparian scrub strongly dominated by mulefat. This early successional community is maintained by frequent flooding. Absent this, most stands would succeed to cottonwood- or sycamore-dominated riparian forests or woodlands. Mulefat scrub occurs in intermittent stream channels with fairly coarse substrate and moderate depth to the water table.

Mulefat scrub is known to occur south of Indiana Avenue between Buchanan Street and McKinley Street. This community may also be found along lakes, rivers, and other drainages throughout the City.

Southern Willow Scrub

Southern willow scrub is distinguished by dense, broadleaved, winter-deciduous riparian thickets dominated by several willow species including black willow (*Salix gooddingii*), sandbar willow (*S. hindsiana*), red willow (*S. laevigata*), Pacific willow (*S. lasiandra*), and arroyo willow (*S. lasiolepis*), with scattered Fremont cottonwood and western sycamore. Most stands are too dense to allow much understory development. Typical soils include loose, sandy, or fine gravelly alluvium deposited near stream channels during flood flows. This community requires repeated flooding to prevent succession to southern cottonwood sycamore riparian forest. Southern willow scrub was formerly extensive along the major rivers of coastal Southern California but is now much reduced by urban expansion, flood control, and channel improvements.

Southern willow scrub exists along two tributaries to a small reservoir, approximately 1.5 miles southwest of Mockingbird Reservoir. This community may also be found along lakes, rivers, and other drainages throughout the City.

Southern Riparian Forest

Southern riparian forest communities are characterized by wetland species dominated by cottonwoods (*Populus* spp.), big leaf maple (*Acer macrophyllum*), willows, and/or western sycamore. These species may be sole dominants or mixed dominance. The tree canopy is typically continuous with sparse shrub and herb layers forming the understory. These communities are periodically flooded or saturated with water.

Southern riparian forests can be found along lakes, rivers, and other drainages throughout the City.

Southern Cottonwood-Willow Riparian Forest

Southern cottonwood-willow riparian forests are tall, open, broadleaved winter-deciduous riparian forests dominated by Fremont cottonwood, black cottonwood (*Populus trichocarpa*) and several tree willows. Understories consist of shrubby willows. The dominant species require moist, bare mineral soil. Sub-irrigated and frequently overflowed lands along rivers and streams provide the necessary conditions for germination and establishment. Other typical plant species include California mugwort, mulefat, wild cucumber, western sycamore, Goodding's black willow, sandbar willow, pacific willow, arroyo willow, and stinging nettle (*Urtica holosericea*).

This community can be found along lakes and drainages throughout the City.

Southern Sycamore-Alder Riparian Woodland

Southern sycamore-alder riparian woodland is a tall, open, broadleaved, winter-deciduous streamside woodland dominated by western sycamore and white alder (*Alnus rhombifolia*). These stands seldom form closed canopy forests and may appear as trees scattered in a shrubby thicket of hard drought-resistant evergreens and deciduous species. Soils consist of very rocky streambeds subject to seasonally high-intensity flooding. White alder increases in abundance on more perennial streams, while western sycamore favors more intermittent hydrographs. Other common forms of vegetation include big-leaf maple, California mugwort, coast live oak (*Quercus agrifolia*), elk clover (*Aralia californica*), horsetail (*Equisetum hymale*), smilo grass (*Piptatherum miiaceum*), California blackberry (*Rubus ursinus*), poison oak, Mexican elderberry (*Sambucus mexicana*), California bay laurel (*Umbellularia californica*), and stinging nettle.

This community may be found along lakes, rivers, and other drainages throughout the City.

Meadows and Marshes

The meadows and marshes community type comprises <1 percent (0.72 acre) of the City and includes the marsh subcategory.

Marsh

Marsh communities are dominated by perennial, emergent flowering plants generally up to 13–16 feet tall. Vegetation often forms completely closed canopies. Bull rush (*Scirpus* spp.) and cattail (*Typha* spp.) species dominate. Marsh communities are found on sites permanently flooded by fresh water and lacking significant current. Conditions of prolonged saturation permit accumulation of deep, peaty soils in this community.

Marsh habitat exists along the Santa Ana River and in Arlington Heights within the City. This community may also be found along lakes, rivers, and other drainages throughout the City.

Coastal Sage Scrub

The coastal sage scrub community type comprises 7 percent (3,406.78 acres) of the City and includes the coastal scrub and Riversidean sage scrub subcategories.

Coastal Scrub

Coastal scrub is composed of many different assemblages of scrub vegetation. Within the City, coastal scrub and Riversidean sage scrub have been known to occur, with coastal scrub being the most commonly found, but this diverse plant community can be subdivided into numerous “alliances” that are named according to which shrub species are the most abundant at a particular site.

As described in the WRC MSHCP, coastal scrub is dominated by a characteristic suite of low-statured, aromatic, drought-deciduous shrubs and subshrub species. Composition varies substantially depending on physical circumstances and the successional status of the Vegetation Community; however, characteristic species include California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), laurel sumac (*Malosma laurina*), California encelia (*Encelia californica*), and several species of sage (e.g., *Salvia mellifera*, *S. apiana*) (Holland 1986; Sawyer et al. 2009). Other common species include brittlebush (*E. farinosa*), lemonadeberry (*Rhus*

integrifolia), sugarbush (*Rhus ovata*), yellow bush penstemon (*Keckiella antirrhinoides*), Mexican elderberry, sweetbush (*Bebbia juncea*), boxthorn (*Lycium* spp.), shore cactus (*Opuntia littoralis*), coastal cholla (*O. prolifera*), tall prickly-pear (*Opuntia oricola*), and species of *Dudleya*. The California Native Plant Society (CNPS) notes additional species that may be present in scrub communities. These include common herbaceous perennials such as the wishbone plant (*Mirabilis laevis*), climbing milkweed (*Funastrum cynanchoides* ssp. *hartwegii*), and wild cucumber. The areas between shrubs are rich in annual herbaceous species in the spring during good rainfall years, especially in the first few years after wildfires. Some notable, common annuals include California poppy (*Eschscholzia californica*), baby blue eyes (*Nemophila menziesii*), popcorn flowers (*Cryptantha intermedia*), slender goldfields (*Lasthenia gracilis*), southern goldfields (*Lasthenia coronaria*), and tidy-tips (*Layia platyglossa*). In rocky ravines and places where the soil accumulates moisture, occasional stands of the deep-rooted evergreen shrubs, such as laurel sumac and sugar bush (*Rhus ovata*), may occur. The rocky ravines with ephemeral watercourses often support stands of giant wildrye (*Leymus condensatus*) and Mexican elderberry. The relative abundance and dominance of species varies from place to place such that numerous “series” or “alliances” of coastal scrub can be named based on the dominant species. For example, one common alliance in the City is the *Artemisia californica*–*Eriogonum fasciculatum* alliance. Another is the *Encelia farinosa*–*Eriogonum fasciculatum* alliance. A less common series type is the *Salvia mellifera*–*Artemisia californica* alliance.

Within the City, coastal scrub is found on steep slopes in the southern hillsides, as well as at Sycamore Canyon, Alessandro Hills, Box Springs Mountain, Arlington Heights, and Woodcrest.

Riversidean Sage Scrub

Typical stands of Riversidean sage scrub are fairly open and dominated by California sagebrush, California buckwheat, and red brome (*Bromus rubens*), each attaining at least 20 percent cover. Riversidean sage scrub is scattered throughout the southeastern half and eastern and western edges of the City.

Woodlands and Forest

The woodlands and forest community type comprises <1 percent (5.93 acres) of the City and is composed of the Peninsular juniper woodland and scrub subcategory.

Peninsular Juniper Woodland and Scrub

Peninsular juniper woodland and scrub is dominated by California juniper (*Juniperus californica*). This community exists on dry alluvial fans and desert slopes. Litter layers are restricted to directly beneath the tree driplines, and fuel loads usually are insufficient to carry a fire. This woodland species does not tolerate fire. Burning usually leads to the formation of semidesert chaparral communities. Within the City, juniper woodland is in the southeastern portion of the City within Sycamore Canyon.

Grassland

The grassland community type comprises 6 percent (3,301.52 acres) of the City and includes the non-native grassland subcategory.

Non-Native Grassland

Non-native grassland is characterized by a dense to sparse cover of annual grasses with flowering culms (stems) 0.66–1.64 feet high. The community is often associated with numerous species of showy-flowered, native wildflowers, especially in years of favorable rainfall. Flowering occurs with the onset of the late fall rains, and growth, flowering, and seed-set occur from winter through spring. With a few exceptions, the plants are dead through the summer-fall dry season, persisting as seeds. Non-native grasslands occur on fine-textured, usually clay soils that are moist or even waterlogged during the winter rainy season and very dry during the summer and fall. Adjacent communities may include oak woodland on moister, better-drained soils. Non-native grasslands can be found in valleys and foothills throughout most of California.

The majority of flatter terrain in undeveloped portions of the City is dominated by introduced annual grasses. Non-native grassland is present in large expanses of Sycamore Canyon, Alessandro Hills, Box Springs Mountain and Canyon, the La Sierra/Norco Hills, and the gently rolling slopes of Santa Ana River Regional Park adjacent to the Santa Ana River.

Rock Outcrops

Rock outcrops are limited to the Box Spring Mountains portion of the City, occupying approximately <1 percent (0.98 acre) of the City.

Rock Outcrops

The rock outcrops natural community type in the City includes areas that consist of a variety of near barren and sparsely vegetated substrates within the rocky slopes, cliffs, and outcrops of the Box Springs foothill and mountain ranges.

Water

The water community type comprises <1 percent (93.46 acres) of the City and includes the subcategory of open water/reservoir.

Open Water/Reservoir

Open water/reservoir habitats are called lacustrine habitats and are characterized by inland depressions or dammed riverine channels containing standing water, including both the nearshore (limnetic) and deepwater habitat (littoral). Usually, to meet this criterion, each area must exceed 20 acres and be deeper than 6.6 feet. Lake Evans and Mockingbird Canyon Reservoir are classified as open water/reservoir habitats within the City.

An additional ecosystem lying along the northern edge of the City is the Southern California arroyo chub/Santa Ana sucker streams that exist along the Santa Ana River and its tributaries, including Chino Creek, Aliso Creek, and Sunnyslope Creek in San Bernardino, Riverside, and Orange Counties. These streams range from Mount Rubidoux downstream to northeastern Anaheim. The best habitat is found below the Riverside Narrows where ground water is forced to the surface and flows become more perennial and stable.

Agricultural Land

Agricultural land may be defined broadly as land used primarily for production of food and fiber and includes crop fields, orchards, vineyards, and grazing lands. The number of buildings is smaller and the density of the road and highway network much lower in agricultural land than in urban or developed land. When wetlands are drained for agricultural purposes, they are included in the agriculture category. Agricultural lands that are no longer in use and where wetlands vegetation has reestablished are included in the wetlands category.

The agricultural land community type comprises 7 percent (3,833.84 acres) of the City and includes the grove/orchard subcategory.

Grove/Orchard

The Arlington Heights Greenbelt is still characterized by agricultural uses, primarily in the form of citrus orchards and nursery stockyards. The City's Sphere of Influence also still contains large citrus groves, especially in the Highgrove and Woodcrest areas; however, over time, many of the large agricultural and citriculture areas have been converted to suburban uses.

Urban/Developed

Urban or developed land consists of areas of intensive use with much of the land covered by structures. Included in this category are cities, transportation facilities, power and communications facilities, residences, shopping centers, industrial and commercial complexes, and institutions that may, in some instances, be isolated from urban areas. Agricultural land, wetland, or water areas on the fringe of urban or built-up areas are not included in this category except where they are surrounded and dominated by urban development.

The City is predominantly urban/developed, comprising 77 percent (40,444.95 acres) of the land use, with peripheral areas of open space characterized by agriculture (Arlington Heights Greenbelt) and native vegetation (e.g., La Sierra/Norco Hills, Sycamore Canyon Park, and arroyos).

Wildlife

The undeveloped lands, open space, and conserved lands along the Santa Ana River corridor in the northern portion of the City, and the undeveloped foothills, canyons, arroyos, and mountains in the southern portion of the City (e.g., Sycamore Canyon Park, Mockingbird Canyon, Box Springs Mountain Regional Park, Box Springs Canyon, Alessandro Heights Hills) contain native habitats that support many native plants and animals, including special-status species and sensitive natural communities.

Natural habitats such as riparian, scrubland, and woodland communities provide wildlife with dispersal and migration corridors and foraging areas, cover, and breeding habitat. Many species of birds, mammals, reptiles, and amphibians are known to use riparian communities and other woody vegetation communities near watercourses. Riparian trees provide suitable nesting and roosting habitat for a variety of raptors, egrets, herons, songbirds, and bats. Numerous rodents, deer, and other herbivores are common in scrubland communities, and oak woodlands provide nesting, foraging, and cover for a variety of species.

Birds known to nest in these communities include red-tailed hawk (*Buteo jamaicensis*), Cooper's hawk (*Accipiter cooperii*), great blue heron (*Ardea herodias*), great egret (*Ardea alba*), Nuttall's

woodpecker (*Picoides nuttallii*), downy woodpecker (*Picoides pubescens*), acorn woodpecker (*Melanerpes formicivorus*), northern flicker (*Colaptes auratus*), northern mockingbird (*Mimus polyglottos*), western scrub-jay (*Aphelocoma californica*), California towhee (*Pipilo crissalis*), spotted towhee (*Pipilo maculatus*), Bewick's wren (*Thryomanes bewickii*), wrentit (*Chamaea fasciata*), coastal California gnatcatcher (*Polioptila californica californica*), black phoebe (*Sayornis nigricans*), least Bell's vireo (*Vireo bellii pusillus*), common yellowthroat (*Geothlypis trichas*), yellow warbler (*Setophaga petechia*), yellow-breasted chat (*Icteria virens*), house wren (*Troglodytes aedon*), bushtit (*Psaltriparus minimus*), and song sparrow (*Melospiza melodia*).

Bat species known to use these habitats for roosting include California myotis (*Myotis californicus*), Yuma myotis (*Myotis yumanensis*), hoary bat (*Lasiurus cinereus*), western red bat (*Lasiurus blossevillii*), western yellow bat (*Lasiurus xanthinus*), and pallid bat (*Antrozous pallidus*). Other mammal species known to use these communities include gray fox (*Urocyon cinereoargenteus*), American beaver (*Castor canadensis*), Virginia opossum (*Didelphis virginiana*), striped skunk (*Mephitis mephitis*), black-tailed deer (*Odocoileus hemionus*), raccoon (*Procyon lotor*), western gray squirrel (*Sciurus griseus*), brush mouse (*Peromyscus boylii*), pocket mouse (*Chaetodipus* spp. and *Perognathus* spp.), woodrats (*Neotoma* spp.), and kangaroo rats (*Dipodomys* spp.).

Reptiles—including coast horned lizard (*Phrynosoma blainvillii*), common garter snake (*Thamnophis sirtalis*), gopher snake (*Pituophis catenifer*), California kingsnake (*Lampropeltis getulus californiae*), western fence lizard (*Sceloporus occidentalis*), and western pond turtle (*Actinemys marmorata*)—and amphibians—including Baja California treefrog (*Pseudacris hypochondriaca*), western toad (*Anaxyrus boreas*), and bullfrog (*Lithobates catesbeianus*)—are also associated with these communities.

Fish such as Santa Ana sucker (*Catostomus santaanae*) and Santa Ana speckled dace (*Rhinichthys osculus* ssp. 3) utilize stream reaches that have riparian vegetation. Overhanging riparian vegetation along watercourses provides rearing areas, cover, and food resources.

Special-Status Species

Special-status species are defined as plants and animals that are legally protected under the Federal Endangered Species Act (FESA), California Endangered Species Act (CESA), or other regulations, and species that are considered sufficiently rare by the scientific community to qualify for such listing. Special-status species are defined as species in any of the categories listed below:

- Species that are listed or proposed for listing as threatened or endangered under the FESA (50 Code of Federal Regulations [CFR] 17.11 for listed animals and various notices in the *Federal Register* (FR) for proposed species)
- Species that are candidates for possible future listing as threatened or endangered under FESA (75 FR 69222)
- Species listed or proposed for listing by the state as threatened or endangered under CESA (14 California Code of Regulations 670.5)
- Species that meet the definitions of rare or endangered under CEQA (State CEQA Guidelines Section 15380)
- Animals listed as California species of special concern on California Department of Fish and Wildlife's (CDFW) Special Animals List (CDFW 2021b)

- Animals that are fully protected in California under the California Fish and Game Code (CFGC) (Sections 3511 [birds], 4700 [mammals], and 5050 [reptiles and amphibians])
- Plants listed as rare under the California Native Plant Protection Act (CFGC Section 1900 et seq.)
- Plants considered by CDFW and the CNPS to be “rare, threatened, or endangered in California” (California Rare Plant Rank [CRPR] 1A, 1B, and 2) (CNPS 2021)

Database queries of the above listed resources were conducted for the U.S. Geological Survey (USGS) 7.5-minute topographic quadrangles containing the City. Quadrangles queried included Corona North, Riverside West, Riverside East, Fontana, San Bernardino South, and Steele Peak.

Special-Status Plants

Based on the U.S. Fish and Wildlife Service (USFWS) (2021a) species list, California Natural Diversity Database (CNDDDB) (CDFW 2021a) records search, and the CNPS (2021) inventory search for the City, 44 special-status plant species have the potential to occur in the City. Of these, 38 were determined to occur or potentially occur within the natural community types in the City (Table 3.2-2). The remaining six species were determined to be unlikely to occur in the City because they inhabit natural communities (e.g., tidal marshes) that do not occur within the City, because their elevation ranges are outside of the elevations in the City, or because known extant population ranges occur outside of the City. These six species are not discussed further in this EIR. Special-status plant species and their habitat requirements, regulatory status, and potential for occurrence within the City are detailed in Appendix D.

Special-Status Wildlife

Based on the USFWS (2021a) species list and CNDDDB records search (CDFW 2021a) for the City, 43 special-status wildlife species have the potential to occur within the City. Of these, 37 were determined to occur or potentially occur within the natural community types in the City (Table 3.2-2). The remaining six species were determined to be unlikely to occur in the City because they inhabit natural communities (e.g., tidal marshes) that do not occur within the City or known extant population ranges occur outside of the City. These six species are not discussed further in this EIR. Special-status wildlife species and their habitat requirements, regulatory status, and potential for occurrence within the City are detailed in Appendix D.

Table 3.2-2. Special-Status Plant and Animal Species with the Potential to Occur in the City

Common/Scientific Name	Status ¹ Fed/State/CRPR/WRC MSHCP
Plants	
Alvin Meadow bedstraw (<i>Galium californicum</i> ssp. <i>primum</i>)	-/-/1B.2/ MSHCP(f)
Brand’s star phacelia (<i>Phacelia stellaris</i>)	-/-/1B.1/ MSHCP(b)
chaparral ragwort (<i>Senecio aphanactis</i>)	-/-/2B.2/-
chaparral sand-verbena (<i>Abronia villosa</i> var. <i>aurita</i>)	-/-/1B.1/-
Coulter’s goldfields (<i>Lasthenia glabrata</i> ssp. <i>coulteri</i>)	-/-/1B.1/ MSHCP(d)
Coulter’s matilija poppy (<i>Romneya coulteri</i>)	-/-/4.2/MSHCP
Horn’s milk-vetch (<i>Astragalus hornii</i> var. <i>hornii</i>)	-/-/1B.1/-
little mouseltail (<i>Myosurus minimus</i> ssp. <i>apus</i>)	-/-/3.1/ MSHCP(d)

Common/Scientific Name	Status ¹
	Fed/State/CRPR/WRC MSHCP
long-spined spineflower (<i>Chorizanthe polygonoides</i> var. <i>longispina</i>)	-/-/1B.2/MSHCP
Los Angeles sunflower (<i>Helianthus nuttallii</i> ssp. <i>parishii</i>)	-/-/1A/-
many-stemmed dudleya (<i>Dudleya multicaulis</i>)	-/-/1B.2/ MSHCP(b)
mesa horkelia (<i>Horkelia cuneata</i> var. <i>puberula</i>)	-/-/1B.1/-
Munz's onion (<i>Allium munzii</i>)	E/T/1B.1/ MSHCP(b)
Nevin's barberry (<i>Berberis nevinii</i>)	E/E/1B.1/ MSHCP(d)
Palmer's grapplinghook (<i>Harpagonella palmeri</i>)	-/-/4.2/MSHCP
paniculate tarplant (<i>Deinandra paniculata</i>)	-/-/4.2/-
Parish's bush-mallow (<i>Malacothamnus parishii</i>)	-/-/1A/-
Parish's gooseberry (<i>Ribes divaricatum</i> var. <i>parishii</i>)	-/-/1A/-
Parry's spineflower (<i>Chorizanthe parryi</i> var. <i>parryi</i>)	-/-/1B.1/ MSHCP(e)
Payson's jewel-flower (<i>Caulanthus simulans</i>)	-/-/4.2/MSHCP
Peninsular spineflower (<i>Chorizanthe leptotheca</i>)	-/-/4.2/MSHCP
Peruvian dodder (<i>Cuscuta obtusiflora</i> var. <i>glandulosa</i>)	-/-/2B.2/-
Plummer's mariposa lily (<i>Calochortus plummerae</i>)	-/-/4.2/ MSHCP(e)
prairie wedge grass (<i>Sphenopholis obtusata</i>)	-/-/2B.2/-
Pringle's monardella (<i>Monardella pringlei</i>)	-/-/1A/-
Robinson's pepper-grass (<i>Lepidium virginicum</i> var. <i>robinsonii</i>)	-/-/4.3/-
salt spring checkerbloom (<i>Sidalcea neomexicana</i>)	-/-/2B.2/-
San Bernardino aster (<i>Symphotrichum defoliatum</i>)	-/-/1B.2/-
San Diego ambrosia (<i>Ambrosia pumila</i>)	E/-/1B.1/ MSHCP(b)
Santa Ana River woollystar (<i>Eriastrum densifolium</i> ssp. <i>sanctorum</i>)	E/E/1B.1/MSHCP
slender-horned spineflower (<i>Dodecahema leptoceras</i>)	E/E/1B.1/ MSHCP(b)
small-flowered morning-glory (<i>Convolvulus simulans</i>)	-/-/4.2/MSHCP
smooth tarplant (<i>Centromadia pungens</i> ssp. <i>laevis</i>)	-/-/1B.1/ MSHCP(d)
snake cholla (<i>Cylindropuntia californica</i> var. <i>californica</i>)	-/-/1B.1/-
spreading navarretia (<i>Navarretia fossalis</i>)	T/-/1B.1/ MSHCP(b)
thread-leaved brodiaea (<i>Brodiaea filifolia</i>)	T/E/1B.1/ MSHCP(d)
western spleenwort (<i>Asplenium vespertinum</i>)	-/-/4.2/-
woven-spored lichen (<i>Texosporium sancti-jacobi</i>)	-/-/3/-
Invertebrates	
Crotch bumble bee (<i>Bombus crotchii</i>)	-/CE/-/-
Quino checkerspot butterfly (<i>Euphydryas editha quino</i>)	E/-/-/MSHCP
Riverside fairy shrimp (<i>Streptocephalus woottoni</i>)	E/-/-/ MSHCP(a)
vernal pool fairy shrimp (<i>Branchinecta lynchi</i>)	T/-/-/ MSHCP(a)
Fish	
arroyo chub (<i>Gila orcuttii</i>)	-/CSC/-/MSHCP
Santa Ana speckled dace (<i>Rhinichthys osculus</i> ssp. 3)	-/CSC/-/-
Santa Ana sucker (<i>Catostomus santaanae</i>)	T/-/-/MSHCP
Amphibians	
western spadefoot (<i>Spea hammondi</i>)	-/CSC/-/MSHCP

Common/Scientific Name	Status ¹
	Fed/State/CRPR/WRC MSHCP
Reptiles	
California glossy snake (<i>Arizona elegans occidentalis</i>)	-/CSC/-/-
coast horned lizard (<i>Phrynosoma blainvillii</i>)	-/CSC/-/MSHCP
coastal whiptail (<i>Aspidoscelis tigris stejnegeri</i>)	-/CSC/-/MSHCP
red-diamond rattlesnake (<i>Crotalus ruber</i>)	-/CSC/-/MSHCP
San Diego banded gecko (<i>Coleonyx variegatus abbotti</i>)	-/CSC/-/MSHCP
southern California legless lizard (<i>Anniella stebbinsi</i>)	-/CSC/-/-
western pond turtle (<i>Emys marmorata</i>)	-/CSC/-/MSHCP
Birds	
burrowing owl (<i>Athene cunicularia</i>)	-/CSC/-/MSHCP(c)
coastal California gnatcatcher (<i>Polioptila californica californica</i>)	T/CSC/-/MSHCP
least Bell's vireo (<i>Vireo bellii pusillus</i>)	E/E/-/MSHCP(a)
loggerhead shrike (<i>Lanius ludovicianus</i>)	-/CSC/-/MSHCP
long-eared owl (<i>Asio otus</i>)	-/CSC/-/-
southwestern willow flycatcher (<i>Empidonax traillii extimus</i>)	E/E/-/MSHCP(a)
Swainson's hawk (<i>Buteo swainsoni</i>)	-/T/-/MSCHP
tricolored blackbird (<i>Agelaius tricolor</i>)	-/CT/-/MSHCP
white-tailed kite (<i>Elanus leucurus</i>)	-/FP/-/MSHCP
yellow warbler (<i>Setophaga petechia</i>)	-/CSC/-/MSHCP
yellow-breasted chat (<i>Icteria virens</i>)	-/CSC/-/MSHCP
Mammals	
American badger (<i>Taxidea taxus</i>)	-/CSC/-/-
Los Angeles pocket mouse (<i>Perognathus longimembris brevinasus</i>)	-/CSC/-/ MSHCP(c)
northwestern San Diego pocket mouse (<i>Chaetodipus fallax fallax</i>)	-/CSC/-/MSHCP
pocketed free-tailed bat (<i>Nyctinomops femorosaccus</i>)	-/CSC/-/-
San Bernardino kangaroo rat (<i>Dipodomys merriami parvus</i>)	E/CSC/-/MSHCP(c)
San Diego black-tailed jackrabbit (<i>Lepus californicus bennettii</i>)	-/CSC/-/MSHCP
San Diego desert woodrat (<i>Neotoma bryanti intermedia</i>)	-/CSC/-/MSHCP
southern grasshopper mouse (<i>Onychomys torridus ramona</i>)	-/CSC/-/-
Stephens' kangaroo rat (<i>Dipodomys stephensi</i>)	E/T/-/MSHCP
western mastiff bat (<i>Eumops perotis californicus</i>)	-/CSC/-/-
western yellow bat (<i>Lasiurus xanthinus</i>)	-/CSC/-/-

¹ E = Endangered, T = Threatened, CT = Candidate Threatened, FP = Fully Protected, CSC = California Species of Concern

CRPR definitions:

- 1A = Plants presumed extinct in California
- 1B = Plants rare, threatened, or endangered in California and elsewhere
- 2 = Plants rare, threatened, or endangered in California, but more common elsewhere
- 3 = Plants about which we need more information
- 4 = Limited distribution (Watch List)
- 0.1 = Seriously endangered in California
- 0.2 = Fairly endangered in California
- 0.3 = Not very endangered in California

WRC MSHCP codes:

WRC MSHCP = No additional action necessary

WRC MSHCP(a) = Surveys may be required as part of wetlands mapping

WRC MSHCP(b) = Surveys may be required within the Narrow Endemic Plant Species survey area

WRC MSHCP(c) = Surveys may be required within locations shown on survey maps

WRC MSHCP(d) = Surveys may be required within Criteria Area

WRC MSHCP(e) = Conservation requirements identified in species-specific conservation objectives need to be met before classified as a Covered Species

Sensitive Natural Communities

Seven vegetation communities classified by CDFW as sensitive natural communities are reported to occur within the USGS Corona North, Riverside West, Riverside East, Fontana, San Bernardino South, and Steele Peak 7.5-minute topographic quadrangles, based on the record search (CDFW 2021a). Based on an analysis of aerial photographs of the City, as well as Classification and Assessment with Landsat of Visible Ecological Groupings (CalVeg) and WRC MSHCP vegetation layers, sensitive natural communities are present within the City, including coastal scrub, riparian scrub/woodland/forest, woodlands/forests, marsh, and open water/riverine.

Critical Habitat

Designated critical habitat for two federally listed species totaling 743.73 acres occurs within the City, including critical habitat for Santa Ana sucker and least Bell's vireo (USFWS 2021b) (Table 3.2-3). All critical habitat within the City is along the Santa Ana River; no critical habitat is present within the rest of the City (Figure 3.2-2).

Table 3.2-3. Critical Habitat in the City

Critical Habitat	Total Acres
Santa Ana sucker	420.65
least Bell's vireo	323.08
Total	743.73

Aquatic Resources

The primary aquatic resource within the City is the Santa Ana River, which runs along the northern edge of the City. This portion of the river is earthen (soft) bottom and is unconfined with an active floodplain and historical floodplain. There are additional aquatic resources within the City that are tributary to the Santa Ana River, described in more detail below.

The major tributaries to the Santa Ana River in the City include the Riverside Canal, Sycamore Canyon, Gage Canal, Springbrook Wash Arroyo, Tequesquite Arroyo, Alessandro Arroyo, Prenda Arroyo, Woodcrest Arroyo, and Mockingbird Canyon Arroyo. Portions of these tributaries are in their natural state, portions are disturbed by human activities, and portions are piped under the urbanized areas of the City before they reach the Santa Ana River.

Springbrook Wash Arroyo originates in the Box Springs Mountains and flows to the Santa Ana River. Approximately 20 percent of the stream channel is cemented, with some portions of the wash containing native riparian vegetation (City of Riverside 2007a).

Tequesquite Arroyo runs northwest then west through the City, passing through two golf courses, Andulka Park, Riverside City College, the Evans Sports Complex, and Tequesquite Park before flowing into the Santa Ana River. It is partially channelized at the golf courses and when it passes through Downtown. The banks have been planted with non-native grasses at the golf courses.

The Woodcrest, Prenda, Alessandro, and Mockingbird Arroyos all originate in the southerly hills of Riverside and flow to the Santa Ana River. All of these arroyos are largely in a natural condition south of State Route 91 within the Arlington Heights Greenbelt and Alessandro Heights area. Each is also constrained with a dam as shown in Figure PS-4 (Flood Hazard Areas) in the Public Safety Element of GP 2025. North of State Route 91, the arroyos are channelized or undergrounded en route to the Santa Ana River.

In addition to the aquatic resources identified within this EIR, there is the potential for additional, smaller jurisdictional features to occur throughout the City, including ditches, channels, ephemeral drainages, and wetlands.

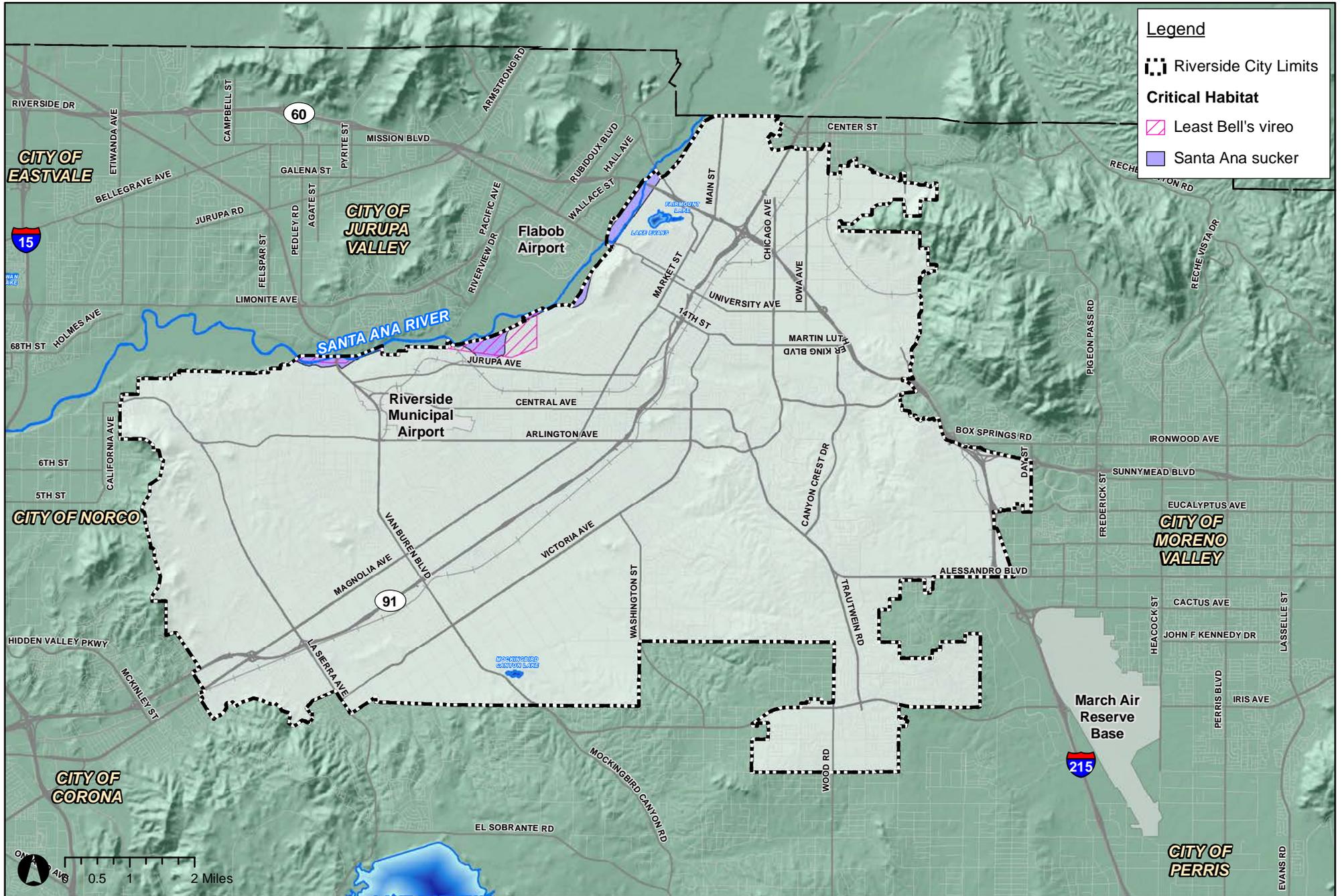
Habitat Connectivity and Wildlife Movement Corridors

Wildlife corridors are defined as habitat linkages that connect suitable wildlife habitat areas in a region otherwise fragmented by development, disturbance, rugged terrain, or changes in vegetation. Many wildlife species require large areas of habitat to forage, find burrowing/denning or nesting sites, and for breeding. Corridors linking areas of suitable habitat are important because they provide access to mates, food, and water; they allow the dispersal of individuals away from high population density areas; and they facilitate the exchange of genetic traits between populations (Beier and Loe 1992). Corridors are often used by juveniles dispersing to new territories, which avoids intraspecies competition in existing habitats and allows the recolonization of areas from which animals have become extirpated. Natural features such as canyon drainages, ridgelines, or areas with vegetation cover provide corridors for wildlife movement, as do engineered structures such as culverts and flood control channels.

One Essential Connectivity Area (ECA) identified by the California Essential Habitat Connectivity Project (CEHC) occurs partly within the City (Spencer et al. 2010). The Badlands West – Box Springs Mountains ECA occurs along the northeastern border of the City and connects the Box Springs Mountains in the west to the Badlands Mountains in the east.

Although not officially designated as a corridor under the CEHC, the Santa Ana River and its tributaries function as corridors for both terrestrial and aquatic wildlife within the City and surrounding region. The Santa Ana River is one of the largest functioning riparian systems in Southern California. Development within the Santa Ana River valley has greatly reduced the amount of wildlife habitat in the region, but the Santa Ana River has remained relatively open and passable. Within the City, the Santa Ana River and its tributaries serve as a wildlife movement corridor that provides year-round water, cover, foraging and breeding areas, and connections to open space in the surrounding region. They provide a linkage between the San Bernardino Mountains and all open space between there and the Pacific Ocean, which is important for fish species (e.g., Santa Ana sucker, arroyo chub [*Gila orcuttii*]), semi-aquatic species (e.g., California glossy snake [*Arizona elegans occidentalis*]), coast range newt [*Taricha torosa torosa*], south coast garter snake [*Thamnophis elegans terrestris*]), and terrestrial wildlife species (e.g., neo-tropical migratory birds, waterfowl, coyote [*Canis latrans*], Virginia opossum, raccoon, striped skunk).

Figure 3.2-2
Critical Habitat within the City



The City's canyons and southern hillsides also provide valuable migratory corridors for wildlife. These migratory corridors are connected where two drainages pass near each other or at the confluence of different drainage or canyons.

Additionally, although they may not provide foraging or breeding habitat, other water infrastructure such as flood control channels, culverts, and bridges also provide connection points for terrestrial wildlife between urban areas and native habitats along the Santa Ana River and its tributaries, facilitating wildlife movement between urban and natural, open space areas.

3.2.3 Regulatory Setting

This section identifies laws, regulations, and ordinances that are relevant to the impact analysis of biological resources in this EIR.

Federal

Federal Endangered Species Act of 1973

Administered by USFWS and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NMFS), FESA provides the legal framework for the listing and protection of species (and their habitats) that are identified as being endangered or threatened with extinction. Pursuant to FESA (7 United States Code [USC] 136, 16 USC 1531 et seq.), USFWS and NMFS have regulatory authority over species listed as endangered or threatened as well as habitat of such species that has been designated as critical (i.e., critical habitat). Under FESA, authorization is required to "take" a listed species or adversely modify critical habitat. *Take* is defined under FESA Section 3 as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Under federal regulation (50 CFR 17.3, 222.102), *harm* is further defined to include habitat modification or degradation where it would be expected to result in death or injury to listed wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. Designated critical habitat for endangered and threatened species is defined as a specific geographic area that is essential for species recovery and conservation of a threatened or endangered species and that may require special management and protection. Critical habitat is designated when a species is listed pursuant to FESA. Critical habitat may include an area that is not currently occupied by the species but that will be needed for its recovery.

Specifically, Sections 7 and 10(a) of FESA regulate actions that could jeopardize endangered or threatened species. FESA Section 7 outlines procedures for federal interagency cooperation to conserve federally listed species and designated critical habitat. Section 7(a)(2) and its implementing regulations require federal agencies to consult with USFWS and/or NMFS to ensure that they are not undertaking, funding, permitting, or authorizing actions likely to jeopardize the continued existence of listed species, or result in the destruction or adverse modification of critical habitat. Critical habitat designations are not made for every species listed under FESA. The designation process also considers economic, national security, and other impacts and may result in the exclusion of some habitat areas from critical habitat designation (16 USC 1533(b)(2)). Military installations are generally excluded from critical habitat designations; however, they are required by the Sikes Act (16 USC 670a-670f, as amended) to prepare integrated natural resource management plans.

For projects where federal action is not involved and take of a listed species may occur, the project proponent may seek to obtain an Incidental Take Permit (ITP) under FESA Section 10(a), which allows issuance of permits for incidental take of endangered or threatened species. The term *incidental* applies if the taking of a listed species is incidental to and not the purpose of an otherwise lawful activity. An HCP demonstrating how the taking would be minimized and what steps taken would ensure the species' survival must be submitted for issuance of Section 10(a) permits.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) domestically implements a series of international treaties that provide for migratory bird protection (16 USC 703 et seq.). The MBTA authorizes the Secretary of the Interior to regulate the taking of migratory birds. The act provides that it is unlawful, except as permitted by regulations, "to pursue, hunt, take, capture, kill, attempt to take, capture, or kill, possess, [...] any migratory bird, or any part, nest, or egg of any such bird" (16 USC 703(a)). Species protected under the MBTA are listed in 50 CFR 10.13. Most native birds in the City are protected under the MBTA. USFWS issues permits under the MBTA to qualified applicants for the following types of activities: falconry, raptor propagation, scientific collecting, special purposes (rehabilitation, educational, migratory game bird propagation, and salvage), take of depredating birds, taxidermy, and waterfowl sale and disposal. USFWS does not issue permits for *incidental take* of migratory birds that results from otherwise lawful activities such as infrastructure, transportation projects, facility structures, or other activities.

Protection of Migratory Bird Populations (Executive Order 13186)

Executive Order (EO) 13186 (*Federal Register*, Volume 66, Number 11 [January 17, 2001], p. 4) requires federal agencies to develop a comprehensive strategy for the conservation of migratory birds by the federal government, thereby fulfilling the government's duty to lead in the protection of this international resource. Each federal agency is required to enter into a Memorandum of Understanding with USFWS outlining how the agency will promote conservation of migratory birds. The EO also requires federal agencies to incorporate migratory bird conservation measures into their agency activities. The EO does not affect federal-aid projects because actions delegated to or assumed by nonfederal entities, or carried out by nonfederal entities with federal assistance, are not subject to the EO, although such actions continue to be subject to the MBTA itself.

Invasive Species (Executive Order 13112)

EO 13112 requires federal agencies to "prevent the introduction of invasive species and provide for their control and to minimize the economic, ecological, and human health effects that invasive species cause." An invasive species is defined by the EO as "an alien species whose introduction does or is likely to cause economic or environmental harm or harm to human health." Alien species are defined, with respect to a particular ecosystem, as any species (including its seeds, eggs, spores, or other biological material capable of propagating that species) that is not native to that ecosystem.

Clean Water Act

The principal law that serves to protect the nation's waters is the 1948 Federal Water Pollution Control Act. This legislation, more commonly referred to as the Clean Water Act (CWA), underwent significant revision when Congress, in response to the public's growing concern of widespread water pollution, passed the Federal Water Pollution Control Act Amendments of 1972. The purpose

of the CWA is to restore and maintain the chemical, physical, and biological integrity of all waters of the U.S. for the conservation of the nation's potable water sources. Under the current regulatory definition, waters of the U.S. include navigable waters of the U.S., territorial seas, interstate waters, all other intermittent and perennial waters and adjacent wetlands (with some exceptions) where the use or degradation or destruction of the waters could affect interstate or foreign commerce, tributaries to any of these waters, and wetlands that meet any of these criteria or that are adjacent to any of these waters or their tributaries (33 CFR 328.3(a)).

On January 23, 2020, the U.S. Environmental Protection Agency (EPA) and U.S. Army Corps of Engineers (USACE) signed and released the prepublication notice of the Navigable Waters Protection Rule, redefining waters of the U.S. (33 CFR 328). The Navigable Waters Protection Rule and revised definition of waters of the U.S. went into effect on June 23, 2020. The Navigable Waters Protection Rule outlines four clear categories of waters that are considered waters of the U.S.:

- Territorial seas and traditional navigable waters (TNWs)
- Tributaries to TNWs that are perennial or intermittent
- Lakes, ponds, and impoundments of jurisdictional waters
- Adjacent wetlands

The Navigable Waters Protection Rule also identified those waters that are not considered waters of the U.S., which include, but are not limited to, groundwater, ephemeral features, diffuse stormwater and directional sheet flow over upland areas, ditches, artificially irrigated areas, and stormwater features excavated in uplands.

Any Project-related impacts on USACE and/or Regional Water Quality Control Board (RWQCB) jurisdictional aquatic resources would require a CWA Section 404 Nationwide Permit and a CWA Section 401 Water Quality Certification, respectively.

Clean Water Act, Section 401

Section 401 of the CWA requires a water quality certification or waiver thereof before any federal permit can be issued "to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge." Therefore, projects requiring authorization by USACE pursuant to Section 404 or Section 408 of the CWA and/or Section 10 of the Rivers and Harbors Act may need to obtain water quality certification. The State Water Resources Control Board (SWRCB), RWQCB, and EPA are responsible for issuing Section 401 Water Quality Certifications.

Clean Water Act, Section 402, National Pollutant Discharge Elimination System Program

Under the CWA, EPA has implemented pollution control programs and has developed national water quality criteria recommendations for pollutants in surface waters. The CWA made it unlawful to discharge any pollutant from a point source into navigable waters unless a permit was obtained. EPA's National Pollutant Discharge Elimination System (NPDES) program controls discharges. Point sources are discrete conveyances such as pipes or human-made ditches. Individual homes that are connected to a municipal system, use a septic system, or do not have a surface discharge do not need an NPDES permit; however, industrial, municipal, and other facilities must obtain NPDES permits if their discharges go directly to surface waters.

Clean Water Act, Section 404

Section 404 of the CWA (33 USC 401 et seq.; 33 USC 1344; USC 1413; and Department of Defense, Department of the Army, USACE 33 CFR Part 323), as implemented by USACE, requires authorization by USACE for the discharge of dredged and/or fill material into waters of the U.S. (as defined at 33 CFR 328.3(a)). *Dredged material* means material that is excavated or dredged from waters of the U.S. *Fill material* means material placed in waters of the U.S. where the material has the effect of replacing any portion of a waters of the U.S. with dry land or changing the bottom elevation of waters of the U.S. Examples of fill material include rock, sand, soil, clay, plastics, woodchips, concrete, and materials used to create any structure or infrastructure in waters of the U.S.

Protection of Wetlands (Executive Order 11990)

Pursuant to EO 11990, each federal agency is responsible for preparing implementing procedures for carrying out the provisions of the EO. The purpose of this EO is to “minimize the destruction, loss, or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands.” If triggered by a federal permit, a federal agency, to the extent permitted by law, must avoid undertaking or providing assistance for any activity in wetlands, unless the head of the agency finds that there is no practical alternative to such activity, and the proposed action includes all practical measures to minimize harm to wetlands that may result from such actions. In making this finding, the head of the agency may take into account economic, environmental, and other pertinent factors. Each agency must also provide opportunity for early public review of any plans or proposals for new construction in wetlands.

State

California Endangered Species Act

CESA provides a process by which plants and animals can be recognized as being endangered or threatened with extinction. Pursuant to CESA, a permit from CDFW is required for projects that could result in the taking of a plant or animal species that is state-listed as threatened or endangered (CFGF Section 2050 et seq.). Under CESA, *take* means to “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill” (CFGF Section 86). The CESA definition of take does not include “harm” or “harass,” as the FESA definition does. As a result, the threshold for take is higher under CESA than under FESA. Authorization for take of state-listed species may be obtained through a CFGF Section 2080.1 consistency determination (for applicants who have already obtained a federal incidental take statement or permit for the same species) or a Section 2081 ITP.

Natural Community Conservation Planning Act

California’s Natural Community Conservation Planning (NCCP) program is a cooperative effort to protect habitats and species that began under the state’s NCCP Act of 1991. The FESA Section 4(d) special rule for interim take of coastal California gnatcatchers was promulgated in response to the NCCP Act of 1991 and the initiation of NCCPs targeting coastal sage scrub (gnatcatcher habitat). The NCCP Act authorized the state to engage in regional multiple species conservation planning with local jurisdictions and property owners.

The NCCP Act and the associated Southern California Coastal Sage Scrub NCCP Process Guidelines (1993), Southern California Coastal Sage Scrub NCCP Conservation Guidelines (1993), and NCCP

General Process Guidelines (1998) have been superseded by the NCCP Act of 2003. The NCCP Act of 2003 provides for the preparation and approval of NCCPs. NCCPs identify and provide for the regional or area-wide protection of plants and animals, including their habitats, and are intended to preserve local and regional biological diversity, reconcile urban development and wildlife needs, conserve state-listed species to the point where they can be delisted, and maintain or enhance conditions for covered species such that listing will not become necessary (CFGF Section 2800 et seq.). The NCCP Act was amended again in 2011 to allow CDFW to authorize incidental take of “fully protected” species if they are “covered species” under an approved NCCP.

Lake or Streambed Alteration (California Fish and Game Code Section 1602)

The CDFW regulates alterations or impacts on streambeds or lakes under Section 1602 of the CFGC. Substantial diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake in California that supports wildlife resources are subject to regulation by CDFW under CFGC Section 1602. Under Section 1602, it is unlawful for any person, governmental agency, or public utility to do either of the following without first submitting a complete Notification of Lake or Streambed Alteration to CDFW and obtaining a Lake and Streambed Alteration Agreement:

- Substantially divert or obstruct the natural flow of, or substantially change or use any material from, the bed, channel, or bank of any river, stream, or lake
- Deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake

The California Fish and Game Commission defines *stream* as a body of water that flows at least periodically or intermittently through a bed or channel that has banks and supports fish or other aquatic life. This definition includes watercourses with a surface or subsurface flow that supports or has supported riparian vegetation. CDFW’s jurisdiction within altered or artificial waterways is based on the value of those waterways to fish and wildlife.

Protection of Birds, Nests, and Raptors (California Fish and Game Code Sections 3503 and 3503.5)

CFGF Section 3503 states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. CFGF Section 3503.5 specifically states that it is unlawful to take, possess, or destroy any raptors (i.e., species in the orders Falconiformes and Strigiformes), including their nests or eggs. Typical violations of these codes include destruction of active nests resulting from removal of vegetation in which the nests are located. Violation of CFGF Section 3503.5 could also include failure of active raptor nests resulting from disturbance of nesting pairs by nearby Project construction. These code sections do not provide for the issuance of any type of ITP.

Fully Protected Species under the California Fish and Game Code (Sections 3511, 4700, 5050, and 5515)

California designated species as “fully protected” prior to the creation of CESA and FESA. Lists of fully protected species were initially developed to provide protection to species that were rare or facing possible extinction/extirpation. These statutes prohibit take or possession of fully protected species. Most fully protected species have since been state-listed as threatened or endangered

species. Protection of fully protected species is described in CFGC Sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), and 5515 (fish).

In September 2011, the NCCP Act was amended to permit the incidental take of 36 fully protected species, pursuant to the NCCP Act approved by CDFW (CFGC Section 2835). The amendment gives fully protected species the same level of protection as endangered and threatened species under the NCCP Act. The NCCP Act authorizes the incidental take of species “whose conservation and management” is provided for in a conservation plan approved by CDFW.

California Native Plant Protection Act

The Native Plant Protection Act of 1977 (CFGC Section 1900 et seq.) directed CDFW to carry out the Legislature’s intent to “preserve, protect and enhance rare and endangered plants in this State.” The Native Plant Protection Act gave the California Fish and Game Commission the power to designate native plants as “endangered” or “rare” and to protect endangered and rare plants from take.

Porter-Cologne Water Quality Control Act (California Water Code Section 13000 et seq.)

The SWRCB and RWQCBs, as appropriate, have the responsibility to implement and enforce the Porter-Cologne Water Quality Control Act (Porter-Cologne), which regulates waste discharge into waters of the State. In Porter-Cologne, the legislature declared that the “state must be prepared to exercise its full power and jurisdiction to protect the quality of waters of the State from degradation” (California Water Code Section 13000). Porter-Cologne grants the RWQCBs the authority to implement and enforce the water quality laws, regulations, policies, and plans to protect the groundwater and surface waters of the State. The RWQCBs regulate the “discharge of waste” to waters of the State. The term *discharge of waste* is also broadly defined in Porter-Cologne, such that discharges of waste include fill, any material resulting from human activity, or any other “discharge” that may result in direct or indirect impacts on waters of the State relative to implementation of Section 401 of the CWA.

Specifically, Porter-Cologne requires each RWQCB to formulate and adopt water quality plans for all areas within their region (also referred to as “Basin Plans”). Basin Plans establish beneficial uses, water quality standards, and water quality objectives for major watershed areas (i.e., RWQCB boundaries) throughout the state. Under Porter-Cologne, all parties proposing to discharge waste that could affect the quality of waters of the State, other than into a community sewer system, are required to file with the appropriate RWQCB a Report of Waste Discharge containing such information and data as may be required by the RWQCB. The RWQCB will then respond to the Report of Waste Discharge by issuing a waste discharge requirement (WDR) in a public hearing, or by waiving WDRs (with or without conditions) for that proposed discharge. The RWQCB has a statutory obligation to prescribe WDRs except where the RWQCB finds that a waiver of WDRs for a specific type of discharge is in the public interest. Therefore, all parties proposing to discharge waste that could affect waters of the State, but do not affect federal waters (which requires a CWA Section 404 permit and CWA Section 401 Certification), must file a Report of Waste Discharge with the appropriate RWQCB.

The RWQCB collaborates with other agencies on the enforcement of the act, such as CDFW and USACE. Although 401 certification is typically issued by RWQCB staff, WDRs must be issued by the RWQCB. Generally, when staff issue or waive 401 certification, WDRs are simultaneously waived.

However, for large or multiyear projects that are being reviewed under Section 401 of the CWA, staff may determine that WDRs should also be issued, whereby additional review by the RWQCB and a public hearing would be necessary.

Any Project-related impacts on RWQCB jurisdictional aquatic resources may require a Waste Discharge Permit under Porter-Cologne when there is no federal CWA jurisdiction.

Regional

Western Riverside County Multiple Species Habitat Conservation Plan

The WRC MSHCP, a comprehensive regional HCP, was adopted in June 2003. Major participants in the regional planning effort included but were not limited to, the California Department of Transportation, CDFW, USFWS, the County of Riverside, Riverside County Transportation Commission, 18 cities, and interested individuals and groups. The purpose of the plan was to develop methods and procedures that provide for development while protecting environmental resources in the western Riverside County area over a 75-year period (RCA 2003). The County of Riverside signed the Implementation Agreement on December 15, 2003. The City is a participating jurisdiction in the WRC MSHCP.

The WRC MSHCP, among other things, provides impact mitigation for future covered activities by the permittees of the WRC MSHCP within western Riverside County. Participation by the Permittees of the WRC MSHCP is intended to streamline the environmental review process for future covered activities in western Riverside County (e.g., through pre-mitigation).

A consistency review by the RCA, USFWS, and CDFW would be performed for each individual development project to ensure that each project is consistent with the requirements of the plan. Because there is a federal nexus for the project, formal consultation for each individual development project would occur through the consistency review performed by USFWS and would result in a streamlined biological opinion from USFWS (if required).

The entire City occurs within the boundaries of the WRC MSHCP (Figure 3.2-1) and contains numerous WRC MSHCP–designated conservation areas, including Habitat Management Units, Area Plans and Subunits, and Cores and Linkages (Table 3.2-4). The WRC MSHCP also overlaps with Public/Quasi-Public (PQP) conserved lands, consisting of 168 PQP Object IDs and 13 Criteria Cells throughout the City.

Table 3.2-4. WRC MSHCP Conservation Areas within the City

WRC MSHCP Conservation Area Type	WRC MSHCP Conservation Areas Occurring within the City
Habitat Management Units	River, San Timoteo, Gavilan, San Jacinto
Area Plans and Subunits	<u>Cities of Riverside and Norco Area Plan</u> : Subunit 1 Santa Ana River South, Subunit 2 Sycamore Canyon/Box Springs West <u>Highgrove Area Plan</u> : Subunit 1 Sycamore Canyon/Box Springs Central, Subunit 2 Springbrook Wash North <u>Jurupa Area Plan</u> : Subunit 1 Santa Ana River North
Cores and Linkages	CL-7, Core-A, Core-D, NCH-A

Portions of the City also occur within the following WRC MSHCP survey areas:

- Narrow Endemic survey area 7
- Criteria Area species survey area 6
- Burrowing Owl survey area
- Mammal survey area 3

Although survey areas for least Bell's vireo, southwestern willow flycatcher (*Empidonax traillii extimus*), and western yellow-billed cuckoo (*Coccyzus americanus occidentalis*) are not provided by the WRC MSHCP, if potential habitat is present and potential direct and/or indirect effects could occur, focused surveys are required (WRC MSHCP Volume I, Section 6.1.2). A full review of potential riparian-riverine and vernal pool resources is also required by the WRC MSHCP.

Wildlife crossing design considerations and guidelines specified in WRC MSHCP Section 7.5.2, *Guidelines for Construction of Wildlife Crossings*, specify the general approach to analyzing regional connectivity and the number and frequency, design guidelines and standards, and species-specific considerations for wildlife crossings.

The WRC MSHCP requires covered activities under the plan to fulfill the requirements presented in WRC MSHCP Volume I, Sections 6.1.2, 6.1.3, 6.1.4, 6.3.2, 7.5.1, and 7.5.3, and follow the best management practices (BMPs) in Appendix C of the WRC MSHCP.

Stephen's Kangaroo Rat Habitat Conservation Plan

The Riverside County Habitat Conservation Agency (RCHCA) sought and obtained ITPs from USFWS and CDFW for Stephens' kangaroo rat (*Dipodomys stephensi*) within the Stephens' Kangaroo Rat Habitat Conservation Plan (SKR HCP) area. The purpose of the SKR HCP was to streamline the permitting process for otherwise lawful activities resulting in the incidental take of Stephens' kangaroo rat while also meeting FESA and CESA requirements without seeking individual permits and agreements with USFWS and CDFW. Conservation goals for Stephens' kangaroo rat were incorporated into the SKR HCP to ensure full mitigation for all Stephens' kangaroo rat occupied habitat that would be incidentally taken (RCHCA 1996).

One of these goals included the acquisition and conservation of Stephens' kangaroo rat habitat within a regional reserve system. The SKR HCP provides take authorization for Stephens' kangaroo rat within its boundaries through the establishment of core reserves. The SKR HCP establishes conservation of 15,000 acres in core reserves within the plan's boundary for SKR. The loss of habitat and individuals under this HCP are offset by the establishment of a "core reserve" system consisting of seven reserves managed to maintain the long-term survival of the species. The City encompasses 1,380 acres of SKR HCP Core Reserve Area of Sycamore Canyon Core Reserve, as shown on Figure 3.2-3.

Riverside County Ordinance No. 663.10 was established to implement the mitigation provisions of the SKR HCP, which includes a mitigation fee for new development in western Riverside County. The entire City occurs within the SKR HCP Fee Area, with the exception of a few small areas along the northern and western edge of the City (Figure 3.2-3).

Local

City of Riverside Urban Forest Tree Policy

The City of Riverside is known as a “City of Trees.” The City’s *Urban Forest Tree Policy Manual* provides guidelines for the preservation and protection of the City’s tree heritage, with a particular focus on trees that occur within City rights-of-way.

Riverside General Plan 2025

Open Space and Conservation Element

The Open Space and Conservation Element addresses the preservation and protection of the City’s natural resources. The element includes objectives and policies crafted to protect the City’s open space areas, hillsides, and scenic resources in a manner which would enhance the living environment of all residents.

Land Use and Urban Design Element

In compliance with California Government Code Section 65302(a) requirements, the Land Use and Urban Design Element includes existing and proposed land uses as well as their relationship to the City’s visionary goals. The element incorporates objectives and policies for land development and usage. The Land Use and Urban Design Element policies relevant to the Project are addressed in Section 3.7, *Land Use and Planning*.

Table 3.2-5 presents an overview of GP 2025 and other local plans, policies, and programs related to biological resources.

Table 3.2-5. Relevant Riverside General Plan and Specific Plan Policies

Plan	Policy
Riverside General Plan 2025	
Open Space and Conservation Element	Policy OS-1.1. Protect and preserve open space and natural habitat wherever possible.
	Policy OS-1.2. Establish an open space acquisition program that identifies acquisition area priorities based on capital costs, operation and maintenance costs, accessibility, needs, resource preservation, ability to complete or enhance the existing open space linkage system and unique environmental features.
	Policy OS-1.3. Work with Riverside County and adjacent cities, landowners and conservation organizations to preserve, protect and enhance open space and natural resources.
	Policy OS-1.4. Support efforts of State and Federal agencies and private conservation organization to acquire properties for open space and conservation uses. Support efforts of nonprofit preservation groups, such as the Riverside Land Conservancy, to acquire properties for open space and conservation purposes.
	Policy OS-1.5. Require the provision of open space linkages between development projects, consistent with the provisions of the Trails Master Plan, Open Space Plan and other environmental considerations including the MSHCP.

Plan	Policy
	Policy OS-1.8. Encourage residential clustering as means of preserving open space.
	Policy OS-1.9. Promote open space and recreation resources as a key reason to live in Riverside.
	Policy OS-1.10. Utilize a combination of regulatory and acquisition approaches in the City's strategy for open space preservation.
	Policy OS-1.11. Develop a program for City acquisition of identified open space land and encourage land donations or the dedication of land in lieu of park fees for the acquisition of usable land for public parks, open space and trail linkages.
	Policy OS-1.12. Ensure that areas acquired as part of the Open Space System are developed, operated and maintained to provide the City with a permanent, publicly accessible open space system.
	Policy OS-1.13. Design Capital Improvement Program projects, which affect identified open space areas to support these areas' value as open space.
	Policy OS-1.14. Establish an on-going needs assessment program to solicit feedback for users to identify changing needs and standards for the Open Space System.
	Policy OS-1.15. Recognize the value of major institutional passive open spaces, particularly cemeteries, as important components of the total open space systems and protect their visual character.
	Policy OS-2.2. Limit the extent and intensity of uses and development in areas of unstable terrain, steep terrain, scenic vistas, arroyos, and other critical environmental areas.
	Policy OS-2.4. Recognize the value of ridgelines, hillsides, and arroyos as significant natural and visual resources and strengthen their role as features, which define the character of the City and its individual neighborhoods.
	Policy OS-4.2. Establish buffers and/or open space between agricultural and urban uses so that the potential impacts from urban development will be mitigated.
	Policy OS-4.3. Explore the possibility of establishing a fee for all new development in Riverside for land banking to create new buffers and/or purchase sensitive lands between urban development and existing open space resources.
	Policy OS-5.1. Preserve significant habitat and environmentally sensitive areas, including hillsides, rock outcroppings, creeks, streams, viewsheds, and arroyos through application of the RC Zone standards and the Hillside/Arroyo standards of the City's Grading Code.
	Policy OS-5.2. Continue to participate in the MSHCP Program and ensure all projects comply with applicable requirements.
	Policy OS-5.3. Continue to participate in the Stephens' Kangaroo Rat (SKR) Habitat Conservation Plan including collection of mitigation fees.
	Policy OS-5.4. Protect native plant communities in the General Plan area, including sage scrub, riparian areas, and vernal pools, consistent with the MSHCP.
	Policy OS-6.1. Protect and enhance known wildlife migratory corridors and create new corridors as feasible.
	Policy OS-6.2. Support regional and local efforts to acquire, develop, and maintain open space linkages.

Plan	Policy
Land Use and Urban Design Element	<p>Policy OS-6.3. Preserve the integrity of the arroyos of Riverside and riparian habitat areas through the preservation of native plants.</p> <p>Policy OS-6.4. Continue with efforts to establish a wildlife movement corridor between Sycamore Canyon Wilderness Park and the Box Springs Mountain Regional Park as shown on the MSHCP. New developments in this area shall be conditioned to provide for the corridor and Caltrans shall be encouraged to provide an underpass at the 60/215 Freeway.</p> <p>Policy OS-7.3. Preserve and expand open space along the Santa Ana River to protect water quality, riparian habit, and recreational uses.</p> <p>Policy LU-2.2. Utilize the 2004 Santa Ana River Task Force Report in planning, programming, and implementing environmental and recreational improvements to the River area.</p> <p>Policy LU-3.1. Pursue methods to preserve hillside open space and natural habitat.</p> <p>Policy LU-3.2. Seek annexation of properties that will reduce ridgeline/hillside development on the City's periphery.</p> <p>Policy LU-4.1. Adhere to the protections for hillside development set forth in Proposition R and Measure C.</p> <p>Policy LU-5.1. Minimize public and private development in and in close proximity to any of the City's arroyos.</p> <p>Policy LU-5.2. Recognize the City's arroyos as components of Riverside Park.</p> <p>Policy LU-5.3. Encourage that any crossings of the City's major arroyos are span bridges or soft bottom arch culverts that minimize disturbance of the ground and any wetland area. At-grade crossings are strongly discouraged in major arroyos. To minimize disturbance of the arroyo the design will take into consideration aesthetics, biological, hydrological and permitting (i.e., MSHCP, ACOE, DFG, etc.) requirements to promote the free movement of water and wildlife. In addition, areas of the arroyo disturbed by construction will be restored consistent with requirements of the MSHCP, as well as the ACOE's 404 Permit Program and DFG's Streambed Alteration Agreement Program as applicable.</p> <p>Policy LU-5.4. Continue to require open space easements in conjunction with new development to be recorded over arroyo areas, per the City's Grading Code.</p> <p>Policy LU-5.5. Work with Riverside County to develop, implement and maintain comprehensive management plans for protection of entire arroyo systems.</p> <p>Policy LU-7.1. Continue to maintain Sycamore Canyon Wilderness Park as primarily a functioning wildlife habitat.</p> <p>Policy LU-7.2. Design new development adjacent and in close proximity to native wildlife in a manner which protects and preserves habitat.</p> <p>Policy LU-7.3. Continue to require natural open space easements in conjunction with new development in hillside and arroyo areas over non-graded areas of the development.</p> <p>Policy LU-7.4. Continue to participate in the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP).</p>

Plan	Policy
Specific Plans	
Canyon Springs Business Park Specific Plan	There are no applicable policies relevant to the Project regarding biological resources.
Downtown Specific Plan	Chapter 12 Market Street Gateway District, Section 12.6 Design Standards and Guidelines for the Market Street Gateway District, 12.6.4 Landscaping, Plant Types: (1) Throughout this corridor, plants should be selected that reflect a parklike quality. The plant mix should include significant use of native trees, such as Western Sycamores, Coast Live Oaks, and Cottonwoods.
Hunter Business Park Specific Plan	There are no applicable policies relevant to the Project regarding biological resources.
La Sierra University Specific Plan	Policy LSU-5.4: The tops of natural hill forms shall be developed as landscaped open spaces.
Magnolia Avenue Specific Plan	<p><i>Corridor Wide Objectives and Policies</i></p> <p>Objective 1: Restore the Magnolia/Market Corridor to its historical role as a scenic, “showcase roadway” that spans the City of Riverside while updating its function as a key transit corridor to support future growth. (General Plan Objective LU-12)</p> <p>Policy 1.2: Maintain the existing mature heritage landscaping and infill landscaping as appropriate to return the Corridor to being a grand tree-lined parkway. (General Plan Policy LU-12.2)</p> <p><i>Magnolia Heritage District Objective and Policies</i></p> <p>Objective 1: Maintain the established residential character of the magnolia heritage District while allowing for higher intensity transit oriented residential and mixed-use development on opportunity sites, particularly along Magnolia and California avenues. (General Plan Objective LU-78)</p> <p>Policy 1.2: Preserve historic landscaping and increase green space along the Magnolia corridor. (General Plan Policy LU-78.2)</p> <p><i>Wood Streets District Objective and Policies</i></p> <p>Objective 1: Maintain and enhance the single-family residential character of Wood Streets and preserve the historic housing stock. (General Plan Objective LU-86)</p> <p>Policy 1.2: Implement strong tree preservation policies within the Wood Streets District. (General Plan Policy LU-86.2)</p>
Riverside Marketplace Specific Plan	There are no applicable policies relevant to the Project regarding biological resources.
University Avenue Specific Plan	<p><i>Section 5.2. Streetscape Standards for University Avenue:</i></p> <p>To protect the existing palm corridor and the mature trees near Bobby Bonds Park and still provide improved traffic service, University Avenue shall be maintained as a four-lane street widened at major intersections (Chicago, Iowa, and Kansas Avenues) for additional turn lanes and for bus bays.</p> <p>To accommodate a bike lane the entire length of University Avenue, the area between Kansas and Chicago Avenue may need to be widened by 10 feet. This widening should be engineered so as to avoid the existing mature trees adjacent to Bobby Bonds Park.</p>

Plan	Policy
	<p>New palms shall be added to reinforce the existing palm corridor and provide the major unifying element for the street.</p> <p><i>Section 5.2.1. From Park Avenue to just west of Chicago Avenue (Subdistrict 1)</i></p> <p>Maintain existing mature trees and introduce new palms to continue the “palm corridor” and new canopy shade trees.</p> <p><i>Section 5.3.1. Existing and New Street Trees in Parkways</i></p> <p>Existing mature trees in the public right-of-way should be retained, if possible.</p> <p><i>Section 8.3.2 Preservation of Existing Site Features</i></p> <p>Existing site conditions, such as mature trees, natural drainage courses and historic structures shall be incorporated into a project on any site.</p>

Sources: City of Riverside 1991, 2002, 2005, 2007b, 2009, 2012, 2017a, 2017b, 2019.

Policy Consistency

The Project would be consistent with the City’s policies relating to biological resources in the Open Space and Conservation Element, and Land Use and Urban Design Element (City of Riverside 2012, 2019) because the Project would comply with all relevant state and federal laws, as well as the WRC MSHCP and SKR HCP, relating to preservation of biological resources.

3.2.4 Methodology and Thresholds of Significance

Methodology

The study area for the Project consists of the City’s boundaries. The methods for analysis are based on review of the WRC MSHCP, Volumes I & II (RCA 2003) and the GP 2025 EIR (City of Riverside 2007a), as well as a literature and records search to identify biological resources that may be present within the City. The following databases/resources were reviewed.

- CNDDDB (CDFW 2021a) element occurrences for the quadrangle maps of the City
- The CDFW Special Animals List (CDFW 2021b)
- CNPS Online Inventory of Rare and Endangered Plants, eighth edition (CNPS 2021), for the quadrangle maps of the City
- USFWS Information for Planning and Consultation resource list (USFWS 2021a)
- USFWS Critical Habitat for Threatened and Endangered Species online mapper (USFWS 2021b)
- CDFW Biogeographic Information and Observation System Habitat Connectivity Viewer (CDFW 2021c)
- CDFW California Sensitive Natural Communities (CDFW 2021d)
- CDFW NCCP/HCP mapper (CDFW 2021e)
- National Wetlands Inventory (NWI) Wetlands Mapper database (USFWS 2021c)
- National Hydrography Dataset (USGS 2021)
- USGS topographic quadrangle maps of the City (USGS 1967)

- U.S. Department of Agriculture, Natural Resources Conservation Service Soil Survey maps (USDA-NRCS 2021)
- WRC MSHCP Summary Report Generator (RCA 2021)
- RCA Western Riverside Vegetation Map (RCA 2012)
- Google Earth aerial imagery (Google Earth 2021)

The potential for lands within the City to support special-status plant and animal species was assessed via desktop analysis to identify possible Project impacts on those species. Vegetation communities, land cover types, water bodies, soils, topography, elevation, and records of occurrence within the City were considered when determining potentially suitable habitat to support special-status species and the potential of individual special-status species to occur. Resources reviewed included RCA Western Riverside vegetation mapping, Google Earth aerials and photos, records of occurrence (e.g., CNDDDB, Calflora), Natural Resources Conservation Service soil mapping, and USGS topographic maps.

Implementation of the Project could result in direct, indirect, and cumulative impacts on biological resources. *Direct impacts* are those effects of a project that occur at the same time and place as project implementation, such as removal of habitat through ground disturbance. *Indirect impacts* are those effects that occur later in time and/or at a distance from project activities, but are reasonably foreseeable, such as downstream loss of aquatic species from effects on water quality. Direct and indirect impacts can be permanent or temporary and may result from various project activities, including construction of new development that may involve grading, excavation, trenching, and placement of fill material; increase in impervious surfaces; removal of vegetation during construction and temporary staging areas; and temporary disturbance associated with operation and maintenance of public facilities (e.g., vegetation management). *Cumulative impacts* are those incremental effects of a project that, even if less than significant themselves, could in combination with the effects of other projects significantly affect biological resources.

Direct impacts for construction and operations were evaluated based on the current and future potential for special-status species, sensitive natural communities, wetlands and/or potentially jurisdictional aquatic resources, and wildlife corridors and linkages to be present based on the evaluation of biological resources available within the City. Indirect impacts from the Project were evaluated based on the potential presence of suitable habitat for special-status species, sensitive natural communities, wetlands and/or potentially jurisdictional aquatic resources, and wildlife corridors and linkages in the vicinity or region of the Project.

Impacts from implementation of the Project on natural communities were evaluated quantitatively. The analysis involved overlaying geographic information system (GIS) layers for areas of potential development or fire control activities onto the GIS layers for land cover mapping developed for the Project in order to determine the amount of each type of land cover that would be affected. Land cover mapping used for the Project was based on the RCA Western Riverside Vegetation Map (RCA 2012).

Impacts on special-status species, wildlife migration corridors, and other HCPs occurring within the City were assessed through a high-level, qualitative analysis and are not a final Project-level determination. Each individual project would need to undergo site-specific desktop and/or field

reviews and analyses to conclusively determine if suitable habitat is present or absent for special-status species, wildlife migration corridors, and other HCPs occurring within the City.

The evaluation of impacts on species potentially occurring within the City relied on a combination of the available natural community and land cover mapping, as well as species occurrence information (compiled from CNDDDB and CNPS data). Because the scope and scale of the Project did not include performing field surveys, including detailed vegetation mapping and special-status species surveys, and analysis was instead based on overlaying GIS layers of existing data, determinations of species' potential to occur within the City are very broad and high level. A more detailed assessment of species potential to occur within the City for discrete development under the Project would be performed on a project-by-project basis, as necessary.

The analysis for impacts on wildlife movement corridors and other HCPs involved overlaying GIS layers for Project elements (i.e., Opportunity Sites involving residential and mixed-use development, fire hazard areas) onto the GIS layers for wildlife corridors and other HCP conservation areas and plan boundaries in order to determine the areas that would be affected. The potential effects on migration corridors in the City were evaluated qualitatively using map data from the CEHC (Spencer et al. 2010). This information was used to determine if build-out of any of the Housing Element Update Opportunity Sites would result in barriers across natural lands that serve as known or potential wildlife corridors. The CEHC identified natural blocks of habitat across California and areas that potentially provide linkages and ECAs between these blocks. ECAs are defined as lands likely to be important to wildlife movement between large, mostly natural areas at the statewide level. The ECAs form a functional network of wildlands that are considered important to the continued support of California's diverse natural communities. Map data for potential impacts on other HCPs was obtained from the WRC MSHCP (RCA 2021) and SKR HCP (County of Riverside 2016).

The assessment of impacts on potentially jurisdictional wetlands and other waters relied on a desktop analysis using aerial imagery, NWI data (USFWS 2021c), and National Hydrography Dataset data within the City. Independent jurisdictional delineations would be performed on a Project-specific level to determine potentially jurisdictional wetlands, other waters, and CDFW streambed and riparian habitat during the independent development review process for each individual development, as necessary.

Thresholds of Significance

An Initial Study was prepared for the Project in April 2021. The following environmental threshold was scoped out from detailed review in this section of the Draft EIR in the Initial Study because the impact was determined to be less than significant:

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

For a complete discussion of the environmental issues that were scoped out from this Draft EIR, refer to Section 3.15, *Effects Not Found to Be Significant*.

In accordance with Appendix G of the State CEQA Guidelines, the Project would be considered to have a significant effect if it would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans,

policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service

- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service
- Have a substantial adverse effect on state- or federally protected wetlands (e.g., marshes, vernal pools, coastal wetlands) through direct removal, filling, hydrological interruption, or other means
- 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 impedance of the use of native wildlife nursery sites
- Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan

3.2.5 Impacts and Mitigation Measures

Impact BIO-1: The Project could have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service. Implementation of Mitigation Measure MM-BIO-1 would reduce this impact to less-than-significant levels.

Housing Element Update, Zoning Code and Specific Plan Amendments, and Environmental Justice Policies

The City contains native riparian, grassland, and scrubland habitats (see Impact BIO-2, below, for details) as well as conservation lands (see Impact BIO-5, below) that have a potential to support special-status plant and animal species. The Project has been designed to avoid the placement of Opportunity Sites in areas containing greenbelts, arroyos and canyons, and other areas of high biological sensitivity (see Chapter 2, *Project Description*). Consequently, the majority of suitable habitat to support special-status species within the City would be avoided. However, small patches of suitable habitat are present within areas designated as Opportunity Sites (for example: Ward 3 [Assessor's Parcel Numbers (APNs) 223210020 & 223210021], Ward 4 [APNs 280260037 & 280260033], and Ward 6 [APNs 145022009 & 145022003]). Construction activities of future development under the Housing Element Update could result in direct and indirect impacts on special-status plant and animal species, as described below, although impacts are expected to be minor given the placement of the Opportunity Sites within urban, developed areas. Special-status plant and animal species and their habitat requirements, regulatory status, and potential for occurrence within the City are described in Appendix D.

Due to the scope of this EIR, the impact analyses for special-status species included in this EIR are broad and qualitative. Detailed, quantitative assessments for special-status species may be required for individual development projects.

Special-Status Plant Species

During the desktop analysis of the City, special-status plant species were noted to have some potential to occur within the City (see Table 3.2-2).

Project activities under the Housing Element Update could directly affect special-status plant species that have a potential to occur within the City through the permanent and temporary construction removal of suitable habitat, including riparian, grassland, and scrubland natural communities, should they be present within any of the Opportunity Sites during future development. Loss of suitable and occupied habitat could result in less available habitat to support special-status plant species in the region. If areas that are temporarily disturbed are not successfully restored, and suitable habitat does not reestablish, then individuals and populations of special-status plant species may not occur in areas that they had previously occupied.

Direct effects on special-status plant species from construction of future development, including grading, excavating, soil stockpiling, or other earth-disturbing activities, could also include direct mortality of individual plants, plant injury, and alteration of plant community structure. The use of construction equipment, machinery, and vehicles within areas supporting special-status plant species could result in individual plants being run over during construction work, leading to either injury or mortality. The increased human presence during new construction activities could also increase the potential for trampling of individual plants. Plants that are damaged may not produce as many flowers or seeds due to injury-induced physiological stressors. Clearing and grading activities could disturb and compress soils, potentially damaging and destroying seed banks and preventing or reducing future utilization of the area by these species by inhibiting root penetration of the soil surface. Plant injury and mortality and damage to seed banks could result in direct take of federally or state-listed plants, should they be present. In addition, construction could increase the potential for fire in the area (e.g., sparks from equipment and machinery), which could directly and indirectly affect any special-status plant species present. These effects could be both short- and long-term in nature, depending on the construction duration.

Temporary disturbances from construction of new development under the Housing Element Update could result in indirect impacts on special-status plant species, should they be present in the area surrounding the development footprint of individual projects. Indirect impacts may consist of dust, erosion, chemical spills, trash and debris, and introduction of invasive species. Exposure of special-status plant species to dust from construction activities (e.g., ground disturbance, movement of heavy equipment and vehicles) could potentially decrease the ability of plants to photosynthesize. Construction equipment, vehicles, or imported materials used during vegetation clearing and construction could introduce and spread non-native invasive plant species via mud and other debris tracked in from other sites that may contain invasive plants and/or seeds. Invasive plant species could out-compete special-status plant species for resources like water and space, which could either reduce their reproductive productivity (i.e., reduce the amount of flowers and/or seeds produced) or displace them from the area. These indirect impacts could alter plant community structures, and suitable habitat could become degraded and monotypic, thereby reducing the quality and diversity of native vegetation communities within the City. Sites that are degraded due to exposure to indirect stressors may no longer provide the habitat features required by special-status plant species, preventing or reducing colonization of the area by these species.

Negative physiological stressors resulting from reduced photosynthesis or competition with invasive plant species could lead to energetic losses and increased stressors to special-status plants,

potentially resulting in lowered reproductive performance, increased susceptibility to diseases, and death.

Special-Status Fish Species

Suitable habitat for special-status fish species does not occur within any of the proposed Opportunity Site locations. Consequently, no direct or indirect impacts on special-status fish species are anticipated from the Housing Element Update.

Species-Status Wildlife Species

The Project could directly affect special-status invertebrate, amphibian, reptile, bird, and mammal species with a potential to occur in the City (see Table 3.2-2) through the permanent and temporary construction removal of suitable habitat (3.06 acres), including riparian, scrublands, and grasslands vegetation communities (see Impact BIO-2, Table 3.2-6). These direct impacts would result from construction of future development projects facilitated by the Project. Loss of suitable and occupied habitat could result in less available foraging, nesting, roosting, and breeding habitat for special-status wildlife species in the region. However, due to the small amount of suitable habitat that is expected to be removed, these potential impacts are anticipated to be minor. In addition, given that these patches of suitable habitat are small and surrounded by development, there is a low potential for special-status wildlife species to be present.

Should any special-status wildlife species be present, construction activities related to future development facilitated by the Project could result in direct mortality, injury, or harassment of individual special-status wildlife. The use of construction equipment, machinery, and vehicles within areas occupied by special-status wildlife could cause individuals to be struck during construction activities, leading to injury or mortality. Ground disturbance could crush or entomb individuals in their burrows (e.g., amphibians, reptiles, burrowing owls, small and medium-sized mammals). Should any special-status wildlife become trapped in unburied pipes or conduits or uncovered holes or trenches, they could be injured or killed. Capturing, handling, and relocating special-status wildlife that occur within construction areas could cause injury or death if proper handling and relocation techniques are not used. Capture and relocation could also cause strain and stress on, and displacement of, individuals. Exposure to toxic contaminants and pollutants, such as inadvertent spills of gasoline, oil, or lubricants when fueling or storing construction equipment, could result in illness or mortality if an animal came into contact with the contaminant.

The removal or trimming of suitable roost trees for foliage- and/or crevice-dwelling special-status bats could directly harm roosting or hibernating bats and would reduce potential roosting habitat for these species, including mature foliage trees and trees containing snags, crevices, or peeling bark. If construction were to occur during the maternity season (typically April–August in Southern California), then young, flightless bats could be particularly susceptible to harm. Depending on whether individuals are foraging or roosting within the limits of disturbance, all life stages of special-status bats associated with the breeding season could be exposed to these stressors.

Implementation of the Housing Element Update also has the potential to temporarily directly affect special-status wildlife species from the use of heavy equipment, machinery, and pile driving operations associated with construction of future developments, which could produce loud noises and ground vibrations that stress and strain individuals. Masking (i.e., the inability to hear environmental cues and animal signals) could limit an individual's ability to communicate and receive important cues from the environment and other wildlife, which could negatively impact

their ability to procreate and respond to a threat, as well as increase the risk of predation. However, depending on the noise levels and duration, animals may also adjust behavior to acclimate to the disturbance, such as adjusting calling height and location, turning their heads, increasing their call volume, and timing calls during periods of low noise. Depending on what time of year construction is done, all life stages of special-status wildlife associated with the breeding season could be exposed to noise and vibration stressors.

The City's noise code limits construction activities to 7 a.m. to 7 p.m. Monday through Saturday and 8 a.m. to 5 p.m. on Sunday. Therefore, no substantial nighttime construction would occur. If construction occurs after dark, activities (e.g., foraging) of nocturnal species could be altered and resting diurnal species in the area (e.g., nesting birds) could be disturbed. In addition, artificial lighting at night may increase predation risk of special-status wildlife by allowing predators, such as owls, to hunt more efficiently.

Construction at Opportunity Sites containing or adjacent to suitable habitat could also expose special-status wildlife to indirect stressors. The presence of construction personnel could disturb individuals occupying the area. Increased human activity could produce trash and construction-related debris piles, which could draw opportunistic predators that are attracted to litter to the area, such as coyote, raccoon, common raven (*Corvus corax*), American crow (*Corvus brachyrhynchos*), and feral cats. Increased predation risks could result in mortality of both adults and young. Project personnel could collect individuals or bring pets on site, which could harass or kill special-status wildlife.

The direct and indirect effects from exposure to stressors such as increased noise levels, ground vibrations, night lighting, and increased risk of predation and harassment could lead to behavioral modifications and negative physiological stressors. Behavioral modifications, including habitat avoidance and nest/burrow/roost abandonment, could result in decreased reproductive success. Habitat avoidance could reduce the availability of suitable breeding and foraging habitat for special-status wildlife, making successful reproduction more challenging. Nest/burrow/roost abandonment could result in the death of young. Physiological stressors could lead to energetic losses and increased stressors to the body, potentially resulting in lowered reproductive performance, increased susceptibility to diseases and predation, inability to successfully forage and feed young, and death of both adults and young. Depending on whether individuals are foraging or breeding in the area, all life stages of special-status wildlife associated with the breeding season could be exposed to these stressors.

Construction activities could also result in indirect stressors on suitable and occupied habitat for special-status wildlife. Potential indirect impacts may include edge effects and degradation of native vegetation communities and water quality associated with litter, fire, introduction of invasive plant species, erosion, sedimentation, chemical spills during construction, and dust and pollutants associated with vehicles and machinery. Indirect effects on suitable habitat could cause special-status wildlife to cease using the area within and adjacent to construction footprints if habitat restoration has limited success and/or habitat degradation was severe enough to diminish resources needed for foraging and nest/burrow/roost placement and construction. Edge effects and degraded native habitat could create hospitable habitats for predators of native wildlife species. Fires within suitable habitat could result in loss of suitable foraging and breeding habitat and, if during the breeding season, death of young.

Other potential impacts on suitable habitat include the compaction of soil due to construction vehicles, which may decrease the availability of friable soils for burrow creation. Soil that is not decompacted following construction so that it is friable enough for digging burrows could prevent burrowing animals from moving back into the area.

Policies related to environmental justice under the proposed Housing Element Update would not enable future development or the construction of new housing, public safety infrastructure, and mixed-use development. Rather, these policies describe how future development and construction would be implemented with respect to environmental justice communities, housing design, affordable housing, and access to healthy and affordable foods. Implementation of these policies would not affect special-status plant or animal species. The proposed rezoning that would occur as part of the Project would accommodate future housing and mixed-use development on the Opportunity Sites. No Residential Conservation Zones, which protect hillside areas in the City, are proposed for zoning changes; as such, impacts on special-status species as a result of the proposed rezoning are expected to be minimal and have already been analyzed above. The proposed rezoning would not result in any separate, discrete impacts that have not been previously discussed.

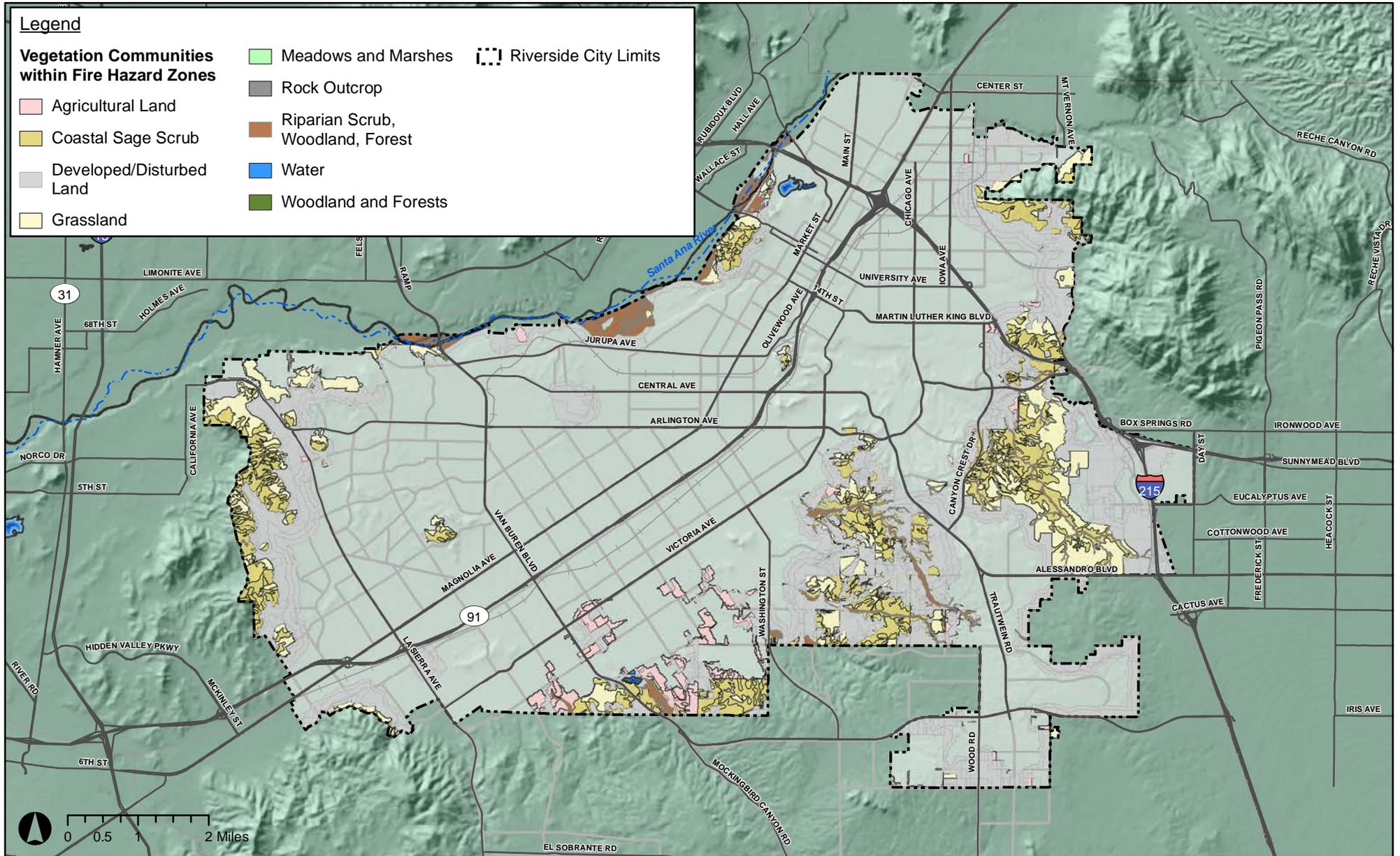
Policies related to environmental justice under the proposed Housing Element Update would not enable future development or the construction of new housing, public safety infrastructure, and mixed-use development. Rather, these policies describe how future development and construction would be implemented with respect to environmental justice communities, housing design, affordable housing, and access to healthy and affordable foods. Implementation of these policies would not affect special-status plant or animal species.

Although future development projects facilitated by the Housing Element Update and Zoning Code and Specific Plan amendments could result in the removal and/or disturbance of suitable habitat for special-status species, and direct and indirect impacts on individuals, and Opportunity Site projects that are not eligible for the ministerial approval process (and not projects per CEQA), implementation of Mitigation Measure **MM-BIO-1** would avoid or minimize any potential impacts on special-status plant and/or animal species. Because the City is a permittee in the WRC MSHCP, each individual development project would go through the WRC MSHCP consistency review process to ensure that it is consistent with the requirements of the plan and, as described in Mitigation Measure **MM-BIO-1**, would implement additional project-specific mitigation as needed. The WRC MSHCP consistency review for specific developments may include habitat assessments and protocol surveys for riparian bird species, habitat assessments and focused surveys for burrowing owl, surveys for amphibians and mammals, habitat assessments and protocol surveys for listed fairy shrimp species, and quantification of impacts on coastal sage scrub suitable habitat for coastal California gnatcatcher. The methods and results of any required survey would be provided to the RCA and wildlife agencies for any impacts within Riparian/Riverine areas or Cell areas as part of the WRC MSHCP consistency review. Consistency with the WRC MSHCP would ensure that impacts on sensitive or listed species would be mitigated on a biologically equivalent basis. Consequently, impacts on special-status species would be less than significant with implementation of this measure and individual project-specific consistency with the WRC MSHCP.

Public Safety Element Update and Environmental Justice Policies

Suitable habitat to support special-status plant and animal species is within the Fire Hazard Areas of the City identified in the Public Safety Element, including riparian, grassland, and scrubland vegetation communities (Figure 3.2-4).

Figure 3.2-4
Fire Hazard Zones



The Public Safety Element Update policies and implementing actions aim to reduce the risk to the community and to ensure protection from foreseeable natural and human-caused hazards. These policies and implementing actions address natural hazards; transportation hazards; police, fire, and emergency services; pandemic preparedness and response; homelessness; and climate change and resiliency. The Public Safety Element Update also includes policies and implementing actions related to management of hazardous materials and other safety topics related to emergency access and pedestrian safety that could eventually become roadways, sidewalks, and bike paths. Public Safety Element Update policies and implementing actions could affect the fire control measures that are implemented by the City to reduce the risk of wildland fires within the Fire Hazard Area, such as brush-clearance activities. However, no specific infrastructure improvements or projects are identified in the Public Safety Element Update. As this is a policy document, this update would not have any significant direct or indirect impacts on special-status plant or animal species. Impacts would be less than significant.

Policies related to environmental justice under the proposed Public Safety Element Update would not enable future development or the construction of new housing, public safety infrastructure, and mixed-use development. Rather, these policies describe treatment of hazardous materials associated with contaminated sites within environmental justice communities; access to affordable housing, health care, and emergency services; the needs of environmental justice communities in planning for emergency response and recovery; the health implications for land use decisions that could involve hazardous uses; and the potential for vehicular and pedestrian accidents in underserved areas. Implementation of these policies would not affect special-status plant or animal species.

Mitigation Measures

The potential impacts of the Project described in this section would be reduced to less-than-significant levels with implementation of the following mitigation measure.

MM-BIO-1: Conduct literature review, habitat assessment, and surveys.

Preliminary Review: Prior to construction on Opportunity Sites that are vacant or where the potential presence of biological or aquatic resources exists, a consistency review shall be performed to ensure that the project is consistent with the requirements of the WRC MSHCP. For the project-specific WRC MSHCP consistency process, the applicant shall employ a qualified biologist approved by the City to review the future Opportunity Site project. The qualified biologist shall conduct a site-specific literature review, which shall consider, at a minimum, the future development project, site location, GIS information, WRC MSHCP survey areas and requirements, and known sensitive biological resources. The review shall assess the site for special-status plants and/or wildlife, aquatic resources, sensitive natural communities, wildlife corridors or nurseries, or other regulated biological resources covered by the WRC MSHCP and/or pursuant to CEQA, FESA, or CESA that could be affected by the project. In some cases, a literature review would be sufficient for the biologist to make a no impact and/or a less-than-significant impact determination for all six of the thresholds of significance (Section 3.2.4) of biological resources and/or the determination that the project is consistent with the WRC MSHCP. In this case, no further work shall be required, and if deemed necessary by the City, a summary report stating the basis for these findings, identifying each threshold of significance with a CEQA finding, shall be the only requirement.

Habitat Assessment Survey: If, during the preliminary review, it is determined that potential biological resources including any species covered under the MSHCP exist on the individual Opportunity Site that could be affected, then a habitat assessment survey shall be required unless a qualified biologist determines that a field review/habitat assessment is not needed. If needed, and/or the project is in a WRC MSHCP designated survey area, this survey shall consist of a site visit conducted by a qualified biologist, where the proposed individual development project and adjacent buffer (as appropriate for the target species relative to the potential project direct and indirect impacts) shall be assessed for WRC MSHCP covered species and habitats; candidate, sensitive, or special-status plants and/or wildlife; aquatic resources; sensitive natural communities; and wildlife corridors or nurseries while identifying and mapping all vegetation communities and land-cover types. If suitable habitat is present for candidate, sensitive, or special-status plants or animals and cannot be avoided, then focused protocol surveys may be required, as determined by the qualified biologist, with appropriate reporting. If aquatic resources are present and cannot be avoided, a jurisdictional delineation may be required. Mitigation shall include an analysis of all the biological resources identified in the thresholds of significance, with a determination made regarding significance for each threshold. Reporting shall include regulatory assessment, impact analyses, and identification and implementation of appropriate measures based on the presence of biological resources.

Reduce and Avoid Impacts: If, following the literature review and surveys for Opportunity Sites, it is determined that the site would not directly or indirectly affect any WRC MSHCP covered species or habitats; candidate, sensitive, or special-status plants and/or wildlife; aquatic resources; sensitive natural communities; or wildlife corridors or nurseries, then no further action or WRC MSHCP consistency analysis shall be required. If, however, it is determined that impacts on WRC MSHCP covered species or habitats; candidate, sensitive, or special-status plants and/or wildlife; aquatic resources; sensitive natural communities; or wildlife corridors or nurseries would occur and therefore would be considered significant, then additional mitigation measures as recommended by the qualified biologist and approved by the Planning Division shall be implemented to avoid or reduce impacts to the maximum extent feasible.

Impact BIO-2: The Project could have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service. Implementation of Mitigation Measure MM-BIO-1 would reduce this impact to less-than-significant levels.

Housing Element Update, Zoning Code Amendments, and Environmental Justice Policies

The Project has been designed to avoid the placement of Opportunity Sites in areas containing greenbelts, arroyos and canyons, and other areas of high biological sensitivity (see Chapter 2, *Project Description*). Consequently, the majority of sensitive natural communities within the City would be avoided under the Housing Element Update. However, small patches of sensitive natural communities are present within areas designated as Opportunity Sites (for example: Ward 3 [APNs 223210020 & 223210021], Ward 4 [APNs 280260037 & 280260033], and Ward 6 [APNs 145022009 & 145022003]). Permanent and temporary direct and indirect impacts could occur on these sensitive natural communities as a result of construction activities of future development

projects facilitated by the Housing Element Update, although impacts are expected to be minor given the placement of the Opportunity Sites within urban, developed areas (Table 3.2-6).

A few small patches of southern willow scrub and coastal scrub are present within the areas proposed as Opportunity Sites, as classified as sensitive communities by CNDDDB (CDFW 2021a) and Holland (1986). Southern willow scrub is in the southeastern corner of the City, and coastal scrub occurs in the southeastern corner and western edge of the City (Figure 3.2-5).

No other sensitive natural community types (e.g., essential fish habitat) are within the City. However, the vegetation mapping used in this EIR is broad scale across the larger landscape and may not capture exact conditions on the ground. In addition, habitat conditions may change over time. As such, sensitive natural communities may occur in areas not shown on Figure 3.2-5.

Disturbance and Removal of Vegetation

Project activities facilitated by the Project could result in permanent and temporary impacts on sensitive natural communities as a result of construction activities should the specific development project(s) be within an area that supports sensitive communities. The construction of new development facilitated by the Project could result in permanent impacts from construction-related activities, including the removal of existing vegetation and encroachment into sensitive natural communities that may have permanent effects. Temporary direct impacts could include incidental disturbances within and adjacent to construction areas and clearing and grubbing for equipment staging and temporary construction access routes.

Potential Project impacts are shown in Table 3.2-6, based on broad-scale landscape mapping using RCA Western Riverside Vegetation Map data (RCA 2012). Because details of individual future specific development projects are not currently available, permanent versus temporary impacts cannot be determined at this time and will be assessed on a project-level basis during the independent development review for each future project.

Table 3.2-6. Impacts on Natural Vegetation Communities under the Housing Element Update

Natural Community/Land Cover Type	Project Impacts (acres)
Riparian Scrub, Woodland, and Forest	
Southern Willow Scrub	0.53
Coastal Sage Scrub	
Coastal Scrub	1.51
Grassland	
Non-Native Grassland	1.02
TOTAL	3.06

Habitat Degradation from Indirect Effects

Temporary indirect impacts on sensitive natural communities that are adjacent to Opportunity Sites may be caused by construction activities (e.g., soil compaction, introduction of invasive species, dust, increased fire risk, chemical spills, sedimentation), which could lead to the degradation of native habitats and floodplains.

The movement of heavy equipment and supplies during construction of future development could compact the soil, affecting vegetation germination and growth. Soil compaction occurs when soil particles are pressed together, reducing pore space between them. Heavily compacted soils contain few large pores, which are the most effective in moving water through the soil when it is saturated, and thus have a reduced rate of both water infiltration and drainage from the compacted layer. In addition, the exchange of gases slows down in compacted soils, causing an increase in the likelihood of root aeration problems. Soil compaction from constructing future development projects facilitated by the Project could inhibit seed germination and root penetration in the soil surface and could result in bare soil, sparsely vegetated areas, or a substantial change in species composition following construction in temporary areas. Without proper BMPs, vegetation removal and soil compaction would expose soil to the erosive forces of rain and overland stormwater runoff, causing sediment to smother vegetation within and beyond project footprints, especially in areas with steep terrain.

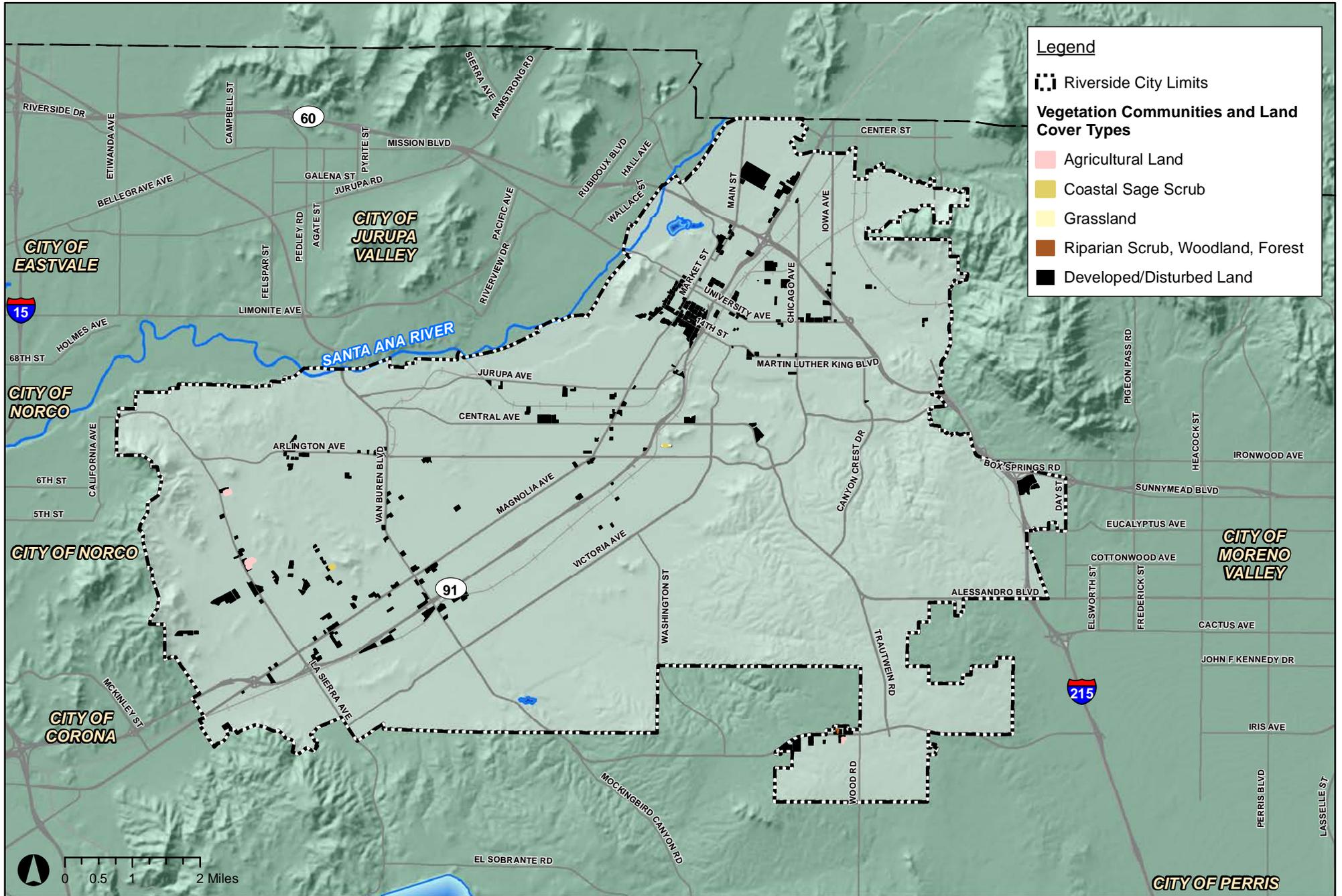
The construction of future development could also have adverse effects on sensitive natural communities and native plants as a result of the introduction and spread of invasive plant species through construction activities throughout the project footprint and surrounding area. Construction activities could introduce and increase the spread of non-native and invasive plants in the following ways:

1. Construction equipment could carry invasive plant seeds or plant parts from infested areas outside of construction areas into construction areas.
2. Construction equipment could disturb existing invasive plant infestations in the project site and cause the spread of these infestations throughout the surrounding area.
3. Fill material containing invasive plants could be used
4. Seed mixtures containing non-native or invasive plant seeds could be used for revegetating construction staging areas.

Invasive plants are often more aggressive than native vegetation, and the disturbed conditions of a construction site create an environment (e.g., bare and compact soil, disturbed surfaces) where some invasive plants thrive. Invasive plant species threaten the diversity and abundance of native plant species through competition for resources, hybridization with native populations, and physical or chemical alteration of the invaded habitat. The introduction of species such as giant reed and salt cedar to waterways can substantially alter the natural hydrology, flood regime, and channel characteristics by using more water than native plants, providing limited shade (which increases water temperatures and, in-turn, algae growth), and reducing water quality from decaying vegetation, as well as crowding out native plants and degrading riparian habitat. Unlike the native plants they displace, many invasive plant species do not provide the food, shelter, or other habitat components on which many native fish and wildlife species depend. In addition, dense stands of non-native plant species such as annual grasses, giant reed, and salt cedar are highly flammable and increase the risk of fire in riparian and other natural communities.

During construction activities, the operation of heavy equipment could generate fugitive dust from loose soil. Any accumulation of fugitive dust on vegetation could affect plant growth by inhibiting photosynthesis and reducing vegetation density and plant diversity. More tolerant native plant species could benefit from decreased competition. However, invasive plants could colonize and disrupt the overall plant ecosystem. The magnitude and duration of dust exposure, tolerance of

Figure 3.2-5
 Housing Element Impacts on Vegetation Communities



native vegetation, and aggressiveness of invasive plants would determine vegetation response and the intensity of impacts.

Accidental release of contaminants during construction, such as an inadvertent spill of gasoline, oil, or lubricants when fueling or storing construction equipment, could affect plant growth and survival. Accidental releases of hazardous materials could negatively affect plant communities in the vicinity of the spill. The magnitude of impacts would depend on the type and volume of material spilled, the location, and the habitat affected. However, an uncontained spill of hazardous materials would likely be relatively small and affect a limited area because the volume of these materials that may be present at a construction location would be relatively small, BMPs would typically be in place, and there would be no storage of hazardous materials within sensitive habitats at Opportunity Site locations.

The proposed rezoning that would occur as part of the Project would accommodate housing and mixed use on the Opportunity Sites. No Residential Conservation Zones, which protect hillside areas, are proposed for zoning changes; as such, impacts on sensitive natural communities as a result of the proposed rezoning are expected to be minimal and have already been analyzed above. The proposed rezoning would not result in any separate, discrete impacts that have not been previously discussed.

Policies related to environmental justice under the proposed Housing Element Update would not enable future development or the construction of new housing, public safety infrastructure, and mixed-use development. Rather, these policies describe how future development and construction would be implemented with respect to environmental justice communities, housing design, affordable housing, and access to healthy and affordable foods. Implementation of these policies and implementing actions would not affect sensitive natural communities.

Although future development under the Housing Element Update and Zoning Code and Specific Plan amendments could result in the removal and/or disturbance of sensitive natural communities, and Opportunity Site projects that are not eligible for the ministerial approval process (and not projects per CEQA), implementation of Mitigation Measure **MM-BIO-1** (see Impact BIO-1) would avoid or minimize any potential impacts on sensitive natural communities. Because the City is a permittee in the WRC MSHCP, each individual development project would go through the WRC MSHCP consistency review process to ensure that it is consistent with the requirements of the plan and, as described in Mitigation Measure **MM-BIO-1**, would implement additional project-specific mitigation to achieve biological equivalency pursuant to the plan, as needed. Consequently, impacts on sensitive natural communities would be less than significant with implementation of this measure and individual project-specific consistency with the WRC MSHCP.

Public Safety Element Update and Environmental Justice Policies

Ten natural vegetation communities are within the Fire Hazard Area of the City identified in the Public Safety Element, including arundo/riparian forests, mulefat scrub, southern cottonwood-willow riparian forest, southern riparian forest, southern sycamore-alder riparian woodland, southern willow scrub, marsh, coastal scrub, Riversidean sage scrub, and non-native grassland (Figure 3.2-4). All of these communities, except for non-native grassland, are classified as sensitive communities by CNDDB (CDFW 2021a) and Holland (1986).

No USFWS designated critical habitat is present within the Fire Hazard Area of the City under the Public Safety Element (USFWS 2021b).

No other sensitive natural community types (e.g., essential fish habitat) are within the City. However, the vegetation mapping used in this EIR is broad scale across the larger landscape and may not capture exact conditions on the ground. In addition, habitat conditions may change over time. As such, sensitive natural communities may occur in areas not shown on Figure 3.2-4.

The Public Safety Element Update includes policies and implementing actions that aim to reduce the risk to the community and to ensure protection from foreseeable natural and human-caused hazards, as described in Impact BIO-1 above. Public Safety Element Update policies and implementing actions could affect the fire control measures that are implemented by the City to reduce the risk of wildland fires within the Fire Hazard Area, such as brush-clearance activities. However, no specific infrastructure improvements or projects are identified in the Public Safety Element Update. As this is a policy document, this update would not have any significant direct or indirect impacts on sensitive natural communities. Impacts would be less than significant.

Policies related to environmental justice under the proposed Public Safety Element Update would not enable future development or the construction of new housing, public safety infrastructure, and mixed-use development. Rather, these policies describe treatment of hazardous materials associated with contaminated sites within environmental justice communities; access to affordable housing, health care, and emergency services; the needs of environmental justice communities in planning for emergency response and recovery; health implications for land use decisions that could involve hazardous uses; and the potential for vehicular and pedestrian accidents in underserved areas. Implementation of these policies would not affect sensitive natural communities.

Mitigation Measures

The potential impacts of the Project described in this section would be reduced to less-than-significant levels with implementation of the Mitigation Measure **MM-BIO-1** and individual project-specific consistency with the WRC MSHCP, as described under Impact BIO-1.

Impact BIO-3: The Project could have a substantial adverse effect on state- or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal wetlands) through direct removal, filling, hydrological interruption, or other means. Implementation of Mitigation Measure MM-BIO-1 would reduce this impact to less-than-significant levels.

Housing Element Update, Zoning Code Amendments, and Environmental Justice Policies

The City contains wetlands and potentially jurisdictional aquatic resources throughout the City, particularly along the Santa Ana River and its tributaries (as described in Section 3.2.2, *Environmental Setting*, under *Aquatic Resources*). The NWI identifies freshwater emergent wetland, freshwater forested/shrub wetland, freshwater pond, lake, and riverine as occurring within the City (USFWS 2021c), and the National Hydrography Dataset lists streams/river, canals/ditches, and pipelines as occurring within the City (USGS 2021). The Project has been designed to avoid the placement of Opportunity Sites in areas containing greenbelts, arroyos and canyons, and other areas of high biological sensitivity (see Chapter 2, *Project Description*). Consequently, the majority of wetlands and potentially jurisdictional aquatic resources within the City would be avoided under the Housing Element Update. However, some previously unknown wetlands and potentially

jurisdictional aquatic resources may be present within or adjacent to the proposed Opportunity Sites (e.g., ditches and ephemeral drainages). Construction activities of future development under the Housing Element Update could result in direct and indirect impacts on wetlands and potentially jurisdictional aquatic resources, as described below.

Due to the scope of this EIR, the impact analyses for wetlands and potentially jurisdictional aquatic resources included in this EIR are broad and qualitative. Detailed, quantitative assessments for wetlands and potentially jurisdictional aquatic resources would be performed during the project-specific impact analysis that would occur during the independent development review process for each individual development project facilitated by the Project.

Construction of future development projects within proposed Opportunity Sites facilitated by the Project could directly affect wetlands or potentially jurisdictional aquatic resources that have a potential to occur within the proposed Opportunity Sites through permanent and temporary construction activities, should they be present (USFWS 2021c). If areas that are temporarily disturbed are not successfully restored, then wetlands and/or potentially jurisdictional aquatic resources may no longer occur in areas that they had previously occupied, or they could be restored, but at a diminished level of biological functions and values.

Direct effects on wetlands and/or jurisdictional aquatic resources could result from construction activities for future development, including grading, excavating, soil stockpiling, or other earth-disturbing activities. The use of construction equipment, machinery, and vehicles within wetlands and/or jurisdictional aquatic resources could change or remove the soil, hydrology, vegetation, or other resource conditions during construction work, leading to decreased quality or loss of those conditions. Clearing and grading activities, as well as elevation modifications, could disturb and compact soils and affect hydrological conditions. These effects could be both short- and long-term in nature during the course of construction in or near these features.

Permanent and temporary disturbances from construction of future development could result in indirect impacts on wetlands and/or potentially jurisdictional aquatic resources present in the area surrounding the development site. Indirect impacts could include the introduction of non-native species, erosion, sedimentation, chemical spills, and alteration of downstream hydrological conditions. Construction equipment, vehicles, or imported materials used during construction of future development could introduce and spread non-native invasive plant species via mud and other debris tracked in from other sites that may contain invasive plants and/or seeds. Invasive plant species could out-compete native wetland plant species for resources such as water and space, which could either reduce their reproductive productivity (i.e., reduce the amount of flowers and/or seeds produced) or displace them from the area. Sites that are degraded due to exposure to indirect stressors may become increasingly low value over time, or no longer exhibit the wetland or aquatic resource conditions. Erosion, sedimentation, and chemical spills may also reduce the quality of the wetlands and/or jurisdictional aquatic resources, and the accumulation of soils from erosion or sedimentation could fill and remove the resource.

The proposed rezoning that would occur as part of the Project would accommodate housing and mixed-use development on the Opportunity Sites. No conservation zones are proposed for zoning changes; as such, impacts on wetlands and/or potentially jurisdictional aquatic resources as a result of the proposed rezoning are expected to be minimal and have already been analyzed above. The rezone would not result in any separate, discrete impacts that have not been previously discussed.

Policies related to environmental justice under the proposed Housing Element Update would not enable future development or the construction of new housing, public safety infrastructure, and mixed-use development. Rather, these policies describe how future development and construction would be implemented with respect to environmental justice communities, housing design, affordable housing, and access to healthy and affordable foods. Implementation of these policies would not affect wetlands or potentially jurisdictional aquatic resources.

Although future development facilitated by the Project could result in the removal and/or disturbance of WRC MSHCP-designated Riparian/Riverine habitats, wetlands, and/or potentially jurisdictional aquatic resources, and Opportunity Site projects that are not eligible for the ministerial approval process (and not projects per CEQA), implementation of Mitigation Measure **MM-BIO-1** (see Impact BIO-1) would avoid or minimize any potential impacts on WRC MSHCP-designated Riparian/Riverine habitats, wetlands, and/or potentially jurisdictional aquatic resources. Because the City is a permittee in the WRC MSHCP, each individual development project would go through the WRC MSHCP consistency review process to ensure that it is consistent with the requirements of the plan and, as described in Mitigation Measure **MM-BIO-1**, would implement additional project-specific mitigation, as needed. Consequently, impacts on WRC MSHCP-designated Riparian/Riverine habitats, wetlands, and/or potentially jurisdictional aquatic resources would be less than significant with implementation of this measure and individual project-specific consistency with the WRC MSHCP. In addition, implementation of the Statewide NPDES Construction General Permit and construction site BMPs outlined in the Project's Stormwater Pollution Prevention Plan would reduce construction-related indirect impacts on wetlands and/or jurisdictional aquatic resources from erosion, sedimentation, and pollution.

Public Safety Element Update and Environmental Justice Policies

During the desktop analysis for the Project, wetlands and potentially jurisdictional aquatic resources were noted throughout the City, as described above.

The Public Safety Element Update includes policies and implementing actions that aim to reduce the risk to the community and to ensure protection from foreseeable natural and human-caused hazards, as described in Impact BIO-1 above. Public Safety Element Update policies and implementing actions could affect the fire control measures that are implemented by the City to reduce the risk of wildland fires within the Fire Hazard Area, such as brush-clearance activities. However, no specific infrastructure improvements or projects are identified in the Public Safety Element Update. As this is a policy document, this update would not have any significant direct or indirect impacts on wetlands and potentially jurisdictional aquatic resources. Impacts would be less than significant.

Policies related to environmental justice under the proposed Public Safety Element Update would not enable future development or the construction of new housing, public safety infrastructure, and mixed-use development. Rather, these policies describe treatment of hazardous materials associated with contaminated sites within environmental justice communities; access to affordable housing, health care, and emergency services; the needs of environmental justice communities in planning for emergency response and recovery; health implications for land use decisions that could involve hazardous uses; and the potential for vehicular and pedestrian accidents in underserved areas. Implementation of these policies would not affect wetlands and/or potentially jurisdictional aquatic resources.

Mitigation Measures

The potential impacts of the Project described in this section would be reduced to less-than-significant levels with implementation of the Mitigation Measure **MM-BIO-1** and individual project-specific consistency with the WRC MSHCP, as described under Impact BIO-1.

Impact BIO-4: The Project could 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. Implementation of Mitigation Measure MM-BIO-1 would reduce this impact to less-than-significant levels.

Housing Element Update, Zoning Code Amendments, and Environmental Justice Policies

The Project has been designed to avoid the placement of Opportunity Sites in areas containing greenbelts, arroyos and canyons, and other areas of high biological sensitivity (see Chapter 2. *Project Description*), including WRC MSHCP cores and linkages. As such, there are no wildlife movement corridors or linkages within or near the proposed Opportunity Sites under the Housing Element Update. Consequently, construction of future developments facilitated by the Housing Element Update would not adversely affect the regional movements of fish or other wildlife. However, there are trees, shrubs, and structures throughout the City, including within the Opportunity Sites, that could provide suitable habitat for nesting birds, including raptors, protected by the MBTA or CFGC sections. Construction of future development has the potential to impact active native resident and/or migratory bird nests if, and to the extent that, those trees and shrubs are trimmed or removed, or the structures are demolished, during the avian nesting season and they contain nests. Construction could also occur adjacent to active nests causing nest failures or abandonment.

The proposed rezoning that would occur as part of the Project would facilitate housing and mixed-use development on the Opportunity Sites. No conservation zones are proposed for zoning changes; as such, impacts on nesting birds as a result of the proposed rezoning are expected to be minimal, and no impacts are anticipated on wildlife movement corridors, as analyzed above. The Project would not result in any separate, discrete impacts that have not been previously discussed.

Policies related to environmental justice under the proposed Housing Element Update would not enable future development or the construction of new housing, public safety infrastructure, and mixed-use development. Rather, these policies describe how future development and construction would be implemented with respect to environmental justice communities, housing design, affordable housing, and access to healthy and affordable foods. Implementation of these policies would not affect wildlife corridors or nursery sites.

Mitigation Measure **MM-BIO-1** (see Impact BIO-1) would avoid or minimize any potential impacts on nesting birds and WRC MSHCP specific planning species as a result of any future development under the Housing Element Update and Zoning Code amendments. Because the City is a permittee in the WRC MSHCP, each individual development project would go through the WRC MSHCP consistency review process to ensure that it is consistent with the requirements of the plan and, as described in Mitigation Measure **MM-BIO-1**, would implement additional project-specific mitigation, as needed. Therefore, the impact would be less than significant with mitigation incorporated and individual project-specific consistency with the WRC MSHCP.

Public Safety Element Update and Environmental Justice Policies

The Badlands West – Box Springs Mountains ECA occurs within the Fire Hazard Area along the northeastern border of the City identified in the Public Safety Element. In addition, arroyos and canyons that function as wildlife movement corridors are present within the foothills and mountains along the eastern, southern, and western edges of the City and occur within the Fire Hazard Area.

The Public Safety Element Update includes policies and implementing actions that aim to reduce the risk to the community and to ensure protection from foreseeable natural and human-caused hazards, as described in Impact BIO-1 above. Public Safety Element Update policies and implementing actions could affect the fire control measures that are implemented by the City to reduce the risk of wildland fires within the Fire Hazard Area, such as brush-clearance activities. However, no specific infrastructure improvements or projects are identified in the Public Safety Element Update. As this is a policy document, this update would not have any significant direct or indirect impacts on wildlife movement corridors or nursery sites. Impacts would be less than significant.

Policies related to environmental justice under the proposed Public Safety Element Update would not enable future development or the construction of new housing, public safety infrastructure, and mixed-use development. Rather, these policies describe treatment of hazardous materials associated with contaminated sites within environmental justice communities; access to affordable housing, health care, and emergency services; the needs of environmental justice communities in planning for emergency response and recovery; health implications for land use decisions that could involve hazardous uses; and the potential for vehicular and pedestrian accidents in underserved areas. Implementation of these policies would not affect wildlife movement corridors or nursery sites.

Mitigation Measures

The potential impacts of the Project described in this section would be reduced to less-than-significant levels with implementation of the Mitigation Measure **MM-BIO-1** and individual project-specific consistency with the WRC MSHCP, as described under Impact BIO-1.

Impact BIO-5: The Project could conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan. Implementation of Mitigation Measure MM-BIO-1 would reduce this impact to less-than-significant levels.

The City overlaps with two adopted HCPs/MSHCPs: WRC MSHCP and SKR HCP. Some of the Project elements occur within conservation lands under these plans; as such, Project activities have the potential to conflict with the provisions outlined in these HCPs/MSHCPs, as described below. Impacts on special-status species, natural communities, wetlands and other waters, and wildlife movement corridors that occur in lands within these HCPs would be similar to those described in Impacts BIO-1 through BIO-4 above.

Housing Element Update, Zoning Code Amendments, and Environmental Justice Policies

Western Riverside County MSHCP

The entire City occurs within the boundaries of the WRC MSHCP area (Figure 3.2-3). The Project has been designed to avoid the placement of Opportunity Sites in areas containing greenbelts, arroyos and canyons, and other areas of high biological sensitivity, including WRC MSHCP areas (see Chapter 2, *Project Description*). Consequently, the majority of WRC MSHCP areas within the City would be avoided under the Housing Element Update (e.g., habitat management units, area plans and subunits, PQP conserved lands, criteria cells, cores and linkages, species survey areas). However, small portions of MSHCP areas are present within areas designated as Opportunity Sites (Table 3.2-7). Construction of future development may affect lands within the WRC MSHCP necessary to fulfill the conservation objectives of the overall Reserve Assembly. WRC MSHCP area components that are within proposed Opportunity Sites and may be affected are listed in Table 3.2-7. In addition, construction of future development could affect WRC MSHCP-designated riparian/riverine resources, including riparian habitats, open waters, wetlands, and riparian species, as described in Impacts BIO-1 through BIO-3 above.

Construction of future development may remove habitat within WRC MSHCP conservation areas. To compensate for any loss of conservation areas in the WRC MSHCP, Project applicants must coordinate with the wildlife agencies and RCA to develop a mitigation plan that demonstrates biological equivalency to offset any losses and to ensure that the Project is consistent with the WRC MSHCP. Any activity associated with individual development projects that occurs within the boundaries of the WRC MSHCP would comply and be consistent with the policies, goals, objectives, and conservation measures of the WRC MSHCP. Because the specific details of future development projects facilitated by the Project are not known at this time, the exact impacts on WRC MSHCP conservation areas resulting from construction activities cannot be predicted. Quantitative analysis of the exact areas, acreages, and protected resources under the WRC MSHCP to be affected by each future development would be performed at a project-by-project level during each project’s independent development review process to ensure consistency with the WRC MSHCP. Implementation of Mitigation Measure **MM-BIO-1** and compliance with the WRC MSHCP would reduce any potential impacts to less-than-significant levels.

Table 3.2-7. WRC MSHCP Conservation Areas within Opportunity Sites under the Housing Element Update

WRC MSHCP Area Component	WRC MSHCP Area Component within Opportunity Sites	Opportunity Sites
Habitat Management Units	River, San Timoteo, Gavilan	Wards 1-7
Area Plans and Subunits	City of Riverside and Norco Area Plan: Subunit 1 Santa Ana River South	Ward 3 (APNs 190035003, 190035004, & 190035005)
Criteria Cells	621	Ward 3 (APNs 190035003, 190035004, & 190035005)
PQP conserved lands Object IDs	None	N/A

WRC MSHCP Area Component	WRC MSHCP Area Component within Opportunity Sites	Opportunity Sites
Cores and Linkages	None	N/A
Survey Areas	Burrowing Owl Survey Area	Ward 1 (APNs 206100016, 206100054, 206122007, 206122008, 206122022, 206132035, 206132036, 206132037, 210160021, & 215240001), Ward 2 (APNs 91460015, 291460045, 291460046, 291460047, 291460048, 291460049, 291460050, 291460051, 291460052, & 291460053), Ward 3 (APNs 222250021, 223210020, 223210021, 223210022, 226100001, 226100002, 226100003, 226100004, 226100005, 226100022, 226100023, 226100026, 226100028, & 226112024), Ward 4 (APNs 266020059, 266020061, 266040019, 266040034, 274120017, & 274130038), Ward 5 (APNs 233180004, 234050021, 234050022, 234140019, & 234150046), Ward 6 (APNs 132020033, 138052009, 138052010, 138052011, 138052012, 138052013, 138052014, 138052015, 138052016, 138052017, 138052018, 138052019, 143080020, 143080022, 143080030, 143080032, 143270014, 143280028, 143280029, 143280030, 143280031, 143332002, 145022003, & 145022009), Ward 7 (APNs 141350005, 146210024, 155290015, 155290016, 155290018, 155290019, & 155290063)

Stephens’ Kangaroo Rat HCP

The southeastern portion of the City occurs within the boundaries of the SKR HCP Sycamore Canyon Core Reserve Area (Figure 3.2-3). No Opportunity Sites are proposed within the reserve area. Although all of the Opportunity Sites occur within the SKR HCP Fee Area, these sites are within developed and ruderal areas (i.e., areas composed of non-native grasses and forbs that often experience human-related disturbances such as grading or mowing) that do not contain suitable habitat to support Stephens’ kangaroo rat. The ruderal areas within the Opportunity Sites are surrounded by development and are composed of small, isolated patches of fragmented habitat that would not support Stephens’ kangaroo rat. As such, the Housing Element Update would not affect suitable SKR HCP lands, including designated core reserves, plan fee areas, and suitable and occupied habitat for Stephens’ kangaroo rat and, therefore, would not conflict with the plan’s provisions. Because the Opportunity Sites do not contain suitable habitat for Stephens’ kangaroo rat and are outside of the reserve area, there would be no survey requirement for Stephens’ kangaroo rat.

The proposed rezoning that would occur as part of the Project would accommodate housing and mixed-use development on the Opportunity Sites. No conservation zones are proposed for zoning

changes; as such, impacts on any HCPs/MSHCPs as a result of the proposed rezoning are expected to be minimal and have already been analyzed above. The rezone would not result in any separate, discrete impacts that have not been previously discussed.

Policies related to environmental justice under the proposed Housing Element Update would not enable future development or the construction of new housing, public safety infrastructure, and mixed-use development. Rather, these policies describe how future development and construction would be implemented with respect to environmental justice communities, housing design, affordable housing, and access to healthy and affordable foods. Implementation of these policies would not affect any HCPs/MSHCPs.

Any activity associated with individual development projects that occurs within the boundaries of the SKR HCP within the City would comply and be consistent with the policies, goals, objectives, and conservation measures of the SKR HCP, ensuring that impacts would be less than significant.

Public Safety Element Update and Environmental Justice Policies

Western Riverside County MSHCP

The City occurs within the boundaries of the WRC MSHCP area (Figure 3.2-3). The majority of WRC MSHCP areas within the City do not occur within the Fire Hazard Area of the City, as identified in the Public Safety Element (e.g., habitat management units, area plans and subunits, PQP conserved lands, criteria cells, cores and linkages, species survey areas). However, small portions of the WRC MSHCP are present within the Fire Hazard Area of the City, as identified in the Public Safety Element (Table 3.2-8).

Table 3.2-8. WRC MSHCP Conservation Areas within the Fire Hazard Areas under the Public Safety Element Update

WRC MSHCP Area Component	WRC MSHCP Area Component within Fire Hazard Areas
Habitat Management Units	River, San Timoteo, Gavilan
Area Plans and Subunits	<u>Highgrove Area Plan</u> : Subunit 1 Sycamore Canyon/Box Springs Central, Subunit 2 Springbrook Wash North
Criteria Cells	545, 634, 635, 719, 712
PQP conserved lands Object IDs	293, 294, 323, 778
Cores and Linkages	None
Survey Areas	Narrow Endemic Plants Survey Area 7 Burrowing Owl Survey Area

Stephens’ Kangaroo Rat HCP

The SKR HCP Sycamore Canyon Core Reserve Area, which is in the southeastern portion of the City (Figure 3.2-3), does not occur within the Fire Hazard Area of the City, as identified in the Public Safety Element. The foothill and mountain areas along the eastern, southern, and western edges of the City occur within the Fire Hazard Area and are within the SKR HCP Fee Area.

The Public Safety Element Update includes policies and implementing actions that aim to reduce the risk to the community and to ensure protection from foreseeable natural and human-caused

hazards, as described in Impact BIO-1 above. Public Safety Element Update policies and implementing actions could affect the fire control measures that are implemented by the City to reduce the risk of wildland fires within the Fire Hazard Area, such as brush-clearance activities. However, no specific infrastructure improvements or projects are identified in the Public Safety Element Update. As this is a policy document, this update would not have any significant direct or indirect impacts on any HCPs/MSHCPs. Impacts would be less than significant.

Policies related to environmental justice under the proposed Public Safety Element Update would not enable future development or the construction of new housing, public safety infrastructure, and mixed-use development. Rather, these policies describe treatment of hazardous materials associated with contaminated sites within environmental justice communities; access to affordable housing, health care, and emergency services; the needs of environmental justice communities in planning for emergency response and recovery; health implications for land use decisions that could involve hazardous uses; and the potential for vehicular and pedestrian accidents in underserved areas. Implementation of these policies would not affect any HCPs/MSHCPs.

Mitigation Measures

The potential impacts of the Project described in this section would be reduced to less-than-significant levels with implementation of the Mitigation Measure **MM-BIO-1** and individual project-specific consistency with the WRC MSHCP, as described under Impact BIO-1.

3.3 Cultural Resources

3.3.1 Introduction

This section describes the environmental and regulatory setting for historical and archaeological resources for the Project and provides an analysis of the potential impacts on those resources that could occur as a result of implementation. For purposes of CEQA, cultural resources referred to as *historical resources* consist of intact built environment resources dating from the historic period (50 years old or older) and *archaeological resources*, which include prehistoric resources (pre-contact with Europeans) and historic resources (post-contact between Native Americans and Europeans). CEQA also uses the term *unique archaeological resources* to denote archaeological artifacts, objects, or sites that are not considered historical or archaeological resources but contain information needed to answer important scientific research questions, have a special and particular quality, or are directly associated with an important prehistoric or historic event or person (CEQA Section 21083.2(g)). The analysis methods, data sources, significance thresholds, and terminology used are described. Details on the location of the Project and a description of Project activities are included in Chapter 2, *Project Description*, of this EIR.

3.3.2 Environmental Setting

Natural Setting

The City of Riverside (City) is in the South Coast subregion of the southwestern California region and within the California Floristic Province (Baldwin et al. 2012). The natural vegetation of the subregion consists primarily of chaparral, sage scrub, annual grasslands, woodland, and riparian scrub and forest. Much of the natural vegetation occurs in preserved open space or fragmented patches in undeveloped areas.

The City is within the valley and foothills between the Santa Ana, San Bernardino, and San Jacinto Mountains. Major topographic features in the vicinity of the Project include the Estelle Mountains to the south, Santa Ana Mountains to the west, Box Spring Mountains to the immediate east, San Bernardino Mountains to the northeast, and San Jacinto Mountains to the southeast. Human activities and land use in the City have historically involved ranching, farming, and mining. The City is composed of primarily urban land uses (residential, commercial, office, industrial, and infrastructure) with smaller portions of the City consisting of farming lands, rural residential development, and open space, including conservation lands.

The topography of the City ranges from generally flat or gently sloping to areas of rugged terrain, rolling hills, and steep slopes. The more rugged terrain is confined primarily to the southern portion of the City, with the northern and central portions being composed of mainly flat lands. Elevations range from approximately 700 feet above mean sea level near the Santa Ana River to almost 1,400 feet above mean sea level west of La Sierra. Soils in the City consist primarily of well-drained loams, ranging from fine sandy loam to cobbly loam; they also include clay and gravelly loamy sand. The majority of the City is within the Santa Ana River Watershed, with a small portion of the eastern part of the City within the San Jacinto Valley Watershed. The major water feature in the City is the Santa Ana River, which runs roughly northeast to southwest along the City's northern border with the

community of Jurupa Valley. In addition, several arroyos and canals crossing the City including Riverside Canal, Sycamore Canyon, Gage Canal, Spring Brook River/Wash, Tequesquite Arroyo, Alessandro Arroyo, Prenda Arroyo, Woodcrest Arroyo, and Mockingbird Canyon, along with smaller unnamed earthen and concrete-lined drainages.

The majority of the undeveloped lands, open space, and conserved land is at the northern border of the City, along the Santa Ana River corridor, and in the undeveloped foothills, canyons, arroyos, and mountains of Sycamore Canyon Park, Mockingbird Canyon, and Alessandro Heights in the southern portion of the City. These open space areas contain native riparian, grassland, and scrubland habitats that support many native plants and animals, including special-status species and sensitive natural communities. These lands serve as wildlife corridors, which provide areas of undisturbed open space for regional wildlife migration between natural habitats, thereby promoting the proliferation of indigenous animal species. The remainder of the land cover types within the City are residential, commercial, and industrial, including infrastructure-related land cover.

There are nine major vegetation communities/land cover types within the City (Western Riverside County Regional Conservation Authority 2012): urban/developed (77 percent), agriculture (7 percent), grassland (6 percent), coastal sage scrub (7 percent), riparian scrub, woodland, and forest (2 percent), woodlands and forest (<1 percent), meadows and marshes (< 1 percent), rock outcrops (<1 percent), and water (<1 percent).

Archaeological Setting

Building on early studies and focusing on data synthesis, Wallace (1955, 1978) developed a prehistoric chronology for the Southern California coastal region that is still widely used today and is applicable to coastal and many inland areas, including Riverside County. Four periods are presented in Wallace's prehistoric sequence: Early Man, Milling Stone, Intermediate, and Late Prehistoric. In addition to Wallace's classic summary, a regional synthesis developed by Warren (1968) is referred to in the following discussion.

Early Man Period/San Dieguito (circa 10,000–6,000 B.C.)

When Wallace defined the Early Man Period in the mid-1950s, there was little evidence of human presence on the Southern California coast prior to 6000 B.C. Archaeological work in the intervening years has identified numerous older sites dating prior to 10,000 years ago, including ones on the coast and Channel Islands (e.g., Erlandson 1991; Rick et al. 2001:609; Johnson et al. 2002; Moratto 1984, 2004). The earliest accepted dates for occupation are from two of the northern Channel Islands, located off the coast from Santa Barbara. On San Miguel Island, Daisy Cave clearly establishes the presence of people in this area about 10,000 years ago (Erlandson 1991). On Santa Rosa Island, human remains have been dated from the Arlington Springs site to approximately 13,000 years ago (Johnson et al. 2002).

Recent data from inland as well as coastal sites during this period indicate that the economy was a diverse mixture of hunting and gathering. At near-coastal and inland sites, it appears that an emphasis on hunting may have been greater during the Early Man Period than in later periods; numerous Clovis-like or Folsom-like fluted points have been found in San Bernardino County along shorelines of Pleistocene lakes in the desert portion of the county. Common elements in many San Dieguito Tradition sites include leaf-shaped bifacial projectile points and knives, stemmed or shouldered projectile points (e.g., Silver Lake and Lake Mojave series), scrapers, engraving tools, and

crescents (Warren 1967:174–177; Warren and True 1961:251–254). Use of the atlatl during this period facilitated launching spears with greater power and distance. Subsistence patterns shifted around 6000 B.C. coincident with the gradual desiccation associated with the onset of the Altithermal, a warm and dry period that lasted for about 3,000 years.

Milling Stone/Encinitas Period (circa 6,000–3,000/1,000 B.C.)

The Milling Stone Period of Wallace (1955, 1978) and Encinitas Tradition of Warren (1968) are characterized by an ecological adaptation to collecting and by the dominance of small seed grinding. Milling stones, such as metates and slabs, and handstones, such as manos and mullers, occurred in large numbers for the first time, and were even more numerous near the end of this period. As indicated by their toolkits, people during this period practiced a mixed food-procurement strategy. Subsistence patterns varied somewhat as groups became better adapted to their regional or local environments. Milling Stone period sites are common in Southern California at many inland locations, including Prado Basin in western Riverside County and the Pauma Valley in northeastern San Diego County (e.g., True 1958; Herring 1968; Langenwalter and Brock 1985; Sutton 1993; Sawyer and Brock 1999).

During the Milling Stone Period and Encinitas Tradition, stone chopping, scraping, and cutting tools were abundant and generally made from locally available raw material. Projectile points, which are rather large and generally leaf-shaped, and bone tools such as awls were generally rare. The large points are associated with the spear, and probably with an atlatl. Items made from shell, including beads, pendants, and abalone dishes, are generally rare as well. Evidence of weaving or basketry is present at a few sites. Kowta (1969) attributes the presence of numerous scraper-planes in Milling Stone sites to the preparation of agave or yucca for food or fiber. The mortar and pestle, associated with the vertical motion of pounding foods, such as acorns, were introduced during the Milling Stone Period, but were not common.

Koerper and Drover (1983) suggest that Milling Stone Period sites reflect migratory settlement patterns of hunters and gatherers who used marine resources during the winter and inland resources the remainder of the year. More recent research indicates that residential bases or camps were moved to resources in a seasonal round (de Barros 1996; Mason et al. 1997; Koerper et al. 2002), or that some sites were occupied year-round, with portions of the village population leaving at certain times of the year to exploit seasonally available resources (Cottrell and Del Chario 1981). Regardless of settlement system, subsistence strategies during the Milling Stone Period included hunting of small and large terrestrial mammals, marine mammals, and birds; collecting of shellfish and other shore species; extensive use of seed and plant products; processing of yucca and agave; and near-shore fishing (Reinman 1964; Kowta 1969). Characteristic mortuary practices during the Milling Stone Period or Encinitas Tradition included extended and loosely flexed burials interred beneath cobble or milling stone cairns. Some burials contain red ochre and few grave goods, such as shell beads and milling stones. “Killed” milling stones, exhibiting purposely made holes, may occur in the cairns.

Intermediate Period (circa 3000/1000 B.C.–A.D. 500)

Wallace’s Intermediate Period and Warren’s Campbell Tradition date from approximately 3000 B.C. to A.D. 500. This era is characterized by a shift toward a hunting and maritime subsistence strategy along with a wider use of plant foods. During the Intermediate Period, there was a pronounced trend toward greater adaptation to regional or local resources. For example, chipped stone tools suitable

for hunting were more abundant and diversified, and shell fishhooks became part of the toolkit during this period. Larger knives, a variety of flake scrapers, and drill-like implements are common in deposits dating to this period. Projectile points include large side-notched, stemmed, and lanceolate or leaf-shaped forms. Koerper and Drover (1983) consider Gypsum Cave and Elko series points, which have a wide distribution in the Great Basin and Mojave Deserts between circa 2000 B.C. and A.D. 500, to be diagnostic of this period. Bone tools, including awls, were more numerous than in the preceding period, and the use of asphaltum adhesive was common as well.

Mortars and pestles, used for processing acorns, became more common during this period, gradually replacing manos and metates as the most abundant milling stone implements. In addition, hopper mortars and stone bowls, including steatite vessels, appear to have entered the toolkit at this time. This shift appears to correlate with a diversification in subsistence resources. Many archaeologists believe this change in milling tools signals a shift away from the processing and consuming of hard seed resources to the increasing importance of the acorn (e.g., Glassow et al. 1988; True 1993).

Characteristic mortuary practices during the Intermediate Period include fully flexed burials placed face down or face up and oriented toward the north or west (Warren 1968:2–3). Red ochre is common, and abalone shell dishes are infrequent. Interments sometimes occur beneath cairns or broken artifacts. Shell, bone, and stone ornaments, including charmstones, were more common than in the preceding Encinitas Tradition. Some later sites include olive shell (*Olivella* spp.) and steatite beads, mortars with flat bases and flaring sides, and a few small points. The broad distribution of steatite from the Channel Islands and obsidian from distant inland regions, among other items, attests to the growth of trade, particularly during the latter part of this period.

Late Prehistoric Period (circa A.D. 500–A.D. 1769)

Wallace (1955, 1978) places the beginning of the Late Prehistoric Period around A.D. 500. In all chronological schemes for Southern California, the Late Prehistoric Period lasts until European contact occurred in A.D. 1769. During the Late Prehistoric Period, there was an increase in the use of plant food resources and in land and marine mammal hunting. There was a concurrent increase in the diversity and complexity of material culture during this period, demonstrated by more classes of artifacts. The recovery of a greater number of small, finely chipped projectile points, usually stemless with convex or concave bases, indicates an increased use of the bow and arrow—rather than the atlatl and dart—for hunting. Cottonwood series triangular projectile points in particular are diagnostic of this period (Koerper and Drover 1983). Other items include steatite cooking vessels and containers, the increased presence of smaller bone and shell circular fishhooks, perforated stones, arrow shaft straighteners made of steatite, a variety of bone tools, and personal ornaments made from shell, bone, and stone. Ceramics were introduced during this time period and pottery jugs, bowls, and smoking pipes become increasingly common.

Late Prehistoric Period sites contain complex objects of utility, art, and decoration. Ornaments include drilled whole Venus clam (*Chione* spp.) and drilled abalone. Steatite effigies become more common, with scallop (*Pecten* spp. and *Argopecten* spp.) shell rattles common in middens. Another feature typical of Late Prehistoric Period occupation is an increase in the frequency of obsidian in site assemblages, especially imported from the Obsidian Butte source in Imperial County. Much of the rock art found today is thought to date to this period (Whitley 2000:41). Mortuary customs were elaborate, including cremation and interment with abundant grave goods.

During this period, there was an increase in population size accompanied by the advent of larger, more permanent villages (Wallace 1955:223). Large populations and, in places, high population densities were characteristic, with some coastal and near-coastal settlements containing as many as 1,500 people. Many of the larger settlements were permanent villages where people resided year-round. The populations of these villages may have also increased seasonally. In areas of Los Angeles, Orange, western Riverside, and southwestern San Bernardino Counties, changes (introduction of cremation, pottery, and small triangular arrow points) are thought to have resulted from Takic migration to the coast from inland desert regions. This Takic or Numic Tradition was formerly referred to as the “Shoshonean wedge” or “Shoshonean intrusion” (Warren 1968).

Ethnohistoric Setting

The City is near an ethnographic transition zone between multiple Native American tribes including the Gabrielino/Tongva, Serrano, Luiseño, and Cahuilla. All four tribes are speakers of Takic languages, which are part of the Uto-Aztecan linguistic stock. Because the Project, including the boundaries of the City and individual Opportunity Sites, occupies a transitional zone among these tribes, it is necessary to consider all four tribes to fully understand the occupation history of the City and adjacent region.

Gabrielino/Tongva

A portion of the current boundaries of the City was occupied by the Native American tribe known as the Gabrielino/Tongva. The name Gabrielino denotes the people who were associated with the Mission San Gabriel. The post-contact name does not reflect how these people would have identified themselves, and in recent times descendants of this group have referred to themselves as *Tongva*. The Gabrielino language is one of a group of Californian Uto-Aztecan languages that have been designated as Takic (Bean and Smith 1978a:538). Linguistic analysis suggests that Takic-speaking immigrants from the Great Basin may have moved into Southern California around 500 B.C. (Kroeber 1925:579). The Gabrielino occupied much of present-day Los Angeles and Orange Counties and some portions of San Bernardino and Riverside Counties (McCawley 1996:3). The total area of the Gabrielino mainland territory exceeded 3,886 square kilometers (1,500 square miles). Gabrielino chieftanship was hereditary.

By 1500 before present (B.P.), the Gabrielino had established permanent villages along rivers and streams (Bean and Smith 1978a:540). Johnston (1962:123) observed that large Gabrielino village sites were located at the mouths of canyons with flowing streams. McCawley (1996:26) suggests that permanent settlements were located at the intersection of two or more environmental zones, such as the prairie-foothill transition zone, elevated locations near water courses, and sheltered bays and inlets. Site types included primary residential villages, hunting and gathering areas, ritual sites, and special use locations (McCawley 1996:25). Important food resources in the region included acorns, sage, yucca, deer, numerous small rodents, cactus fruit, and a variety of plants, animals, and birds associated with freshwater marshes (McCawley 1996:26). A wide variety of tools and implements were used by the Gabrielino/Tongva to gather and collect food resources. These included the bow and arrow, traps, nets, blinds, throwing sticks and slings, spears, harpoons, and hooks. Foods were processed with a variety of tools, including hammer stones and anvils, mortars and pestles, manos and metates, strainers, leaching baskets and bowls, knives, bone saws, and wooden drying racks.

The fundamental economy of the Gabrielino/*Tongva* was one of subsistence gathering and hunting. The surrounding environment was rich and varied, and the tribe exploited mountains, foothills, valleys, deserts, riparian, estuarine, and open and rocky coastal environmental zones. Deceased individuals were either buried or cremated (Harrington 1942; McCawley 1996). Cremation was the standard practice for the mainland Gabrielino/*Tongva* during the contact period.

Serrano

The Serrano were originally a relatively small group located within the San Bernardino and Sierra Madre Mountains, and the term “Serrano” has come to be ethnically defined as the name of the people in the San Bernardino Mountains (Kroeber 1925:611). The Serrano language is part of the Serran division of a branch of the Takic family of the Uto-Aztecan linguistic stock (Mithun 2004:539, 543). The two Serran languages, Kitanemuk and Serrano, are closely related. The Serrano occupied an area in and around the San Bernardino Mountains between approximately 1,500 and 11,000 feet above mean sea level. Their territory extended west into the Cajon Pass, east as far as Twentynine Palms, north past Victorville, and south to the Yucaipa Valley. Year-round habitation tended to be located out on the desert floor, at the base of the mountains, and up into the foothills, with all habitation areas requiring year-round water sources (Kroeber 1908a; Bean and Smith 1978b). Most Serrano lived in small villages near water sources (Bean and Smith 1978b:571). Houses measuring 12 to 14 feet in diameter were domed and constructed of willow branches and tule thatching.

The subsistence economy of the Serrano was one of subsistence hunting and collecting plant goods, with occasional fishing (Bean and Smith 1978b:571). Large and small animals were hunted, including mountain sheep, deer, antelope, rabbits, small rodents, and various birds, particularly quail. Plant staples consisted of seeds; acorn nuts of the black oak; pinon nuts; bulbs and tubers; and shoots, blooms, and roots of various plants, including yucca, berries, barrel cacti, and mesquite. Fire was used as a management tool to increase yields of specific plants, particularly chia. Trade and exchange were important aspects of the Serrano economy. Those living in the lower-elevation desert floor villages traded foodstuffs with people living in the foothill villages who had access to a different variety of edible resources.

Mainly due to the inland territory that Serrano occupied beyond Cajon Pass, contact between Serrano and Europeans was relatively minimal prior to the early 1800s. As early as 1790, Serrano began to be drawn into mission life (Bean and Vane 2002). More Serrano were relocated to Mission San Gabriel in 1811 after a failed indigenous attack on that mission. Most of the remaining western Serrano were moved to an *asistencia* built near Redlands in 1819, where they provided much of the labor to establish the Mill Creek Zanja that irrigated much of the land between present day Mentone and the *asistencia* (Bean and Smith 1978b:573). By 1834, most western Serrano had been moved to the missions, with some Serrano possibly moved to the mission at San Fernando Rey (Kroeber 1908b). Only small groups of Serrano remained in the area northeast of the San Gorgonio Pass and were able to preserve some their native culture. In the 1860s, a smallpox epidemic decimated many indigenous Southern Californians, including the Serrano (Bean and Vane 2002). Surviving Serrano sought shelter at Morongo with their Cahuilla neighbors; Morongo later became a reservation (Bean and Vane 2002). Other survivors followed the Serrano leader Santos Manuel down from the mountains and toward the valley floors, and eventually settled what later became the San Manuel Band of Mission Indians Reservation. This reservation was established in 1891.

Cahuilla

The Cahuilla settled in a territory that extended west to east from the present-day City to the central portion of the Salton Sea in the Colorado Desert, and south to north from the San Jacinto Valley to the San Bernardino Mountains. Evidence suggests the Cahuilla migrated to Southern California about 2,000 to 3,000 years ago, most likely from the southern Sierra Nevada ranges of east-central California with other related socio-linguistic (Takic-speaking) tribes (Moratto 1984:559). Cahuilla villages were usually in canyons or on alluvial fans near accessible water such as springs or where large wells could be dug. Major religious ceremonies of the clan were held in a separate ceremonial house. Houses and ancillary structures were often spaced apart, and villages typically spread over a mile or two.

The Cahuilla used more than 200 desert and mountain plants (Bean and Saubel 1972). Though 60 percent of Cahuilla territory was in the Lower Sonoran Desert environment, 75 percent of their diet came from plant resources acquired in Upper Sonoran and Transition environmental zones (Bean 1978). Key plant foods included acorns, screwbean and honey mesquite, pinon nuts, prickly-pear cactus fruit and leaves, and yucca blossoms and stalks. The Cahuilla employed a wide variety of tools and implements to gather and collect food resources. Hunting was achieved using the bow and arrow, traps, nets, slings, and blinds for land mammals and birds and nets for fish when Lake Cahuilla was filled. Food processing was achieved using a variety of tools: portable and bedrock mortars, basket hopper mortars, pestles, manos and mutates, bedrock grinding slicks, hammerstones and anvils, woven strainers and winnowers, leaching baskets and bowls, woven parching trays, knives, bone saws, and wooden drying racks. Pottery was initially introduced to the Cahuilla during the Late Prehistoric Period, and the art of ceramic production was later adopted by the Cahuilla, who used the paddle and anvil technique.

Asistencias were established near Cahuilla territory at San Bernardino and San Jacinto by 1819. Interaction with Europeans was less intense in the Cahuilla region than for coastal tribes because the topography and paucity of water rendered the inland area inhabited by the Cahuilla unattractive to colonists. By the 1820s, however, the Pass Cahuilla experienced consistent contact with the ranchos of Mission San Gabriel, whereas the Mountain Cahuilla frequently received employment from private rancheros and were recruited to Mission San Luis Rey. Mexican ranchos were located near Cahuilla territory along the upper Santa Ana and San Jacinto Rivers by the 1830s, providing the opportunity for the Cahuilla to earn money ranching and to learn new agricultural techniques. The expansion of immigrants into the region introduced the Cahuilla to European diseases. By 1891, only 1,160 Cahuilla remained within what was left of their territory, down from an aboriginal population estimated at 6,000 to 10,000 (Bean 1978:583–584). Between 1875 and 1891, the United States established ten reservations for the Cahuilla within their territory: Agua Caliente, Augustine, Cabazon, Cahuilla, Los Coyotes, Morongo, Ramona, Santa Rosa, Soboba, and Torres-Martinez (Bean 1978:585). Four of these reservations are shared with other Native American tribes, including the Chemehuevi, Cupeno, and *Serrano*.

Luißeño

The name Luißeño was created by non-Native people and refers to those Takic-speaking people who were associated with that mission (Bean and Shipek 1978:550). The Luißeño language group is a Takic language that comes from the Cupan branch of the Uto-Aztecan language family. The Luißeño ancestral territory included approximately 1,500 square miles. Along the coast, it extended from Agua Hedionda Creek on the south to near Aliso Creek on the northwest (Bean and Shipek

1978:550). Their territory extended inland to Santiago Peak, east to the Elsinore Valley, and south to east of Palomar Mountain. Their territory included most of the drainages of the San Luis Rey and the Santa Margarita Rivers.

Luiseno clans settled in valley, foothill, coastal, and mountain areas, providing them with the resources of many different ecological niches. Individual lineages or families owned specific resource areas within the clan territory. Most inland clans also owned fishing and gathering sites on the coast, to allow for fishing and shellfish collecting (Bean and Shipek 1978:551). However, most of the Luiseno foods were available in locations within a day's travel of the village (Bean and Shipek 1978:551). The principal game animals were deer, rabbit, jackrabbit, woodrat, mice, ground squirrels, antelope, valley and mountain quail, doves, ducks, and other birds. Most predators were avoided as food as were tree squirrels and most reptiles. Coastal marine foods included sea mammals, fish, crustaceans, and mollusks (especially abalone). Trout and other fish were caught in mountain streams (Bean and Shipek 1978:552). Acorns were an important food resource; six species were used (Bean and Shipek 1978:552). Acorns were harvested from just before the start of winter rains (Bean and Saubel 1972:121-131).

The Luiseno settlement pattern was seasonally based. In the winter, the larger clan coalesced into a shared habitation village and lived primarily on stored foods such as acorns. Beginning in the spring, the winter village group divided into smaller groups, with each group occupying and exploiting a small area where fresh vegetal resources could be gathered. Occasionally, journeys to the coast to collect shellfish may have occurred (White 1963). This breakup of the village group into family groups at the end of winter, after the stored fall crops were depleted, was a normal occurrence in hunter-gatherer societies and compensated for sparse spring resources, which were generally harder to find and less plentiful. At the end of summer and beginning of fall, a secondary base camp, frequently situated near an oak grove, was inhabited for 2 to 3 months for acorn collecting as well as hunting. These summer-fall camps were subdivisions of the primary winter camp and occupied by smaller subdivisions of the larger clan group.

Historic Setting

History for the state of California is generally divided into three periods: the Spanish Period (1769-1822), Mexican Period (1822-1848), and American Period (1848-present). Some researchers subdivide the American Period in various phases, such as 19th century (1848-1900), Early 20th century (1900-1950), and Modern Period (1950-present).

Spanish Period

In the 18th century, the Spanish colonized present-day California, establishing a tripartite system consisting of missions, presidios, and pueblos (Bean and Rawls 1968). History records the Spaniard Pedro Fages as the first European-American person to pass through the San Bernardino Valley in 1772. Four years later, Fr. Francisco Hermenegildo Garcés, "the famous and revered Franciscan missionary-explorer-martyr," entered the valley, seeking to plot a road that would connect Monterey with Sonora (Beattie and Beattie 1939:3). It would be another 30 years before the Spanish returned to the region.

As the chain of missions prospered, their livestock holdings increased and became vulnerable to theft. The Spaniards responded by planning inland missions that could provide additional security and establish a presence beyond the coast. Efforts to colonize and evangelize were continued by

Mission San Gabriel Arcángel, which established an estancia (rancho) at Puente at least by 1816 and further expanded its scope of operations by establishing the San Bernardino estancia at a site 1.5 miles east of Guachama in 1819. Other estancias in San Bernardino County soon followed at Agua Caliente and at the ranchos of Jucumba and Yucaipa (Beattie and Beattie 1939:12). The estancia at Guachama was intended to serve several purposes, one of which was to develop farming and teach the Cahuilla Indians about European agricultural methods. By 1821, couriers carried mail between Sonora and California on the Cocomaricopa Trail, which passed through the San Bernardino Valley.

Mexican Period

Mexico proclaimed its independence from Spain in 1821 and became a federal republic in 1824, with both Baja and Alta California classified as territories (Starr 2005). The Mexican Republic began to grant private land to citizens to encourage immigration to California. Huge land grant ranchos took up large sections of land in California. Between 1835 and 1846, the Mexican government made more than 600 land grants in California. The dons (rancho owners) dominated the economy and defined the society of Mexican California (Robinson 1948; Starr 2005). These men, their families, and rancho workers, often referred to as “Californios,” practiced an agricultural pattern that included mixed stock raising and commercial agriculture on their vast landholdings (Jelinek 1999; Starr 2005).

In 1833, Mexico adopted the Secularization Act of 1833, by which the Mexican government privatized most of the Franciscans’ landholdings, including their California missions. By 1836, this sweeping process effectively reduced the California missions to parish churches and released their vast properties. Although earlier secularization plans had called for redistribution of lands to the Native American neophytes, who were responsible for construction of the mission empire, the Mexican government instead redistributed mission lands and livestock holdings through land grants to Mexican ranchers (Langum 1987:15–18).

American Period

In 1848, the signing of the Treaty of Guadalupe Hidalgo at the end of the war between Mexico and the United States gave control of California to the United States. The acquisition of California by the United States and the discovery of gold in 1849 drew many Euro-Americans into California (Robinson 1948). In 1850 California became a state subsequently divided into 27 counties. However, the great population influx of that period was limited primarily to central California, San Francisco, and the Gold Rush region of the Sierra Nevada. Southern California grew slowly during this time.

Horticulture and livestock, based primarily on cattle as the currency and staple of the rancho system, continued to dominate the Southern California economy through the 1850s. Cattle were no longer desired mainly for their hides, but also as a source of meat and other goods. During the 1850s cattle boom, rancho vaqueros drove large herds from Southern to Northern California to feed that region’s burgeoning mining and commercial boom. Cattle were at first driven along major trails or roads such as the Gila Trail or Southern Overland Trail, and then transported by trains where available. The cattle boom ended for Southern California as neighboring states and territories drove herds to Northern California at reduced prices. Operation of the huge ranchos became increasingly difficult, and droughts severely reduced their productivity (Cleland 1941:102–103).

Riverside County

In 1859, the first U.S. Post Office in what would become Riverside County was established at John Magee's store on Temecula Rancho (Gunther 1984:526). The first major population boom in Southern California followed completion of the Southern Pacific Railroad connection from Sacramento and the transcontinental Central Pacific Railroad route south to Los Angeles in 1874 (Lech 2012). The railroad brought land speculators, developers, and agriculturalists into the region, including Riverside and surrounding areas that seemed most fit for agricultural development.

In 1870, Judge John Wesley North and a group of associates founded Riverside on part of Rancho Jurupa. Residents planted the first orange trees in Riverside County in 1871, but the citrus industry began 2 years later when Eliza Tibbets received two Brazilian navel orange trees from a friend at the Department of Agriculture in Washington. The trees thrived in the Southern California climate, and the navel orange industry grew rapidly, supported by extensive irrigation projects. By 1882, California had more than half a million citrus trees, almost half of which were in Riverside County. With the agricultural boom that the navel orange provided, the City grew rapidly during the 1880s. On May 9, 1893, Riverside County was officially formed from portions of San Bernardino County and San Diego County (Patterson 1971). The citrus boom created a number of fortunes in the City and, according to the Bradstreet Index, in 1895 the City became the wealthiest jurisdiction per capita in the United States (Patterson 1971).

During World War I, the federal government established a military presence in Riverside County. The U.S. Army constructed March Field, now March Air Reserve Base, to train aviators. The base increased in size during World War II, adding Camp Haan and a third facility, Camp Anza. Over the decades, new residents populated new towns such as Murrieta, Wildomar, and Lake Elsinore. Eastvale, Norco, and unincorporated areas within the county south of Corona zoned lots with enough acreage for "ranchettes" and permitted horse keeping. Civic activities with equestrian themes became a feature of towns and neighborhoods within the county area and towns south of the City (County of Riverside 2010; March Air Reserve Base n.d.). The bulk of the county remained agricultural into the 1960s and 1970s, when real estate development activity began to occur (ICF 2012).

City of Riverside

In 1870 John North, E. G. Brown, A. J. Twogood, and James Greves moved to California to purchase land for the development of "a colony of industrious people to engage in the culture of semitropical fruits and grapes for the manufacture of raisins" (Greves 2002:21). After researching areas to establish this colony in Southern California, the group decided to purchase land from the Silk Culture Association in what would later become the City (Greves 2002; Lech 2007). Construction of the first irrigation canal began in October of 1870 and was completed in July of 1871. A larger system of canals was designed and planned for the area. At a meeting, the colony's residents adopted the name Riverside. Within a year they established a church, a schoolhouse, a hardware store, and residences. Growth occurred relatively slowly but steadily over the next several years as Riverside attracted more families and entrepreneurs.

With the construction of other irrigation systems, particularly the Gage Canal in 1886, the community saw rapid expansion through the 1880s. Eventually, the Atchison, Topeka and Santa Fe Railway and the Southern Pacific Railroad each extended lines into Riverside. The extension of rail lines into Riverside and the subsequent opening of markets to the east meant higher profits for the

various agricultural enterprises as the costs of transport decreased significantly. Packing houses were erected, and the Annual Citrus Fair attracted nationwide interest. The 1884 World's Fair in New Orleans proved a windfall for the Riverside citrus industry. In this event, oranges from the City won several gold medals, boosting the prominence of the Riverside citrus industry throughout the country (Holmes 1912).

In 1885, California's Secretary of the State granted the City status as an official government and city. Riverside and surrounding counties were originally divided between Los Angeles and San Diego Counties; San Bernardino County formed in 1853. Originally part of San Bernardino County, Riverside County formed in 1893, and Governor Henry Markham subsequently confirmed the new county, with the City as the county seat. The City prospered through the 1920s with the development of the Riverside Land and Irrigation Company, and construction of transportation infrastructure and of numerous public works such as parks, a library, schools, hotels, and other private and municipal buildings. Fraternal organizations supported the development of such civic works and maintained strong business ties between their members. The operation of several streetcar companies allowed for the growth of suburban neighborhoods on the outskirts of Downtown Riverside. In 1926 officials developed a master plan to accommodate the expanding footprint of the City and the increase in automobile traffic (Lech 2007; Tibbet 2007).

While the depression of the 1930s hit the City hard, government programs such as those sponsored by the Civil Works Administration put residents to work constructing highways and improving infrastructure. The precursors to State Route 60, State Highway 395, and State Route 91 were all constructed during this time (Tibbet 2007). The federal government established March Airfield southeast of the City in 1918 to support the Army. In 1927 the Army expanded it and made it the Western Headquarters of Army Aviation. Because of its proximity and the number of people employed by and supporting the base, the City received numerous benefits such as the improvement of highways and accelerated housing construction. Personnel increased substantially at March Airfield through World War II, and the City also saw a boom in residential development with the return of veterans and the availability of Veterans Administration and Federal Housing Administration mortgages (Tibbet 2007). As with much of the rest of Southern California, the 1950s and 1960s saw large-scale residential development and a large increase in Riverside's population. In 1953, Riverside was reportedly the 15th fastest-growing city in the western United States. The University of California, Riverside opened in 1961, and La Sierra University followed in 1964. Eventually, the strong dependence on agriculture waned, and the vast orchards and agricultural fields that previously covered the landscape were replaced with housing tracts and industrial facilities.

Existing Conditions

Section 3.3.3, *Regulatory Setting*, outlines the City's types of historical resources and processes for modifications to both identified cultural resources and eligible cultural resources, as set forth in the City of Riverside Municipal Code, Title 20, *Cultural Resources Ordinance*. The map series (Figure 3.3-1a to Figure 3.3-1g) locates these various types of resources and demonstrates where they overlap with Opportunity Site locations. The maps also show where the Innovation District boundary encircles the resources. Appendix E lists the specific Historic Districts, potential Historic Districts, Landmarks, Structures of Merit, National Register of Historic Places (NRHP) sites, Neighborhood Conservation Areas, and surveyed areas that either coincide with an Opportunity Site or fall within the Innovation District boundary.

In sum, Opportunity Sites are currently present at the following historical resources:

- 6 Historic Districts
- 1 Potential Historic District
- 10 Landmarks
- 43 Structures of Merit
- 3 NRHP Sites
- 1 Neighborhood Conservation Areas
- 10 surveyed areas

The Innovation District encompasses a larger pool of historical resources, which are summarized below. Note that these resources are not necessarily proposed as Opportunity Sites. This is because specific development sites within the Innovation District are not identified in order to give the City maximum development flexibility in this area.

- 4 Historic Districts
- 1 Potential Historic District
- 47 Landmarks
- 367 Structures of Merit
- 15 NRHP Sites
- 2 Neighborhood Conservation Areas
- 4 surveyed areas

Note that surveyed areas are not subject to Certificates of Appropriateness (described in Section 3.3.3, *Regulatory Setting*) unless the property being developed was determined eligible for designation.

3.3.3 Regulatory Setting

Federal

Criteria for Evaluation for the National Register of Historic Places

Cultural resources are eligible for the NRHP if they have integrity and significance as defined in the regulations for the NRHP. Four primary criteria define significance; a property may be significant if it displays one or more of the following characteristics:

- A. It is associated with events that have made a significant contribution to the broad pattern of our history; or
- B. It is associated with the lives of people significant in our past; or
- C. It embodies the distinct characteristics of a type, period, or method of construction, or that represents the work of a master, or that possesses high artistic values, or it represents a significant and distinguishable entity whose components may lack individual distinction; or

Figure 3.3-1a
 Locations Where Opportunity Site Is Present at Historic Districts

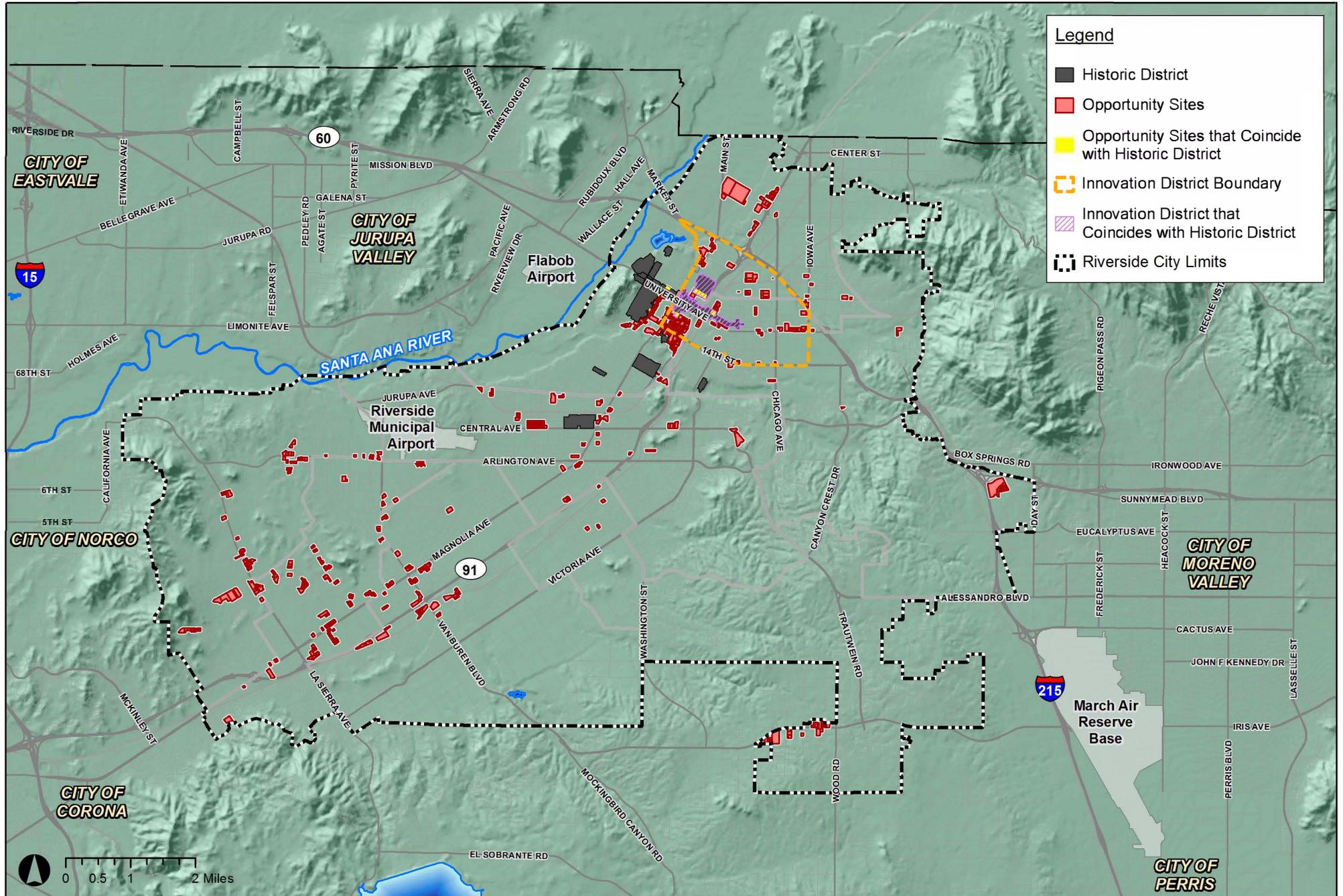


Figure 3.3-1b

Locations Where Opportunity Site Is Present at Potential Historic Districts

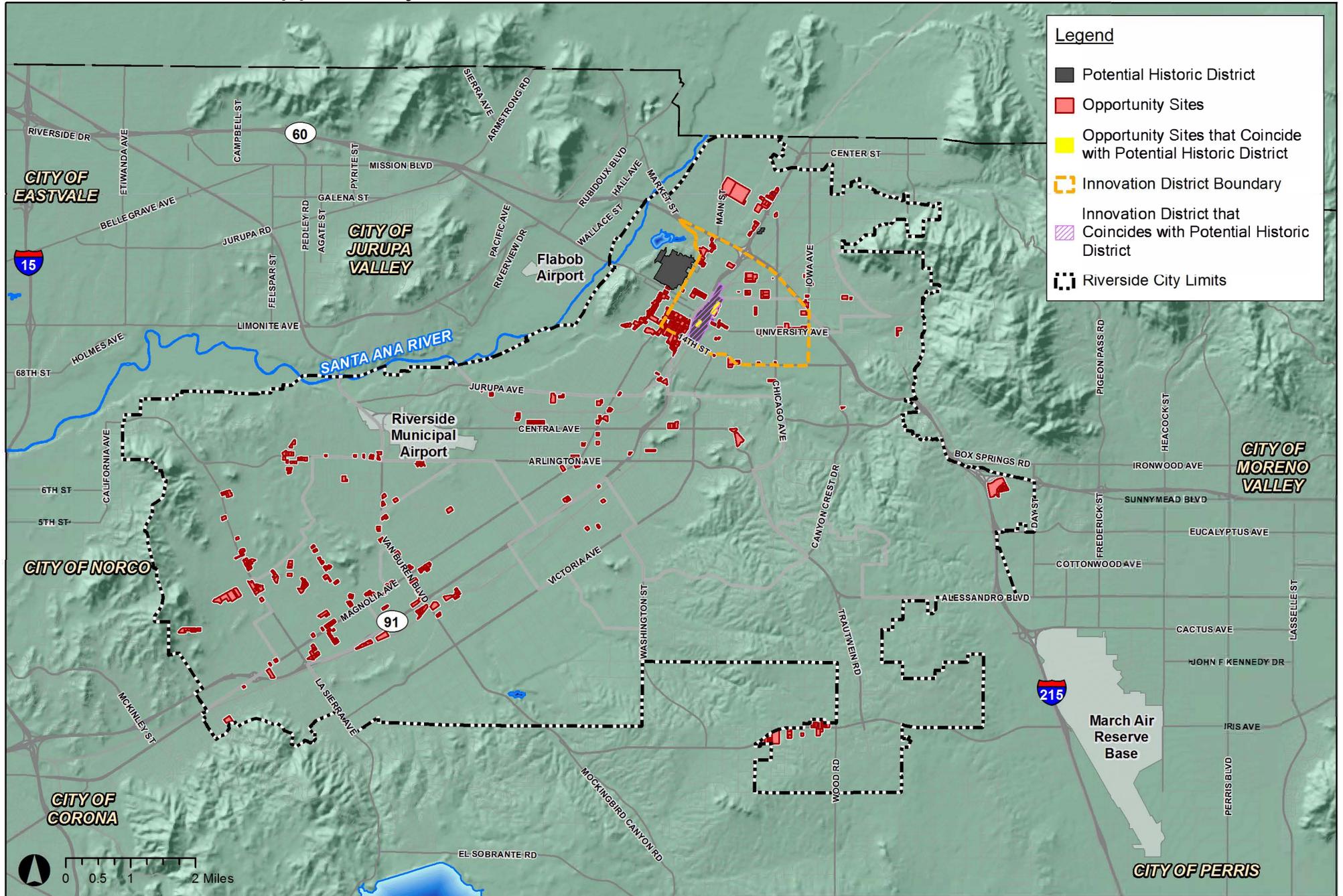


Figure 3.3-1c
 Locations Where Opportunity Site Is Present at Landmarks

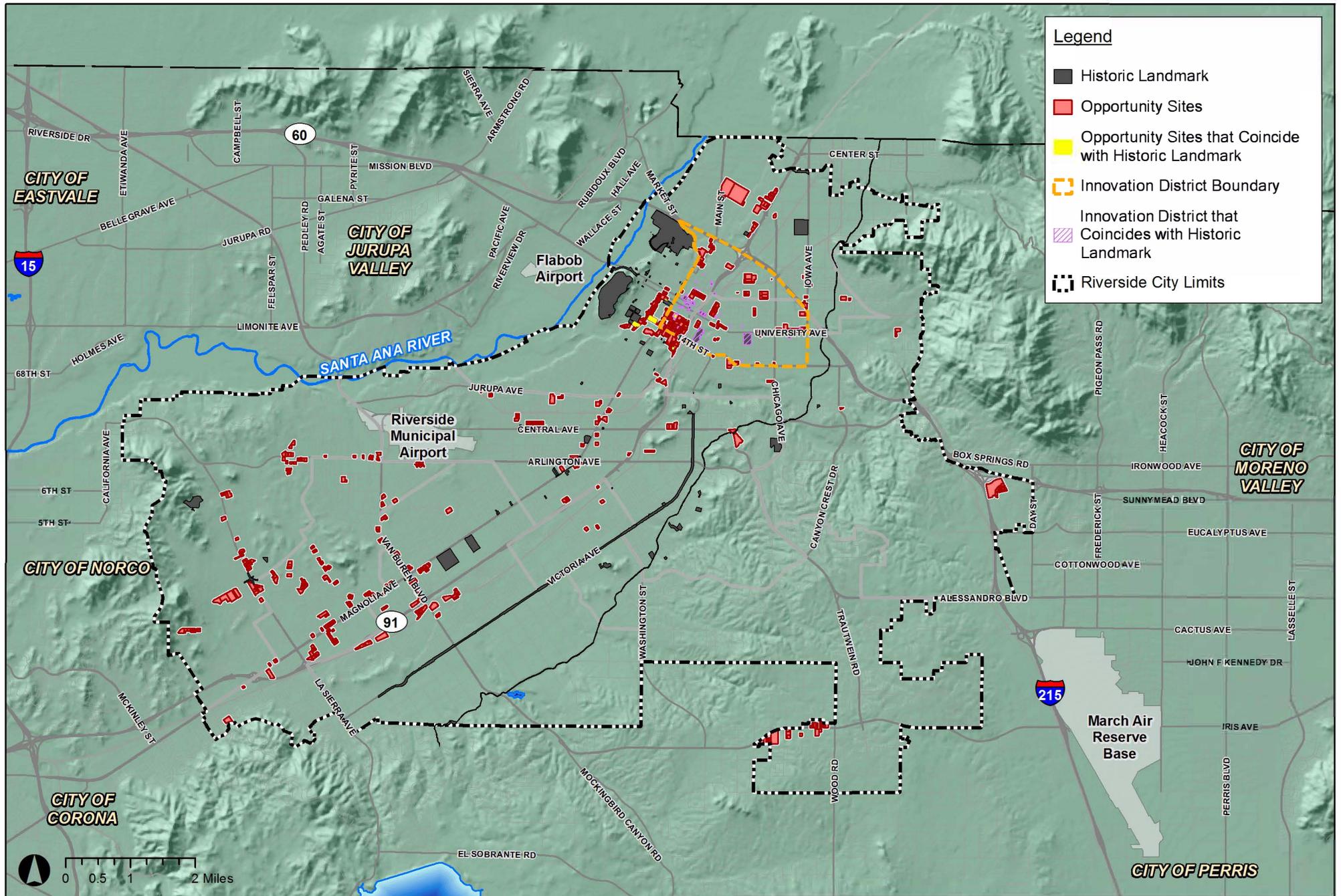


Figure 3.3-1e

Locations Where Opportunity Site Is Present at National Register of Historic Places Sites

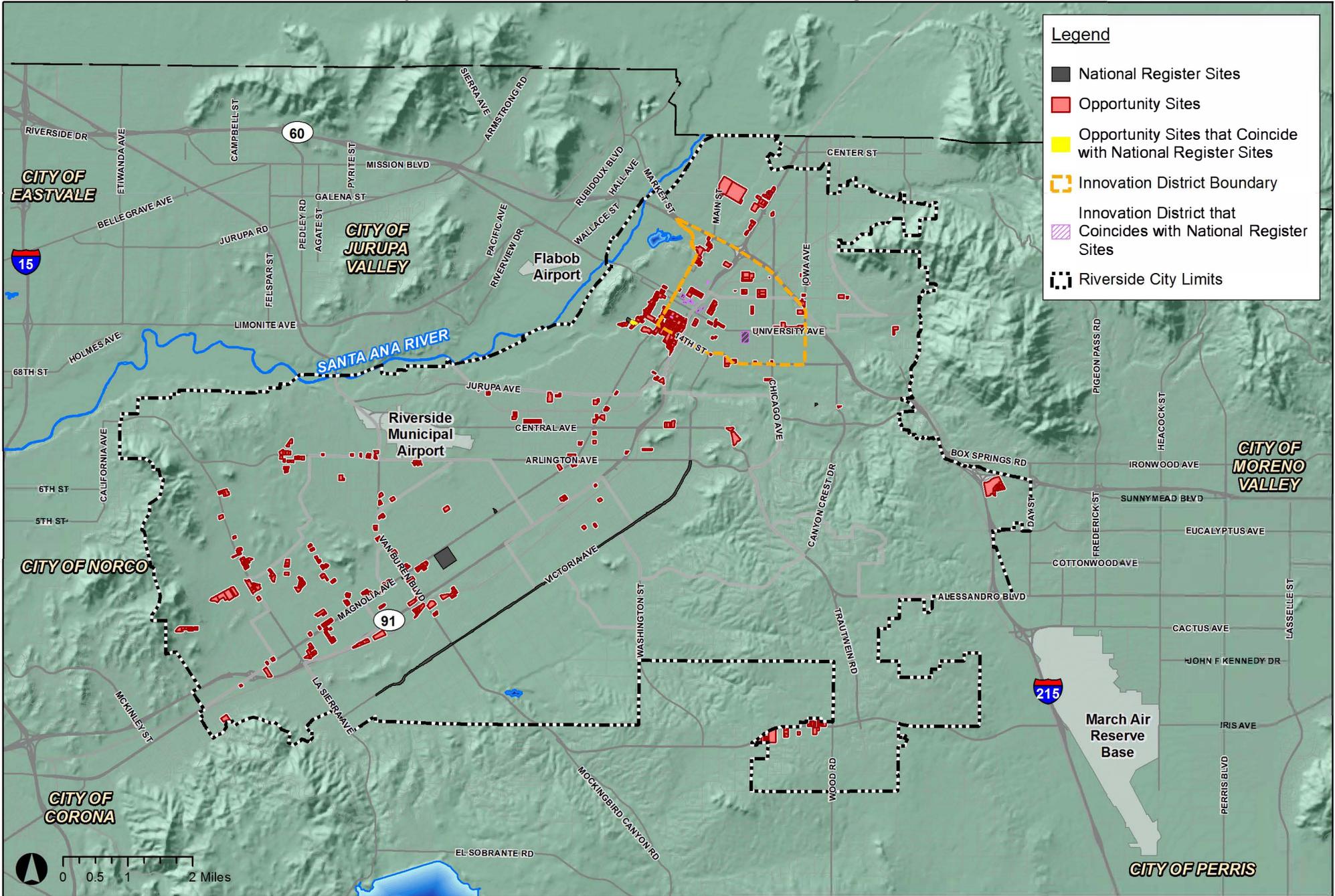


Figure 3.3-1f

Locations Where Opportunity Site Is Present at Neighborhood Conservation Areas

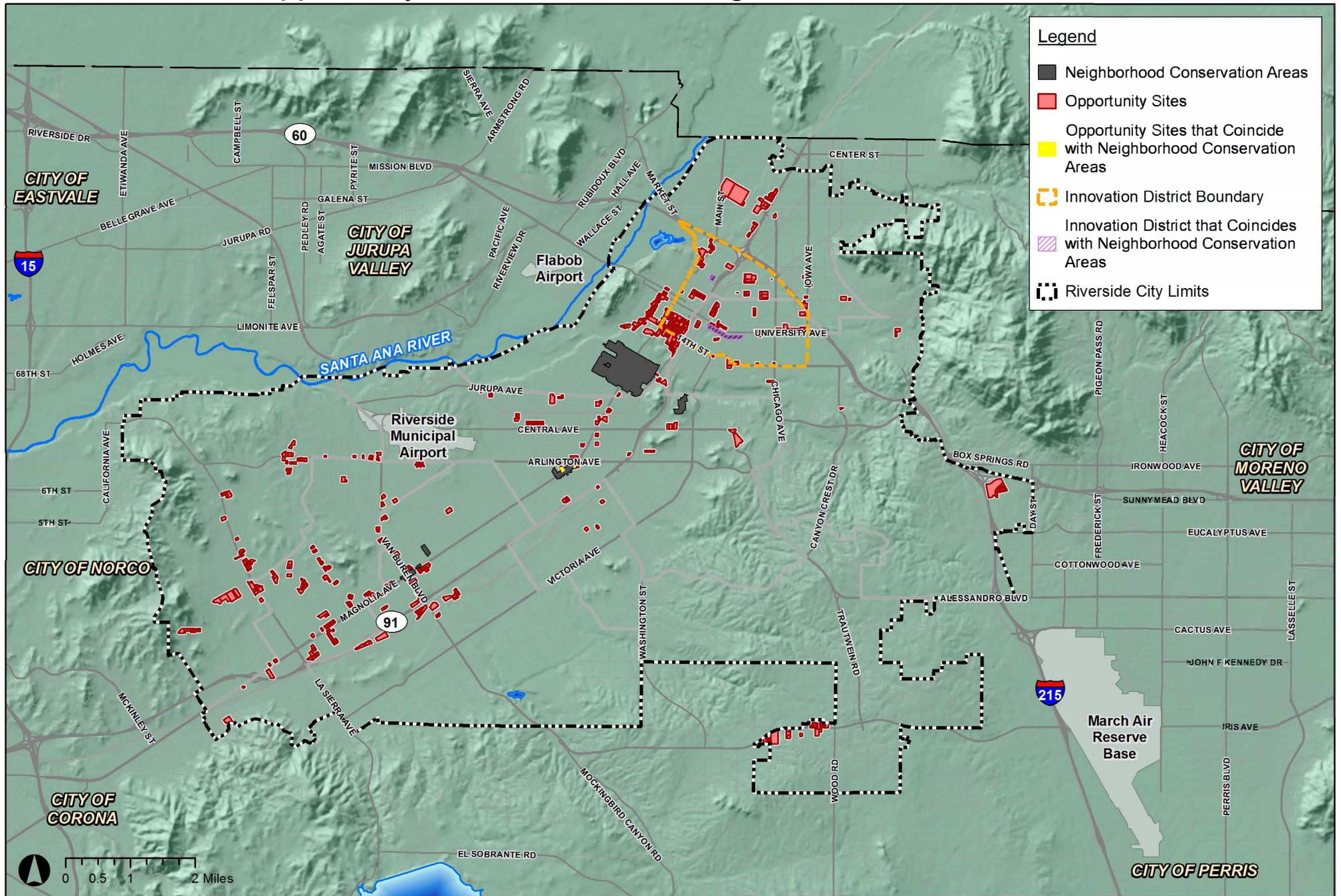
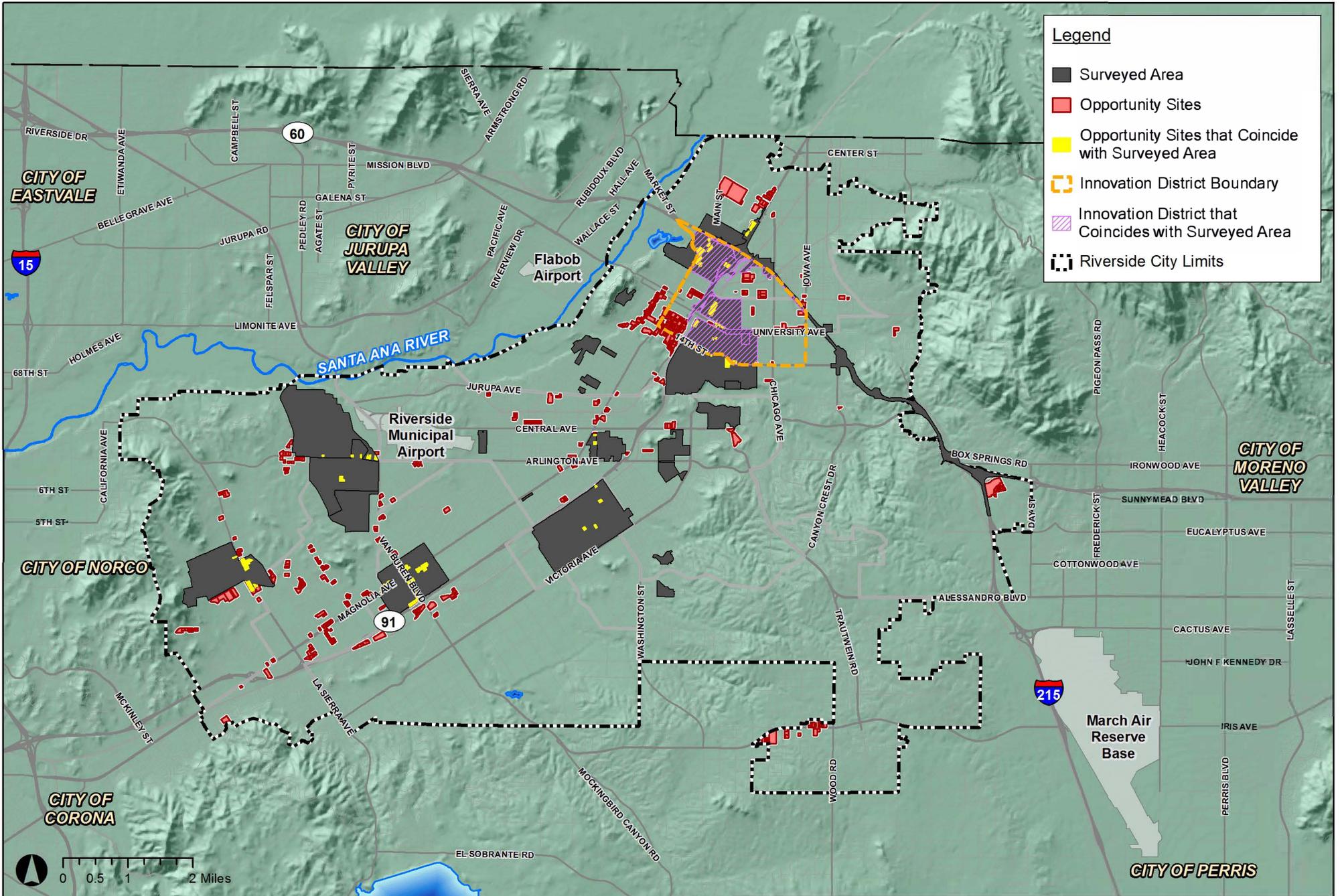


Figure 3.3-1g
 Locations Where Opportunity Site Is Present at Surveyed Areas



- D. It has yielded, or is likely to yield, information important in prehistory or history (36 Code of Federal Regulations [CFR] 60.4).

Some types of cultural resources are not typically eligible for the NRHP. These resources consist of cemeteries, birthplaces, graves of historic figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, properties primarily commemorative in nature, and properties that have achieved significance within the past 50 years. These property types may be eligible for the NRHP, however, if they are integral parts of eligible districts of resources or meet the criteria considerations described in 36 CFR 60.4.

In addition to possessing significance, a property must also have integrity to be eligible for listing in the NRHP. The principle of integrity has seven aspects: location, design, setting, materials, workmanship, feeling, and association (36 CFR 60.4). To retain historic integrity, a property will always possess several, and usually most, of the qualities of integrity (U.S. Department of the Interior 1995:44).

Secretary of the Interior's Standards for Rehabilitation

The United States Secretary of the Interior has developed "Standards for the Treatment of Historic Properties." According to the National Park Service, these standards provide "common sense historic preservation principles" and are presented as "a series of concepts about maintaining, repairing, and replacing historic materials, as well as designing new additions or making alterations" (National Park Service n.d.1). While there are four distinct approaches to the treatment of historic properties (preservation, rehabilitation, restoration, and reconstruction), rehabilitation is the most commonly applied approach. The Standards for Rehabilitation (SOI Standards) are as follows (National Park Service n.d.2).

1. A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.
2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.
3. Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.
4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.
5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.
6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.
7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.

8. Archaeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.
9. New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.
10. New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

Native American Graves Protection and Repatriation Act of 1990

The Native American Graves Protection and Repatriation Act (NAGPRA) provides a process for federal agencies to determine custody of Native American cultural items to lineal descendants and culturally affiliated Indian tribes. NAGPRA defines the ownership of Native American human remains and funerary materials excavated on lands owned or controlled by the federal government. NAGPRA establishes a hierarchy of ownership rights for Native American remains identified on these lands (25 U.S. Code [USC] Section 3002(a)):

- Where the lineal descendants can be found, the lineal descendants own the remains.
- Where the lineal descendants cannot be found, the remains belong to the Indian tribe or Native Hawaiian organization on whose land the remains were found.
- If the remains are discovered on other lands owned or controlled by the federal government and the lineal descendants cannot be determined, the remains belong to the Indian tribe or Native Hawaiian organization that is culturally affiliated with the remains, or the tribe that aboriginally occupied the land where the remains were discovered.

Under NAGPRA, intentional excavation of Native American human remains on lands owned or controlled by the federal government may occur (25 USC 3002(c)) only under the following circumstances.

- With a permit issued under the Archaeological Resources Protection Act (16 USC 470cc)
- After documented consultation with the relevant tribal or Native American groups
- Ownership and disposition follow NAGPRA for all human remains and associated artifacts (25 USC 3001 and 43 CFR 10.6).

NAGPRA also provides guidance on inadvertent discoveries of Native American or Hawaiian human remains on lands owned or controlled by the federal government. When an inadvertent discovery on these lands occurs in association with construction, construction must cease. The party that discovers the remains must notify the relevant federal agency, and the remains must be transferred according to the ownership provisions above (25 USC 3002(d)).

American Indian Religious Freedom Act (42 USC Section 1996)

The American Indian Religious Freedom Act protects and preserves the traditional religious rights and cultural practices of American Indians, Eskimos, Aleuts, and Native Hawaiians. The act requires policies of all governmental agencies to respect the free exercise of native religion and to

accommodate access to and use of religious sites to the extent that the use is practicable and is not inconsistent with an agency's essential functions. If a place of religious importance to American Indians may be affected by a project, the American Indian Religious Freedom Act promotes consultation with Indian religious practitioners, which may be coordinated with Section 106 consultation.

State

California Environmental Quality Act and Public Resources Code Section 5024.1 (California Register of Historical Resources)

CEQA requires public agencies to evaluate the implications of their project(s) on the environment and includes significant historic resources as part of the environment. Public agencies must treat any cultural resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant (California Code of Regulations [CCR] Title 14 §15064.5). A historic resource is considered significant if it meets the definition of historical resource or unique archaeological resource, as defined below.

Historical Resources

The term *historical resource* includes, but is not limited to, any object, building, structure, site, area, place, record, or manuscript that is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California (California Public Resources Code [PRC] §5020.1(j)). Historical resources may be designated as such through three different processes:

- Official designation or recognition by a local government pursuant to local ordinance or resolution (PRC §5020.1(k))
- A local survey conducted pursuant to PRC §5024.1(g)
- Listing in or eligibility for listing in the NRHP (PRC §5024.1(d)(1))

According to PRC §21084.1, properties of local significance that have been designated under a local preservation ordinance or that have been deemed significant in a local historical resources inventory, pursuant to PRC §5024.1(g), may be eligible for listing in the California Register of Historical Resources (CRHR) and are presumed to be significant resources for the purposes of CEQA unless a preponderance of evidence indicates otherwise.

The process for identifying historical resources is typically accomplished by applying the criteria for listing in the CRHR (CCR Title 14 §4852), which states that a historical resource must be significant at the local, state, or national level under one or more of the following four criteria.

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

To be considered a historical resource for the purpose of CEQA, the resource must also have integrity, which is the authenticity of a resource's physical identity evidenced by the survival of characteristics that existed during the resource's period of significance.

Resources, therefore, must retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance. Integrity is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association. It must also be judged with reference to the criteria under which a resource is eligible for listing in the CRHR (CCR Title 14 §4852(c)).

Unique Archaeological Resources

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

- Contains information needed to answer important scientific research questions and for which there is a demonstrable public interest
- 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

In most situations, resources that meet the definition of a unique archaeological resource also meet the definition of historical resource. As a result, it is current professional practice to evaluate cultural resources for significance based on their eligibility for listing in the CRHR. For the purposes of this CEQA cultural resources study, a resource is considered significant if it meets the CRHR eligibility (significance and integrity) criteria. Individual resource assessments of eligibility are provided in this section.

Even without a formal determination of significance and nomination for listing in the CRHR, the lead agency can determine that a resource is potentially eligible for such listing, to aid in determining whether a significant impact would occur. The fact that a resource is not listed in the CRHR, or has not been determined eligible for such listing, and is not included in a local register of historic resources, does not preclude an agency from determining that a resource may be a historical resource for the purposes of CEQA.

Government Code Section 65352.3 (Senate Bill 18)

Senate Bill (SB) 18 requires local governments to consult with tribes prior to making certain planning decisions and to provide notice to tribes at certain key points in the planning process. These consultation and notice requirements apply to approvals and amendments of both general plans (defined in Government Code §65300 et seq.) and specific plans (defined in Government Code §65450 et seq.).

Prior to the approval or any amendment of a general plan or specific plan, a local government must notify the appropriate tribes (on the contact list maintained by the Native American Heritage Commission [NAHC]) of the opportunity to conduct consultations for the purpose of preserving, or mitigating impacts on, cultural places on land within the local government's jurisdiction that is

affected by the proposed plan adoption or amendment. Tribes have 90 days from the date on which they receive notification to request consultation, unless a shorter timeframe has been agreed to by the tribe (Government Code §65352.3).

Assembly Bill 52

On September 25, 2014, California Governor Jerry Brown signed into law Assembly Bill (AB) 52, which amended PRC Section 5097.94 and added Sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3 to establish a new category of environmental resources that must be considered under CEQA: tribal cultural resources (TCRs). This amendment took effect on July 1, 2015. TCRs are defined as either (1) sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are included in the CRHR or a local register of historical resources, or that are determined to be eligible for inclusion in the CRHR; or (2) resources determined by the lead agency, in its discretion, to be significant based on the criteria for listing in the CRHR. For projects with applications filed on or after July 1, 2015, lead agencies are also required to consult with California Native American tribes that are traditionally and culturally affiliated with the geographic area of a proposed project, including tribes that may not be federally recognized, if the tribe requested to the lead agency, in writing, to be informed by the lead agency of proposed projects in that geographic area, and the tribe requests consultation prior to determining whether a negative declaration, mitigated negative declaration, or EIR is required for a project.

Section 6 of AB 52 adds Section 21080.3.2 to the PRC, which states that parties may propose mitigation measures “capable of avoiding or substantially lessening potential significant impacts to a tribal cultural resource or alternatives that would avoid significant impacts to a tribal cultural resource.” Furthermore, if a California Native American tribe requests consultation regarding project alternatives, mitigation measures, or significant effects on TCRs, the consultation must include those topics (PRC Section 21080.3.2(a)). The environmental document and the mitigation monitoring and reporting program (where applicable) must include any mitigation measures that are adopted (PRC Section 21082.3(a)).

Assembly Bill 168

AB 168 became law on September 25, 2020. AB 168 amends Sections 65400, 65913.4, and 65941.1 of the Government Code and was written to address an “oversight” in SB 35 (Chapter 366 of the Statutes of 2017) that did not consider potential destruction of TCRs that are either listed on registers or are potential TCRs. SB 35 provides for a streamlined ministerial approval process of multi-family housing. AB 168 requires projects applying for SB 35 approval to submit a notice of intent to submit an application, which includes a preliminary application. The local agency is then required to engage in scoping consultation with Native American tribes for projects seeking review under the ministerial approval process outlined in SB 35. Local agencies must engage in consultation with Native American tribes traditionally and culturally affiliated with the geographic area of the project, and contact the NAHC to assist in identifying the appropriate Native American tribe(s) for consultation. The consultation must proceed on a timeline whereby the local government formally notifies each tribe within 30 days of receiving the preliminary application, the tribe has 30 days to accept the invitation to engage in consultation, and the local government must initiate consultation within 30 days of the tribe’s acceptance. CEQA does not apply to the consultation process (Government Code 65913.(b)(1)(E)).

If the parties in consultation agree that there is no potential impact on TCRs as a result of the project, then the proponent may submit an application for a ministerial approval per SB 35. If a potential impact on TCRs is identified through consultation, then a mutually accepted agreement must be made that identifies methods and conditions for treatment of TCRs. The agreement is a condition of approval for the project application under SB 35. Tribal consultation concludes upon the documentation of an agreement for how TCRs will be treated at the project site (if present) or if the parties in consultation, acting in good faith and after a reasonable effort, conclude that a mutual agreement cannot be reached. If consulting parties do not reach an agreement for treatment of TCRs, then the project proponent is not eligible for ministerial approval under AB 35.

To qualify for SB 35 ministerial approval the following conditions must be met:

- A tribe that has received notice of a project proponent's submission of a pre-application does not respond to the invitation for consultation within 30 days.
- A tribe accepts the invitation to conduct consultation, but does not engage the local agency after repeated attempts by the local agency.
- The tribe(s) and the local agency agree that there is no potential harm to TCRs that will result from the proposed project.
- Consultation identifies potential impacts on TCRs, and an agreement is documented that provides the methods for treatment of the potentially affected TCRs.

If, after consultation, it is determined that no TCRs would be affected by the project, then no further documentation is necessary. If an agreement between a tribe and the local agency is reached for treatment of potentially affected TCRs, then that agreement must be attached to the approved application for SB 35 ministerial exemption. If consultation results in denial of SB 35 ministerial approval for the project, the local agency must provide written documentation of the explanation of the SB 35 application's denial to the project proponent and the tribe(s) participating in consultation. If changes are made to the project after consultation has been closed, then the local agency must engage in additional, subsequent consultation.

A project will not be eligible for SB 35 streamlined ministerial process if:

- There is a TCR present that is on a national, state, tribal, or local historic register.
- There is a potential TCR that could be affected by the proposed project and the consulting parties cannot reach an agreement on the treatment of the TCR.
- Consulting parties do not agree as to whether a potential TCR will be affected by the project.

Public Resources Code Section 5097

PRC Section 5097 addresses archaeological, paleontological, and historic sites on state land as well as the cooperative efforts with NAHC that are to be undertaken as part of a project being evaluated under CEQA. PRC Section 5097 specifies the procedures to be followed in the event of the unexpected discovery of human remains on nonfederal public lands. PRC Section 5097.5 considers it a misdemeanor to knowingly and willfully excavate upon or remove, destroy, injure, or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, rock art, or any other

archaeological, paleontological, or historical feature situated on public lands, except with the express permission of the public agency having jurisdiction over the lands. The disposition of Native American burials falls within the jurisdiction of NAHC, which prohibits willfully damaging any historic, archaeological, or vertebrate paleontological site or feature on public lands (PRC Section 5097.9). PRC Section 5097.98 stipulates that whenever NAHC receives notification of a discovery of Native American human remains from the county coroner, it must immediately notify those people it believes to be the most likely descendants of the deceased Native American. The descendants may inspect the site of discovery and make recommendations on the removal or reburial of the remains.

Health and Safety Code Section 7050.5

Health and Safety Code 7050.5 addresses the protection of human remains discovered in any location other than a dedicated cemetery and makes it a misdemeanor for any person who knowingly mutilates or disinters, wantonly disturbs, or willfully removes any human remains in or from any location other than a dedicated cemetery without authority of law, except as provided in PRC Section 5097.99. It further states that in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there must be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined that the remains are not subject to the provisions 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 for the excavation, or to his or her authorized representative, in the manner provided in PRC Section 5097.98. If the coroner determines that the remains are not subject to his or her authority and recognizes as or has reason to believe the human remains are those of a Native American, he or she must contact NAHC by telephone within 24 hours.

California Government Code Sections 6254(r) and 6254.10

California Government Code Section 6254(r) and Section 6254.10 of the California Public Records Act were enacted to protect archaeological sites from unauthorized excavation, looting, or vandalism. Section 6254(r) explicitly authorizes public agencies to withhold information from the public relating to “Native American graves, cemeteries, and sacred places maintained by the Native American Heritage Commission.” Section 6254.10 specifically exempts from disclosure requests for “records that relate to archaeological site information and reports, maintained by, or in the possession of the Department of Parks and Recreation, the State Historical Resources Commission, the State Lands Commission, the Native American Heritage Commission, another state agency, or a local agency, including the records that the agency obtains through a consultation process between a Native American tribe and a state or local agency.”

California Native American Graves Protection and Repatriation Act of 2001

The California Native American Graves Protection and Repatriation Act conveys to American Indians, of demonstrated lineal descent, human remains and funerary items that are held by state agencies and museums. Human remains require special handling and must be treated with dignity. Procedures for the handling of human remains are pursuant to §15064.5(e) of the State CEQA Guidelines, Section 5097.98 of the PRC, and Section 87.429 of the County’s Grading Ordinance. In the event of the discovery of human remains and/or funerary items, the following procedures, as outlined by NAHC, must be followed (14 CCR 15000 et seq.):

1. There must be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:
 - a. The county coroner is contacted to determine that no investigation of the cause of death is required.
 - b. If the coroner determines that the remains are Native American:
 - i. The coroner must contact NAHC within 24 hours.
 - ii. NAHC must identify the person or persons it believes to be the most likely descended from the deceased Native American.
 - iii. The most likely descendant may make the recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in PRC Section 5097.98.
2. Where the following conditions occur, the landowner or his authorized representative must rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further disturbance.
 - a. NAHC is unable to identify a most likely descendant or the most likely descendant failed to make a recommendation within 24 hours after being notified by the commission.
 - b. The descendant identified fails to make a recommendation.
 - c. The landowner or his authorized representative rejects the recommendation of the descendant, and the mediation by NAHC fails to provide measures acceptable to the landowner.

Local

Riverside General Plan 2025, Historic Preservation Element

The purpose of the Historic Preservation Element of the *Riverside General Plan 2025* (GP 2025) is to “provide guidance in developing and implementing activities that ensure that the identification, designation, and protection of cultural resources are part of the City’s community planning, development, and permitting processes” (City of Riverside 2012). The Historic Preservation Element acknowledges that the California Office of Historic Preservation has recognized Riverside’s historic preservation program with a designation as a Certified Local Government. The Historic Preservation Element provides historic context with themes important for identifying and evaluating cultural resources within the City. The GP 2025 Final EIR includes two cultural resource-related sensitivity maps that use rankings of unknown, low, medium, and high for archaeological sensitivity and prehistoric cultural resources sensitivity.

Table 3.3-1 presents an overview of GP 2025 and other local plans, policies, and programs related to cultural resources.

Table 3.3-1. Relevant Riverside General Plan and Specific Plan Policies

Plan	Policy
Riverside General Plan 2025	
Historic Preservation Element	<p>Policy HP-1.2: The City shall assume its direct responsibility for historic preservation by protecting and maintaining its publicly owned cultural resources. Such resources may include, but are not limited to, buildings, monuments, landscapes, and right-of-way improvements, such as retaining walls, granite curbs, entry monuments, light standards, street trees, and the scoring, dimensions, and patterns of sidewalks, driveways, curbs and gutters.</p> <p>Policy HP-1.3: The City shall protect sites of archaeological and paleontological significance and ensure compliance with all applicable state and federal cultural resources protection and management laws in its planning and project review process.</p> <p>Policy HP-1.4: The City shall protect natural resources such as geological features, heritage trees, and landscapes in the planning and development review process and in park and open space planning.</p> <p>Policy HP-1.6: The City shall use historic preservation as a tool for “smart growth” and mixed-use development.</p> <p>Policy HP-1.7: The City shall ensure consistency between this Historic Preservation Element and all other General Plan elements, including subsequent updates of the General Plan.</p> <p>Policy HP-2.1: The City shall actively pursue a comprehensive program to document and preserve historic buildings, structures, districts, sites (including archaeological sites), objects, landscapes, and natural resources.</p> <p>Policy HP-2.2: The City shall continually update its identification and designation of cultural resources that are eligible for listing in local, state and national registers based upon the 50 year age guideline for potential historic designation eligibility.</p> <p>Policy HP-2.3: The City shall provide information to citizens, and the building community about what to do upon the discovery of archaeological resources and burial sites, as well as, the treatment, preservation, and repatriation of such resources.</p> <p>Policy HP-4.3: The City shall work with the appropriate tribe to identify and address, in a culturally appropriate manner, cultural resources and tribal sacred sites through the development review process.</p> <p>Policy HP-5.1: The City shall use its design and plot plan review processes to encourage new construction to be compatible in scale and character with cultural resources and historic districts.</p> <p>Policy HP-5.2: The City shall use its design and plot plan review processes to encourage the compatibility of street design, public improvements, and utility infrastructure with cultural resources and historic districts.</p> <p>Policy HP-7.1: The City shall apply code enforcement, zoning actions, and building safety/construction regulations as tools for helping to protect cultural resources.</p> <p>Policy HP-7.2: The City shall incorporate preservation as an integral part of its specific plans, general plan, and environmental processes.</p>
Specific Plans	
Canyon Springs Business Park Specific Plan	There are no applicable policies relevant to the Project regarding cultural resources.

Plan	Policy
<p>Downtown Specific Plan</p>	<p>Policy LU 1.1: Maintain the integrity of, and interrelationship between, each Downtown district as follows:</p> <ul style="list-style-type: none"> • Raincross District: The pedestrian-oriented center of Downtown, with an emphasis on an intense mixture of residential, specialty commercial, tourist, restaurant, cultural, arts, and civic uses. Design philosophy emphasizes new and infill construction that is compatible with the historic structures that give Downtown its unique identity. • Justice Center District: A high intensity district primarily intended for civic, governmental, and judicial uses, interspersed with supporting offices and commercial businesses. Design philosophy is oriented toward large scale, contemporary architecture with interpretive ties to Riverside’s heritage architecture. <p>Policy UD-1-1: Through design review, ensure that new development enhances the character of the Downtown Districts by requiring design qualities and elements that contribute to an active pedestrian environment, where appropriate, and ensuring that architectural elements are compatible and in scale with the existing historic structures in the Downtown.</p> <p>Policy UD-1-3: Improve street design on key corridors in the Downtown and create a sense of arrival at key gateways, which reinforce the City’s natural, cultural and historic characteristics.</p> <p>Policy HP-1-1: Promote the preservation of the historic housing stock and existing character of the distinct single family residential neighborhoods.</p> <p>Policy HP-1-2: Promote community appreciation for the history of Riverside.</p> <p>Policy HP-1-3: Provide incentives to encourage the restoration, and, if necessary, relocation of private historic structures to conserve the integrity of the buildings in the best condition possible.</p> <p>Policy HP-1-4: Through design review, encourage new development to be compatible with adjacent historical structures in scale, massing, building materials, and general architectural treatment.</p> <p>Policy HP-1-5: Work with interested groups and individuals to further tailor the historic design guidelines to each of the designated historic districts within the specific plan boundaries.</p>
<p>Hunter Business Park Specific Plan</p>	<p>There are no applicable policies relevant to the Project regarding cultural resources.</p>
<p>La Sierra University Specific Plan</p>	<p>Design Framework</p> <ul style="list-style-type: none"> • Preservation of the University’s historically significant buildings including those which form a curved edge around Founder’s Green, a landscaped open space west of the Administration Center. No substantial exterior modification or relocation of any historically significant building shall be commenced except in accordance with the provisions of the historic assessment report. • New construction shall be compatible with the historic integrity of the existing campus. <p>Implementation Policy</p> <p>Under standard City procedures, a Conditional Use Permit is required for development of educational facilities within the Public Facilities and Institutional land use designation of the General Plan. The Specific Plan policies, standards, and guidelines listed in this chapter, and Chapters 4.0 and 5.0 provide sufficient guidelines for overall development on the campus. As such, a Conditional Use Permit shall not be required for any uses listed as permitted in the La Sierra University Specific Plan (Chapter 4.0). At the point that detailed site planning</p>

Plan	Policy
	<p>information is available, a plot/site plan review by the Planning Commission of the entire campus, or logical phases thereof, shall be undertaken. Development approval of specific campus projects pursuant to the plot/site plan can then be achieved administratively, through the Minor Conditional Use Permit process. Projects impacting the historic integrity of the campus shall be subject to review by the City Cultural Heritage Board, as specified in the mitigation measures from the project Final EIR.</p> <p>Proposed Actions Regarding Existing On-Campus Buildings</p> <p>Dober, Lidsky, Craig and Associates, Inc., in their 1991 Campus Plan evaluated all existing campus buildings and recommended building actions which will affect their current and future uses. Some recommendations in the Campus Plan were modified based on input from a 1996 Historic Assessment Report. Figure 5-14 and Table 5-1 list these building categories within the Specific Plan area and provide guidance regarding buildings to continue in use or to be replaced. According to the Historic Assessment Report, a portion of La Sierra University campus (Figure 5-14) has been evaluated as eligible for designation as a local Historic District under the Riverside Cultural Resources Ordinance.</p>
<p>Magnolia Avenue Specific Plan</p>	<p>Policy 1.2: Maintain the existing mature heritage landscaping and infill landscaping as appropriate to return the Corridor to being a grand tree-lined parkway. (General Plan Policy LU-12.2)</p> <p>Policy 1.3: Enhance the setting for key historic sites along the Corridor, including landmark buildings and landscape, such as the Arlington Library and Parent Navel Orange Tree; cultural landmarks, such as the Heritage House; and historic districts, such as Wood Streets. (General Plan Policy LU-12.3)</p> <p>Policy 1.4: Enhance and celebrate Heritage House as a historic and cultural landmark. (General Plan Policy LU-78.4)</p> <p>Policy 1.5: Enhance and celebrate the Parent Navel Orange Tree as an historic and cultural landmark. (General Plan Policy LU-68.2)</p> <p>Policy 1.7: Preserve Magnolia Avenue’s historic character. (General Plan Policy LU-36.2)</p> <p>Policy 2.1: Create a sense of arrival at key Downtown gateways, reinforcing the City’s natural, cultural and historic characteristics. (General Plan Policy LU-48.3)</p>
<p>Riverside Marketplace Specific Plan</p>	<p>Development within the Riverside Marketplace will revitalize, complement and enhance the project area, incorporating key elements of its historic context and its present development potential.</p> <p>This Specific Plan represents a period of California history in which Riverside was a centerpiece. Many of the structures and elements which physically represent this period are present and in good repair. These historical components shall be the underlying foundation of the economic and aesthetic revitalization within the area.</p> <p>2.4.1 Land Use Goals:</p> <ul style="list-style-type: none"> • to ensure the range of land uses will respect and complement the historic components within the plan area. <p>2.4.2 Land Use Objectives:</p> <ul style="list-style-type: none"> • create a sub-area to preserve and enhance the area’s historic components. <p>2.4.5 Urban Design Goal:</p> <ul style="list-style-type: none"> • to utilize the underlying historic urban character of the community, while allowing for the addition of complementary new structures and urban design elements. <p>2.4.6 Urban Design Objectives:</p>

Plan	Policy
	<ul style="list-style-type: none"> • preserve and highlight the existing historic elements within the Specific Plan area. • Develop new structures with urban design features which will reinforce the area’s historic character. <p>7.5.9 Historic Structures</p> <p>Environmental Setting</p> <p>As described in Section 2 of the Plan, there are a number of architecturally and/or historically significant structures within the Specific Plan Area.</p> <p>Environmental Impacts</p> <p>Redevelopment or use intensification may be perceived as a threat to the architectural heritage and integrity of an established areas of individual structures.</p> <p>Mitigation Measures</p> <ul style="list-style-type: none"> • Development of a rating criteria in order to determine degree of architectural or historical merit of any structure or area. • Identify potential candidate structures or areas via an area-wide survey. • Determine the feasibility of preserving, relocating or reusing any potential candidate structure through structural integrity assessments or other types of tests. • Retention or adaptive reuse of all qualified packing houses and significant industrial structures. • Relocation of what was thought to be the John Brodhurst Home (the oldest remaining house in Riverside) and the Riverside Soda Works to a proposed Visitors Center adjacent to North Park. • Neighborhood Enhancement Program to rehabilitate the architecturally and historically significant residential structures north of Seventh Street and along Ninth Street.
<p>University Avenue Specific Plan</p>	<p>Preservation of Existing Site Features</p> <p>Existing site conditions, such as mature trees, natural drainage courses and historic structures shall be incorporated into a project of any site.</p> <p>8.4.1 Architectural Character/Building Design</p> <p>Preservation/Adaptive Reuse. This area includes a number of turn-of-the-century homes that should be adaptively reused for business purposes. The Cultural Heritage Board staff should do an inventory and add to preservation lists all structures meriting preservation. This area should also be studied for historic district status. A unified theme of historically appropriate uses would give this area a unique character that would help intensify the pedestrian use of this area. Specific design guidelines for this area will be developed when the survey work is completed. In the meantime, builders and staff should use Restoration Riverside and the White Park Historic District Design Guidelines as references.</p>

Source: City of Riverside 1991, 2002, 2005, 2007, 2009, 2012, 2017a, 2017b.

Policy Consistency

The Project would be consistent with GP 2025 Historic Preservation Element policies relating to cultural resources as listed in Table 3.3-1, because it complies with state laws and the Cultural Resources Ordinance aimed at identifying and protecting cultural resources. In addition, the Project calls for the use of the SOI Standards to integrate sensitive design practices (City of Riverside 2012).

City of Riverside Municipal Code

The City of Riverside Municipal Code, Title 20, Cultural Resources Ordinance, provides guidelines for the application, enforcement, and public awareness of the City's historic preservation regulations, as enforced by the City's Planning Division. The purpose of this title is to promote the public health, safety, and general welfare by providing for the identification, protection, enhancement, perpetuation, and use of improvements, buildings, structures, signs, objects, features, sites, places, areas, districts, neighborhoods, streets, works of art, natural features, and significant permanent landscaping having special historical, archaeological, cultural, architectural, community, aesthetic, or artistic value in the City (Section 20.05.010).

The Cultural Resources Ordinance recognizes four types of designations: Landmark, Structure of Merit, Historic District, and Neighborhood Conservation Area. The City has conducted several historical resource surveys, designated individually significant historical resources and historic districts, and identified eligible cultural resources and historic districts.

Certificate of Appropriateness

Title 20 requires a Certificate of Appropriateness for the restoration, rehabilitation, alteration, development, construction, demolition, removal, or other change in appearance of any designated cultural resource, eligible cultural resource, or any element in a geographic Historic District (contributing and non-contributing), or a contributing feature or contributor to a Neighborhood Conservation Area.

Cultural resource means improvements, natural features, sites, cultural landscapes, or other objects that may reasonably be of scientific, aesthetic, educational, cultural, architectural, social, political, military, historical, or archaeological significance. This includes designated cultural resources, eligible cultural resources, and contributing features to Historic Districts and Neighborhood Conservation Areas. A "Point of Cultural Interest" as recognized under Title 20 is expressly not under this definition.

Eligible cultural resource means a cultural resource or Historic District that has been determined by the Historic Preservation Officer or Qualified Designee, Board, or City Council to meet the City's designation criteria pursuant to a survey prepared by a professional meeting the SOI Standards that either documents the resource, records the resource on the California Department of Parks and Recreation survey forms, or has been so designated by the California State Historic Preservation Officer.

Depending on the type of project, either the Cultural Heritage Board or Historic Preservation Officer (or Qualified Designee) reviews an application for a Certificate of Appropriateness. Per Section 20.25.050, *Principles and standards of site development and design review*, the reviewer must apply the following standards to the application review:

- A. The application proposal is consistent or compatible with the architectural period and the character-defining elements of the historic building.
- B. The application proposal is compatible with existing adjacent or nearby cultural resources and their character-defining elements.

- C. The colors, textures, materials, fenestration, decorative features, details, height, scale, massing, and methods of construction proposed are consistent with the period and/or compatible with adjacent cultural resources.
- D. The proposed change does not adversely affect the context considering the following factors: grading, site development, orientation of buildings, off-street parking, landscaping, signs, street furniture, public areas, or relationship of the project to its surroundings.
- E. The proposed change does not destroy or adversely affect an important architectural, historical, cultural, or archaeological feature or features.
- F. The project is consistent with the Citywide Residential Historic District Design Guidelines, approved guidelines for each Historic District, and/or any other applicable design guidelines.
- G. The project is consistent with the principles of the SOI Standards.

Title 20 also provides a process to designate, modify the status of, or de-designate Landmarks, Structures, or Resources of Merit and Historic Districts, and to modify or de-designate Neighborhood Conservation Areas.

The definitions and designation criteria for Landmarks, Structures of Merit, and Historic Districts are provided below.

Landmark Definition and Designation Criteria

Landmark means any improvement or natural feature that is an exceptional example of a historical, archaeological, cultural, architectural, community, aesthetic, or artistic heritage of the City, retains a high degree of integrity, and meets one or more of the following criteria:

1. Exemplifies or reflects special elements of the City's cultural, social, economic, political, aesthetic, engineering, architectural, or natural history
2. Is identified with persons or events significant in local, state, or national history
3. Embodies distinctive characteristics of a style, type, period, or method of construction, or is a valuable example of the use of indigenous materials or craftsmanship
4. Represents the work of a notable builder, designer, or architect, or important creative individual
5. Embodies elements that possess high artistic values or represents a significant structural or architectural achievement or innovation
6. Reflects significant geographical patterns, including those associated with different eras of settlement and growth, particular transportation modes, or distinctive examples of park or community planning, or cultural landscape
7. Is one of the last remaining examples in the City, region, state, or nation possessing distinguishing characteristics of an architectural or historical type or specimen
8. Has yielded or may be likely to yield information important in history or prehistory

Structure of Merit Definition and Designation Criteria

Structure of Merit means any improvement or natural feature that contributes to the broader understanding of the historical, archaeological, cultural, architectural, community, aesthetic, or artistic heritage of the City, retains sufficient integrity, and:

1. Has a unique location or singular physical characteristics or is a view or vista representing an established and familiar visual feature of a neighborhood community or of the City
2. Is an example of a type of building that was once common but is now rare in its neighborhood, community, or area
3. Is connected with a business or use that was once common but is now rare
4. Could be eligible under landmark criteria no longer exhibiting a high level of integrity, but retains sufficient integrity to convey significance under one or more of the landmark criteria
5. Has yielded or may be likely to yield information important in history or prehistory
6. No longer exhibits the high degree of integrity sufficient for landmark designation but still retains sufficient integrity under one or more of the landmark criteria to convey cultural resource significance as a structure or resource of merit

Historic District Definition and Designation Criteria

Historic District means an area that contains:

1. A concentration, linkage, or continuity of cultural resources, where at least 50 percent of the structures or elements retain significant historic integrity (a “geographic Historic District”)
2. A thematically related grouping of cultural resources that contribute to each other and are unified aesthetically by plan or physical development, and have been designated or determined eligible for designation as a Historic District by the Historic Preservation Officer or Qualified Designee, Board, or City Council or is listed in the NRHP or the CRHR, or is a California Historical Landmark or a California Point of Historical Interest (a “thematic Historic District”)

In addition to either 1 or 2 above, the area also:

3. Exemplifies or reflects special elements of the City’s cultural, social, economic, political, aesthetic, engineering, architectural, or natural history
4. Is identified with persons or events significant in local, state, or national history
5. Embodies distinctive characteristics of a style, type, period, or method of construction, or is a valuable example of the use of indigenous materials or craftsmanship
6. Represents the work of notable builders, designers, or architects
7. Embodies a collection of elements of architectural design, detail, materials, or craftsmanship that represents a significant structural or architectural achievement or innovation
8. Reflects significant geographical patterns, including those associated with different eras of settlement and growth, particular transportation modes, or distinctive examples of park or community planning
9. Conveys a sense of historic and architectural cohesiveness through its design, setting, materials, workmanship, or association
10. Has yielded or may be likely to yield information important in history or prehistory

3.3.4 Methodology and Thresholds of Significance

Impacts on historical and archaeological resources are determined based on the sensitivity or significance of designated and eligible historical resources or archaeological resources and the direct and indirect impacts that would result from reasonably foreseeable future development that could occur under the Project. If direct or indirect impacts would occur on such historical or archaeological resources, mitigation measures would be required.

Criteria to determine the significance of historical resources are summarized in Section 3.3.3, *Regulatory Setting*. Physical impacts on historical resources typically include direct disturbance and/or destruction of a resource and occur during construction. Aesthetic effects on historical resources typically consist of indirect impacts, such as changes to the visual or auditory landscape. The demolition, substantial alteration, or de-designation of a historical resource would constitute a significant impact.

For archaeological resources, potential impacts could occur for reasonably foreseeable future development projects that result in disturbance and/or destruction of previously recorded and/or undiscovered archaeological resources. The disturbance and/or destruction of archaeological resources would be considered a significant impact. For prehistoric and historical period archaeological resources, previous studies conducted for the City including the *Program Environmental Impact Report for the City of Riverside General Plan 2025 Program Update* (Albert A. Webb Associates 2007), the *Cultural Resources Study for the City of Riverside General Plan 2025 Update Program EIR* (Applied EarthWorks, Inc. 2007), the *2014–2021 Housing Element Update Housing Implementation Plan Environmental Impact Report* (Michael Baker International 2017), and associated environmental documents were consulted. Cultural resources literature and records searches were not conducted for this analysis, as it was determined that additional studies would be conducted on an individual, project-specific basis for each individual development project (see Mitigation Measures **MM-CUL-1** and **MM-CUL-2**).

Thresholds of Significance

An Initial Study was prepared for the Project in April 2021. The following environmental threshold was scoped out from detailed review in this section of the Draft EIR because the impact was determined to be less than significant in the Initial Study:

- Disturb any human remains, including those interred outside of formal cemeteries

For a complete discussion of the environmental issues that were scoped out from this Draft EIR, refer to Section 3.15, *Effects Not Found to Be Significant*.

In accordance with Appendix G of the State CEQA Guidelines, the Project would be considered to have a significant effect if it would:

- Result in a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5
- Result in a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5

3.3.5 Impacts and Mitigation Measures

Impact CUL-1: The Project could cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5. Implementation of Mitigation Measure MM-CUL-1 would reduce this impact to a less-than-significant level.

Housing Element Update, Zoning Code Amendments, and Environmental Justice Policies

Opportunity Sites are distributed throughout the City. These sites represent those with limited development constraints, and one of the factors weighing into the development suitability model favored older properties. Opportunity Sites under the proposed Housing Element Update are situated throughout the City and coincide with a large number of historical resources, as shown on Figures 3.3-1a to 3.3-1g and Appendix E. Opportunity Sites are currently situated in six Historic Districts, one potential Historic District, two Neighborhood Conservation Areas, and 16 NRHP sites. In addition, 51 Landmarks and 373 Structures of Merit are currently proposed to be Opportunity Sites. These numbers include the historical resources that are within the Innovation District and Downtown Specific Plan boundaries but are not specifically listed in the Opportunity Sites Inventory.

The discussion below explores the ways in which the Housing Element Update's site selection could avoid and mitigate impacts on a historical resource. It distinguishes between Opportunity Sites that contain a known historical resource and Opportunity Sites that may contain a historical resource.

Designated or Eligible Resource Is Present on an Opportunity Site, or an Opportunity Site Is Located in a Historic District or Neighborhood Conservation Area

The Cultural Resources Ordinance provides a process for historic preservation-related reviews through the approval or denial of a Certificate of Appropriateness. As described in Section 3.3.2, *Environmental Setting*, a Certificate of Appropriateness is required for the rehabilitation, alteration, demolition, etc. "of any designated Cultural Resource, eligible Cultural Resource, any element in a geographic Historic District (contributing and non-contributing), or a contributing feature or contributor to a Neighborhood Conservation Area." If a future development under the Housing Element Update involves the proposed demolition or alteration of a non-contributor in a Historic District, the discrete project would be subject to Certificate of Appropriateness requirements, though with different principles, issues, and standards than for district contributors. Future development projects involving the demolition or alteration of a contributor in a Historic District or Neighborhood Conservation Area would be subject to the Certificate of Appropriateness requirements.

The approval or denial of a Certificate of Appropriateness is based on a number of factors, including the specific project's consistency with the SOI Standards and City-established design guidelines. The Cultural Heritage Board and the Historic Preservation Officer (or Qualified Designee in his/her place) share the responsibility of reviewing these applications.

Therefore, the Cultural Resources Ordinance would mandate that development facilitated by the Project would result in less-than-significant impacts on a resource known to qualify as a historical

resource under CEQA or a resource treated as a qualifying historical resource under CEQA in accordance with the ordinance's provisions.

A Previously Unidentified Historical Resource Is Located on an Opportunity Site

While much of the City has been surveyed and studied, potential significance of much of the City's remaining built environment and designed landscapes remains unknown. Therefore, a potential historical resource (including, but not limited to, resources 50 years of age or older, consistent with CRHR and NRHP guidelines and pursuant to Section 15064.5) could be present on an Opportunity Site outside of a previously surveyed area. For proposed development on a property that meets the following three criteria, implementation of Mitigation Measure **MM-CUL-1** would result in no impacts. This mitigation measure mirrors the ministerial process for projects involving known historical resources:

- The property is not in a previously surveyed area.
- The property has not been previously identified as a historical resource for the purposes of CEQA, i.e., known cultural resource or eligible cultural resource pursuant to the Cultural Resources Ordinance.
- The property contains at least one building that is at least 50 years of age (at the time of the application) as is consistent with CRHR and NRHP guidelines.

Public Safety Element Update and Environmental Justice Policies

The City's update to the Public Safety Element would focus on natural and human-caused hazards, pandemic preparedness and response, climate change, and other safety issues. Section 2.2.3, *Public Safety Element Update*, provides a sampling of draft proposed policies. These policies would not enable future development and they would not demolish, physically alter, or otherwise diminish the integrity of a historical resource. Policy HP-EJ-1.0 encourages the identification and preservation of historical and cultural resources associated with communities whose histories and historical contributions are not well documented. Rather than a destructive process, such preservation policies would work to preserve historical resources if they were enacted and would not result in ground disturbance or alter built environment resources. As with the policies related to the Public Safety Element, because this is a policy document, it does not appear that any of these policies would involve ground disturbance or alter built environment resources, and, as such, would not cause a substantial adverse change in the significance of a historical resource.

Mitigation Measures

The potential impacts of the Project described in this section would be reduced to less-than-significant levels with implementation of the following mitigation measures.

MM-CUL-1: Conduct a historical resource assessment.

The individual applicants shall hire a Secretary of the Interior-qualified historic preservation professional to conduct a historical resource assessment if a structure to be affected by a subsequent development project, at the time of application, is not in a previously surveyed area, is not a historical resource for the purposes of CEQA, and is at least 50 years old. The assessment shall formally evaluate the potential resource's eligibility for listing to the CRHR, its potential eligibility as a Landmark or Structure of Merit, and its potential eligibility as a Contributor to a

Historic District or Neighborhood Conservation Area. If the resource is found eligible for any of those designations, it shall be considered a resource that qualifies as a historical resource under CEQA and is therefore subject to the provisions of the Cultural Resources Ordinance. This includes obtaining the pertinent Certificates of Appropriateness and ensuring that the project plans adhere to the SOI Standards. For resources found ineligible for any of those designations, no additional mitigation would be necessary.

Impact CUL-2: The Project could cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5. Implementation of Mitigation Measures MM-CUL-2 through MM-CUL-9 would reduce this impact to less-than-significant levels.

Housing Element Update, Zoning Code Amendments, and Environmental Justice Policies

Opportunity Sites are distributed throughout the City. Using data from citywide records searches, the *Cultural Resources Study for the City of Riverside General Plan 2025 Update Program EIR* (Applied EarthWorks, Inc. 2007) conducted an archaeological sensitivity analysis. Through this analysis, areas of high, medium, low, and unknown sensitivity were identified within the City limits. Large portions of the City were identified as unknown due to a lack of archaeological survey in these areas. Because Opportunity Site-specific records searches were not conducted for this analysis, the results of the 2007 study were used for analytical purposes. It is likely that numerous archaeological studies have taken place since this study was conducted 15 years ago, so a similar study with current data may yield slightly different results. However, this work can be viewed as a proxy for understanding relative archaeological sensitivity throughout the City and at Opportunity Sites. On Figure 3.3-2, the results of the Applied Earthworks study are overlain with the locations of Opportunity Sites in the City. The results of this analysis are presented in Table 3.3-2 in terms of total acreage and numbers of Opportunity Sites within the sensitivity categories defined by Applied Earthworks.

Most of the Opportunity Sites associated with this Project are in areas of unknown archaeological sensitivity, while a smaller number of these sites are in areas of low to high archaeological sensitivity. The locations with unknown archaeological sensitivity are areas where archaeological studies had not been conducted at the time of the 2007 analysis. It is likely that many archaeological surveys have been conducted throughout the City since the Applied Earthworks study, and many additional archaeological sites have been recorded and evaluated. Because the Opportunity Sites under the proposed Housing Element Update are situated throughout the City and in mostly unsurveyed areas, the potential for Opportunity Sites to encounter archaeological resources is unknown. Future cultural resources/archaeological studies at Opportunity Site locations (see Mitigation Measure **MM-CUL-2**) would identify whether such resources exist.

Development of Opportunity Sites could potentially include the excavation of soils in undeveloped areas and demolition of standing structures in developed areas. Excavation and demolition activities could result in the discovery of previously unidentified archaeological resources and the destruction of known archaeological resources if they have been identified through cultural resources studies.

Therefore, ground-disturbing activities could result in the discovery of previously unidentified archaeological resources and the destruction of known archaeological resources, which would be a

potentially significant impact. For Opportunity Site projects that require CEQA analysis (non-ministerial projects), implementation of Mitigation Measure **MM-CUL-2** would reduce this impact to less-than-significant levels. If archaeological resources are discovered during an archaeological study (Mitigation Measure **MM-CUL-2**), or if archaeological resources are identified as inadvertent discoveries during ground-disturbing activities, then Mitigation Measures **MM-CUL-3 through MM-CUL-8** would reduce this impact to less-than-significant levels. Not all projects would require Mitigation Measures **MM-CUL-3 through MM-CUL-8**, as these mitigation measures are only applicable if archaeological resources are discovered during an archaeological study (Mitigation Measure **MM-CUL-2**) or as unanticipated discoveries.

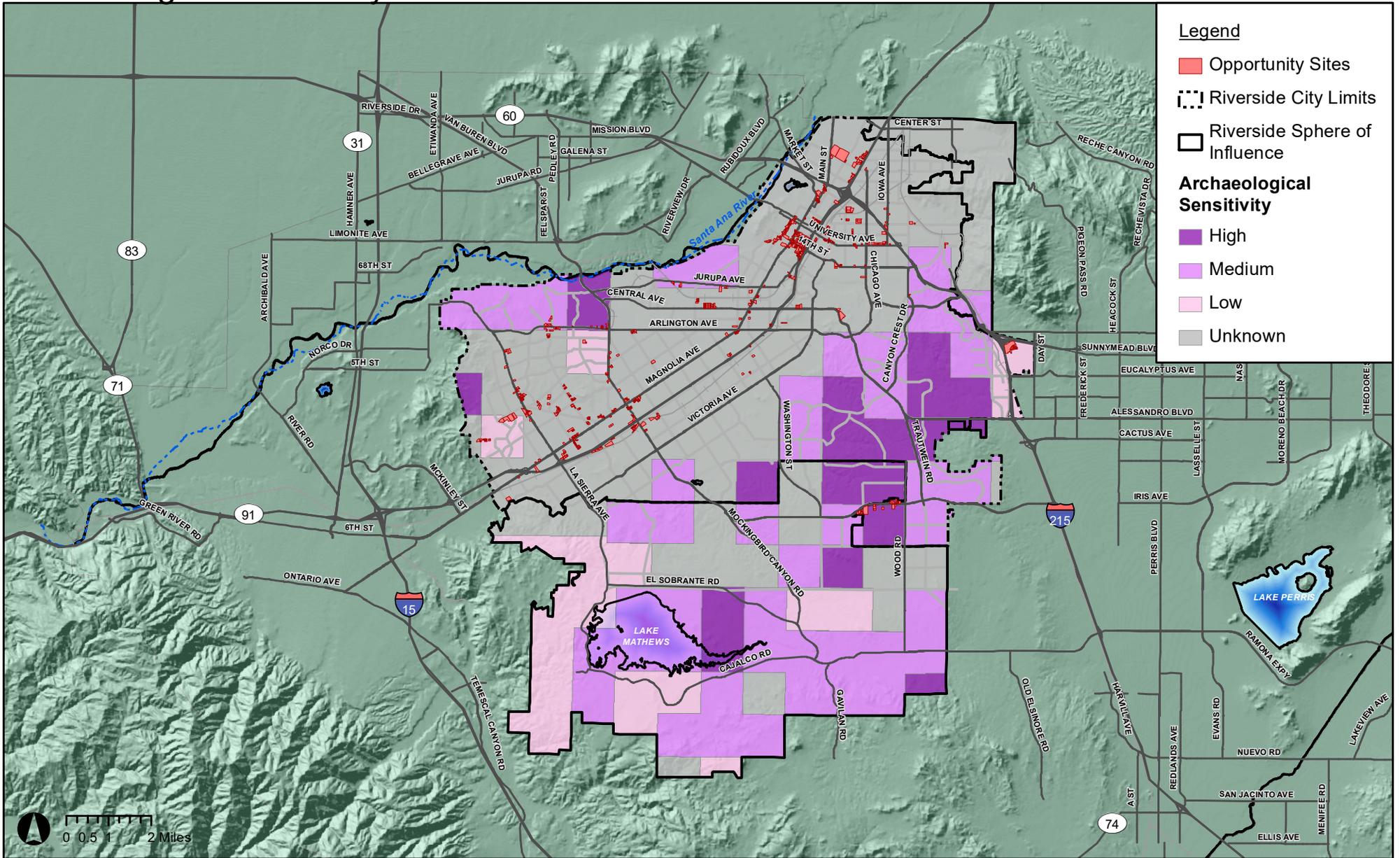
Table 3.3-2. Opportunity Sites Related to 2007 Applied Earthworks Archaeological Sensitivity Analysis

Sensitivity	Number of Opportunity Sites		
	(parcels)	Square Feet	Acres
High	28	1,950,477.18	45
Medium	34	1,346,080.50	31
Low	32	3,064,661.35	70
Unknown (no archaeological studies)	792	29,352,891.62	674
Totals	883	35,714,838.65	820

Public Safety Element Update and Environmental Justice Policies

The Public Safety Element Update policies and implementing actions address natural hazards; transportation hazards; police, fire, and emergency services; pandemic preparedness and response; homelessness; and climate change and resiliency. The Public Safety Element Update also includes policies and actions related to management of hazardous materials and other safety topics related to emergency access and pedestrian safety that could prompt the construction of roadways, sidewalks, and bike paths (as a means to improving emergency access and safety). However, no specific infrastructure improvements or projects are identified in the Public Safety Element Update. As this is a policy document, this update would not cause a substantial adverse change in the significance of an archaeological resource. Policies related to environmental justice under the proposed Public Safety Element Update would not involve future development or the construction of new housing, public safety infrastructure, and mixed-use development. Rather, these policies describe treatment of hazardous materials associated with contaminated sites within environmental justice communities; ensure access to affordable housing, health care, and emergency services; consider the needs of environmental justice communities in planning for emergency response and recovery; consider health implications for land use decisions that could involve hazardous uses; and minimize the potential for vehicular and pedestrian accidents in underserved areas. Policy HP-EJ-1.0 encourages the identification and preservation of historic and cultural resources associated with communities whose histories and historical contributions are not well documented. This policy could result in the preservation of a particular archaeological resource (prehistoric or historic period in age). Rather than a destructive process, such preservation policies would work to preserve archaeological resources if they were enacted and would not result in ground disturbance. As with the policies related to the Public Safety Element, because this is a policy document, the Project would not involve ground disturbance, and, as such, would not cause a substantial adverse change in the significance of an archaeological resource.

Figure 3.3-2
Archaeological Sensitivity



Mitigation Measures

The potential impacts of the Project described in this section would be reduced to less-than-significant levels with implementation of the following mitigation measures.

MM-CUL-2: Conduct an archaeological study.

For Opportunity Site development projects that require CEQA analysis (non-ministerial projects), prior to construction, and if it is determined that the development project will involve ground disturbance of some type, the applicant shall conduct an archaeological study. This study will be conducted during project-specific CEQA analyses at Opportunity Sites that have not been studied in such a manner in the previous 5 years. The archaeological study shall follow the guidelines set forth by the City of Riverside Community & Economic Development Department in the document titled *Consultant Requirements for Cultural Resources Survey, Studies and Reports Information Sheet* (City of Riverside Community & Economic Development Department 2011) or successor document.

The cultural resources archaeological recommendations shall be valid for 5 years after the date of the record search. After 5 years, the applicant shall retain an archaeologist who shall acquire an updated record search from the Eastern Information Center and review the cultural resources technical report recommendations.

For proposed development locations where only a record search and/or a site visit have already been conducted prior to this EIR, the project applicant shall retain an archaeologist to:

- Review record search results, site visit results, and any recommendations.
- Obtain an updated record search from the Eastern Information Center if the record search is older than 5 years.
- Review available historic maps, historic aerials, and other archival materials.
- Prepare a cultural resources memo with existing or updated record search results; a summary of background research of historic maps, aerials, etc.; and potential for historic and prehistoric archaeological resources to be present at the proposed development location. Additionally, the memo shall identify potential impacts and provide recommendations.

The City shall review these findings and make a determination regarding the significance of project-level impacts prior to approval of any future development. Should the archaeological study result in the identification of archaeological resources on the proposed development site, or should unanticipated discoveries of previously unknown archaeological resources be made during ground-disturbing activities at an Opportunity Site, Mitigation Measures **MM-CUL-3** through **MM-CUL-6** would be applicable.

MM-CUL-3: Avoid archaeological sites through establishment of Environmentally Sensitive Areas (ESAs).

If archaeological resources are identified either through an archaeological study or as unanticipated discoveries during construction, implementation of Mitigation Measure **MM-CUL-3** would be required. Avoidance is always the preferred method of treatment for archaeological sites. Additionally, should sacred objects or objects of religious importance to Native American

tribes be identified, preservation in place avoids conflicts with traditional values of tribes who ascribe meaning to these resources and their locations. Impacts on cultural resources can be avoided through establishing fencing around cultural resources with a buffer and delineating these locations as ESAs. The appropriate buffer size shall be delineated upon consultation with Native American tribes and the City (for prehistoric resources). The City and the consultant archaeologist for individual development projects shall determine appropriate buffers for historical-period (non-Native American) archaeological resources on a case-by-case basis based on the known extent of archaeological sites and the relationship to proposed ground disturbance.

MM-CUL-4: Develop and implement an Archaeological Treatment Plan (ATP) for evaluation of newly discovered and/or unevaluated archaeological resources.

Mitigation Measure **MM-CUL-4** shall apply as follows:

- The results of an archaeological study conducted under Mitigation Measure **MM-CUL-2** are unable to determine the eligibility of newly identified archaeological sites for inclusion to the CRHR and it is determined by the consulting archaeologist that additional study through Phase II testing is required;
- It is not possible to avoid impacts through the establishment of ESAs; or
- Unanticipated archaeological resources are discovered during construction on Opportunity Sites.

If it is necessary to properly evaluate such properties in such a manner, an ATP shall be developed that describes methods and procedures for conducting subsurface excavations to determine the vertical and horizontal extents of an archaeological site. The ATP shall define the parameters of archaeological testing at the site and the extent of excavation and analysis of any materials recovered. The ATP shall also include guidelines for treatment and curation of any materials recovered during the testing process. Subsequent to implementation of the ATP, a technical report describing the methods and results of archaeological testing and formal evaluations of the archaeological sites and recommendations for further treatment shall be completed. The ATP shall be approved by the City and should involve consultation and review by Native American tribes consulting on the proposed development project. An ATP shall only be necessary for newly discovered archaeological sites that require additional information to make determinations of eligibility.

MM-CUL-5: Implement data recovery for CRHR-eligible sites that cannot be avoided.

If archaeological studies identify a cultural resource as being potentially eligible for listing in the CRHR and ESAs cannot be established or project design cannot be altered, resulting in impacts on the site, then a Phase III data recovery program shall be developed, when mutually agreed upon by Native American representatives (for prehistoric or historic-period Native American sites) and the City. The data recovery program shall be outlined in a Data Recovery Treatment Plan that details the procedures and objectives for mitigation of impacts on the archaeological site. The Data Recovery Treatment Plan shall include a research design with testable hypotheses and data requirements necessary to address these hypotheses. Additionally, the Data Recovery Treatment Plan shall identify methods of excavation, analysis, and curation of any archaeological materials recovered. The Data Recovery Treatment Plan shall also identify the

treatment of any human remains discovered during data recovery procedures. If the archaeological resource is Native American (prehistoric or historic-period in age), then the City, the applicant, and the archaeologist shall engage in consultation so that Native American representatives can be involved in the development of the data recovery plan.

Data recovery shall involve analysis of a representative sample of the materials recovered during excavation. For prehistoric archaeological sites, all excavations should be monitored by a representative from a geographically appropriate Native American group. At the conclusion of the data recovery program, a data recovery technical report shall be completed detailing the results of the excavations and analysis. Curation of recovered archaeological materials shall be conducted per the guidance in the Data Recovery Treatment Plan and with consultation between the City and appropriate Native American tribes. Other forms of mitigation could include additional research with archival sources, landscape studies, designation of open space, public outreach programs, and public education/public displays.

MM-CUL-6: Retain an on-call archaeologist for monitoring.

For Opportunity Site development projects that require CEQA analysis, Mitigation Measure MM-CUL-6 shall be implemented when archaeological studies completed under Mitigation Measure MM-CUL-2 determine that a project has a less-than-significant potential for archaeological discoveries. Additionally, upon agreement between Native American representatives (for prehistoric or historic-period Native American sites) and the City for archaeological resources that have not been determined eligible for listing in the CRHR or NRHP that are unavoidable at an Opportunity Site, Mitigation Measure MM-CUL-6 shall be implemented. Prior to the issuance of a grading permit, the applicant shall provide a letter from a qualified archaeologist stating that the applicant has retained their services, and that the archaeologist shall be on call during all grading and other significant ground-disturbing activities in native sediments.

MM-CUL-7: Conduct archaeological and Native American monitoring.

If cultural resource studies have identified archaeological resources determined eligible for the CRHR or NRHP that are unavoidable at an Opportunity Site, Mitigation Measure **MM-CUL-7** shall be implemented upon agreement among Native American representatives (for prehistoric or historic-period Native American sites). At least 30 days prior to application for a grading permit and before any grading, excavation, and/or ground-disturbing activities take place, the applicant shall retain an SOI Standards-qualified archaeological monitor to monitor all ground-disturbing activities in an effort to identify any unknown archaeological resources.

The archaeologist, in consultation with consulting tribes, the applicant, and the City, shall develop an Archaeological Monitoring Plan to address the details, timing, and responsibility of all archaeological and cultural activities that occur on a development site. Details in the plan shall include:

1. Project grading and development scheduling:
 - a. The development of a rotating or simultaneous schedule in coordination with the applicant and the project archaeologist for designated Native American tribal monitors (if resources are prehistoric in age) from the consulting tribes during grading, excavation, and ground-disturbing activities on the site, including the scheduling, safety

requirements, duties, scope of work, and Native American tribal monitors' authority to stop and redirect grading activities in coordination with all project archaeologists

- b. The protocols and stipulations that the applicant, tribes, and project archaeologist for the individual development project shall follow in the event of inadvertent cultural resource discoveries, including any newly discovered cultural resource deposits that shall be subject to a cultural resources evaluation
- c. Treatment and final disposition of any cultural resources, sacred sites, and human remains if discovered on a development site
- d. The scheduling and timing of the Cultural Sensitivity Training

MM-CUL-8: Employ procedures for treatment and disposition of cultural resources.

If cultural resources are inadvertently discovered during the course of grading for individual Opportunity Sites, the following procedures shall be carried out for treatment and disposition of the discoveries:

1. **Consulting Tribe(s) Notified:** Within 24 hours of discovery, and if the resources are Native American in origin, the consulting tribe(s) shall be notified via email and phone. The applicant shall provide the City evidence of notification to consulting tribes. Consulting tribe(s) shall be allowed access to the discovery in order to assist with the significance evaluation.
2. **Temporary Curation and Storage:** During the course of construction, all discovered resources shall be temporarily curated in a secure location on site or at the offices of the project archaeologist. The removal of any artifacts from a development site shall be thoroughly inventoried with tribal monitor oversight of the process.
3. **Treatment and Final Disposition:** The landowner(s) shall relinquish ownership of all cultural resources, including sacred items, burial goods, and all archaeological artifacts and non-human remains, as part of the required mitigation for impacts on cultural resources. The applicant shall relinquish the artifacts through one or more of the following methods and provide the City of Riverside Community & Economic Development Department with evidence of same:
 - a. Accommodate the process for onsite reburial of the discovered items with the consulting Native American tribes or bands. This shall include measures and provisions to protect the future reburial area from any future impacts. Reburial shall not occur until all cataloguing and basic recordation have been completed.
 - b. Execute a curation agreement with an appropriate qualified repository within Riverside County that meets federal standards per 36 CFR Part 79 and therefore will ensure professional curation and availability to other archaeologists/researchers for further study. The collections and associated records shall be transferred, including title, to an appropriate curation facility within Riverside County, to be accompanied by payment of the fees necessary for permanent curation.
 - c. If more than one Native American tribe or band is involved with the subsequent development project and cannot come to a consensus as to the disposition of cultural materials, curate the discovered items at the Western Science Center or Museum of Riverside by default.

- d. At the completion of grading, excavation, and ground-disturbing activities on the site, provide to the City a Phase IV Monitoring Report documenting monitoring activities conducted by the project archaeologist and Native American tribal monitors within 60 days of completion of grading. This report shall document the impacts on the known resources on the property; describe how each mitigation measure was fulfilled; document the type of cultural resources recovered and the disposition of such resources; provide evidence of the required Cultural Sensitivity Training for the construction staff held during the required pre-grade meeting; and, in a confidential appendix, include the daily/weekly monitoring notes from the archaeologist. All reports produced shall be submitted to the City, the Eastern Information Center, and consulting tribes.

MM-CUL-9: Conduct cultural sensitivity training.

For Opportunity Site development projects where either Mitigation Measures **MM-CUL-6** or **MM-CUL-7** are implemented, Mitigation Measure **MM-CUL-9** shall also be implemented. Prior to the commencement of construction activities, the SOI Standards-certified archaeologist and Native American monitors shall attend the pre-grading meeting with the applicant/permit holder's contractors to provide Cultural Sensitivity Training for all construction personnel. This shall include the procedures to be followed during ground disturbance in sensitive areas and protocols that apply in the event unanticipated resources are discovered. Only construction personnel who have received this training can conduct construction and disturbance activities in sensitive areas. A sign-in sheet for attendees of this training shall be included in the Phase IV Monitoring Report.

3.4 Paleontological Resources

3.4.1 Introduction

This section describes the environmental and regulatory setting for paleontological resources for the Project and provides an analysis of potential impacts on paleontological resources that could occur with implementation of the Project. The analysis examines the degree to which the Project may result in impacts on paleontological resources in the City of Riverside (City) and includes analysis of potential impacts related to paleontological resources. The analysis methods, data sources, significance thresholds, and terminology used in this section are described in the appropriate subsections below.

Details on the location of the Project and a description of Project activities are included in Chapter 2, *Project Description*, of this EIR.

3.4.2 Environmental Setting

Fossils (paleontological resources) preserve information about ancient animals and plants (University of California Museum of Paleontology n.d.). There are two types of fossils: body fossils (remains of an organism) and trace fossils (e.g., footprints, burrows, trails). Fossils can add to the scientific record by providing information about the anatomy of an organism and clues to its life processes, the successive evolutionary evolution of organisms, and successive colonization of habitats. Fossils are a nonrenewable resource; that is, once destroyed, a fossil cannot be replaced. Fossils represent irreplaceable evidence of past life on the planet (National Park Service 2020).

Fossils occur within geologic units. A geologic unit is a volume of rock or sediment of identifiable origin with an age range that is defined by distinctive and dominant features. Generally, geologic units of middle Holocene age (last approximately 5,000 years) are too recent to yield significant fossils, but geologic units in certain older depositional environments have the potential to yield significant fossils (Society of Vertebrate Paleontology 2010). Significant fossils (or sensitive paleontological resources) are defined by the Society of Vertebrate Paleontology (SVP) (2010) as being “identifiable vertebrate fossils, large or small, uncommon invertebrate, plant, and trace fossils, and other data” that provide information valuable to the scientific community. Geologic units have varying potential to contain significant fossils,¹ called *paleontological sensitivity*.

Mapping in the City shows surficial deposits as Dune sand, Holocene alluvium, Pleistocene nonmarine deposits, and Mesozoic granitic rocks (Rogers 1965, 1967; POWER Engineers and Deméré 2010). The granite rocks ring the lower elevations of the City (POWER Engineers and Deméré 2010). Paleozoic and Mesozoic metamorphic rock, late Mesozoic plutonic rock, and Cretaceous and Cenozoic sedimentary rock underlie the surficial units. Sedimentary geologic units underlying the City that are older than the Holocene (i.e., Dune sand and Holocene alluvium), other than the plutonic units, have the potential to contain significant paleontological resources.

¹ Significant paleontological resource, as defined by SVP, are “identifiable vertebrate fossils, large or small, uncommon invertebrate, plant, and trace fossils, and other data that provide taphonomic, taxonomic, phylogenetic, paleoecologic, stratigraphic, and/or biochronologic information.” (SVP 2010). Paleontological resources are considered to be older than middle Holocene (i.e., older than about 5,000 years).

Significant paleontological resources exist in many areas in Southern California, including in Riverside County near the City. According to the investigation executed by the Natural History Museum of Los Angeles County, several vertebrate fossils have been recovered from unspecified Pleistocene geologic units and the early Pliocene to early Pleistocene San Timoteo Formation (Bell pers. comm.). Fossils that were recovered include *Masticophis* (a genus of whip snake) and members of the Bovidae, Equidae, and Camelidae families. In addition, a south-trending bend in the Santa Ana River yielded fossils from Ice Age mammals, including *Mammuthus* (an extinct genus of mammoth) (Albert A. Webb Associates 2007). Because people collected fossils from the site and lands along the Santa Ana River in this area have been converted to residential development, the previous exposure that yielded the fossils is no longer visible.

The County of Riverside Paleontological Sensitivity Model (County of Riverside Transportation and Land Management Agency 2015) maps paleontological sensitivity throughout Riverside County, including the City of Riverside (Figure 3.4-1). It recognizes four categories of sensitivity: High A, High B, Low, and Undetermined. The County of Riverside defines these categories according to whether the geologic units in the mapped geographies are likely to contain paleontological resources that could be affected by ground disturbance, as described below in Section 3.4.4.

According to the SVP (2010), a geologic unit with undetermined paleontological sensitivity requires a field study by a qualified paleontologist to determine the paleontological potential of this unit before an impact determination and mitigation program can be made. Accordingly, geologic units with High A, High B, and Undetermined paleontological sensitivity have the potential to yield significant paleontological resources.

The County of Riverside Paleontological Sensitivity Model shows that most of the area within the City limits contains geologic units with High A, High B, or Undetermined paleontological sensitivity, with a minority containing geologic units with low paleontological sensitivity. As shown on Figure 3.4-1, the Opportunity Sites are predominantly in areas with High A, High B, and Undetermined paleontological sensitivity, as described further below in Section 3.4.4.

3.4.3 Regulatory Setting

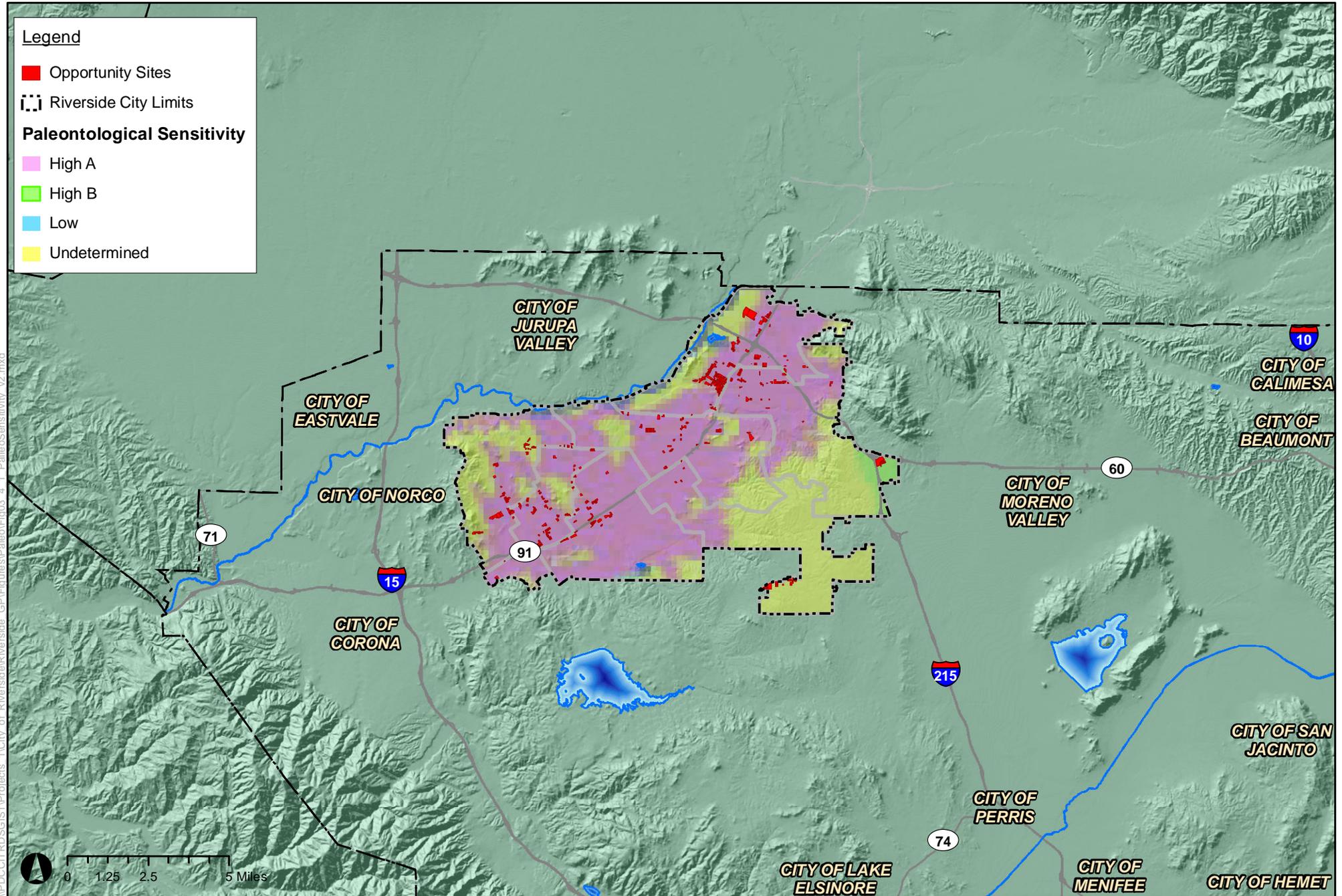
Federal

Several federal regulations address paleontological resources. These statutes generally are applicable to a project if it involves a federal agency license, permit, approval or funding, and/or crosses federal lands.

The Antiquities Act of 1906

The Antiquities Act of 1906 states that any person who appropriates, excavates, injures, or destroys any historic or prehistoric ruin or monument, or any object of antiquity, situated on lands owned or controlled by the Government of the United States, without the permission of the Secretary of the Department of the Government having jurisdiction over the lands on which said antiquities are situated, upon conviction would be fined a sum of not more than 500 hundred dollars or be imprisoned for a period of not more than 90 days, or both, at the discretion of the court. While the act does not specially address paleontological resources, the term “objects of antiquity” has been interpreted by the National Park Service, Bureau of Land Management, Forest Service, and other agencies to include fossils. Permits to collect fossils on federal lands are authorized under this act.

Figure 3.4-1
 Paleontological Sensitivity in the Study Area



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Title 23 United States Code Section 305

This statute amends the Antiquities Act of 1906 and allows for funding for mitigation of paleontological resources on projects funded by federal highway funds. The statute contemplates that “excavated objects and information are to be used for public purposes without private gain to any individual or organization” (*Federal Register* 46(19):9570).

National Registry of Natural Landmarks

The National Natural Landmarks (NNL) Program (16 United States Code 461–467), established in 1962 under the authority of the Historic Sites Act of 1935, recognizes and encourages the conservation of outstanding examples of our country’s natural history. As the only natural areas program of national scope that identifies and recognizes the best examples of biological and geological features in both public and private ownership, the program provides for NNLs to be designated by the Secretary of the Interior, with the owner’s concurrence, as being of *national significance*: one of the best examples of a biological community or geological feature within a natural region of the U.S., including terrestrial communities, landforms, geological features and processes, habitats of native plant and animal species, or fossil evidence of the development of life (36 Code of Federal Regulations 62.2). The National Park Service administers the NNL Program and, if requested, assists NNL owners and managers with the conservation of these important sites.

Paleontological Resources Preservation Act of 2009

The Paleontological Resources Preservation Act is part of the Omnibus Public Land Management Act of 2009 (Public Law 111-11, Title VI, Subtitle D). This act directs the Secretary of the Interior or the Secretary of Agriculture to manage and protect paleontological resources on federal land and develop plans for inventorying, monitoring, and deriving the scientific and educational use of such resources. It prohibits the removal of paleontological resources from federal land without a permit issued under this act, establishes penalties for violation of this act, and establishes a program to increase public awareness about such resources. The bill imposes criminal penalties for violating this act, which include serving up to 10 years in prison if convicted.

State

Paleontological resources are fossilized remains of plants and animals, and associated deposits. Appendix G of the State CEQA Guidelines requires that a determination be made as to whether a project would directly or indirectly destroy a unique paleontological resource or site or unique geological feature.

Public Resources Code Section 5097.5

Public Resources Code Section 5097 addresses paleontological, archaeological, and historic sites on state land that may be disturbed as part of a project being evaluated under CEQA. Public Resources Code Section 5097.5 considers it a misdemeanor to knowingly and willfully excavate upon or remove, destroy, injure, or deface any historic or prehistoric ruins, burial grounds, or archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, rock art, or any other archaeological, paleontological, or historical feature situated on public lands, except with the express permission of the public agency having jurisdiction over the lands.

Local

Table 3.4-1. Relevant Riverside General Plan and Specific Plan Policies

Plan	Policy
Riverside General Plan 2025	
Historic Preservation Element	Policy HP-1.3: The City shall protect sites of archaeological and paleontological significance and ensure compliance with all applicable state and federal cultural resources protection and management laws in its planning and project review process.
Specific Plans	
Canyon Springs Business Park Specific Plan	There are no applicable policies relevant to the Project regarding paleontological resources.
Downtown Specific Plan	There are no applicable policies relevant to the Project regarding paleontological resources.
Hunter Business Park Specific Plan	There are no applicable policies relevant to the Project regarding paleontological resources.
La Sierra University Specific Plan	There are no applicable policies relevant to the Project regarding paleontological resources.
Magnolia Avenue Specific Plan	There are no applicable policies relevant to the Project regarding paleontological resources.
Riverside Marketplace Specific Plan	There are no applicable policies relevant to the Project regarding paleontological resources.
University Avenue Specific Plan	There are no applicable policies relevant to the Project regarding paleontological resources.

Sources: City of Riverside 1991, 2002, 2005, 2007, 2009, 2012, 2017a, 2017b.

Policy Consistency

The Project would be consistent with City policies relating to paleontological resources in the Historic Preservation Element (City of Riverside 2012) through implementation of Mitigation Measures **MM-PAL-1**, **MM-PAL-2**, and **MM-PAL-3**. These measures require future projects enabled by the Project that could potentially affect paleontological resources to evaluate for such resources in both the construction and operational periods, monitor for paleontological resources during construction in areas with high or undetermined paleontological sensitivity, and appropriately record and curate any fossils that have significance for the scientific record that are unearthed.

3.4.4 Methodology and Thresholds of Significance

The following analysis is based on information presented in a report from the California Museum of Paleontology describing fossils retrieved near the City (Bell pers. comm.), a report prepared for Riverside Public Utilities regarding the City (POWER Engineers and Deméré 2010), and the County of Riverside Paleontological Sensitivity Model. The analysis evaluates the likelihood of significant paleontological resources being present in geologic units with high paleontological sensitivity in the City.

The *Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources* by the SVP (Society of Vertebrate Paleontology 2010) include procedures for the investigation, collection, preservation, and cataloguing of fossil-bearing sites, including the

designation of paleontological sensitivity. These standard guidelines are widely accepted among paleontologists and are followed by most investigators. The standard guidelines identify the two key phases of paleontological resource protection as (1) assessment and (2) implementation. Assessment involves identifying the potential for a project site or area to contain significant nonrenewable paleontological resources that could be damaged or destroyed by project excavation or construction. Implementation involves formulating and applying measures to reduce such adverse effects.

The methods used to analyze potential impacts on paleontological resources for the Project and develop mitigation for the identified impacts followed the SVP's standard guidelines.

- Assessment
 - Identify the geologic units that would be affected by the Project, based on the Project's depth of excavation—either at ground surface or below ground surface.
 - Evaluate the potential of the identified geologic units to contain significant fossils (paleontological sensitivity).
 - Identify impacts on paleontologically sensitive geologic units as a result of near-term and longer-term construction and operation that involve ground disturbance.
 - Evaluate impact significance.
- Implementation
 - According to the identified degree of sensitivity, formulate and implement measures to mitigate potential impacts.

For the assessment phase, this analysis is based on paleontological sensitivity as described by County of Riverside Transportation and Land Management Agency (2015), which identifies four levels of paleontological sensitivity in geologic units within the county: Low, Undetermined, High A, and High B.

Low: Previous field surveys and documentation demonstrate that geologic units identified as having low paleontological sensitivity have a low potential for containing paleontological resources. However, the mapping could be incomplete; for example, an area mapped as having low sensitivity could in some areas be a thin, surficial layer of non-fossiliferous sediments that covers fossil-rich sediments. Therefore, actual paleontological sensitivity must be determined by a records search and a field inspection by a qualified paleontologist.

Undetermined: No existing field surveys or documentation describe the paleontological potential for geologic units identified as having undetermined paleontological sensitivity. Therefore, actual paleontological sensitivity must be determined by a field inspection by a qualified paleontologist.

High A: Existing field surveys or documentation demonstrate that geologic units with High A paleontological sensitivity either contain significant paleontological resources or have the correct age and depositional conditions to contain them.

High B: This paleontological sensitivity is similar to High A, except that this unit is based on the occurrence of significant paleontological resources at least 4 feet below ground surface; accordingly, excavation during construction could damage any such resources.

The potential of the Project to affect paleontological resources relates to ground disturbance. Geologic units in the City with potential to underlie the Opportunity Sites were identified through California Geological Survey regional maps (Rogers 1965, 1967). Determination of presence of paleontological resources in the units was based on the fossil record within these geologic units as documented by the Natural History Museum of Los Angeles County, technical literature (POWER Engineers and Deméré 2010), and the University of California Museum of Paleontology (2021). In addition, paleontological sensitivity mapping for Riverside County was consulted.

After the records search noted in Section 3.4.2, *Environmental Setting*, the paleontological sensitivity of the geologic units was assessed according to the County of Riverside's Paleontological Sensitivity Model (County of Riverside Transportation and Land Management Agency 2015).

For the purposes of this analysis, an impact on paleontological resources was considered significant and to require mitigation if it would result in any of the following:

- Damage to or destruction of vertebrate paleontological resources
- Damage to or destruction of any paleontological resource that:
 - Provides important information about evolutionary trends, including the development of biological communities;
 - Demonstrates unusual circumstances in the history of life;
 - Represents a rare taxon or a rare or unique occurrence;
 - Is in short supply and in danger of being destroyed or depleted;
 - Has a special and particular quality, such as being the oldest of its type or the best available example of its type; or
 - Provides information used to correlate strata for which it may be difficult to obtain other types of age dates.

Thresholds of Significance

An Initial Study was prepared for the Project in April 2021. In accordance with Appendix G of the State CEQA Guidelines, the Project would be considered to have a significant effect if it would:

- Result in direct or indirect destruction of a unique paleontological resource or site or unique geologic feature

3.4.5 Impacts and Mitigation Measures

This section describes potential impacts on paleontological resources that could result from implementation of the Project and recommends mitigation measures as needed to reduce significant impacts.

Impact PAL-1: The Project could directly or indirectly destroy a unique paleontological resource or site. Implementation of Mitigation Measures PAL-1, PAL-2, and PAL-3 would reduce this impact to less-than-significant levels.

Housing Element Update, Zoning Code Amendments, and Environmental Justice Policies

Because paleontological resources are generally located below the ground surface, ground disturbance associated with construction, such as excavating, grading, and resurfacing, in a geologic unit that may contain significant fossils could affect paleontological resources that may be present at the site. The proposed Housing Element Update and Zoning Code and Specific Plan amendments would enable future development and the construction of new housing, public safety infrastructure, and mixed-use development. Accordingly, future developments facilitated by the proposed Housing Element Update and Zoning Code and Specific Plan amendments could involve ground disturbance as a result of either construction activities or maintenance. Depending on the depth of disturbance and how far below ground surface the paleontological resources may be located, these ground disturbances have the potential to damage or destroy such resources. However, in identifying Opportunity Sites, attempts have been made to eliminate locations with high paleontological sensitivity.

As discussed above, the County of Riverside Paleontological Sensitivity Model shows that most of the area within the City limits contains geologic units with High A, High B, or Undetermined paleontological sensitivity, with a minority containing geologic units with Low paleontological sensitivity. Because the Opportunity Sites facilitated by the Project are situated throughout the City, it is likely that some of these Opportunity Sites are on geologic units with High A or Undetermined paleontological sensitivity. Project construction could disturb previously unknown significant fossils, potentially damaging or destroying these fossils. Future development facilitated by the Project could also result in the need for operations-period ground disturbance, such as landscaping or maintenance. Depending on the location and depth of ground disturbance, proposed operations could disturb previously unknown significant fossils, potentially damaging or destroying such fossils.

GP 2025 Policy HP-1.3 protects paleontological resources. The policy states that the City shall protect sites of archaeological and paleontological significance and ensure compliance with all applicable state and federal cultural resources protection and management laws in its planning and project review process. However, despite compliance with Policy HP-1.3, impacts would remain potentially significant. Implementation of Mitigation Measures **MM-PAL-1**, **MM-PAL-2**, and **MM-PAL-3** would reduce impacts to less-than-significant levels by requiring the project applicant and/or private developer and the City to identify whether future development sites are in areas of high or undetermined paleontological sensitivity and could have a substantial adverse effect on the significance of unique paleontological resources. If so, a Paleontological Mitigation Plan would be developed that would provide for salvage, curation, and reporting of any paleontological resources uncovered during ground disturbance.

Policies and implementing actions related to environmental justice under the proposed Housing Element Update would not enable future development or the construction of new housing, public safety infrastructure, and mixed-use development. Rather, these policies and implementing actions describe how future development and construction would be implemented with respect to housing

design, affordable housing, and access to healthy and affordable foods. Implementation of these policies and implementing actions would not affect paleontological resources.

Public Safety Element Update and Environmental Justice Policies

The Public Safety Element could facilitate development of new public infrastructure. Accordingly, future developments facilitated by the Project could involve ground disturbance. Depending on the depth of disturbance and how far below ground surface the paleontological resources may be located, these ground disturbances have the potential to damage or destroy such resources.

As discussed above, the County of Riverside Paleontological Sensitivity Model shows that most of the area within the City limits contains geologic units with High A, High B, or Undetermined paleontological sensitivity, with a minority containing geologic units with Low paleontological sensitivity. Because the development facilitated by the revised Public Safety Element under the Project would be situated throughout the City, it is likely that some of these sites are on geologic units with High A, High B, or Undetermined paleontological sensitivity. Construction of future development could disturb previously unknown significant fossils, potentially damaging or destroying these fossils. It is unlikely that operation of the Project would include ground-disturbing activities. However, future development facilitated by the Project could result in the need for operations-period ground disturbance, such as landscaping or maintenance. Depending on the location and depth of ground disturbance, proposed operations could disturb previously unknown significant fossils, potentially damaging or destroying such fossils.

GP 2025 Policy HP-1.3 protects paleontological resources. The policy states that the City shall protect sites of archaeological and paleontological significance and ensure compliance with all applicable state and federal cultural resources protection and management laws in its planning and project review process. However, despite compliance with Policy HP-1.3, impacts would remain potentially significant. Implementation of Mitigation Measures **MM-PAL-1**, **MM-PAL-2**, and **MM-PAL-3** would reduce impacts to less-than-significant levels by requiring the project applicant or sponsor and the City to identify whether the future development sites are in areas of high paleontological sensitivity and could have a substantial adverse effect on the significance of unique paleontological resources. If so, relevant construction and operations activities of the Project would be redesigned to avoid impacts, or else paleontological monitoring would be undertaken that would provide for salvage, curation, and reporting of any paleontological resources uncovered during ground disturbance.

Policies and implementing actions related to environmental justice under the proposed Public Safety Element Update would not enable future development or the construction of new housing, public safety infrastructure, and mixed-use development. Rather, these policies and implementing actions describe treatment of hazardous materials associated with contaminated sites within environmental justice communities; ensure access to affordable housing, health care, and emergency services; consider the needs of environmental justice communities in planning for emergency response and recovery; consider health implications for land use decisions that could involve hazardous uses; and minimize the potential for vehicular and pedestrian accidents in underserved areas. Implementation of these policies and implementing actions would not affect paleontological resources.

Mitigation Measures

The potential impacts of the Project described in this section would be reduced to less-than-significant levels with implementation of the following mitigation measures.

MM-PAL-1: Conduct paleontological resources investigations.

During the development review process and prior to construction on Opportunity Sites that are located on geologic units with Undetermined, High A, or High B paleontological sensitivity, the project applicant shall conduct paleontological resource investigations consistent with SVP guidelines. This process shall include:

- Conducting a paleontological records search through the Los Angeles County Natural History Museum to identify previously recorded paleontological localities and the presence of sensitive deposits in the City
- Reviewing Opportunity Site design and maximum depths and extents of Project ground disturbance components
- Reviewing publicly available geotechnical reports for information concerning subsurface deposits and deposit depths across the City
- Identifying the potential for sensitive paleontological deposits underlying the Opportunity Site that project implementation could affect
- Determining whether impacts on sensitive deposits, if present, would be significant.

If no sensitive deposits are identified or if they are sufficiently deeper than the Opportunity Site excavations and would not be encountered during construction, no further steps shall be required. If sensitive deposits are identified and could be affected by development of the Opportunity Sites, implement Mitigation Measure **MM-PAL-2**.

Opportunity Site projects that propose accessory dwelling units are not expected to have paleontological resource impacts and no additional assessment is necessary.

MM-PAL-2: Avoid paleontological resources or conduct monitoring.

The applicant shall redesign the Opportunity Site development to avoid sensitive paleontological resources and deposits that could potentially contain these resources. If avoidance and/or Opportunity Site redesign is infeasible, then paleontological monitoring shall be implemented and shall include the following implementation steps:

- The applicant shall retain a qualified paleontologist, who shall attend the preconstruction meeting(s) to consult with the grading and excavation contractors or subcontractors concerning excavation schedules, paleontological field techniques, and safety issues. A qualified paleontologist is defined as an individual who (1) has an MS or PhD in paleontology or geology and/or a publication record in peer-reviewed journals; (2) also has demonstrated familiarity with paleontological procedures and techniques; (3) is knowledgeable in the geology and paleontology of the county; (4) has proficiency in recognizing fossils in the field, determining their significance, and collecting vertebrate fossils in the field; and (5) has worked as a paleontological mitigation project supervisor in the county for at least 1 year.
- A paleontological monitor or a qualified paleontologist shall be on site on a full-time basis during excavation and ground-disturbing activities that occur in any undisturbed deposits below ground surface, to inspect exposures for contained fossils. The paleontological monitor shall work under the direction of the Project's qualified paleontologist. A paleontological monitor is defined as an individual selected by the qualified paleontologist

who has experience in the collection and salvage of fossil materials. If fossils that have significance for the scientific record are discovered on a development site, the qualified paleontologist shall recover them and temporarily direct, divert, or halt grading to allow recovery of fossil remains.

- The qualified paleontologist shall be responsible for the cleaning, repairing, sorting, and cataloguing of fossil remains collected during the monitoring and salvage portion of the mitigation program.
- Prepared fossils, along with copies of all pertinent field notes, photos, and maps, shall be deposited (as a donation) at a scientific institution with permanent paleontological collections, such as the Los Angeles County Natural History Museum.
- Within 30 days after the completion of excavation and ground-disturbing activities, the qualified paleontologist shall prepare and submit to the City of Riverside Community & Economic Development Department, Planning Division a paleontological resource recovery report that documents the results of the mitigation program. This report shall include discussions of the methods used, stratigraphic section(s) exposed, fossils collected, and significance of recovered fossils.

Opportunity Site projects that propose accessory dwelling units are not expected to have paleontological resource impacts and no additional assessment is necessary.

MM-PAL-3: Avoid/minimize impacts on paleontological resources during operations.

If significant paleontological resources and sensitive deposits with the potential to contain significant paleontological resources are identified within an Opportunity Site area during design/planning (Mitigation Measures **MM-PAL-1** and **MM-PAL-2**), and deposits that are sensitive for significant paleontological resources remain exposed at or near the ground surface or become exposed during project operations, then an avoidance and minimization plan shall be prepared to avoid/minimize potential impacts during operations. This plan may include, but not be limited to:

- Securing sensitive deposits from accessibility through the development of exclusion zones
- Preparing an operations and maintenance plan to minimize degradation and exposure of sensitive deposits
- Designing and developing interpretive exhibits to provide education and understanding of the importance of avoiding and protecting sensitive deposits and paleontological resources

If significant impacts on a newly exposed or existing significant paleontological resource cannot be avoided, then Mitigation Measure **MM-PAL-2** shall be implemented.

3.5 Greenhouse Gas Emissions

3.5.1 Introduction

This section describes the environmental and regulatory setting for greenhouse gas (GHG) emissions, discusses GHG impacts that would result from the Project, determines the significance of impacts, and identifies mitigation measures that would reduce significant impacts, where feasible. The analysis methods, data sources, significance thresholds, and terminology used are described. Details on the location of the Project and a description of Project activities are included in Chapter 2, *Project Description*, of this EIR.

GHG emissions refer to airborne pollutants that affect global climate conditions. These gaseous pollutants have the effect of trapping heat in the atmosphere and consequently altering weather patterns and climatic conditions over long timescales. Therefore, unlike other resource areas that are primarily concerned with localized Project impacts (e.g., within 1,000 feet of a Project site), the global nature of climate change requires a broader analytic approach. Accordingly, whereas the GHG analysis focuses on emissions generated from activities in the City of Riverside (City), the climate change analysis area includes the global context. Please refer to Section 3.1, *Air Quality*, for a discussion of criteria pollutants and air quality.

3.5.2 Environmental Setting

Global Climate Change

The phenomenon known as the *greenhouse effect* keeps the atmosphere near the Earth's surface warm enough for the successful habitation of humans and other life forms. GHGs include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), perfluorinated carbons (PFCs), sulfur hexafluoride (SF₆), and hydrofluorocarbons (HFCs), in addition to water vapor. These six gases are also identified as GHGs in Section 15364.5 of the State CEQA Guidelines.

Sunlight in the form of infrared, visible, and ultraviolet light passes through the atmosphere. Some of the sunlight striking the Earth is absorbed and converted to heat, which warms the surface. The surface emits infrared radiation to the atmosphere, where some of it is absorbed by GHGs and re-emitted toward the surface. Human activities that emit additional GHGs to the atmosphere increase the amount of infrared radiation that gets absorbed before escaping into space, thus enhancing the greenhouse effect and amplifying the warming of the Earth (National Park Service 2020).

Increases in fossil fuel combustion and deforestation have exponentially increased concentrations of GHGs in the atmosphere since the Industrial Revolution. Rising atmospheric concentrations of GHGs in excess of natural levels enhance the greenhouse effect, which contributes to global warming of the Earth's lower atmosphere. This warming induces large-scale changes in ocean circulation patterns, precipitation patterns, global ice cover, biological distributions, and other changes to the Earth system that are collectively referred to as *climate change* (IPCC 2007).

GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants. Criteria air pollutants and toxic air contaminants occur locally or regionally, and local concentrations respond to locally implemented control measures. However, the long atmospheric lifetimes of GHGs allow them to be transported great distances from sources and become well mixed, unlike criteria air

pollutants, which typically exhibit strong concentration gradients away from point sources. GHGs and global climate change represent cumulative impacts; that is, GHG emissions contribute, on a cumulative basis, to the significant adverse environmental impacts of global climate change.

Principal Greenhouse Gases

The GHGs listed by the Intergovernmental Panel on Climate Change (IPCC) (CO₂, CH₄, N₂O, HFCs, PFCs, and SF₆) (2014) are discussed in this section in order of abundance in the atmosphere, and the principal characteristics surrounding these pollutants are discussed below. California law and the State CEQA Guidelines contain a similar definition of GHGs (Health and Safety Code Section 38505(g); 14 California Code of Regulations 15364.5). Water vapor, the most abundant GHG, is not included in this list because its natural concentrations and fluctuations far outweigh its anthropogenic (human-made) sources. Consequently, the primary GHGs of concern associated with the Project are CO₂, CH₄, and N₂O. Note that HFCs, PFCs, and SF₆ are not discussed because those gases would be insignificant or are primarily generated by processes that are not anticipated as part of the Project.

- **Carbon Dioxide (CO₂)** enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, respiration, and also as a result of other chemical reactions (e.g., manufacture of cement). CO₂ is also removed from the atmosphere (or “sequestered”) when it is absorbed by plants as part of the biological carbon cycle.
- **Methane (CH₄)** is emitted during the production and transport of coal, natural gas, and oil. CH₄ also results from livestock and other agricultural practices and by the decay of organic waste in municipal solid waste landfills.
- **Nitrous Oxide (N₂O)** is emitted during agricultural and industrial activities, as well as during combustion of fossil fuels and solid waste.

Methods have been set forth to describe emissions of GHGs in terms of a single gas to simplify reporting and analysis. The most commonly accepted method to compare GHG emissions is the global warming potential (GWP) methodology defined by the IPCC. IPCC defines the GWP of various GHG emissions on a normalized scale that recasts all GHG emissions in terms of CO₂ equivalent (CO₂e), which compares the gas in question to that of the same mass of CO₂ (which has a GWP of 1 by definition). The GWP values used in this section are based on the IPCC Fourth Assessment Report and United Nations Framework Convention on Climate Change reporting guidelines and are defined in Table 3.5-1 (IPCC 2007). The Fourth Assessment Report GWP values are consistent with those used in the California Air Resources Board’s (CARB’s) 2018 California GHG inventory and *California’s 2017 Climate Change Scoping Plan* (CARB 2017, 2020).

Table 3.5-1. Lifetimes, GWPs, and Abundances of Significant GHGs

Gas	GWP (100 years)	Lifetime (years) ¹	Atmospheric Abundance
CO ₂	1	50–200	400 ppm
CH ₄	25	9–15	1,834 ppb
N ₂ O	298	121	328 ppb

Sources: CARB 2020; IPCC 2007.

¹ Defined as the half-life of the gas.

ppm = parts per million; ppb = parts per billion

Greenhouse Gas Inventories

A GHG inventory is a quantification of all GHG emissions and sinks¹ within a selected physical and/or economic boundary. GHG inventories can be performed on a large scale (e.g., for global and national entities) or on a small scale (e.g., for a particular building or person). Although many processes are difficult to evaluate, several agencies have developed tools to quantify emissions from certain sources.

Table 3.5-2 outlines the most recent global, national, statewide, and local GHG inventories to help contextualize the magnitude of potential Project-related emissions. The inventory for the City is provided for both community and municipal operations. The community inventory represents the GHG emissions resulting from activities within the City's boundaries where the local government has jurisdictional authority, and generally includes sources that the community can influence or control. The municipal inventory includes GHG emissions that are generated by the services and municipal operations of the local government. For the City, the municipal inventory includes the GHG emissions from Municipal Power Generation by Riverside Public Utilities (RPU).

Table 3.5-2. Global, National, State, and Local GHG Emissions Inventories

Emissions Inventory	CO ₂ e (metric tons)
2010 IPCC Global GHG Emissions Inventory	49,000,000,000
2019 EPA National GHG Emissions Inventory	6,577,200,000
2018 CARB State GHG Emissions Inventory	425,300,000
2010 City of Riverside GHG Emissions Inventory	-
<i>Community</i>	<i>2,617,540</i>
<i>Municipal¹</i>	<i>943,466</i>

Sources: IPCC 2015; EPA 2021; CARB 2020; City of Riverside 2016.

¹ The municipal inventory includes emissions associated with RPU, which provides water and electricity services to the City. Most (91%) of the Municipal inventory is associated with RPU electricity generation (837,170 metric tons of CO₂e) and water transport within the service area boundaries (19,471 metric tons of CO₂e). RPU is included in the municipal inventory and not in the community inventory.

3.5.3 Regulatory Setting

Federal

Under the Obama Administration, the U.S. Environmental Protection Agency (EPA) had been developing GHG regulations under the Clean Air Act (CAA) pursuant to EPA's authority. There have also been settlement agreements among EPA, several states, and nongovernmental organizations to address GHG emissions from electric generating units and refineries, as well as EPA's issuance of an "Endangerment Finding" and a "Cause or Contribute Finding." EPA has also adopted a Mandatory Reporting Rule and Clean Power Plan. Under the Clean Power Plan, EPA issued regulations to control CO₂ emissions from new and existing coal-fired power plants. However, on February 9, 2016, the U.S. Supreme Court issued a stay of these regulations pending litigation. Former EPA Administrator Scott Pruitt signed a measure to repeal the Clean Power Plan in October 2017.

¹A GHG sink is a process, activity, or mechanism that removes a GHG from the atmosphere.

While there is currently no federal overarching law specifically related to climate change or the reduction of GHG emissions, fuel standards have been adopted to reduce GHG emissions from cars and light-duty trucks and recent amendments have been proposed.

Corporate Average Fuel Economy Standards

As discussed in Section 3.1, *Air Quality*, the Corporate Average Fuel Economy Standards were first enacted in 1975 to improve the average fuel economy of cars and light duty trucks.

On August 2, 2018, the National Highway Traffic Safety Administrative (NHTSA) and EPA proposed to amend the fuel efficiency standards for passenger cars and light trucks and establish new standards covering model years 2021 through 2026 by maintaining the current model year 2020 standards through 2026 (Safer Affordable Fuel-Efficient [SAFE] Vehicles Rule). On September 19, 2019, EPA and NHTSA issued a final action on the One National Program Rule, which is considered Part One of the SAFE Vehicles Rule and a precursor to the proposed fuel efficiency standards. The One National Program Rule enables EPA/NHTSA to provide nationwide uniform fuel economy and GHG vehicle standards, specifically by (1) clarifying that federal law preempts state and local tailpipe GHG standards, (2) affirming NHTSA's statutory authority to set nationally applicable fuel economy standards, and (3) withdrawing California's CAA preemption waiver to set state-specific standards.

EPA and NHTSA published their decisions to withdraw California's waiver and finalize regulatory text related to the preemption on September 27, 2019 (84 *Federal Register* 51310). California, 22 other states, the District of Columbia, and two cities filed suit against Part One of the SAFE Vehicles Rule on September 20, 2019 (*California et al. v. United States Department of Transportation et al.*, 1:19-cv-02826, U.S. District Court for the District of Columbia). On October 28, 2019, the Union of Concerned Scientists, Environmental Defense Fund, and other groups filed a protective petition for review after the federal government sought to transfer the suit to the D.C. Circuit (*Union of Concerned Scientists v. National Highway Traffic Safety Administration*). The lawsuit filed by California and others is stayed pending resolution of the petition.

EPA and NHTSA published final rules to amend and establish national CO₂ and fuel economy standards on April 30, 2020 (Part Two of the SAFE Vehicles Rule) (85 *Federal Register* 24174). The revised rule changes the national fuel economy standards for light-duty vehicles from 50.4 to 40.5 miles per gallon in future years. This new rule rolls back California fuel efficiency standards for on-road passenger vehicles. California, 22 other states, and the District of Columbia filed a petition for review of the final rule on May 27, 2020, to challenge this new rule in the court system; it is reasonably foreseeable that the state will be successful in its legal challenges, for the reasons outlined in the state's lawsuit and on the CARB website. Furthermore, on January 20, 2021, President Biden signed an executive order directing the government to revise fuel economy standards with the goal of further reducing emissions. In February 2021, the Biden Administration's Department of Justice also asked courts to put the litigation on hold while the administration "reconsidered the policy decisions of a prior administration." Most recently, on April 22, 2021, the Biden Administration proposed to formally roll back portions of the SAFE Rule, thereby restoring California's right to enforce more stringent fuel efficiency standards.

State

California has adopted statewide legislation to address various aspects of climate change and provide GHG mitigation. Much of this establishes a broad framework for the state's long-term GHG-reduction goals as well as the climate change adaptation program. Governors of California, both former and current, have also issued executive orders (EOs) related to the state's evolving climate change policy. Summaries of the key policies, EOs, regulations, and state legislation relevant to the Project are provided below in chronological order.

Executive Order S-03-05 (2005)

EO S-03-05 was designed to reduce California's GHG emissions to (1) 2000 levels by 2010, (2) 1990 levels by 2020, and (3) 80 percent below 1990 levels by 2050.

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

Assembly Bill (AB) 32 codified the state's GHG emissions target by requiring California's global warming emissions to be reduced to 1990 levels by 2020. Since being adopted, CARB, the California Energy Commission (CEC), the California Public Utilities Commission, and the California Building Standards Commission have been developing regulations that will help the state meet the goals of AB 32 and EO S-03-05. The AB 32 Scoping Plan, first adopted in 2008, is the state's roadmap for meeting AB 32's reduction target. This initial Scoping Plan for AB 32 identifies specific measures for reducing GHG emissions to 1990 levels by 2020 and requires CARB and other state agencies to develop and enforce regulations and other initiatives to reduce GHG emissions. Specifically, the Scoping Plan articulates a key role for local governments by recommending that they establish GHG emissions reduction goals for both municipal operations and the community that are consistent with those of the state (i.e., approximately 15 percent below current levels) (CARB 2008). CARB approved the *First Update to the Climate Change Scoping Plan* on May 22, 2014 (CARB 2014), which includes both a 2020 element and a post-2020 element. The 2020 element focuses on the state, regional, and local initiatives that were implemented to help the state meet the 2020 goal. The *2017 Climate Change Scoping Plan Update* was adopted in December 2017 and proposes strategies to achieve California's 2030 GHG emissions target. This plan is discussed in further detail under *Senate Bill 32*, below.

Low Carbon Fuel Standard (2007)

With EO S-01-07, Governor Schwarzenegger set forth the low-carbon fuel standard (LCFS) for California in 2007. Under this EO, the carbon intensity of California's transportation fuels is to be reduced by at least 10 percent by 2020. In September 2018, the LCFS regulation was amended to increase the statewide goal to a 20-percent reduction in carbon intensity of California's transportation fuels by 2030.

Senate Bill 375—Sustainable Communities Strategy (2008)

Senate Bill (SB) 375 provides for a new planning process that coordinates land use planning, regional transportation plans (RTPs), and funding priorities, originally in order to help California meet the GHG-reduction goals established in AB 32. SB 375 requires RTPs to incorporate a "sustainable communities strategy" (SCS). The goal of the SCS is to reduce regional vehicle miles traveled (VMT) through land use planning and consequent transportation patterns. SCS measures

include transportation demand management, transportation system management, and pricing. SB 375 also includes provisions for streamlined CEQA review for some infill projects such as transit-oriented development. In 2018, CARB revised the Southern California Association of Governments' (SCAG's) GHG target for per-capita emissions reductions to 8 percent by 2020 and 19 percent by 2035 based on a 2005 baseline.

Senate Bills 1078, 107, and 2 (2011)

SBs 1078 (2002), 107 (2006) and 2 (2011), California's Renewables Portfolio Standard (RPS), obligates investor-owned utilities, publicly owned utilities, energy service providers, and Community Choice Aggregators to procure generation to serve retail sales from eligible renewable sources with the long-range target of procuring 33 percent of retail sales from renewable resources by 2020. The California Public Utilities Commission and California Energy Commission are jointly responsible for implementing the program.

Cap-and-Trade (2011, 2017)

CARB adopted the Cap-and-Trade program in October 2011. The California Cap-and-Trade program is a market-based system with an overall emissions limit for affected emission sources. Affected sources include in-state electricity generators, hydrogen production, petroleum refining, and other large-scale manufacturers and fuel suppliers and distributors. The original Cap-and-Trade program set a compliance schedule through 2020. AB 398 extends the program through 2030 and requires CARB to make refinements, including establishing a price ceiling. Revenue generated from the Cap-and-Trade program are used to fund various programs. AB 398 (2017) established post-2020 funding priorities, to include (1) Air Toxics and Criteria Pollutants, (2) Low and Zero Carbon Transportation, (3) Sustainable Agricultural Practices, (4) Healthy Forests and Urban Greening, (5) Short-lived Climate Pollutants, (6) Climate Adaptation and Resiliency, and (7) Climate and Clean Energy Research.

California Energy Efficiency Standards for Non-Residential Buildings—Green Building Standards Code (2019) and Title 24 Update (2020)

The California Green Building Standards Code (CALGreen) applies to the planning, design, operation, construction, use, and occupancy of newly constructed buildings. It requires the installation of energy- and water-efficient indoor infrastructure for all new projects. CALGreen also requires newly constructed buildings to develop a waste management plan and divert at least 65 percent of the construction materials generated during construction.

Administrative regulations to CALGreen Part 11 and the California Building Energy Efficiency Standards were adopted in 2019 and took effect on January 1, 2020. Part 11 also established standards related to sustainable site development, energy efficiency, water conservation, material conservation, and internal air contaminants.

The 2019 standards take the final step toward achieving zero net energy for newly constructed residential buildings throughout California with requirements such as solar voltaic systems for new homes and encouragement of demand-responsive technologies (e.g., battery storage, heat pump water heaters) to improve energy savings. CEC estimates that the current 2019 standards will result in approximately 30 percent less energy from nonresidential buildings than those designed in compliance with the 2016 standards. These energy savings are due primarily to the required

lighting upgrades with the current standards. Future standards are expected to require zero net energy for newly constructed commercial buildings.

Short-Lived Climate Pollutant Strategy (2013)

SB 1383, adopted in 2013, requires CARB to develop and implement a Short-Lived Climate Pollutant (SLCP) Strategy with the following 2030 goals: 40-percent reduction in CH₄; 40-percent reduction in HFC gases; and 50-percent reduction in anthropogenic black carbon below 2013 levels. Per its directive, CARB adopted the SLCP Strategy, establishing a path to decrease SLCPs from various sectors of the economy. Strategies span from wastewater and landfill practices and CH₄ recovery to reducing natural gas leaks and consumption. The SLCP strategy also identifies measures that can reduce HFC emissions through incentive programs and limitations on the use of high-GWP refrigerants in new refrigeration and air-conditioning equipment.

Senate Bill 350 (2015)

SB 350 (De Leon, also known as the Clean Energy and Pollution Reduction Act of 2015) was approved by the California legislature in September 2015 and signed by Governor Brown in October 2015. Its key provisions call for the following by 2030: (1) achieving an RPS of 50 percent by 2030 and (2) doubling the efficiency of existing buildings.

Senate Bill 32, California Global Warming Solutions Act of 2006: Emissions Limit; and Assembly Bill 197, State Air Resources Board, Greenhouse Gases, Regulations (2016)

SB 32 (Pavley) requires CARB to ensure that statewide GHG emissions will be reduced to at least 40 percent below the 1990 level by 2030, consistent with the target set forth in EO B-30-15. AB 197 requires formation of the Joint Legislative Committee on Climate Change Policies; requires CARB to prioritize direct emissions reductions from stationary sources, mobile sources, and other sources and consider social costs when adopting regulations to reduce GHG emissions beyond the 2020 statewide limit; requires CARB to prepare reports on sources of GHGs, criteria air pollutants, and toxic air contaminants; establishes 6-year terms for voting members of CARB; and adds two legislators as non-voting members of CARB. Both bills were signed by Governor Brown in September 2016.

CARB approved the 2017 Climate Change Scoping Plan Update in December 2017 to build on the programs set in place as part of the previous Scoping Plan, which was drafted to meet the 2020 reduction targets of AB 32. The 2017 Scoping Plan proposes meeting the 2030 goal by accelerating the focus on zero and near-zero technologies for moving freight; continuing investment in renewables; relying on greater use of low-carbon fuels, including hydrogen; implementing stronger efforts to reduce emissions of SLCPs (e.g., CH₄, black carbon, fluorinated gases); overseeing further efforts to create walkable communities with expanded mass transit and other alternatives to traveling by car; continuing the Cap-and-Trade program; and ensuring that natural lands become carbon sinks to provide additional emissions reductions and flexibility in meeting the target. The Scoping Plan update also recommends that local governments achieve community-wide efficiency through the use of targets that call for 6 metric tons of CO₂e (MTCO₂e) per capita by 2030 and 2 MTCO₂e per capita by 2050, targets that can be used in local climate action planning. These efficiency targets would replace the “15 percent below 2008 levels by 2020” approach recommended in the initial Scoping Plan.

Senate Bill 100 (2018)

SB 100 (De León), also known as the California Renewables Portfolio Standard Program: Emissions of Greenhouse Gases, was approved by the California Legislature and signed by Governor Brown in September 2018. The bill increases the RPS in 2030 from 50 to 60 percent and establishes an RPS goal of 100 percent by 2045.

Executive Order B-55-18 (2018)

EO B-55-18 was approved by the California Legislature and signed by Governor Brown in September 2018. The order establishes a statewide goal that calls for achieving carbon neutrality by no later than 2045 as well as achieving and maintaining net negative emissions thereafter. Although this EO has not been codified in law, it directs CARB to ensure that future climate change Scoping Plans identify and recommend measures for achieving the carbon neutrality goal.

Regional

South Coast Air Quality Management District

As discussed in Section 3.1, *Air Quality*, the South Coast Air Quality Management District (SCAQMD) has primary responsibility for development and implementation of rules and regulations to attain the National Ambient Air Quality Standards and California Ambient Air Quality Standards as well as permitting new or modified sources, developing air quality management plans, and adopting and enforcing air pollution regulations within the South Coast Air Basin. CARB's Scoping Plans do not provide an explicit role for local air districts with respect to implementing the reduction goals of SB 32 and AB 32, but CARB does state that it will work actively with air districts in coordinating emissions reporting, encouraging and coordinating GHG reductions, and providing technical assistance in quantifying reductions. The ability of air districts to control emissions (both criteria pollutants and GHGs) is provided primarily through permitting but also through their role as a CEQA lead or commenting agency, the establishment of CEQA thresholds, and the development of analytical requirements for CEQA documents.

On December 5, 2008, the SCAQMD Governing Board considered draft GHG guidance and adopted a staff proposal for an interim GHG significance threshold of 10,000 MTCO_{2e} per year for industrial permitting projects where SCAQMD is the lead agency. The board letter, resolution, interim GHG significance threshold, draft guidance document, and attachments can be found under Board Agenda Item 31 of the December 5, 2008, Governing Board Meeting Agenda (SCAQMD 2008). In its draft guidance document, SCAQMD included evidence and rationale for developing thresholds, specifically citing State CEQA Guidelines §15064.7(a) ("each public agency is encouraged to develop and publish thresholds of significance that the agency uses in the determination of the significance of environmental effects") and Subsection (b) ("Thresholds of significance to be adopted for general use as part of the lead agency's environmental review process must be adopted by ordinance, resolution, rule or regulation, and developed through a public review process and be supported by substantial evidence"). SCAQMD developed thresholds for both stationary sources and land use development projects. SCAQMD's recommended GHG significance threshold underwent a public review process as part of stakeholder working group meetings that were open to the public. The draft guidance document provides the supporting analysis and methodology for developing the GHG significance thresholds for both stationary sources and land use development projects. After completion of the public process, the proposed interim thresholds for land use development

projects were brought to the SCAQMD Governing Board but were not formally adopted, while the threshold involving industrial permitting projects where SCAQMD is lead agency was adopted.

For industrial processes, SCAQMD has formally adopted a 10,000 MTCO_{2e} threshold for industrial (permitted) facilities where SCAQMD is the lead agency. This industrial source threshold is not appropriate for use on the Project because it is not associated with industrial processes.

SCAQMD noted that the proposed interim GHG significance thresholds for evaluation of land use development projects was only a recommendation for lead agencies and not a mandatory requirement. The GHG significance threshold may be used at the discretion of the local lead agency. The draft GHG guidance identified a tiered approach for determining the significance of GHG emissions, one of which included the use of numerical screening thresholds. With respect to numerical GHG significance thresholds, SCAQMD proposed two different approaches to be taken by lead agencies when analyzing GHG emissions:

- Option #1 includes using separate numerical thresholds for residential projects (3,500 MTCO_{2e}/year), commercial projects (1,400 MTCO_{2e}/year), and mixed-use projects (3,000 MTCO_{2e}/year).
- Option #2 is use of a single numerical threshold for all non-industrial projects of 3,000 MTCO_{2e}/year. SCAQMD's most recent recommendation per its September 2010 meeting minutes is to use option #2 (SCAQMD 2010).

However, these numerical thresholds have not been formally adopted by SCAQMD.

Southern California Association of Governments' 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy

SCAG is a council of governments representing Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties. SCAG is the federally recognized metropolitan planning organization for this region, which encompasses over 38,000 square miles. SCAG is a regional planning agency and a forum for addressing regional issues concerning transportation, the economy, community development, and the environment.

On May 7, 2020, SCAG's Regional Council adopted the 2020–2045 RTP/SCS (also known as *Connect SoCal*) for federal transportation conformity purposes only. On September 3, 2020, the Regional Council of SCAG formally adopted the 2020–2045 RTP/SCS in its entirety and for all other purposes. The 2020–2045 RTP/SCS is a long-range visioning plan that balances future mobility and housing needs with economic, environmental, and public health goals. The 2020–2045 RTP/SCS charts a course for closely integrating land use and transportation so that the region can grow smartly and sustainably.

The 2020–2045 RTP/SCS is consistent with SB 375, which requires SCAG to adopt an SCS that outlines policies to reduce per-service-population GHG emissions from automobiles and light-duty trucks. SCAG's current target is to reduce per-capita GHG emissions from passenger vehicles by approximately 8 percent by 2020 and 19 percent by 2035 over base year 2005 (CARB 2020). The 2020–2045 RTP/SCS states that the region will meet the SB 375 per-capita targets. While this plan was released in 2020, the same year as the first target date, the achievement is based on modeled results, as observed data are not yet available.

The SCS presents strategies and tools that are consistent with local jurisdictions' land use policies and incorporates best practices for achieving the state-mandated reductions in GHG emissions at the regional level through reduced per-capita VMT. The SCS strategies included in the 2020–2045 RTP/SCS to reduce GHG emissions consist 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.

Local

Local plans that include policies or measures relevant to GHG emissions from implementation of the Project include *Riverside General Plan 2025* (GP 2025) and the City's *Economic Prosperity Action Plan and Climate Action Plan* (CAP).

Riverside General Plan 2025

The City's Air Quality Element is a planning tool for protecting the public's health and welfare. GP 2025 was adopted in November 2007 and includes policies that are relevant to the reduction of GHG emissions in its Air Quality Element (City of Riverside 2007a). These relevant policies are summarized in Table 3.5-4.

City of Riverside Economic Prosperity Action Plan and Climate Action Plan

The City adopted its CAP in January 2016. The CAP includes an inventory of existing (2007) emissions from community-wide operations, which includes residents and businesses within the City, as well as emissions from governmental operations. The CAP also provides community-wide and government operations emissions forecasts for 2020 and 2035 based on growth associated with build-out of GP 2025. The CAP establishes a reduction goal of approximately 26 percent below 2007 baseline emission levels (3,024,066 MTCO₂e community-wide, and 122,525 MTCO₂e for government operations) by 2020 to reach the goals set forth in AB 32 (1990 levels by 2020). While the City's CAP is not a qualified reduction plan as defined by the State CEQA Guidelines, it does propose measures and policies on community-wide and government levels that will support the City's reduction goals.

Community sources within the City that generate GHG emissions include residential energy use, commercial/industrial energy use, fuel use from transportation, and CH₄ generation from solid waste decomposition. Municipal sources of GHG emissions in the City include fuel use from employee commutes and the City's vehicle fleet, energy use in government buildings and facilities, CH₄ generation from government-related solid waste, energy use for public lighting, and energy use for potable water and sewage treatment. The City also owns and operates RPU, which provides electric and water utility services. The electric utility serves almost all City properties and the water utility serves approximately two-thirds of the City. Note that emissions from RPU are included in the municipal inventory and are not included in the community inventory. The development that could occur as a result of the Project would involve construction and operation of residential housing and nonresidential uses, which are community uses. Therefore, GHG emissions related to construction and operation of the Project would be part of the community emissions inventory and would be subject to the community emission targets and measures proposed by the City's CAP.

The CAP's 2020 projections and reduction targets are based on the growth projections associated with build-out of GP 2025. Table 3.5-3 provides the CAP's 2007 community-wide baseline, projected future year (2020 and 2035) business-as-usual GHG emissions, and the future year GHG emission

target for 2020 (1990 levels). While the City pledges to “strive to achieve additional reductions in GHG emissions by 2030,” no formal reduction target for 2030 was established in the 2016 CAP because the statewide targets for 2030 had not yet been adopted.

Table 3.5-3. City of Riverside Existing and Forecasted Community-Wide GHG Emissions by Sector (MTCO₂e per year)

Sector	2010 Existing	2020 Business-as-Usual Forecast
Residential Energy	481,903	543,134
Commercial/Industrial Energy	722,321	809,594
On-Road Transportation	1,358,647	1,590,544
Solid Waste	54,669	60,939
Total Emissions	2,617,540	3,004,212
2020 Target	—	2,224,908

Source: City of Riverside 2016.

To achieve the proposed reductions, the City’s CAP includes various reduction measures related to energy efficiency, use of renewable energy sources, increased transit, use of alternative fuels, increased reuse and recycling, and reduction in potable water consumption. The policies from the City’s CAP that are relevant to GHG emissions from implementation of the Project are outlined in Table 3.5-4.

Table 3.5-4. Relevant Riverside General Plan, CAP, and Specific Plan Policies

Plan	Policy
Riverside General Plan 2025	
Air Quality Element	<p>Policy AQ-1.5: Encourage infill development projects within urbanized areas, which include job centers and transportation nodes.</p> <p>Policy AQ-1.6: Provide a mechanism to create opportunities for mixed- use development that allows the integration of retail, office, institutional and residential uses for the purpose of reducing costs of infrastructure construction and maximizing the use of land.</p> <p>Policy AQ-1.7: Support appropriate planned residential developments and infill housing, which reduce vehicle trips.</p> <p>Policy AQ-1.15: Establish land use patterns that reduce the number and length of motor vehicle trips and promote alternative modes of travel.</p> <p>Policy AQ-1.18: New residential subdivisions shall be designed to encourage “walkable” neighborhoods with pedestrian walkways and bicycle paths to facilitate pedestrian travel.</p> <p>Policy AQ-1.23: Increase residential and commercial densities around rail and bus transit stations.</p> <p>Policy AQ-2.4: Monitor and strive to achieve performance goals and/or VMT reduction which are consistent with SCAG’s goals.</p> <p>Policy AQ-2.7: Use incentives, regulations and Transportation Demand Management in cooperation with surrounding jurisdictions to eliminate vehicle trips that would otherwise be made.</p> <p>Policy AQ-5.1: Utilize source reduction, recycling and other appropriate measures to reduce the amount of solid waste disposed of in landfills.</p>

Plan	Policy
	<p>Policy AQ-5.3: Continue and expand use of renewable energy resources such as wind, solar, water, landfill gas, and geothermal sources.</p> <p>Policy AQ-5.6: Support the use of automated equipment for conditioned facilities to control heating and air conditioning.</p> <p>Policy AQ-5.7: Require residential building construction to meet or exceed energy use guidelines in Title 24 of the California Administrative Code.</p> <p>Policy AQ-8.23: Apply urban planning principles that encourage higher density, mixed use, walkable/bikeable neighborhoods, and coordinate land use and transportation with open space systems in 2008.</p>
City of Riverside Climate Action Plan (2016)	
State and Regional Measures	<p>SR-1: Utilities must secure 33% of their power from renewable sources by 2020 (through 2035)</p> <p>SR-2: Mandatory energy efficiency standards for buildings.</p> <p>SR-3: Financing for homeowners to make energy efficient, renewable energy, and water conservation improvements.</p> <p>SR-4: Financing for business owners to make energy efficient, renewable energy, and water conservation improvements.</p> <p>SR-6: Requirements for vehicles to use cleaner fuels.</p> <p>SR-12: Facilitate electric vehicle use by providing necessary infrastructure.</p> <p>SR-13: Meet mandatory requirement to divert 50% of C&D waste from landfills by 2020 and exceed requirement by diverting 90% of C&D waste from landfills by 2035.</p>
Energy	<p>E-1: Replace traffic and streetlights with high-efficiency bulbs.</p> <p>E-2: Strategically plant trees at new residential developments to reduce the urban heat island effect.</p> <p>E-3: Financing and incentives for business and homeowners to make energy efficient, renewable energy, and water conservation improvements.</p> <p>E-4: Large scale renewable energy installation on publicly owned property and in public rights of way.</p>
Transportation	<p>T-1: Expand on-street and off-street bicycle infrastructure, including bicycle lanes and bicycle trails.</p> <p>T-2: Provide additional options for bicycle parking.</p> <p>T-3: Encourage use of non-motorized transportation modes by providing appropriate facilities and amenities for commuters.</p> <p>T-4: Encourage Transportation Demand Management strategies.</p> <p>T-5: Incorporate technology to synchronize and coordinate traffic signals along local arterials.</p> <p>T-6: Improve jobs-housing balance and reduce vehicle miles traveled by increasing household and employment densities.</p> <p>T-7: Provide for a variety of development types and uses.</p> <p>T-8: Encourage walking by providing pedestrian-only community areas.</p> <p>T-9: Reduce requirements for vehicle parking in new development projects.</p> <p>T-10: Implement bus rapid transit service in the subregion to provide alternative transportation options.</p> <p>T-11: Encourage employers to create TDM programs for their employers.</p>

Plan	Policy
	<p>T-12: Accelerate the implementation of all or specified components of a jurisdiction’s adopted bike plan.</p> <p>T-14: Implement development requirements to accommodate Neighborhood Electric Vehicles and supporting infrastructure.</p> <p>T-15: Increase access to transit by providing free or reduced passes.</p> <p>T-16: Create nodes offering bike sharing at key locations throughout the City.</p> <p>T-17: Offer Riverside residents the opportunity to use car sharing to satisfy short-term mobility needs.</p> <p>T-18: Use SB 743 to incentivize development in the downtown and other areas served by transit.</p> <p>T-19: Promote the use of alternative fueled vehicles such as those powered by electric, natural gas, biodiesel, and fuel cells by Riverside residents and workers.</p> <p>T-20: Create a geographically defined area(s) featuring best practices in sustainable urban design and green building focused on supporting both clean-tech and green businesses.</p>
Water	W-1: Reduce per capita water use by 20% by 2020.
Solid Waste	<p>SW-1: Provide green waste collection bins community-wide.</p> <p>SW-2: Divert food and paper waste from landfills by implementing commercial and residential collection program.</p>
Specific Plans	
Canyon Springs Business Park Specific Plan	There are no applicable policies relevant to the Project regarding GHG emissions.
Downtown Specific Plan	There are no applicable policies relevant to the Project regarding GHG emissions.
Hunter Business Park Specific Plan	There are no applicable policies relevant to the Project regarding GHG emissions.
La Sierra University Specific Plan	<p>Policy LSU-2.3 As the Specific Plan and its Environmental Impact Report addresses in a comprehensive fashion issues such as land use, traffic, noise, hydrology, earth, air quality, biological resources, public services, cultural resources, aesthetics, infrastructure and grading, a Conditional Use Permit shall not be required for development of uses on the La Sierra University campus which are described in this Specific Plan. Plot plan review by the Planning Commission will be required for significant alteration, expansion and new construction in Subareas 1 and 2.</p> <p>Environmental Impact Report Mitigation Monitoring Program</p> <p>Require that contractors:</p> <ul style="list-style-type: none"> • Use low emission on-site mobile construction equipment. • Maintain equipment in tune, per manufacturer's specifications. • Use catalytic converters on gasoline powered equipment. • Retard diesel engine injection timing by four degrees. • Use reformulated, low emission diesel fuel. • Substitute electric and gasoline powered equipment for diesel powered equipment where feasible. • Where applicable, do not leave equipment idling for prolonged periods. • Curtail (cease or reduce) construction during periods of high ambient pollutant concentrations (i.e., Stage 2 smog alerts).

Plan	Policy
	<ul style="list-style-type: none"> Configure construction parking to minimize traffic interference. Provide temporary traffic control during all phases of construction activities to improve traffic flow (e.g., flag person).
Magnolia Avenue Specific Plan	There are no applicable policies relevant to the Project regarding GHG emissions.
Riverside Marketplace Specific Plan	There are no applicable policies relevant to the Project regarding GHG emissions.
University Avenue Specific Plan	There are no applicable policies relevant to the Project regarding GHG emissions.

Sources: City of Riverside 1991, 2002, 2005, 2007a, 2007b, 2009, 2016, 2017a, 2017b.

Policy Consistency

The Project would be generally consistent with GP 2025 goals and policies as described in Table 3.5-4. As discussed in Chapter 2, *Project Description*, one of the main objectives of the Project is to locate new housing in areas readily accessible to services, parks and other amenities, transit, jobs, and activity centers. The Housing Element Update includes a guiding principle that seeks to equitably distribute a mix of housing types, including ownership and rental, that is safe and affordable for people of all income levels, backgrounds, and ages and that meets the needs of current and future Riverside residents.

The principles, policies, implementing actions, and programs within the Housing Element and Public Safety Element Updates relate directly to and must be consistent with other elements of GP 2025. As the Project comprises Phase 1 of a comprehensive update of GP 2025, the principles, policies, implementing actions, and programs of the Housing Element and Public Safety Element will serve as a platform for developing updates of the remaining GP 2025 elements in the forthcoming Phase 2 update. The Project may result in development that may be inconsistent with City policies relating to GHG emissions in the Air Quality Element and CAP (City of Riverside 2007a, 2016), as described in Table 3.5-4. Implementation of Mitigation Measures **MM-GHG-1** through **MM-GHG-3** would help to address policy inconsistencies. These measures require future development projects enabled by the Project to implement emissions-reducing measures during construction and operation.

3.5.4 Methodology and Thresholds of Significance

Methods for Analysis

GHG impacts associated with construction and operation of the Project were assessed and quantified using industry standard and accepted software tools, techniques, and emission factors. A summary of the methodology is provided below. A full list of assumptions and emission calculations can be found in Appendix C. The methodology used to estimate air pollutant emissions discussed below is the same that was used to estimate GHG emissions, as described in Section 3.1, *Air Quality*, with the exception of electricity-, water-, wastewater-, and solid waste-related emissions.

Construction

The 31,564 dwelling units and approximately 3,181,930 square feet of nonresidential uses to be facilitated by the general plan land use changes that could be developed over the 8-year

implementation period of the Project would generate construction-related emissions of CO₂, CH₄, and N₂O that could result in impacts on climate change. The Project would facilitate demolition of up to 389 existing dwelling units and 1,748,470 existing square feet of nonresidential development. Land uses that could be developed under the Project would generate construction-related emissions from mobile and stationary construction equipment exhaust, and employee and haul truck vehicle exhaust. However, the specific size, location, and construction techniques and scheduling that would be used for each individual development project occurring in the City from implementation of the Project are not currently known. With a horizon year of 2029, development of the various land uses associated with the Project would occur over an extended period and would depend on factors such as local economic conditions, market demand, and other financing considerations. As such, without specific project-level details, it is not possible to develop a refined construction inventory.²

Consequently, the determination of construction GHG impacts for each individual development project, or a combination of these projects, would require the City to speculate regarding such potential future project-level environmental impacts. Therefore, in the absence of the necessary construction information required to provide an informative and meaningful analysis, the evaluation of potential construction-related impacts resulting from implementation of the Project is conducted qualitatively. The analysis discusses the potential for future individual developments in the City to generate construction emissions that, where necessary, would apply mitigation measures to reduce those emissions.

Operation

Build-out of the Project would result in a change in emissions relative to the development proposed in GP 2025. Operation of the potential 31,564 dwelling units and approximately 3,181,930 square feet of nonresidential uses would generate emissions of CO₂, CH₄, and N₂O that could result in impacts on climate change. Operational emissions would result from motor vehicle travel, onsite combustion of natural gas for space and water heating, landscaping equipment, water consumption, waste generation, and use of electricity.

Given that the Project proposes rezoning of land throughout the City to fulfill the City's development goals and obligations, the operational emissions analysis accounts for the net change in emissions from GP 2025. The land use changes and proposed land use assumptions are outlined in Table 3.5-5. Land uses proposed by the Project would facilitate up to 31,564 dwelling units and 3,181,930 square feet of nonresidential development; however, as existing dwelling units and nonresidential development are removed, the land use change would involve 31,175 dwelling units and 1,433,460 square feet of nonresidential development over existing conditions. Energy-, water-, waste-, and wastewater-related emissions for these land uses were estimated using CalEEMod, version 2016.3.2. To account for emissions reductions associated with the 2019 California Administrative Code Title 24 Building Efficiency Standards, adjustments were made to CalEEMod default assumptions. For nonresidential buildings, the 2019 Title 24 standards reduce energy use by approximately 30 percent compared to the 2016 title 24 standards. Residential uses incorporating the 2019 Title 24 standards would have a higher reduction of 53 percent less energy use compared to 2016 Title 24 standards. These reductions are due to design efficiencies, light-emitting diode lighting, and

² Project-level information includes details such as the size and scale of the project to be constructed, construction schedule, equipment fleet, construction worker crew estimates, and demolition and grading quantities.

mandatory rooftop solar electricity generation (CEC 2020). Electricity emission rates for existing and horizon years are based on RPU's *2018 Integrated Resource Plan* (City of Riverside 2018).

Table 3.5-5. Land Use Changes with Implementation of the Project

Land Use Type	Amount
Land Uses Removed from General Plan	
Housing	-389 dwelling units
Non-Residential	-1,748,470 square feet
Land Uses Proposed for General Plan	
Housing	31,564 dwelling units
Non-Residential	3,181,930 square feet
Net Land Use Development	
Housing	31,175 dwelling units
Non-Residential	1,433,460 square feet

Source: Data provided by Fehr & Peers 2021.

GHG impacts from motor vehicles associated with the Project were evaluated using CARB's Emission Factor (EMFAC2021) emissions model. The mobile source emission factors (grams per mile and grams per trip) were averaged in EMFAC2021 based on all vehicle and fuel types at aggregated speeds for the vehicle fleet operating within the South Coast Air Basin at both the existing year of 2021 and at the full build year of 2029. The emission factors were applied to the Project-specific VMT estimates outlined in Table 3.5-6 to generate mobile source emission estimates. Refer to Appendix C for additional information on the assumptions and model data used to estimate the Project's potential future operational emissions.

Table 3.5-6. VMT Changes with Implementation of the Project

General Plan Build-Out Scenario	VMT
Existing Conditions	12,311,159
Future Project Conditions	13,985,353
<i>Net VMT</i>	<i>1,674,194</i>

Source: Data provided by Fehr & Peers 2021.

Thresholds of Significance

State CEQA Guidelines

In accordance with Appendix G of the State CEQA Guidelines, the Project would be considered to have a significant effect if it would:

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

The State CEQA Guidelines do not indicate what amount of GHG emissions would constitute a significant impact on the environment. Instead, they authorize the lead agency to consider

thresholds of significance previously adopted or recommended by other public agencies or by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence (State CEQA Guidelines Sections 15064.4(a) and 15064.7(c)). CEQA offers two paths to evaluating GHG emissions impacts in CEQA documents:

1. Projects can tier off a “qualified” GHG-reduction plan (State CEQA Guidelines Section 15183.5).
2. Projects can determine significance by using a model to calculate GHG emissions and assess their significance (State CEQA Guidelines Section 15064.4).

CEQA promotes the tiering or streamlining of environmental review from previously adopted programmatic documents. According to the California Governor’s Office of Planning and Research (OPR), the California Legislature has made it clear that lead agencies should tier or streamline their environmental documents whenever feasible, and that GHG emissions resulting from individual projects may be best analyzed and mitigated at a programmatic level through a GHG emission-reduction plan, such as a climate action plan (OPR 2018). A GHG-reduction plan that is consistent with the criteria established under State CEQA Guidelines Sections 15183.5 (b) and 15064.4 is considered “qualified” for tiering, and later project-specific environmental documents may tier from and/or incorporate by reference the GHG plan in question.

As discussed under the *Local* subsection of Section 3.5.3, *Regulatory Setting*, the City adopted a CAP in 2016. Although it includes an emissions inventory and forecast and strategies to reduce GHG emissions in the various sectors, no CEQA analysis was completed for the City’s CAP. Therefore, the CAP is not a CEQA-qualified document as defined by Sections 15183.5(b) and 15064.4 of the State CEQA Guidelines. In this case, tiering from the CAP is not an appropriate threshold approach for the Project’s GHG impact analysis.

In the absence of a CEQA-qualified GHG-reduction plan, significance of GHG emissions resulting from the Project can be determined by quantifying emissions and assessing with an appropriate numerical threshold. One such threshold is an efficiency-based threshold, which allows lead agencies to compare projects of various types, sizes, and locations equally, and determine whether a project is consistent with the state’s reduction goals. Efficiency-based thresholds for a residential project can be expressed on a per-capita basis, for an office project on a per-employee basis, or for a mixed-use project, like the Project analyzed herein, on a per-service-population (the sum of jobs and residents) basis.

As discussed in Section 3.5.3, *Regulatory Setting, Regional*, SCAQMD has proposed use of efficiency thresholds in conjunction with AB 32 and the statewide 2020 GHG-reduction goals. However, at present, SCAQMD has not formally adopted any GHG efficiency thresholds for land use development projects or for addressing consistency with post-2020 statewide GHG-reduction goals. Given that the Project would be implemented post-2020, with a horizon year of 2029, a numerical threshold that aligns with the state’s 2030 reduction target is the most appropriate approach for assessing the significance of the Project’s GHG emissions. In the absence of an SCAQMD- or City-defined threshold, an efficiency metric pursuant the 2030 SB 32 reduction target can be developed based on best available emissions and population forecast data for the City. Development and use of this efficiency threshold are discussed in further detail in the following section.

Threshold Approach

Overview

The build-out year for the Housing Element and Public Safety Element Updates is 2029, which is 1 year prior to the statewide 2030 milestone target adopted in SB 32. This precedes the statewide milestone target in EO S-03-05 for 2050 and the statewide goal for carbon neutrality in EO B-55-18 for 2045. The more aggressive 2045 goal of EO B-55-18 indicates the state's intent (and, thus, state of the science) to move toward carbon neutrality.

The Project includes the adoption and implementation of the Housing Element Update for the 2021–2029 planning period, adoption and implementation of the Public Safety Element Update, development of Environmental Justice Policies, and updates to the Zoning Code and Specific Plans to address requirements of the 6th Regional Housing Needs Assessment (RHNA) cycle. As discussed previously, recent case law directs GHG analyses to tailor threshold concepts to the specifics of a project and that project's uses. In this situation, implementation of the Project could result in additional mixed-used and multi-family development including an increase of 31,175 new dwelling units over existing conditions and 31,564 total dwelling units proposed by the Project.

Based on the available concepts recommended by expert agencies, the threshold approach to evaluate significance of impacts associated with GHG emissions resulting from implementation of the Project is both quantitative and qualitative in nature. The quantitative portion of the analysis includes quantification of emissions from all Project components and assesses consistency with numerical reduction targets. The qualitative portion of the analysis assesses the Project's compliance with plans, polices, measures, and regulatory programs outlined, adopted, or proposed by all relevant agencies, including the City, CARB, and other California agencies. These two approaches are discussed in further detail below.

Consistency with Numerical Thresholds. The efficiency targets used in this analysis are based on the level of reductions and overall efficiency required to meet the 2030 reduction target (SB 32) using the emissions targets estimated in the City's CAP, and development projections from SCAG population growth forecast data for the City (City of Riverside 2016; SCAG 2016). The City's CAP includes an inventory of GHG emissions for the baseline year (2007) and the 2020 and 2035 business-as-usual conditions. The CAP also identifies the 2020 GHG-reduction target (1990 levels) of 2,224,908 MTCO_{2e}.

The CAP does not include a reduction target for 2030, but using the data in the CAP, a target can be estimated. Pursuant to SB 32, the relevant statewide target for the reduction of GHG emissions is the 2030 (40 percent below 1990 levels) reduction target, which for the City is estimated to be 1,334,945 MTCO_{2e} based on a 40-percent reduction from the 2020 GHG-reduction target (1990 levels) of 2,224,908 MTCO_{2e}. The reduction target for the Project's horizon year of 2029 was estimated by interpolating between the 2020 and 2030 targets. Based on this, to achieve the fair share toward the 2030 target in horizon year 2029, the Project would need to achieve an emissions efficiency to 2.7 MTCO_{2e} per service population (MTCO_{2e}/SP). Table 3.5-7 summarizes the development of the 2029 reduction target used in the quantitative analysis. All population forecast data were obtained from the SCAG *Demographics and Growth Forecast Appendix* of the 2016 RTP/SCS for consistency with data used for development of the inventory, forecast, and targets presented in the City's CAP (SCAG 2016; City of Riverside 2016).

If the Project achieves the efficiency targets for 2029, then impacts would be considered less than significant. Conversely, if the Project exceeds the efficiency target in 2029, then the Project's cumulative contribution of GHG emissions would be considered significant and feasible mitigation measures would be required.

Table 3.5-7. GHG-Reduction Targets and Efficiency Metrics

Year	GHG Emissions Target (MTCO ₂ e)	Service Population (residents + employees) ¹	Efficiency Metric (MTCO ₂ e/SP)
2020 Target	2,224,908	475,386	4.7
2029 (Project Horizon Year)	1,423,941	525,657	2.7
2030 Target (SB 32)	1,334,945	531,243	2.5

Source: Population and employment data provided by Fehr & Peers.

Analysis targets are in **bold**.

¹ Population data obtained from SCAG 2016, to be consistent with the 2016 CAP.

Compliance with Applicable Local Plans and Statewide Regulatory Programs. Recent guidance on GHG-reduction strategies and thresholds for operational emissions have been provided at the state level through the 2017 Scoping Plan, OPR, and CARB. The 2017 Scoping Plan outlines the framework and strategies the state will take to achieve the 2030 emission-reduction targets established by SB 32. The 2017 Scoping Plan update proposes to meet the 2030 goal by accelerating the focus on zero and near-zero technologies for moving freight, continued investment in renewables, greater use of low-carbon fuels including electricity and hydrogen, stronger efforts to reduce emissions of SLCPs, further efforts to create walkable communities with expanded mass transit and other alternatives to traveling by car, continuing the Cap-and-Trade program, and ensuring that natural lands become carbon sinks to provide additional emissions reductions and flexibility in meeting the target (CARB 2017). Furthermore, OPR guidance specifies that a "land use development project that produces low VMT, achieves applicable building energy-efficiency standards, uses no natural gas or other fossil fuels, and includes Energy Star appliances where available, may be able to demonstrate a less-than-significant greenhouse gas impact associated with project operation" (OPR 2018).

As discussed above, the City's CAP has not undergone CEQA analysis and is therefore not a qualified reduction plan as defined by the State CEQA Guidelines. Additionally, because the City's 2016 CAP was adopted prior to the passing of SB 32 and the development of the associated 2017 Scoping Plan, the measures and strategies contained in the 2016 CAP do not comply, let alone exceed, the regulations designed to reach the statewide reduction target of 40 percent below 1990 levels by 2030. Therefore, compliance with this document is not appropriate for this analysis. A citywide CAP to address the statewide GHG reduction targets of SB 32 is forthcoming, but not currently available. Accordingly, the Project's compliance with regulatory programs adopted by CARB and other state agencies, is used to evaluate the significance of the Project's GHG emissions. The Project has a build-out year of 2029, consistent with the 2017 Scoping Plan, which addresses emissions through 2030.

If the Project implements regulatory programs adopted by CARB or other state agencies to reduce GHG emissions and results in GHG emissions below the calculated efficiency threshold for horizon year 2029, then the Project's cumulative contribution of emissions would be considered less than significant. Conversely, if the Project does not implement one or more regulatory programs adopted by CARB or other state agencies to reduce GHG emissions, or exceeds the efficiency threshold, then

the Project's cumulative contribution of GHG emissions would be considered significant and feasible mitigation measures are required.

3.5.5 Impacts and Mitigation Measures

Impact GHG-1: The Project would generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment. This impact would be significant and unavoidable with implementation of mitigation.

Housing Element Update, Zoning Code Amendments, and Environmental Justice Policies

Construction

Construction of new residential and nonresidential development associated with the Project would occur intermittently throughout the City over the course of the build-out period (through horizon year 2029). Construction of the Project would result in direct GHG emissions generated by vehicle trips (i.e., trips by construction workers and haul trucks) and operation of construction equipment. Indirect GHG emissions would be generated by the electricity used to power any electric construction equipment, mobile offices, or water delivered to construction sites. As the timing and intensity of future development projects are not known at this time, the precise effects of construction activities associated with build-out of the Project cannot be accurately quantified at this time. In general, the emissions intensity of construction vehicles and equipment would decrease over time as the construction industry shifts toward implementation of cleaner fuels (i.e., electrified equipment) and more efficient technology, particularly for trucks.

While the details of future development within the City are currently unknown because development would be driven by market forces and private applicants, it is known that implementation of the Project ultimately would result in more development than previously assumed in GP 2025 (see Table 3.5-4). With implementation of the Project, up to 31,175 additional dwelling units and 1,433,460 square feet of nonresidential uses could be developed above what was previously assumed. Construction of a multitude of individual development projects that could occur within the City throughout the build-out period could generate GHG emissions that could have a significant impact on the environment (Impact-GHG-1). The Project would implement Mitigation Measure **MM-GHG-1** to reduce emissions resulting from future construction-related activities due to the development of the new residential and nonresidential land uses allowable under the Project.

Implementation of Mitigation Measure **MM-GHG-1** would help reduce GHG emissions from construction-related activities to the extent feasible. However, construction time frames and equipment for site-specific development projects are not available at this time, and there is potential for implementation of the Project to result in significant construction-related GHG emissions. The City would need to consider all future development accommodated by the Project, where subject to CEQA and requiring discretionary approval, to ascertain whether an individual development would generate potentially significant GHG emission impacts during construction, and, where necessary, would require the implementation of additional mitigation measures to minimize GHG emissions and reduce potentially significant impacts. Therefore, despite adherence to Mitigation Measure **MM-GHG-1**, this impact as it pertains to the Project would remain significant and unavoidable.

Operations

As discussed previously, operation of the Project would result in emissions from changes in travel patterns and VMT in the transportation network, as well as from onsite combustion of natural gas for space and water heating, water consumption, waste generation, landscaping equipment, and use of electricity. Full build-out of the Project, which could include up to 31,564 housing units and 3,181,930 square feet of nonresidential uses beyond what is planned in GP 2025 (refer to Table 3.5-5 for more information regarding build-out capacity), could result in an increase in service population of up to 104,328 new individuals (sum of residents and employees) within the City. Table 3.5-8 summarizes estimated operational emissions at full build-out and summarizes the estimated emissions on a per-service-population basis in 2029.

Table 3.5-8. Operational GHG Emissions in 2029 (MTCO₂e)

Source	MTCO ₂ e	Percent of Total Emissions
Area	413	<1%
Energy	40,976	17%
Mobile	182,642	76%
Waste	6,732	3%
Water	8,102	3%
Total	238,864	100%
Proposed Project Service Population	104,328 ¹	-
Efficiency (MTCO ₂ e/SP)	2.3	-
Efficiency threshold (MTCO ₂ e/SP)	2.7	-
<i>Exceed threshold?</i>	<i>No</i>	-

Source: Modeling outputs provided in Appendix C.

¹ Population and employment data provided by traffic consultant (Fehr & Peers 2021). 104,328 is based on the sum of population (101,008) and employment (3,320).

As shown in Table 3.5-8, Project emissions would result in 2.3 MTCO₂e/SP relative to the 2.7 MTCO₂e/SP threshold. As discussed above in *Threshold Approach*, this threshold was developed using best available data from the City's 2016 CAP and SCAG population data, in the absence of an appropriate reduction target for 2030. Mitigation measures, discussed below, would ensure the Project would generally comply with the City's CAP and other plans, policies, and regulatory programs outlined at the local, regional, and state levels for the purpose of reducing the emissions of GHGs. However, because the City has not adopted a CAP that meets the statewide GHG goal established by SB 32 for 2030 and the statewide goal for carbon neutrality in EO B-55-18 for 2045, it cannot be stated with certainty that the Project would result in emissions that would represent a fair share of the requisite reductions toward the statewide 2030 target and 2045 carbon neutrality goal. Mitigation is required to ensure that emissions are reduced to the extent feasible.

Most emissions during operations would result from mobile sources. The Project's objectives as well as the locations of Opportunity Sites prioritize infill and mixed-use development and encourage the use of public transit to limit vehicle trips within the City. One of the primary objectives of the Project is to locate new housing in areas readily accessible to services, parks and other amenities, transit, jobs, and activity centers. While these Project features encourage strategic development and increased use of transit, VMT within the City is still expected to increase with development associated with the Project. As discussed in Section 3.12, *Transportation*, the Project is required to

implement transportation demand management strategies to mitigate impacts related to increased VMT. The strategies provided in Mitigation Measure **MM-TRA-1** would reduce VMT and transportation-related GHG emissions through promoting the use of non-motorized transportation, including providing bicycling parking; providing car-sharing, bike sharing, and ride-sharing programs; providing transit passes; and increasing connectivity and/or intersection density in conjunction with development of Opportunity Sites, among others.

Energy use during operation of the Project would be the second largest source of GHG emissions, mostly from the use of natural gas (primarily for space and water heating). In order to reduce emissions, the Project would implement Mitigation Measure **MM-GHG-2** to ensure that new construction would not include any onsite fuel combustion, and all new buildings would be installed with electrical lighting and heating to the extent feasible.

Mitigation Measure **MM-GHG-3** requires implementation of all feasible CALGreen Tier 1 and Tier 2 voluntary measures, which could include strategies that would further reduce emissions from Project operational energy use, water use, and solid waste. The CALGreen Tier 1 and Tier 2 voluntary measures include onsite solar energy requirements, rooftop gardens in new development for insulation and energy efficiency, use of water-efficient irrigation in landscaping, and exceedance of statewide solid waste diversion goals. While implementation of the feasible CALGreen voluntary measures would ensure a reduction in GHG emissions during operation of the Project, it cannot be guaranteed that the measures would reduce them to a level that aligns with statewide GHG goals. The impact is considered significant and unavoidable.

Public Safety Element Update and Environmental Justice Policies

The Public Safety Element Update policies and implementing actions address natural hazards; transportation hazards; police, fire, and emergency services; pandemic preparedness and response; homelessness; and climate change and resiliency. These policies and implementing actions aim to reduce the risk to the community and to ensure protection from foreseeable natural and human-caused hazards. Proposed new residential and mixed-use development would be predominantly located in more urbanized areas of the City. Public Safety Element policies and implementing actions could affect the design and construction of planned developments, such as addition of design elements related to emergency access and pedestrian safety. Public Safety Element policies do not include specific development proposals that would create unplanned growth through extension of roads or other infrastructure and are therefore not expected to result in GHG emissions.

The Public Safety Element Update policies and implementing actions would also involve additional Environmental Justice Policies to address public safety issues within environmental justice communities. Many Public Safety Element Update policies could result in community benefits. No specific infrastructure improvements or projects are identified in the Public Safety Element Update. As this is a policy document, it is not anticipated to result in GHG emissions, let alone emissions that, either directly or indirectly, may have a significant impact on the environment.

Mitigation Measures

The potential impacts of the Project described in this section would be reduced with implementation of the following mitigation measure. However, this impact would remain significant and unavoidable.

MM-GHG-1: Implement diesel emission-reduction measures during construction.

The applicant and/or contractor associated with future development of Opportunity Sites shall implement the following measures during construction and, where specified below, shall submit reports demonstrating compliance to the Planning Division for its review and approval.

- The applicant shall limit all equipment and delivery truck idling times by shutting down equipment when not in use and reducing the maximum idling time to less than 3 minutes. The applicant shall also install clear signage regarding the limitation on idling time at the delivery driveway and loading areas.
- The applicant shall verify that all construction equipment is maintained and properly tuned in accordance with manufacturers' specifications. Prior to the commencement of construction activities using diesel-powered vehicles or equipment, the applicant shall verify that all vehicles and equipment have been checked by a certified mechanic and determined to be running in proper condition prior to admittance into the delivery driveway and loading areas. The applicant shall submit a report by the certified mechanic of the condition construction-related vehicles and equipment to the Planning Division prior to commencement of their use.

MM-GHG-2: Restrict use of natural gas in new development.

Future development on Opportunity Sites shall utilize electrical lighting and heating to the maximum extent feasible or to the extent required by existing or future regulations. Natural gas appliances are to be avoided to the extent feasible as determined by the availability and capacity of electrical power distribution infrastructure.

MM-GHG-3: Implement measures to reduce GHG emissions during operation.

Prior to discretionary approval by the City for Opportunity Site projects subject to CEQA review (i.e., non-ministerial projects), each applicant shall be required to demonstrate that all feasible Tier 1 and Tier 2 CALGreen voluntary measures (Appendix A4 and Appendix A5 of the 2019 CALGreen) shall be implemented.

Impact GHG-2: The Project would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. This impact would be significant and unavoidable with implementation of mitigation.**Housing Element Update, Zoning Code Amendments, and Environmental Justice Policies**

Construction and operation of the Project would have the potential to conflict with relevant plans, policies, and regulatory programs with purposes of reducing GHG emissions. This analysis qualitatively discusses the Project's consistency with relevant plans, including GP 2025, the 2016 CAP, the CARB Scoping Plan, and other plans, policies, and regulatory programs adopted, drafted, or recommended by CARB and other agencies.

City of Riverside General Plan

As discussed in Section 3.5.3, *Regulatory Setting, Local*, GP 2025 includes policies relevant to the reduction of GHG emissions in its Air Quality Element (City of Riverside 2007a). The relevant policies are outlined in Table 3.5-4 and include those that address infill and mixed-use development (AQ-1.5, AQ-1.6, AQ-1.7, AQ-8.23), reduction in vehicle trips (AQ-1.15, AQ-2.4, AQ-2.7), increased use of transit (AQ-1.23), energy conservation in new construction (AQ-5.6, AQ-5.7), use of renewable energy (AQ-5.3), and solid waste reduction (AQ-5.1).

The Project includes the adoption and implementation of the Housing Element Update for the 2021–2029 planning period, adoption and implementation of Environmental Justice Policies, and updates to the Zoning Code and Specific Plans to address requirements of the 6th RHNA cycle. The proposed Zoning Code and Specific Plan amendments include various multi-family and mixed-use land use categories, which would provide for development of some lower-story commercial/retail, office, and potentially live/work uses. Additionally, as described in Chapter 2, *Project Description*, one of the main objectives of the Project is to locate new housing in areas readily accessible to services, parks and other amenities, transit, jobs, and activity centers. The areas that were identified as Opportunity Sites for additional housing are characterized by the following:

- Locations near public transit and essential services like libraries and neighborhood-serving shopping and amenities
- Areas where housing could be added near commercial buildings or in business parks, creating “live-work” neighborhoods
- Underused sites, such as lots with buildings that are empty, deteriorated, or no longer needed
- Locations where more homes could easily fit within the same space than are there today

The Project objectives and locations of proposed development support the GP 2025 goals of pursuing infill and mixed-use development, encouraging the use of public transit, and reducing overall vehicle trips within the City.

The GP 2025 policies in the Air Quality Element related to energy conservation address compliance or exceedance of Title 24 energy use guidelines, use of automated equipment for control of heating and air conditioning, and use of renewable energy resources. The 2019 Building Energy Efficiency Standards are the most recent Title 24 updates and went into effect on January 1, 2020. All development associated with the Project would be constructed to meet the most recent building energy-efficiency standards defined by Title 24. Development that occurs prior to January 1, 2023, would comply with the current 2019 standards, which include the installation of efficient, low-flow fixtures for kitchen and bathroom faucets, showerheads, and toilets; energy-efficiency lighting requirements for nonresidential buildings; stringent thermal envelope standards to prevent heat transfer and energy loss; and solar photovoltaic system requirements, among others (CEC 2018).

CEC updates the building energy-efficiency standards every 3 years, increasing efficiency requirements of newly constructed buildings with each new installment. For example, compared to the previous 2016 standards, nonresidential buildings built to the 2019 Title 24 standards will use about 30 percent less energy due mainly to lighting upgrades. Within the Project’s lifetime, there would be three updates to the efficiency standards (years 2022, 2025, and 2028). Therefore, development associated with the Project would become progressively more energy efficient as the plan continues to be implemented through horizon year 2029.

GP 2025 also includes a policy related to reducing the amount of solid waste disposed of in landfills. During construction and operation, the Project would comply with AB 939, the Integrated Waste Management Act, which requires California cities, counties, and approved regional solid waste management agencies to divert 50 percent of their solid waste each year. Waste generated during construction and operation of the Project would be subject to this mandate, and compliance would address the City's goal of reducing the amount of solid waste that reaches landfills serving the City.

City's CAP

The most relevant plan, policy, or regulatory program adopted for the purpose of reducing the emissions of GHGs is the City's CAP. The City's CAP contains various measures that would be relevant to implementation of the Project. These measures are outlined in Table 3.5-4 and address emissions throughout the City from the energy, transportation, water use, and solid waste sectors. However, as discussed previously, the CAP has not undergone CEQA analysis and is therefore not considered a qualified plan as defined by the State CEQA Guidelines. Furthermore, the CAP does not address the statewide reduction target of 40 percent below 1990 levels by 2030 established by SB 32. A citywide CAP update to address the statewide GHG reduction targets of SB 32 is forthcoming, but not currently available. In general, CAPs designed to reduce GHG emissions within a city, county, or other municipality all contain measures specific to the main GHG-emitting sources listed above (energy, transportation, water use, and solid waste). Therefore, measures in a future CAP update are likely to be similar to those in the City's current CAP, other CAPs in the region, and the Scoping Plan, in that they will aim to reduce emissions through actions to reduce activity and related emissions from the main GHG-emitting sources (energy, transportation, water use, and solid waste) or through pursuing lower-emitting options.

The following discussion evaluates the Project's GHG emissions on a sector-by-sector basis, which aligns with CARB's approach in the Scoping Plan. A discussion related to the general consistency with state plans follows the sector-by-sector discussion,

Energy

Measures related to energy include mandatory efficiency standards for buildings, replacement of traffic and streetlights with high-efficiency bulbs, tree planting, financing and incentives for efficiency improvements for residents and business owners, and procurement of renewably sourced energy. The Project would be consistent with several of these measures due to mandatory statewide programs that would require no action at the project level. These programs include the Title 24 Building Energy Efficiency Standards and RPS.

As discussed above, all development related to the Project would be constructed to the most recent building energy-efficiency standards defined by Title 24. The 2019 Title 24 standards mandate higher efficiency levels and rooftop solar photovoltaic systems for all new residential buildings constructed after 2020. Future standards are expected to result in zero net energy for newly constructed commercial buildings. CEC also enforces the Appliance Efficiency Regulations contained in Title 20 of the California Code of Regulations. The regulations establish water and energy-efficiency standards for both federally regulated and non-federally regulated appliances. Given that these efficiency standards will be updated regularly at 3-year intervals, development associated with the Project would become progressively more energy efficient through horizon year 2029.

Furthermore, it is anticipated that future energy consumption in the City will become less carbon intensive due to the renewable energy procurement goals established by SB 100. SB 100 requires a

doubling of energy efficiency by 2030 and an RPS of 60 percent renewable by 2030. SB 100 also sets a target of 100 percent carbon-free electricity by 2045, while the City's Envision Riverside 2025 Strategic Plan sets a policy goal of 100 percent carbon-free electricity by 2040 as well as a community-wide carbon neutrality target by 2040. GHG reductions related to increased energy efficiency will be achieved through RPU's mandatory compliance with SB 100.

Prior to mitigation, the Project would address energy efficiency and renewable energy procurement objectives necessary to reduce GHG emissions from energy use. However, mitigation is required to ensure the Project considers all feasible GHG reduction strategies related to energy use (Impact-GHG-2). Mitigation Measure **MM-GHG-2** promotes all-electric buildings that do not include any onsite fuel combustion by restricting the use of natural gas in new development to the extent feasible. Additionally, Mitigation Measure **MM-GHG-3** requires implementation of all feasible CALGreen Tier 1 and Tier 2 voluntary measures, which could include measures to promote insulation and energy efficiency.

Transportation

Measures related to transportation include strategic development to decrease VMT, increased access to transit, pedestrian-friendly development, expansion of bicycle infrastructure and a bicycle plan, implementation of transportation demand management strategies, neighborhood electric vehicles, car-sharing, and use of alternatively fueled vehicles.

As discussed above under the consistency discussion with GP 2025, the Project's objectives and the locations of proposed development highlight infill and mixed-use development, encourage the use of public transit, and would reduce overall vehicle trips within the City. One of the main objectives of the Project is to locate new housing in areas readily accessible to services, parks and other amenities, transit, jobs, and activity centers. Therefore, by its nature, the Project would address the goal of strategic development and increased access to transit intended to reduce VMT within the City.

Transportation-related measures also emphasize the use of non-motorized transportation modes such as bicycles and walking as necessary for reducing VMT. Policies specifically propose expansion of bicycle infrastructure, including bicycle lanes and bicycle trails; provision of options for bicycle parking; accelerated implementation of the City's Bicycle Master Plan; creation of nodes offering bike sharing throughout the City; and provision of pedestrian-only community areas. As discussed in Section 3.12, *Transportation*, the Project is required to implement transportation demand management strategies to mitigate impacts related to increased VMT. The strategies provided in Mitigation Measure **MM-TRA-1** that would reduce VMT and transportation-related GHG emissions through non-motorized transportation include providing bicycling parking; providing car-sharing, bike sharing, and ride-sharing programs; providing transit passes; and increasing connectivity and/or intersection density on future development sites, among others.

In addition, federal, state, and local regulatory efforts target three elements of emissions reduction from mobile sources: vehicle fuel efficiency, the carbon content of fuels, and VMT. Most adopted programs and regulations focus on fuel efficiency (e.g., Corporate Average Fuel Economy standards, Pavley standard) and reducing the carbon intensity of transportation fuels (e.g., LCFS). Vehicle electrification is also rapidly becoming part of the state's approach to reducing mobile-source emissions (e.g., Advanced Clean Cars). The Project does not include any features that would conflict with these programs.

SB 743 is intended to close the VMT and emissions-reduction gap. There is a nexus between SB 743 and the state's goals to reduce mobile-source GHG emissions; one criterion under SB 743 for determining the significance of the transportation impacts of a project is a reduction in GHG emissions. In response to SB 743, OPR released its revised *Technical Advisory on Evaluating Transportation Impacts in CEQA* in December 2018. The advisory indicates that "achieving 15% lower per capita (residential) or per employee (office) VMT than existing development is both generally achievable and is supported by evidence that connects this level of reduction to the State's emissions goals" (OPR 2018). This OPR reduction goal is consistent with recent CARB (2019) analysis, which demonstrates that a 14.3 percent reduction of VMT per capita by 2050 (compared to a 2015–2018 average) would be needed statewide to meet its GHG planning goals through 2050.

As discussed in Section 3.12, *Transportation*, implementation of the Project is anticipated to generate VMT per service population that exceeds the long-term regional VMT target. Therefore, because VMT would exceed the regional target, the Project would not fully support CARB's VMT-reduction planning and GHG-reduction goals and would conflict with the state's long-term emission-reduction trajectory.

Water Use

Opportunity Site development would achieve efficient water use largely due to mandatory compliance with statewide programs and regulations. The 2017 Scoping Plan outlines objectives and goals to reduce GHGs in the water sector, including using and reusing water more efficiently through greater water conservation, drought-tolerant landscaping, stormwater capture, and water recycling. Regulations have further targeted water supply and water conservation through building and landscaping efficiency (e.g., Title 24). The 2017 Scoping Plan also proposes that local water and wastewater utilities adopt a long-term water conservation goal to reduce GHGs by 80 percent below 1990 levels by 2050, and thereafter move toward low-carbon or net-zero carbon water management systems. These goals are consistent with those established by the California Department of Water Resources in its 2020 CAP (California Department of Water Resources 2020).

Mitigation Measure **MM-GHG-3** requires implementation of all feasible CALGreen Tier 1 and Tier 2 voluntary measures, which could include water efficiency measures, such as use of greywater and rainwater for landscape irrigation. These measures are consistent with the 2017 Scoping Plan's water measures and the state's regulatory programs within the water sector.

Solid Waste

Mitigation Measure **MM-GHG-3** requires implementation of all feasible CALGreen Tier 1 and Tier 2 voluntary measures, which could include diversion of at least 80 percent of nonhazardous construction and demolition waste. Measures within the City related to solid waste include providing residents with green waste collection bins and diverting food and paper waste from landfills through collection programs. AB 341 requires mandatory recycling for certain commercial businesses and establishes a statewide recycling goal of 75 percent by the year 2020. Forthcoming regulations pursuant to SB 1383 will also establish minimum standards for organic waste collection, hauling, and composting. The final regulations will take effect on or after January 1, 2022.

Consistency with State Plans, Programs, and Policies

The 2017 Scoping Plan builds on the programs set in place as part of the previous Scoping Plan that was drafted to meet the 2020 reduction targets per AB 32. The 2017 Scoping Plan proposes meeting

the 2030 goal by both accelerating the focus on several existing programs and incorporating new strategies and programs that go beyond existing measures and strategies. Although the measures included in the 2017 Scoping Plan are necessarily broad, the Project would be generally consistent with the goals and desired outcomes of the Scoping Plan. The Project's consistency with the 2017 Scoping Plan strategies is provided in Table 3.5-9. As shown, the Project would be generally consistent with the adopted statewide programs in the 2017 Scoping Plan. In each case, the state program requires no action at the project level, and benefits to project-related emission sources will be realized over time. For example, the Scoping Plan incorporates SB 350, which extends the RPS to a 50-percent target by 2030 while doubling the energy-efficiency savings expected statewide. In addition, CARB expanded the LCFS, aiming to achieve an 18-percent reduction in the carbon intensity of transportation fuels. Furthermore, the Mobile Source Strategy aims to support the transition to 1.5 million zero-emission vehicles (plug-in hybrid electric, battery-electric, and hydrogen fuel cell) by 2025 and 4.2 million by 2030, while also ramping up GHG stringency for all light-duty vehicles. Each of these measures will be implemented over time, and benefits to Project-related emission sources would be realized over time.

Table 3.5-9. Project Consistency with Applicable Policies from the 2017 Scoping Plan and Other Applicable Statewide Measures

Policy	Primary Objective	Project Consistency Analysis
SB 350 (superseded by SB 100)	Reduce GHG emissions in the electricity sector through the implementation of the 60% RPS, doubling of energy savings, and other actions as appropriate to achieve GHG emissions reductions planning targets in the Integrated Resource Plan process.	Consistent. This is a state program that requires RPU, as a water and electric utility, to comply. The City's compliance with the Project would ensure the benefits to Project-related electricity and water consumption are realized. The Project would be subject to any regulations or actions developed to implement the goals of SB 350.
LCFS	Transition to cleaner/less-polluting fuels that have a lower carbon footprint.	Consistent. This is a state program that requires no action at the local or project level. Benefits to Project-related vehicle travel during construction and operation would be realized independently.
Mobile Source Strategy (Cleaner Technology and Fuels Scenario)	Reduce GHGs and other pollutants from the transportation sector through transition to zero-emission and low-emission vehicles, cleaner transit systems, and reduction of VMT.	Consistent. This is a state program that requires no action at the local or project level. Benefits to Project-related vehicle travel would be realized independently.
SB 1383	Approve and implement SLCP strategy to reduce highly potent GHGs.	Consistent. This is a state program that requires waste haulers within the City, which include the City and franchised haulers, to comply. Mitigation Measure MM-GHG-3 requires implementation of all feasible CALGreen Tier 1 and Tier 2 voluntary measures, which could include exceedance of statewide waste diversion goals.

Public Safety Element Update and Environmental Justice Policies

The Public Safety Element Update policies and implementing actions address natural hazards; transportation hazards; police, fire, and emergency services; pandemic preparedness and response; homelessness; and climate change and resiliency. These policies and implementing actions aim to reduce the risk to the community and to ensure protection from foreseeable natural and human-caused hazards. Proposed new residential and mixed-use development would be predominantly located in more urbanized areas of the City. Public Safety Element policies and action items could affect the design and construction of planned developments, such as addition of design elements related to emergency access and pedestrian safety. Public Safety Element policies do not include specific development proposals that would create unplanned growth through extension of roads or other infrastructure and are therefore not expected to result in GHG emissions.

The Public Safety Element Update policies and implementing actions would also involve additional Environmental Justice Policies to address public safety issues within environmental justice communities. Many Public Safety Element Update policies could result in community benefits. No specific infrastructure improvements or projects are identified in the Public Safety Element Update. As this is a policy document, this update would not conflict with or obstruct applicable plans, policies, or regulations adopted for the purpose of reducing the emissions of GHGs.

Mitigation Measures

The potential impacts of the Project described in this section would be reduced with implementation of Mitigation Measures **MM-GHG-1** through **MM-GHG-3**. However, this impact would remain significant and unavoidable.

3.6 Hazards and Hazardous Materials

3.6.1 Introduction

This section describes the geographic and regulatory setting for hazards and hazardous materials, discusses impacts that could result from the implementation of the updates to the City of Riverside's (City's) Housing and Public Safety Elements and Environmental Justice Policies, and determines the significance of impacts. Where needed, this section identifies mitigation measures that would reduce or avoid any significant impacts. Data presented were obtained from the State Water Resources Control Board's (SWRCB's) GeoTracker (SWRCB 2021a), the Department of Toxic Substances Control's (DTSC's) EnviroStor (DTSC 2021), and Cortese List Data Resources from the California Environmental Protection Agency (Cal/EPA). The analysis methods, data sources, significance thresholds, and terminology used are described. Details on the location of the Project and a description of Project activities are included in Chapter 2, *Project Description*, of this EIR.

A hazardous material is any substance that, because of its quantity, concentration, or physical or chemical properties, may pose a hazard to human health and the environment. Under California Code of Regulations (CCR) Title 22, the term "hazardous substance" refers to both hazardous materials and hazardous wastes. Both of these are classified according to four properties: (1) toxicity, (2) ignitability, (3) corrosiveness, and (4) reactivity (CCR Title 22, Chapter 11, and Article 3). A hazardous material is defined in CCR Title 22 as:

[a] substance or combination of substances which, because of its quantity, concentration, or physical, chemical or infectious characteristics, may either (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed of or otherwise managed. (CCR Title 22 Section 66260.10)

Hazardous materials in various forms can cause death, serious injury, long-lasting health effects, and damage to buildings, homes, and other property. Hazards to human health and the environment can occur during production, storage, transport, use, or disposal of hazardous materials.

3.6.2 Environmental Setting

The City is in western Riverside County and is bounded on the north by the Santa Ana River, the unincorporated community of Rubidoux, and the Cities of Jurupa Valley, Colton, and Rialto (San Bernardino County); on the south by unincorporated communities of Woodcrest and Mockingbird Canyon; on the east by the unincorporated community of Highgrove and the City of Moreno Valley; and on the west by the unincorporated community of Home Gardens and the Cities of Norco and Corona.

The City has a population of approximately 328,155 as of January 2020 (California Department of Finance 2020). In the City's recent history, population growth has been constant, adding approximately 40,000 new residents each decade since the 1960s. Past growth has been fueled by the City's attractive housing market due to its affordable offerings. Despite periods of economic recession, the City has continued to experience consistent growth.

Predominant land uses within the City include commercial uses and business parks, residential neighborhoods, mixed-use centers and corridors, and education institutions. Downtown Riverside, within the northern portion of the City's jurisdiction, is an urban, built-out neighborhood with businesses and residential uses, consisting of historic and modern buildings. The University Avenue area is a corridor dominated by mixed-use development that travels from Downtown Riverside to the Eastside neighborhood and University of California Riverside, from east to west. The Magnolia Avenue/Market Street corridor is a mixed-use corridor with urban villages of residential uses from Downtown Riverside through neighborhoods from the southwest to the northwest. There are three primary business areas: Hunter Business Park in the northern portion of the City, Sycamore Canyon Business Park in the eastern portion of the City, and Airport Business Park in the northwestern portion of the City surrounding the Riverside Municipal Airport, as well as smaller concentrations of business uses dispersed throughout the City. The business areas are dominated by large, low-profile commercial, office, and warehouse buildings; industrial buildings and utility infrastructure such as water treatment and electric substation facilities; and paved parking lots. In addition to these development areas, there are regional and citywide shopping centers, educational institutions, hospitals, and parkways. Natural features include the Arlington Heights Greenbelt in the southern portion of the City, as well as Arroyos throughout the upslope (generally southeastern) portions of the City. The Santa Ana River is along the northern boundary of the City, which is generally downslope.

Hazardous Material Use

Due to the nature of their use, residential and office uses typically do not pose significant hazardous material impacts. Hazardous materials are not typically handled in substantial amounts and materials typically used for such activities as cleaning and maintenance are not classified as acutely hazardous. Industrial and commercial land uses have a higher likelihood of hazardous material impacts.

Industrial land use can encompass a wide range of business operations that have the potential to create hazardous material impacts. Industrial facilities may store hazardous materials in underground storage tanks (USTs) and/or aboveground storage tanks, and in designated storage locations. Age and improper maintenance of storage tanks are common causes of soil and groundwater contamination. Improper handling and storage of hazardous material containers can lead to hazardous material incidents.

Commercial land uses can include vehicle repair sites, gasoline fueling stations, and dry-cleaning facilities. Like industrial facilities, some commercial sites store hazardous materials in storage tanks and in designated areas within the facility. Hazardous material spills and leaks in vehicle repair and fueling locations can lead to hydrocarbon-impacted soil and groundwater. Improper storage and use of hazardous materials in dry cleaning facilities can lead to chlorofluorocarbon-contaminated soil and groundwater.

Hazardous Material Sites within the City of Riverside

A review of SWRCB's GeoTracker and DTSC's EnviroStor of hazardous material sites listed within the City identified multiple hazardous material cleanup sites including Leaking Underground Storage Tank (LUST) Cleanup Sites, Cleanup Program Sites, Military Cleanup and UST Sites, and

DTSC Cleanup Sites throughout the City (DTSC 2021; SWRCB 2021a). A brief description of each classification is included below:

- **LUST Cleanup Sites:** include all UST sites that have had an unauthorized release (i.e., leak or spill) of a hazardous substance, usually fuel hydrocarbons, and are currently being (or have been) remediated. In GeoTracker, LUST sites consist almost entirely of fuel-contaminated LUST sites, which are regulated pursuant to Title 23 of the CCR, Chapter 16, Article 11.
- **Cleanup Program Sites:** include all non-federally owned sites that are regulated under SWRCB's Site Cleanup Program and/or similar programs conducted by each of the nine Regional Water Quality Control Boards (RWQCBs). Cleanup Program Sites are also commonly referred to as "Site Cleanup Program Sites." Cleanup Program Sites are varied and include but are not limited to pesticide and fertilizer facilities, rail yards, ports, equipment supply facilities, metals facilities, industrial manufacturing and maintenance sites, dry cleaners, bulk transfer facilities, refineries, mine sites, landfills, Resource Conservation and Recovery Act (RCRA)/Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) cleanups, and some brownfields. Unauthorized releases detected at Cleanup Program Sites are highly variable and include but are not limited to hydrocarbon solvents, pesticides, perchlorate, nitrate, heavy metals, and petroleum constituents, to name a few.
- **Military Cleanup Sites:** include all cleanup sites within active installations, installations subject to Base Realignment and Closure, and formerly used defense sites. Military Cleanup Sites include a wide range of discharges but are primarily regulated under RCRA/CERCLA standards by each of the nine RWQCBs. The nine RWQCBs partner with the Department of Defense through the use of the Defense and State Memorandum of Agreement Cooperative Agreement, which allows for expeditious cleanup at military facilities while ensuring compliance with applicable state laws and regulations. The SWRCB manages the Department of Defense Program on a statewide level and the RWQCBs provide regulatory oversight of cleanup at Department of Defense facilities in their respective regions. Military Cleanup Sites can be transferred to the jurisdiction of other federal, state, local, or private agencies.
- **DTSC Cleanup Sites:** As listed below, there are several sub-categories within the DTSC Cleanup Sites category, which can include sites undergoing evaluation or remediation.
 - *Corrective Action* sites include investigation or cleanup activities at RCRA or state-only hazardous waste facilities (that were required to obtain a permit or have received a hazardous waste facility permit from DTSC or U.S. Environmental Protection Agency [EPA]).
 - The *Evaluation* subcategory identifies suspected, but unconfirmed, contaminated sites that need or have gone through a limited investigation and assessment process.
 - Sites in the *Expedited Remedial Action Program* are confirmed release facilities/sites worked on by responsible parties with oversight of the cleanup by DTSC. This is a statewide pilot program limited to 30 facilities/sites. These confirmed facilities/sites are generally high priority and high potential risk.
 - The *Federal Superfund (National Priorities List)* subcategory identifies sites where EPA proposed, listed, or delisted a site on the National Priorities List.
 - *Formerly Used Defense Sites* are military facilities that were Formerly Used Defense Sites with confirmed or unconfirmed releases and where DTSC is involved in investigation and/or remediation, either in a lead or support capacity.

- The *Hazardous Waste Property or Border Zone Property Evaluation* subcategory identifies facilities/sites that went through the Hazardous Waste Property or Border Zone Property evaluation process (Chapter 6.5, Health and Safety Code Section 25221).
- The *Historical* subcategory identifies sites from an older database where no site type was identified. Most of these sites have a status of Referred or No Further Action. DTSC is working to clean up these data by identifying an appropriate site type for each Historical site.
- The *Open Base* category identifies open military facilities with confirmed or unconfirmed releases and where DTSC is involved in investigation and/or remediation, either in a lead or support capacity.
- The *Permitted* subcategory refers to facilities/sites that were required to obtain a permit or have received a hazardous waste facility permit from DTSC or EPA in accordance with Section 25200 of the Health and Safety Code or the RCRA.
- The *School* subcategory identifies proposed and existing school sites that are being evaluated by DTSC for possible hazardous material contamination. School sites are further defined as “Cleanup” (remedial actions occurred) or “Evaluation” (no remedial action occurred) based on completed activities.
- *State Response* sites are confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high priority and high potential risk.
- The *Tiered Permit* subcategory identifies a corrective action cleanup project on a hazardous waste facility that either was eligible to treat or permitted to treat waste under the Tiered Permitting system.
- Facilities in this subcategory fall under the Permit by Rule tier or Conditionally Authorized or Exempt tiers.
- *Voluntary Cleanup* sites are with either confirmed or unconfirmed releases, and the project proponents have requested that DTSC oversee evaluation, investigation, and/or cleanup activities and have agreed to provide coverage for DTSC’s costs.

Cortese List Sites

The provisions in Government Code Section 65962.5 are commonly referred to as the “Cortese List.” The list, or a site’s presence on the list, has bearing on the local permitting process as well as on compliance with CEQA (Cal/EPA 2021). Sites listed under the LUST Sites database from SWRCB’s GeoTracker site (mentioned above) meet Cortese List requirements. In addition, the following resources contain sites meeting Cortese List requirements:

- List of Hazardous Waste and Substances sites from DTSC
- List of solid waste disposal sites identified by RWQCB with waste constituents above hazardous waste levels
- List of active Cease and Desist Orders and Cleanup and Abatement Orders from RWQCB
- List of hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code, identified by DTSC

At the time of the preparation of this document, the following sites were identified within the listed Cortese List Data Resources (with exception of LUST sites mentioned under *Hazardous Material Sites within the City of Riverside*):

- CP Anza (EnviroStor/EPA ID 33970009). Located at the 62-acre Riverside Ag Park site in the Arlanza Neighborhood. Listed as an *Active* State Response site under the DTSC’s Site Cleanup Program. Listed contaminants of concern include chlorine and explosives (unexploded ordnance and munitions and explosives of concern) with impacted media including soil, sediments and groundwater. Past uses causing contamination listed as *Warehousing, Waste - Sewage Treatment Plant, Waste - Sewage Treatment Ponds*.
- Alark Hard Chrome (EnviroStor/EPA ID 33340002). Located at 2775 Main Street. Listed as a Federal Superfund site under EPA oversight. Cleanup status identified as *Active as of 4/19/1996*. Listed contaminant of concern includes trichloroethylene with impacted media including groundwater. Past uses causing contamination listed as *Metal Plating – Chrome*.
- FMC Corporation Philadelphia (Facility ID 228446). Located at 3075 12th Street. Cleanup and Abatement Order site. Listed as an *Active* groundwater cleanup under the Unregulated Sites program.
- Flight Road (Facility ID 228451). Located at 6741 Flight Road. Cleanup and Abatement Order site. Listed as an *Active* groundwater cleanup under the Underground Storage Tanks program.

Schools

According to the *Riverside General Plan 2025 (GP 2025) Education Element*, the City hosts three universities (University of California, Riverside; California Baptist University; La Sierra University), a college (Riverside Community College), two school districts (Riverside and Alvord Unified School Districts), and several private and charter schools throughout the City.

3.6.3 Regulatory Setting

Hazards and hazardous materials are subject to numerous federal, state, and local laws and regulations intended to protect health, safety, and the environment. EPA, DTSC, RWQCB, the County of Riverside, and the City are the primary agencies enforcing these regulations. Local regulatory agencies enforce many federal and state regulations through the Certified Unified Program Agency (CUPA) program. The Riverside County Fire Department/County of Riverside Department of Environmental Health Hazardous Materials Branch are the lead agencies for the investigation and cleanup of LUST sites. RWQCB is the lead agency for other groundwater cases. DTSC can be the lead agency for cases with no groundwater issues and is the lead agency for investigation and remediation of hazardous sites.

Federal

Resources Conservation and Recovery Act (42 USC 6901 et seq.)

The RCRA is the principal law governing the management and disposal of hazardous materials. The RCRA is considered a “cradle-to-grave” statute for hazardous wastes in that it addresses all aspects of hazardous materials from creation to disposal.

Emergency Planning and Community Right-to-Know Act (Superfund Amendments and Reauthorization Act Title III)

The Emergency Planning and Community Right-to-Know Act improved community access to information regarding chemical hazards and facilitated the development of business chemical inventories and emergency response plans. The act also established reporting obligations for facilities that store or manage specified chemicals.

U.S. Department of Transportation Hazardous Materials Transportation Act of 1975 (49 USC 5101)

The U.S. Department of Transportation, in conjunction with EPA, is responsible for enforcement and implementation of federal laws and regulations pertaining to safe storage and transport of hazardous materials. The Code of Federal Regulations (CFR) 49, 171–180, regulates the transport of hazardous materials, types of material defined as hazardous, and the marking of vehicles transporting hazardous materials.

The Federal Motor Carrier Safety Administration (49 CFR 383–397)

The Federal Motor Carrier Safety Administration, a part of the U.S. Department of Transportation, issues regulations concerning highway transport of hazardous materials, the hazardous materials endorsement for a commercial driver's license, highway hazardous material safety permits, and financial responsibility requirements for motor carriers of hazardous materials.

Occupational Safety and Health Administration (29 USC 15)

The Occupational Health and Safety Administration is the federal agency responsible for ensuring worker safety. Its regulations provide standards for safe workplaces and work practices, including those relating to hazardous material handling.

Federal Insecticide, Fungicide, and Rodenticide Act (7 USC 136 et seq.) (1996)

The Federal Insecticide, Fungicide, and Rodenticide Act provides for federal regulation of pesticide distribution, sale, and use ("pesticides" include any herbicide, insecticide, rodenticide, algacide, fungicide, or any combination of substances intended to prevent, destroy, or repel any pest). All pesticides distributed or sold in the United States must be registered (licensed) by EPA. Before EPA may register a pesticide under the act, the applicant must show, among other things, that using the pesticide according to specifications "will not generally cause unreasonable adverse effects on the environment." The act defines the term "unreasonable adverse effects on the environment" to mean: (1) any unreasonable risk to man or the environment, taking into account the economic, social, and environmental costs and benefits of the use of any pesticide, or (2) a human dietary risk from residues that result from a use of a pesticide in or on any food inconsistent with the standard under Section 408 of the Federal Food, Drug, and Cosmetic Act. Training is required for workers in pesticide-treated areas and certification and training is required for applicators of restricted use pesticides.

Comprehensive Environmental Response, Compensation, and Liability Act/ Superfund Amendments and Reauthorization Act

CERCLA, commonly known as “Superfund,” was enacted by Congress on December 11, 1980. This law (42 United States Code [USC] 103) provides broad federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. CERCLA establishes requirements concerning closed and abandoned hazardous waste sites, provides for liability of persons responsible for releases of hazardous waste at these sites, and establishes a trust fund to provide for cleanup when no responsible party can be identified. CERCLA also enabled the revision of the National Contingency Plan. This plan (40 CFR 300) provides the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, and/or contaminants. The National Contingency Plan also established the National Priorities List. CERCLA was amended by the Superfund Amendments and Reauthorization Act on October 17, 1986.

State

California Environmental Protection Agency

Cal/EPA was created in 1991. It unified California’s environmental authority in a single cabinet-level agency and brought the California Air Resources Board, SWRCB, RWQCB, California Department of Resources Recycling and Recovery, DTSC, Office of Environmental Health Hazard Assessment, and Department of Pesticide Regulation under one agency. These agencies were placed under the Cal/EPA “umbrella” for the protection of human health and the environment to ensure the coordinated deployment of state resources. Its mission is to restore, protect, and enhance the environment and ensure public health, environmental quality, and economic vitality.

Department of Toxic Substances Control

DTSC, a department of Cal/EPA, is the primary agency in California for regulating hazardous waste, cleaning up existing contamination, and finding ways to reduce the amount of hazardous waste produced in California. DTSC regulates hazardous waste primarily under the authority of the federal RCRA and the California Health and Safety Code (primarily Division 20, Chapters 6.5 through 10.6, and Title 22, Division 4.5). Other laws that affect hazardous waste are specific to handling, storage, transport, disposal, treatment, reduction, cleanup, and emergency planning.

USC 65962.5 (commonly referred to as the Cortese List) includes DTSC-listed hazardous waste facilities and sites, Department of Health Services lists of contaminated drinking water wells, sites listed by SWRCB as having UST leaks or a discharge of hazardous wastes or materials into the water or groundwater, and lists from local regulatory agencies of sites with a known migration of hazardous waste/material.

Hazardous Waste Control Act (California Health and Safety Code, Section 25100 et seq.)

The Hazardous Waste Control Act is the state equivalent of the RCRA and regulates the generation, treatment, storage, and disposal of hazardous waste. This act implements the RCRA “cradle-to-grave” waste management system in California but is more stringent in its regulation of non-RCRA

wastes, spent lubricating oil, small-quantity generators, and transportation and permitting requirements, as well as in its penalties for violations.

Unified Hazardous Waste and Hazardous Materials Management Regulatory Program

The Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (California Health and Safety Code, Chapter 6.11, Sections 25404–25404.9) provides authority to the CUPA.

The Unified Hazardous Waste and Hazardous Materials Management Regulatory Program consolidates, coordinates, and makes consistent the administrative requirements, permits, inspections, and enforcement activities of hazardous material programs including HazMat Business Plan Program, California Accidental Release Prevention Program, UST Program, Aboveground Storage Tank Program, Hazardous Waste Generator Program, and Incident Response.

California Accidental Release Prevention Program

The purpose of the California Accidental Release Prevention Program is to prevent accidental releases of substances that can cause serious harm to the public and the environment, to minimize the damage if releases do occur, and to satisfy community right-to-know laws. This is accomplished by requiring businesses that handle more than a threshold quantity of a regulated substance listed in the regulations to develop a Risk Management Plan. A Risk Management Plan is a detailed engineering analysis of the potential accident factors present at a business and the mitigation measures that can be implemented to reduce this accident potential. The Risk Management Plan contains safety information, hazards review, operating procedures, training requirements, maintenance requirements, compliance audits, and incident investigation procedures (California OES 2016).

California Hazardous Materials Release Response Plans and Inventory Law of 1985

The California Hazardous Materials Release Response Plans and Inventory Law of 1985 requires preparation of hazardous materials business plans (HMBPs) and disclosure of hazardous material inventories, including an inventory of hazardous materials handled, plans showing where hazardous materials are stored, an emergency response plan, and provisions for employee training in safety and emergency response procedures (California Health and Safety Code, Division 20, Chapter 6.95, Article 1). Statewide, DTSC has primary regulatory responsibility for management of hazardous materials, with delegation of authority to local jurisdictions that enter into agreements with the state. Local agencies are responsible for administering these regulations.

Several state agencies regulate the transport and use of hazardous materials to minimize potential risks to public health and safety, including Cal/EPA and California Emergency Management Agency. The California Highway Patrol and California Department of Transportation enforce regulations specifically related to the transport of hazardous materials. Together, these agencies determine container types used and license hazardous waste haulers for hazardous waste transport on public roadways.

Health and Safety Code, Sections 2550 et seq.

This code and the related regulations in 19 CCR 2620 et seq. require local governments to regulate local business storage of hazardous materials in excess of certain quantities. The law also requires that entities storing hazardous materials be prepared to respond to releases. Those using and storing hazardous materials are required to submit an HMBP to their local CUPA and to report releases to their CUPA and the California Office of Emergency Services.

California Division of Occupational Safety and Health

The California Division of Occupational Safety and Health (Cal/OSHA) is responsible for developing and enforcing workplace safety standards and ensuring worker safety in the handling and use of hazardous materials. Among other requirements, Cal/OSHA requires many entities to prepare injury and illness prevention plans and chemical hygiene plans and provides specific regulations to limit exposure of construction workers to lead.

Government Code Section 65962.5 (Cortese List)

The provisions in Government Code Section 65962.5 are commonly referred to as the “Cortese List” (after the legislator who authored and enacted the legislation). The list, or a site’s presence on the list, has bearing on the local permitting process, as well as on compliance with CEQA. The list is developed with input from the State Department of Health Services, SWRCB, California Integrated Waste Management Board, and DTSC. At a minimum, at least annually, DTSC must submit to the Secretary for Environmental Protection a list of the following:

1. All hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code
2. All land designated as hazardous waste property or border zone property pursuant to Article 11 (commencing with Section 25220) of Chapter 6.5 of Division 20 of the Health and Safety Code
3. All information received by DTSC pursuant to Section 25242 of the Health and Safety Code on hazardous waste disposals on public land
4. All sites listed pursuant to Section 25356 of the Health and Safety Code
5. All sites included in the Abandoned Site Assessment Program
6. All USTs for which an unauthorized release report is filed pursuant to Section 25295 of the Health and Safety Code.
7. All solid waste disposal facilities from which there is a migration of hazardous waste and for which a California RWQCB has notified DTSC pursuant to subdivision (e) of Section 13273 of the Water Code
8. All cease-and-desist orders issued after January 1, 1986, pursuant to Section 13301 of the Water Code, and all cleanup or abatement orders issued after January 1, 1986, pursuant to Section 13304 of the Water Code, that concern the discharge of wastes that are hazardous materials
9. All solid waste disposal facilities from which there is a known migration of hazardous waste

The Secretary for Environmental Protection consolidates the information submitted pursuant to this section and distributes it in a timely fashion to each city and county in which sites on the lists are

located. The Secretary distributes the information to any other person upon request. The Secretary may charge a reasonable fee to persons requesting the information, other than cities, counties, or cities and counties, to cover the cost of developing, maintaining, and reproducing and distributing the information.

California Department of Pesticide Regulation, 3 CCR Food and Agriculture, Division 6, Pesticides and Pest Control Operations

This section of the CCR addresses the use of pesticides and pest control operations. These regulations provide pesticide registration and licensing procedures, lists of restricted materials, work and worker safety requirements, and environmental protections for groundwater, surface water, air, and aquatic environments. For all development facilitated by the Project, the specific project applicants and contractors would be required to comply with California Department of Pesticide Regulation regulations.

California Labor Code (Division 5, Parts 1, 6, 7, and 7.5)

The California Labor Code is a collection of regulations that include regulation of the workplace to ensure appropriate training on the use and handling of hazardous materials and operation of equipment and machines that use, store, transport, or dispose of hazardous materials. Division 5, Part 1, Chapter 2.5 ensures that employees who are in charge of handling hazardous materials are appropriately trained and informed with respect to the materials they handle. Division 5, Part 7 ensures that employees who work with volatile flammable liquids are outfitted with appropriate safety gear and clothing.

State Water Resources Control Board Municipal Separate Storm Sewer System Permits

Municipal Separate Storm Sewer System Permits require that cities and counties develop and implement programs and measures, including best management practices (BMPs), control techniques, system design and engineering methods, and other measures as appropriate to reduce the discharge of pollutants in stormwater to the maximum extent possible. As part of permit compliance, Municipal Separate Storm Sewer System permit holders have created stormwater management plans for their respective locations. These plans outline the requirements for municipal operations, industrial and commercial businesses, construction sites, and planning and land development. These requirements may include multiple measures to control pollutants in stormwater discharge. During implementation of specific projects under the program, project applicants are required to follow the guidance contained in the stormwater management plans as defined by the permit holder in that location.

Construction General Permit

SWRCB issued a statewide National Pollutant Discharge Elimination System General Permit for Stormwater Discharges Associated with Construction Activity (Order No. 2009-0009-DWQ as amended by 2010-0014-DWQ and 2012-0006-DWQ) (Construction General Permit), effective July 1, 2010 (SWRCB 2021b). Every construction project that disturbs 1 or more acres of land surface or that is part of a common plan of development or sale that disturbs more than 1 acre of land surface would require coverage under this Construction General Permit. To obtain coverage under this Construction General Permit, the landowner or other applicable entity must file Permit Registration

Documents prior to the commencement of construction activity, which include a Notice of Intent and Stormwater Pollution Prevention Plan (SWPPP) prepared by a Qualified SWPPP Developer, and mail the appropriate permit fee to SWRCB.

Construction activities subject to the Construction General Permit include clearing, grading, and disturbances to the ground, such as stockpiling or excavation, that result in soil disturbances of at least 1 acre of total land area. The SWPPP has two major objectives: (1) to help identify the sources of sediment and other pollutants that affect the quality of stormwater discharges; and (2) to describe and ensure the implementation of BMPs to reduce or eliminate sediment and other pollutants in stormwater and non-stormwater discharges. BMPs are intended to reduce impacts to the *maximum extent practicable*, which is a standard created by Congress to allow regulators the flexibility necessary to tailor programs to the site-specific nature of municipal stormwater discharges. The SWPPP is required to be implemented and monitored regularly by a Qualified SWPPP Practitioner. Reducing impacts to the maximum extent practicable generally relies on BMPs that emphasize pollution prevention and source control, with additional structural controls as needed. The Construction General Permit requires that specific minimum BMPs are incorporated into the SWPPP, depending on the project's sediment risk to receiving waters based on the project's erosion potential and receiving water sensitivity to sediment.

Regional

There are no applicable regional policies or regulations related to hazards and hazardous materials.

Local

County of Riverside

Hazardous Materials Branch of Riverside County Department of Environmental Health: As the designated CUPA, the Riverside County Department of Environmental Health Hazardous Materials Branch is responsible for overseeing the six hazardous materials programs in the county. Responsibilities include inspection of facilities that handle hazardous materials, generate hazardous waste, treat hazardous waste, own/operate USTs, own/operate aboveground petroleum storage tanks, or handle other materials subject to the California Accidental Release Program. In addition, the Hazardous Materials Branch maintains an emergency response team that responds to hazardous materials and other environmental health emergencies 24 hours a day, 7 days a week (County of Riverside DEH 2016).

Hazardous Materials Fire Code Requirements: As the CUPA, the Hazardous Materials Branch for Riverside County enforces the hazardous materials-related standards of the California Fire Code, including requirements for signage of hazardous material storage areas, storage of flammable materials, secondary containment for storage containers, and separation of incompatible chemicals.

Riverside County Hazardous Waste Management Plan: The Riverside County Hazardous Waste Management Plan was adopted in 1989 and uses a framework of 24 programs to serve as the county's primary planning document for the management of hazardous substances. Its policies include compliance with federal and state laws pertaining to the management of hazardous wastes and materials; active public participation in hazardous waste and hazardous material management decisions in Riverside County; coordination of hazardous waste facility responsibilities on a regional basis through the Southern California Hazardous Waste Management Authority; and encouragement

and promotion of the programs, practices, and recommendations contained in the county Hazardous Waste Management Plan, giving the highest waste management priority to the reduction of hazardous waste at its source.

The City of Riverside Fire Department/Fire Prevention Division is a CUPA Participating Agency under the County of Riverside CUPA program. The Riverside Fire Department is responsible for administrating certain CUPA/hazardous materials program elements, including HMBPs, the Above Ground Storage Tank Program, the California Accidental Release Prevention Program, and the Uniform Fire Code Plans and Inventory Requirements.

City of Riverside

GP 2025 Public Safety Element

The goal of a jurisdiction’s Public Safety Element is to reduce the potential short- and long-term risks of death, injuries, property damage, and economic and social disruption resulting from fires, floods, droughts, earthquakes, landslides, climate change, and other hazards. Other locally relevant safety issues—such as emergency response, hazardous material spills, crime reduction, and response to global pandemics like COVID-19 beginning in 2020 and continuing through 2021—may also be included. The Public Safety Element directly relates to topics mandated in the Land Use and Urban Design and Open Space and Conservation Elements as well as a key consideration for the Environmental Justice Policies of the general plan. The Public Safety Element must identify hazards and ways to reduce those hazards to guide local decisions related to zoning and development regulations. Policies and implementable actions may include methods for minimizing risks, as well as ways to minimize economic disruption and speed up recovery following disaster. The City’s update to the Public Safety Element will identify public safety issues and needs anticipated to be of ongoing concern to people in the City. The Public Safety Element will ensure that the City takes action to reduce natural and man-made hazards and safety threats as well as respond quickly to any public safety incident.

Principles and policies that are proposed for inclusion in the Public Safety Element Update are listed in detail in Chapter 2, *Project Description*.

Table 3.6-1 includes GP 2025 and Specific Plan policies relevant to hazards and hazardous materials.

Table 3.6-1. Relevant Riverside General Plan and Specific Plan Policies

Plan	Policy
Riverside General Plan 2025	
Public Safety Element	Objective PS-3: Minimize risks associated with the storage, transport and disposal of hazardous materials. Policy PS 3-1: Ensure that hazardous materials used in business and industry are handled properly. Policy PS 3-3: Work with responsible Federal, State, and County agencies to identify and regulate the disposal of toxic materials. Policy PS 9-1: Maintain an effective, coordinated and up-to-date community-wide emergency response plan. Policy PS 9-8: Reduce the risk to the community from hazards related to geologic conditions, seismic activity, flooding and structural and wildland fires

Plan	Policy
	by requiring feasible mitigation of such impacts on discretionary development projects. Policy PS 10-3: Ensure that public safety infrastructure and staff resources keep pace with new development planned and proposed in Riverside and the Sphere of Influence.
Specific Plans	
Canyon Springs Business Park Specific Plan	There are no policies relevant to the Project regarding hazards and hazardous materials.
Downtown Specific Plan	There are no policies relevant to the Project regarding hazards and hazardous materials.
Hunter Business Park Specific Plan	There are no policies relevant to the Project regarding hazards and hazardous materials.
La Sierra University Specific Plan	There are no policies relevant to the Project regarding hazards and hazardous materials.
Magnolia Avenue Specific Plan	There are no policies relevant to the Project regarding hazards and hazardous materials.
Riverside Marketplace Specific Plan	There are no policies relevant to the Project regarding hazards and hazardous materials.
University Avenue Specific Plan	There are no policies relevant to the Project regarding hazards and hazardous materials.

Sources: City of Riverside 1991, 2002, 2005, 2007, 2009, 2017a, 2017b, 2018.

City of Riverside Municipal Code

The City of Riverside Municipal Code indicates:

The Fire Department shall be responsible for implementing and enforcing three of the six Unified Programs set forth in Chapter 9.48 of the Riverside Municipal Code. The elements of the Unified Programs consist of:

- a. Hazardous materials release response plans and inventories (Business Plans).
- b. Aboveground Petroleum Storage Act (APSA/SPCC), California Fire Code: Hazardous Material Management Plans and Hazardous Material Inventory Statements.
- c. California Fire Code: Hazardous Materials Management Plans and Hazardous Material Inventory Statements.

According to Chapter 9.48 of the City of Riverside Municipal Code, a hazardous material is:

...a material, because of its quantity, concentration, or physical or chemical characteristics, [that] poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment, or a material specified in an ordinance adopted pursuant to paragraph (f). Hazardous materials include any product or waste that has been abandoned, discarded, or recycled on the property and as a result represents a continuing hazard. A hazardous material also includes any contaminated soil or groundwater.

Hazardous *materials* include all of the following:

- a. A substance or product for which the manufacturer or producer is required to prepare a material safety data sheet (MSDS or SDS) pursuant to the Hazardous Substances Information and Training

- Act (Chapter 2.5 [commencing with Section 6360] of Part 1 of Division 5 of the Labor Code) or pursuant to any applicable federal law or regulation.
- b. A substance listed as a radioactive material in Appendix B of Part 30 (commencing with Section 30.1) of Title 10 of the Code of Federal Regulations, as maintained and updated by the Nuclear Regulatory Commission.
 - c. A substance listed pursuant to Title 49 of the Code of Federal Regulations.
 - d. A substance listed in Section 339 of Title 8 of the California Code of Regulations.
 - e. A material listed as a hazardous waste, as defined by HSC Sections 25115, 25117, and 25316.
 - f. The governing body of a unified program agency may adopt an ordinance that provides that, within the jurisdiction of the unified program agency, a material not listed by definition as a hazardous materials is a hazardous material for purposes of this article if a handler has a reasonable basis for believing that the material would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment, and requests the governing body of the unified program agency to adopt that ordinance, or if the governing body of the unified program agency has a reasonable basis for believing that the material would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment. The handler or the unified program agency shall notify the secretary no later than 30 days after the date an ordinance is adopted pursuant to this paragraph.

City of Riverside Fire Department

The City is served by the Riverside Fire Department, which includes the Hazardous Materials Team. The Hazardous Materials Team is Type 1 State of California Office of Emergency Services Certified and responds to emergency situations involving spills, unknown chemicals, and unknown gas leaks. Additionally, as a CUPA Participating Agency, the Riverside Fire Department implements the HMBP for all facilities within the incorporated limits of the City (County of Riverside DEH 2021). The HMBP discloses an inventory of hazardous materials stored or handled by facilities and is made available to first responders.

Policy Consistency

The Project would be consistent with GP 2025 and Specific Plan goals and policies as described in Table 3.6-1. It should be noted that these are existing, adopted policies, and that they are subject to update as part of the Project. The Project may result in the storage, transport, or disposal of additional hazardous materials related to the construction and operation of additional residential and mixed-use development; however, all hazardous materials would continue to be handled in compliance with existing federal, state, and local regulations. The Project would not propose activities that would conflict with the policies intended to ensure the safe and legal handling of hazardous materials within the City and would be consistent with such policies.

3.6.4 Methodology and Thresholds of Significance

There are several federal, state, and local laws regulating the management of hazardous materials. Implementation of these laws and the management of hazardous materials are regulated independently by different agencies at all levels of government. Analysts conducted a desktop review of hazards and hazardous material conditions within the City to support the discussion in this section. The analysis of the Project's impacts related to hazards and hazardous materials was

conducted by reviewing the existing hazardous material sites within the City, as well as other existing hazards in the City, and considering the Project to determine if it would exacerbate the existing hazardous conditions or present new conditions that could create a significant hazard to the public or the environment. The Project is analyzed qualitatively at a program level.

Thresholds of Significance

An Initial Study was prepared for the Project in April 2021. The following environmental thresholds were scoped out from detailed review in this section of the Draft EIR because in the Initial Study the impacts were determined to be less than significant:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials
- Be located within an airport land use plan area or, where such a plan has not been adopted, be within two miles of a public airport or public use airport, and result in a safety hazard or excessive noise for people residing or working in the project area
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan

In accordance with Appendix G of the State CEQA Guidelines, the Project would be considered to have a significant effect if it would:

- 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
- Emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school
- Be located on a site that is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment

3.6.5 Impacts and Mitigation Measures

Impact HAZ-1: The Project would 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.

Implementation of Mitigation Measure MM-HAZ-1 would reduce this impact to less-than-significant levels.

Housing Element Update, Zoning Code Amendments, and Environmental Justice Policies

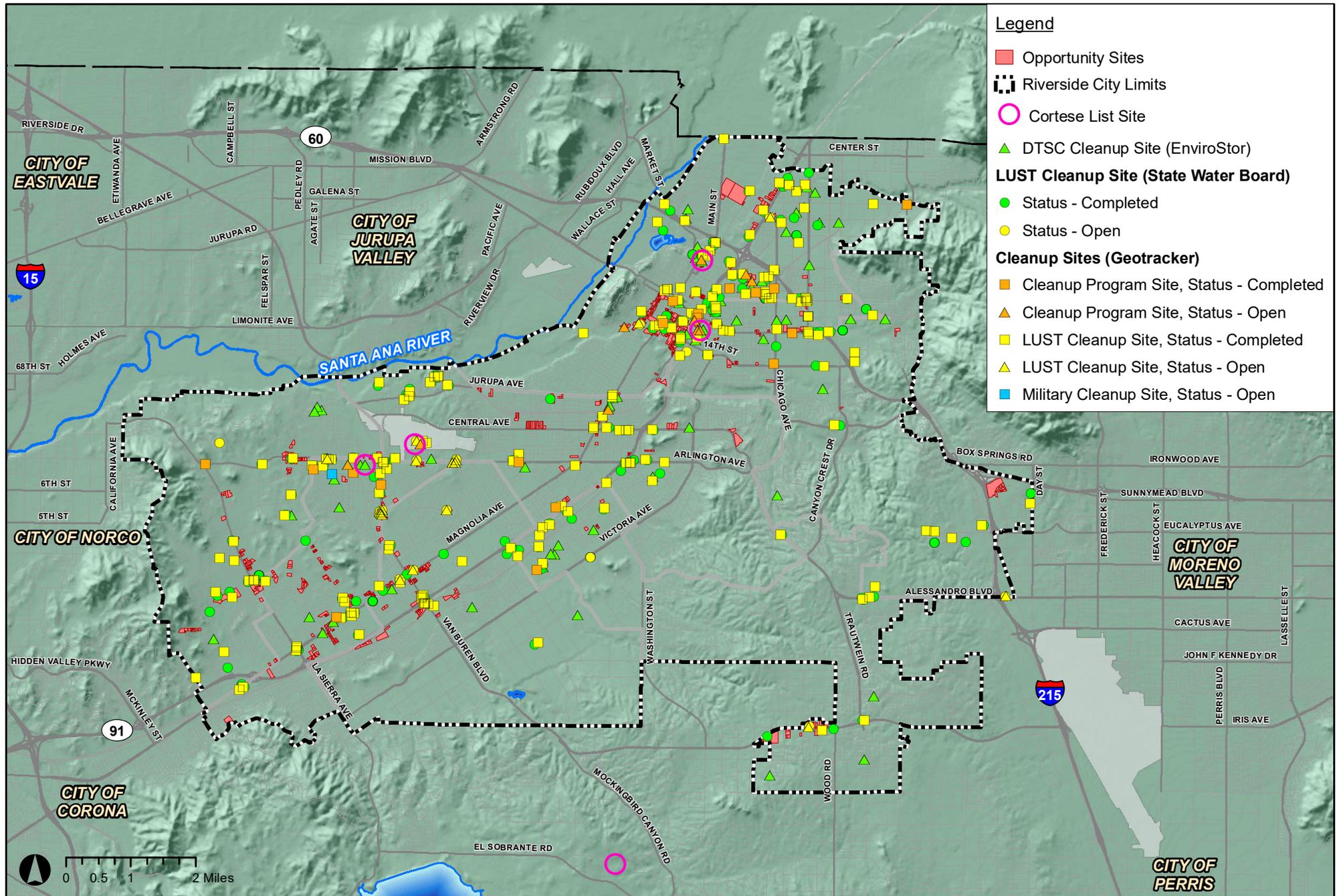
Hazardous material sites with a potential for contaminated onsite soil and/or groundwater exist within the City, including LUST Cleanup Sites, Cleanup Program Sites, Military Cleanup and UST Sites, and DTSC Cleanup Sites. A detailed description of each type of hazardous material site is found in Section 3.6.2, *Environmental Setting*. In addition, at the time of the preparation of this EIR, four Cortese List sites were found in various locations throughout the City (excluding LUST sites, which

also fit within the Cortese List criteria and can number several dozen throughout the City). The proposed Housing Element Update and Zoning Code amendments would enable future development and the construction of new housing units and mixed-use developments, several of which would be within the footprint of or adjacent to a hazardous material site as identified in Section 3.6.2, *Environmental Setting* (see Figure 3.6-1 for specific locations). Also, as the hazardous materials site data are dynamic and can change over time, there is a potential that future, currently unlisted hazardous material sites could appear within an identified Opportunity Site. Construction of a new residential or mixed-use development would involve ground-disturbing activities such as, but not limited to, grading and excavation. Ground-disturbing activities at a hazardous materials site have the potential to encounter and release contaminated soils or groundwater, and could potentially expose people or the environment to these hazardous materials. The potential to expose hazardous materials during ground disturbance would exacerbate the conditions on site by releasing hazardous materials to the environment (in the form of contaminated media), and therefore would result in impacts related to accidental conditions. Moreover, as part of the proposed Housing Element Update and Zoning Code amendments, industrial uses would be redeveloped into residential and mixed-use development. Hazardous material and Cortese List sites are more likely to be found among industrial uses; therefore, the potential exposure risk to contaminated media would be higher. Depending on the contaminants of concern and the extent of contamination, excavation, and other ground-disturbing activities, construction associated with the proposed Housing Element Update and Zoning Code amendments could encounter contaminated groundwater and/or soil and could result in the release of impacted media to the environment. Opportunity Sites have been identified throughout the City as locations that, with Zoning Code and Specific Plan amendments, could accommodate increased housing units over the existing conditions in order to meet the Regional Housing Needs Assessment as well as provide additional housing. Figure 3.6-1 depicts the locations of the Opportunity Sites and mapped hazardous material sites listed in the hazardous material databases, including sites on the Cortese List. At Opportunity Sites, ground-disturbing construction activities could encounter impacted media associated with a contaminated site. Operation of residential units associated with the Opportunity Sites would not involve ground disturbance and therefore would not result in any potential release of contaminated media. Also, any hazardous material use within residential land uses typically involves common household cleaners in small quantities. Releases are typically localized and cleaned up as they occur.

The Project includes Environmental Justice Policies related to hazardous materials, which ensure that hazardous materials associated with contaminated sites within environmental justice communities are handled and transported properly, and that sites are adequately remediated prior to any new development. This policy also includes several implementing actions that require soil testing at development sites, determination of the presence of hazardous materials or groundwater contamination, and use of the latest technologies when conducting remediation to cause the least harm to the environment.

Additionally, the rezoning and GP 2025 and Specific Plan amendments are not limited only to Opportunity Sites identified for the purpose of satisfying the City's Regional Housing Needs Assessment obligation and, as such, potential future residential or mixed-use development could occur in other areas of the City as part of the Project. Therefore, there is potential for ground-disturbing construction activities to encounter and release contaminated media within or adjacent to an established hazardous material site.

Figure 3.6-1
 Location of Existing Hazardous Materials Sites and Proposed Opportunity Sites



Contaminated sites would be remediated/addressed in coordination with and under oversight of the applicable federal, state, and/or local agency (e.g., EPA, SWRCB, DTSC, or local environmental health or fire department). Agencies that provide guidance and oversight on sites with a history of releases can include:

- RWQCB: In case of a perceived threat to surface water or groundwater quality, RWQCB may be contacted.
- DTSC: DTSC may become involved if there is a higher perceived risk to public health or public safety, and/or if environmental justice concerns are involved.
- EPA: EPA may become involved if a site is determined to be under federal jurisdiction (e.g., federal or military uses, chemical[s] released subject to the Toxic Substances Control Act, chemical release at a level that meets or exceeds federal reportable quantities).

The type and extent of the contamination will dictate the appropriate response and remediation for the site and the agencies to be notified. Although these regulatory requirements would be followed, the potential for foreseeable upset and accident conditions involving the release of contaminated media into the environment from the construction of development allowed under the Housing Element Update, Zoning Code amendments, and Specific Plan amendments could create a significant hazard to the public or the environment (Impact HAZ-1). Prior to the commencement of a construction project, Mitigation Measure **MM-HAZ-1** would be implemented, which would require a project-level hazardous material site assessment for construction of the specific project, which would verify the presence or absence of hazardous materials on any Opportunity Site and require subsequent measures if necessary, based on the conditions on the site.

Additionally, buildings and structures scheduled to be demolished that have lead- or asbestos-containing materials would require proper abatement procedures prior to construction activities to reduce potential impacts. Any structures built prior to 1980 and planned for demolition as part of subsequent projects would require an asbestos and lead-based paint survey prior to issuance of construction permits. An asbestos survey will be conducted in accordance with Cal/OSHA (CCR Title 8, Section 1529) and the National Emission Standards for Hazardous Air Pollutants for Asbestos Surveys (40 CFR 61, Subpart M). CCR Title 8, Section 1532.1, "Lead," and Cal/OSHA requirements will be followed when handling materials containing lead.

Public Safety Element Update and Environmental Justice Policies

The Public Safety Element Update policies and implementing actions address natural hazards; transportation hazards; police, fire, and emergency services; pandemic preparedness and response; homelessness; and climate change and resiliency. The Public Safety Element Update also includes policies and actions related to management of hazardous materials and other safety topics related to emergency access and pedestrian safety that could prompt the construction of roadways, sidewalks, and bike paths (as a means to improving emergency access and safety). Future construction of these physical infrastructure improvements would involve ground-disturbing activities and, if performed near a contaminated site, could produce impacts. However, no specific infrastructure improvements or projects are identified in the Public Safety Element Update. As such, the proposed Public Safety Element Update and Environmental Justice Policies would not result in a potential accidental release of hazardous materials to people or the environment. Impacts would be less than significant.

Mitigation Measures

The potential impacts of the Project described in this section would be reduced to less-than-significant levels with the implementation of the following mitigation measure.

MM-HAZ-1: Conduct project-level hazardous material site assessment for construction of Opportunity Sites involving soil disturbance at sites listed on hazardous materials databases and implement measures.

For development of Opportunity Sites at or adjacent to hazardous materials sites that are listed on hazardous materials databases (see Section 3.6.2, *Environmental Setting*), prior to construction activities associated with any Opportunity Site involving ground disturbance, the specific applicant shall be required to retain a professional hazardous materials specialist specializing in hazardous material impact assessment. The professional hazardous materials specialist shall conduct a project-level analysis to verify the presence or absence of hazardous material conditions (including Cortese List sites) in the vicinity of the ground-disturbance area and if there is potential for existing hazardous material conditions to be disturbed or released as a result of construction activities.

This assessment shall consist of a search for environment-related information present in publicly accessible databases. The information shall be reviewed to determine if the construction footprint or adjacent properties are the site of (or in the vicinity of) contaminated soil or groundwater that has been left in place. If the professional hazardous materials specialist determines that the site (where ground disturbance is to occur) or hazardous material conditions in the vicinity of the site do not pose a risk, additional steps in this measure would not be required.

If the construction footprint or adjacent properties are the site of contaminated soil or groundwater, the professional hazardous materials specialist shall determine the potential risk to construction workers, the public, or the environment from construction activities. The determination of risk would consider, among other factors, regulatory status, the type of project, the type of contaminated property, distance and direction to the project, and appropriate measures. If the hazardous materials specialist concludes that the subsequent project would not 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, then no further action would be required.

If a site is considered a risk to construction workers, the public, or the environment, the applicant shall implement measures to reduce risk including one or more of the following:

- Implementation of engineering controls and BMPs during construction to minimize human exposure to potentially contaminated soils during construction. Engineering controls and construction BMPs could include, but are not limited to, the following:
 - Contractor employees working on site handling potentially contaminated media shall be certified in the Occupational Health and Safety Administration's 40-hour Hazardous Waste Operations and Emergency Response training.
 - Contractors shall water or mist soil as it is being excavated and stockpiled or loaded onto transport trucks.

- Contractors shall place any stockpiled soil in areas shielded from prevailing winds or cover stockpiles with staked and/or anchored sheeting.
- Conducting a soil and/or groundwater sampling program to determine the type and extent of contaminants. The sampling program could include:
 - A scope of work for preparation of a Health and Safety Plan that specifies pre-field activity marking of boring locations and obtainment of utility clearance; and field activities, such as identifying appropriate sampling procedures, health and safety measures, chemical testing methods, and quality assurance/quality control procedures
 - Necessary permits for well installation and/or boring advancement
 - A Soil Sampling and Analysis Plan in accordance with the scope of work
 - Laboratory analyses conducted by a state-certified laboratory
 - Disposal processes, including transport by a state-certified hazardous material hauler to a state-certified disposal or recycling facility licensed to accept and treat hazardous waste
- Implementation of a Soil Management Plan. The purpose of a Soil Management Plan is to provide administrative, procedural, and analytical guidance to expedite and clarify decisions and actions if contaminated soils are encountered. Typically, procedures and protocols are included to ensure that contaminated soil is excavated properly and efficiently, and that unacceptable risks are not posed to human health or the environment from contaminated soils. Additionally, the Soil Management Plan shall contain procedures for handling, stockpiling, screening, and disposing of the excavated soil. The Soil Management Plan is a site-specific technical plan that could be required depending on other screening activities conducted (listed above) and is not included as part of this EIR.

If dewatering would be necessary in areas where contaminated groundwater exists, then dewatering procedures could be subject to permit requirements of the National Pollutant Discharge Elimination System. In addition, wastewater profiling shall be conducted to determine proper handling and disposal.

Impact HAZ-2: The Project could emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. Implementation of Mitigation Measure MM-HAZ-1 would reduce this impact to less-than-significant levels.

Housing Element Update, Zoning Code Amendments, and Environmental Justice Policies

As described above under Section 3.6.2, *Environmental Setting*, the City hosts universities (University of California, Riverside; California Baptist University; La Sierra University), a college (Riverside Community College), two school districts (Riverside and Alvord Unified School Districts), and several private and charter schools. Construction activities associated with the Project can occur within the identified Opportunity Sites, as well as in the locations that have been identified for rezoning and Specific Plan amendments to facilitate housing development. As such, there are several locations where ground-disturbing construction could occur within or immediately adjacent to a

hazardous material site (types of hazardous material sites are described in detail under Section 3.6.2, *Environmental Setting*) that are within 0.25 mile of a school site, as depicted on Figure 3.6-2. As the hazardous material site data are dynamic and can change over time, there is a potential that future, currently unlisted hazardous material sites could appear within 0.25 mile of a school and within an identified Opportunity Site. Depending on the contaminant characteristics of the hazardous material site and extent of contamination, soil-disturbance activities conducted during construction could encounter contaminated groundwater and/or contaminated soil. Ground-disturbing activities could release contaminated groundwater and/or soil to the environment within 0.25 mile of a school or, during remediation of a site identified as a hazardous materials site, hazardous materials could be handled within 0.25 mile of a school as the materials are removed, stockpiled, and/or transported. Consequently, affected media or hazardous materials potentially could be handled in proximity of these schools identified on Figure 3.6-2 during construction activities. Implementation of the proposed policies and implementing actions along with Mitigation Measure **MM-HAZ-1** (previously described under Impact HAZ-1) would reduce potential impacts associated with hazardous emissions or handling of hazardous or acutely hazardous materials near a school to less-than-significant levels.

Additionally, as noted above, structures built prior to 1980 to be demolished as a result of the Project could contain hazardous building materials including asbestos and lead-containing materials. However, asbestos and lead-based paint surveys would be required prior to issuance of construction permits. An asbestos survey would be conducted in accordance with Cal/OSHA (CCR Title 8, Section 1529) and the National Emission Standards for Hazardous Air Pollutants for Asbestos Surveys (40 CFR 61, Subpart M). CCR Title 8, Section 1532.1, "Lead," and Cal/OSHA requirements would be followed when handling materials containing lead. Therefore, no impacts related to asbestos or lead-containing materials within 0.25 mile of a school would occur.

Operation of the Project, including the Opportunity Sites, would consist of the operation of housing or mixed-use facilities, which would not include the handling or emission of hazardous or acutely hazardous materials, as operation would not involve ground disturbance. Therefore, no impacts would result from operations.

Public Safety Element Update and Environmental Justice Policies

The Public Safety Element Update policies and implementing actions address natural hazards; transportation hazards; police, fire, and emergency services; pandemic preparedness and response; homelessness; and climate change and resiliency. The policies and implementing actions aim to reduce the risk to the community and to ensure protection from foreseeable natural and human-caused hazards.

Public Safety Element policies and implementing actions could affect the design and construction of planned developments, such as addition of design elements related to emergency access and pedestrian safety. As such, Public Safety Element Update policies could result in community benefits; however, no specific infrastructure improvements or projects are identified in the Public Safety Element Update. As this is a policy document, this update would not have any significant indirect or direct environmental effects related to hazardous materials being handled in the vicinity of a school. Impacts would be less than significant.

Mitigation Measures

The potential impacts of the Project described in this section would be reduced to less-than-significant levels with implementation of Mitigation Measure **MM-HAZ-1**, described above under Impact HAZ-1.

Impact HAZ-3: The Project would be located on a site that is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, could create a significant hazard to the public or the environment. Implementation of Mitigation Measure MM-HAZ-1 would reduce this impact to less-than-significant levels.

Housing Element Update, Zoning Code Amendments, and Environmental Justice Policies

As discussed under Section 3.6.2, *Environmental Setting*, four Cortese List sites were found in various locations throughout the City (as identified at the time of the preparation of this EIR). In addition, there are several dozen LUST sites (which are also considered Cortese List sites) throughout the City (see Figure 3.6-1). Also, and as previously mentioned, because the hazardous material site data are dynamic and can change over time, there is a potential that future, currently unlisted Cortese List sites could appear within an identified Opportunity Site in addition to those listed in baseline conditions (Section 3.6.2). Construction activities as a result of the Project would occur at the specifically identified Opportunity Sites as well as other locations in the City that would undergo rezoning or Specific Plan amendments. As such, it is possible that construction could occur within or immediately adjacent to a site fitting the Cortese List site criteria as a result of the Project. As described previously, depending on the contaminant characteristics and extent of contamination, soil disturbance activities conducted during construction could encounter contaminated groundwater and/or contaminated soil and potentially result in impacts on construction personnel and the surrounding environment due to the potential release of hazardous materials and exacerbation of existing conditions. Similar to what was described under Impact HAZ-1, implementation of the proposed policies and implementing actions along with Mitigation Measure **MM-HAZ-1** would reduce potential impacts associated with construction activities occurring within or adjacent to a Cortese List site to less-than-significant levels.

Public Safety Element Update and Environmental Justice Policies

As mentioned previously, the Public Safety Element Update includes policies and implementing actions that aim to reduce the risk to the community and ensure protection from foreseeable natural and human-caused hazards. Public Safety Element Update policies and implementing actions could affect the design and construction of planned developments, such as adding features associated with emergency access and pedestrian safety. However, no specific infrastructure improvements or projects are identified in the Public Safety Element Update. As this is a policy document, this update would not have any significant indirect or direct environmental effects related to future projects being located on a site fitting the Cortese List criteria. Impacts would be less than significant.

Mitigation Measures

The potential impacts of the Project described in this section would be reduced to less-than-significant levels with implementation of Mitigation Measure **MM-HAZ-1**, described above under Impact HAZ-1.

3.7 Land Use and Planning

3.7.1 Introduction

This section describes the environmental and regulatory setting for land use for the Project, provides an analysis of the existing land use conditions, evaluates the Project's consistency with relevant planning policies, and, when necessary, recommends mitigation measures to avoid or lessen the potentially significant impacts. The onsite and surrounding land use conditions and relevant land use policies and regulations, as set forth by the City of Riverside (City), are identified. Information in this section is based upon the *Riverside General Plan 2025* (GP 2025) and the Riverside Municipal Code (RMC). The analysis methods, data sources, significance thresholds, and terminology used are described. Details on the location of the Project and a description of Project activities are included in Chapter 2, *Project Description*, of this EIR.

3.7.2 Environmental Setting

The study area for the analysis of land use and planning is the City. As discussed in Chapter 2, *Project Description*, the City is bounded on the north by the Santa Ana River and the cities of Jurupa Valley, Colton, and Rialto (San Bernardino County); on the south by the unincorporated communities of Woodcrest and Mockingbird Canyon; on the north and east by the unincorporated community of Highgrove and the city of Moreno Valley; and on the west by the unincorporated community of Home Gardens and the cities of Norco and Corona. State Route (SR-) 91, a major regional freeway, traverses the City in an east-west orientation, while SR-60 and Interstate (I-) 215 traverse the City's eastern portion in a north-south orientation. The Riverside Municipal Airport is within the western portion of the City limits. March Air Reserve Base and Flabob Airport are proximate to Riverside, but outside the City limits.

The City's existing corporate boundaries include approximately 51,310 gross acres. The Northern Sphere of Influence (SOI) encompasses approximately 4,088 gross acres—from the existing City limits to the San Bernardino County line and east to the Box Springs Mountain Regional Park—and includes the unincorporated Highgrove community. The Southern SOI encompasses approximately 36,826 gross acres and extends from the City's southern border to the Cajalco Ridge crest, just south of Cajalco Road. The area includes the unincorporated communities of El Sobrante, Glen Valley, and Woodcrest, and limited portions of Gavilan Hills and Lake Mathews. In 2006, the Riverside Local Agency Formation Commission conducted a review of the City's SOI areas and affirmed the boundaries identified above. Overall, the City's Planning Area encompasses approximately 92,224 gross acres.

Existing Land Use

As shown on Figure 3.7-1, similar to most cities, the City of Riverside and its SOI contain a diverse mix of existing land uses. Urban land uses (residential, commercial, office, and industrial) are concentrated in the north of City, near the alignments of SR-91, SR-60, and I-215. The recently adopted Northside Specific Plan has made changes to the SOI at the northernmost part of the City. Most of the City's moderate-density residential development is north and west of SR-91. Land south and east of Victoria Avenue is predominantly characterized by rural or semi-rural land uses

(agricultural, open space, and residential uses at less than three units per acre). The City's network of arroyos, its hillsides and ridgelines are the predominant features of the southeastern areas. The University of California at Riverside straddles a section of I-215 in the northeast. The Santa Ana River forms most of the Planning Area's northern border.

Riverside is noted for its well-established residential neighborhoods. The City has 28 distinct neighborhoods, each with its own history, architecture, housing types, and amenities. Many of these established neighborhoods are well maintained and contain historical resources. The diverse urban, suburban, and rural fabric of many of these neighborhoods has been woven over time and reflects the land use and development policies implemented over the City's history.

3.7.3 Regulatory Setting

Federal

No federal land use regulations are applicable to the Project's land use impact analysis.

State

State Planning Law and California Complete Streets Act

State planning law (California Government Code Section 65300) requires every city in California to adopt a comprehensive, long-term general plan for the physical development of the city and any land outside its boundaries (SOI) that in the planning agency's judgment bears relation to its planning. A general plan should consist of an integrated and internally consistent set of goals and policies that are grouped by topic into a set of elements and are guided by a citywide vision. State law requires that a general plan address eight topics (land use, circulation, housing, conservation, open space, noise, safety, and environmental justice), but allows some discretion on the arrangement and content of the elements. Additionally, each of the specific and applicable requirements in the state planning law should be examined to determine if there are environmental issues in the community that the general plan should address, including hazards and flooding.

On September 30, 2008, Assembly Bill 1358, the California Complete Streets Act, was signed into law and became effective January 1, 2011. Assembly Bill 1358 places the planning, designing, and building of complete streets into the larger planning framework of the general plan by requiring jurisdictions to amend their circulation elements to plan for multimodal transportation networks.

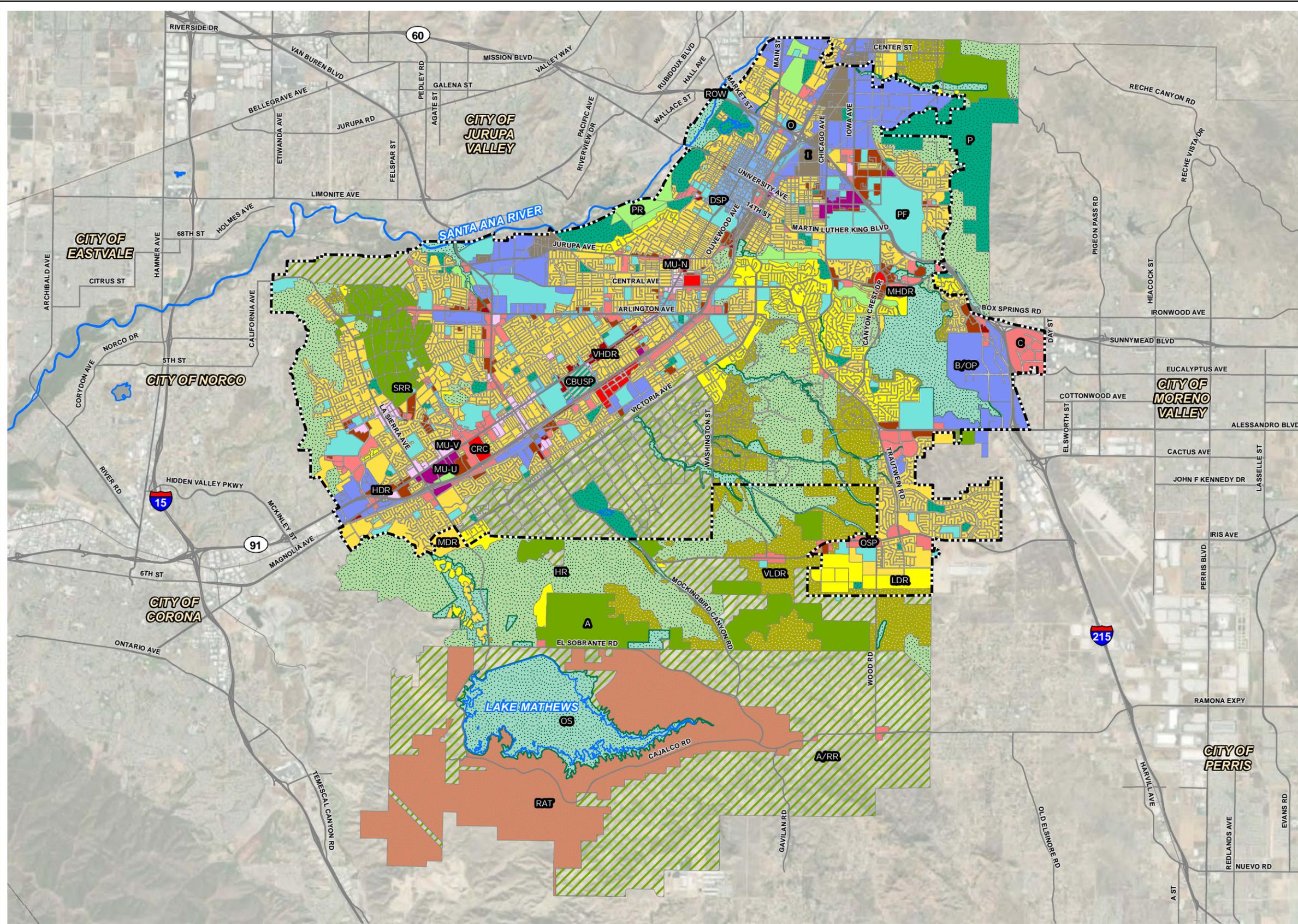
California Government Code Section 65450 et seq.

Section 65450 et seq. of the California Government Code authorizes cities to prepare, adopt, and administer specific plans for portions of their jurisdictions, as a means of implementing a city's general plan. All specific plans must comply with Sections 65450–65457 of the Government Code. The Project complies with all requirements mandated by state law.

California Constitution, Article XI, Section 7

Article XI, Section 7, of the California State Constitution gives cities and counties the authority to regulate land use. California State Planning and Land Use Law (Government Code Section 65000 et seq.) sets forth minimum standards for the regulation of land use at the city and county level.

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- Legend**
- Riverside City Limits
 - General Plan Land Use Designations**
 - A - Agricultural
 - A/RR - Agricultural/Rural Residential
 - B/OP - Business/Office Park
 - C - Commercial
 - CBUSP - CBU Specific Plan
 - CRC - Commercial Regional Center
 - DSP - Downtown Specific Plan
 - I - Industrial
 - VLDR - Very Low Density Residential
 - LDR - Low Density Residential
 - HDR - High Density Residential
 - MDR - Medium Density Residential
 - MHDR - Medium High Density Residential
 - VHDR - Very High Density Residential
 - HR - Hillside Residential
 - MU-N - Mixed Use - Neighborhood
 - MU-U - Mixed Use - Urban
 - MU-V - Mixed Use - Village
 - O - Office
 - SRR - Semi Rural Residential
 - OS - Open Space/Natural Resources
 - OSP - Orangecrest Specific Plan
 - P - Public Park
 - PF - Public Facilities/Institutions
 - PR - Private Recreation
 - RAT - K-RAT Core Habitat Preserve Areas

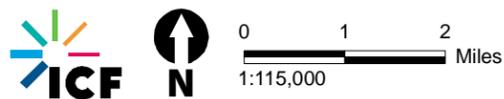


Figure 3.7-1
General Plan Land Use Designations
Riverside General Plan Update

Regional Housing Needs Assessment

State housing law mandates the Regional Housing Needs Assessment (RHNA) as part of the periodic process of updating local general plan housing elements. The RHNA quantifies the housing need for specified planning periods for each jurisdiction within its planning area and is prepared based upon Senate Bill 375 requirements. The intent of Senate Bill 375 and the RHNA process is to improve the jobs-housing balance in communities, ensure the availability of decent affordable housing for all income groups, and achieve sustainability through long-term strategic land use planning. The current (6th cycle) Final RHNA Allocation Plan was adopted by the Southern California Association of Governments (SCAG) on March 4, 2021.

Jurisdictions use the RHNA in land use planning and local resource allocation, and for determining housing needs resulting from population, employment, and household growth. The RHNA is not intended to encourage or promote growth, but rather to ensure individual communities can plan for anticipated growth, so that the region can grow in ways that enhance quality of life, improve access to jobs, promote transportation mobility, and address social equity.

In the 2021–2029 Housing Element Cycle (6th cycle), the City’s RHNA obligation is a minimum of 18,458 new dwelling units (DUs). The City’s previous Housing Element was adopted in 2017 and runs through 2021, thus the need for this update. The Housing Element cycle covering the 2013–2021 period included an RHNA obligation of 8,283 units, of which only a small portion were built during the last 8 years. Given that 100 percent of potential housing sites will not be developed to full potential, the City has provided a buffer of approximately 5,500 DUs (approximately 30 percent over and above the RHNA obligation), and the City will identify sites to accommodate up to 24,000 new homes for the 2021–2029 RHNA cycle. This strategy ensures that the City will maintain adequate capacity for a minimum of 18,458 units despite any future shortfall resulting from underdevelopment of sites with respect to zoned capacity. However, to ensure that this analysis is robust and inclusive, the impacts are analyzed according to the maximum theoretical density development scenario of 31,564 DUs.

Regional

Southern California Association of Governments Regional Comprehensive Plan

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

2020–2045 Regional Transportation Plan/Sustainable Communities Strategy

On May 7, 2020, SCAG’s Regional Council adopted the 2020–2045 Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS) (SCAG 2020) (also known as *Connect SoCal*) for federal transportation conformity purposes only. The Regional Council approved the 2020–2045 RTP/SCS on September 3, 2020. The RTP/SCS is a long-range visioning plan that balances future mobility and housing needs with economic, environmental, and public health goals. The RTP/SCS charts a course for closely integrating land use and transportation so the region can grow smartly and sustainably.

The goals of the RTP/SCS fall into four core categories: economy, mobility, environment, and healthy/complete communities. Table F-1 in Appendix F-1 outlines the RTP/SCS goals and adopted growth forecasts that are relevant to the Project.

South Coast Air Quality Management Plan

While the California Air Resources Board is responsible for the regulation of mobile emission sources within the state, local air quality management districts and air pollution control districts are responsible for enforcing standards and regulating stationary emission sources. SCAQMD is the regional agency responsible for the regulation and enforcement of federal, state, and local air pollution control regulations in the South Coast Air Basin, where the Project is located. SCAQMD operates monitoring stations in the South Coast Air Basin, develops rules and regulations for stationary sources and equipment, prepares emissions inventory and air quality management planning documents, and conducts source testing and inspections. SCAQMD’s Air Quality Management Plans include control measures and strategies to be implemented to attain the state and federal ambient air quality standards in the South Coast Air Basin. SCAQMD then implements these control measures as regulations to control or reduce criteria pollutant emissions from stationary sources or equipment. Applicable Rules Emissions that would result from stationary and mobile sources during operation of the Project may be subject to SCAQMD rules and regulations, which include Rule 2202 – On-Road Motor Vehicle Mitigation Options. The purpose of this rule is to provide employers with a menu of options to reduce mobile-source emissions generated from employee commutes to comply with federal and state Clean Air Act requirements, Health and Safety Code Section 40458, and Section 182(d)(1)(B) of the federal Clean Air Act. This rule applies to any employer who employs 250 or more employees on a full- or part-time basis at a worksite for a consecutive 6-month period calculated as a monthly average, except as provided in subdivision (l) of the rule.

Local

Riverside General Plan 2025

GP 2025 was adopted in November 2007 and considers the continued growth of the City to 2025. Most of the objectives and policies relevant to the Project are contained within GP 2025’s Land Use and Urban Design Element (City of Riverside 2019), Circulation and Community Mobility Element (City of Riverside 2018a), Arts and Culture Element (City of Riverside 2007a), Public Safety Element (City of Riverside 2018b), Noise Element (City of Riverside 2018c), Air Quality Element (City of Riverside 2007b), and Historic Preservation Element (City of Riverside 2012). GP 2025 serves as the major tool for directing growth within the City and presents a comprehensive plan to accommodate

the City's growing needs. GP 2025 is intended to implement the community's vision for what Riverside can be in 2025.

Land Use and Urban Design Element

In compliance with California Government Code Section 65302(a) requirements, the Land Use and Urban Design Element includes existing and proposed land uses as well as their relationship to the City's vision and goals. The element incorporates objectives and policies for land development and usage.

Land Use Designations

The GP 2025 Land Use Policy Map depicts the various types and distribution of land uses planned for the City. The Land Use Policy Map depicts nine residential land use types, which are summarized below.

- **Agricultural/Rural Residential (A/RR)**: The A/RR designation is intended for extremely low-density residential uses at a maximum gross density of 0.2 DU per acre (DU/AC) (or 1 DU per 5 acres). The A/RR designation is characterized by residential development sited on large agricultural and citrus parcels and is intended to further the intent of Proposition R and Measure C, which were approved by Riverside voters in 1979 and 1987, respectively.
- **Hillside Residential (HR)**: The HR designation is intended for residential hillside development in the City's ecologically sensitive and visually prominent hillside areas at a maximum gross density of 0.50 DU/AC (or 0.63 DU/AC with a Planned Residential Development Permit). The HR designation is applied to most hillside areas with slopes exceeding 15 percent and is also intended to further the intent of Proposition R and Measure C.
- **Semi-Rural Residential (SRR)**: The SRR designation is intended for residential uses in areas of the City that have historically supported large-lot, single-family development and auxiliary animal-keeping (i.e., horses). This use allows a maximum gross density of 2.1 DU/AC (up to 3.3 DU/AC with a Planned Residential Development Permit). The SRR designation is generally applied to the central portion of the La Sierra neighborhood.
- **Very Low Density Residential (VLDR)**: The VLDR designation is intended for large-lot, single-family residential uses with a maximum gross density of 2.0 DU/AC (up to 3.2 DU/AC with a Planned Residential Development Permit). This land use is intended for areas that have not historically supported auxiliary animal keeping.
- **Low Density Residential (LDR)**: The LDR designation is intended for large-lot, single-family residential uses with a maximum gross density of 4.1 DU/AC (up to 6 DU/AC with a Planned Residential Development Permit). This land use is intended for lands developed or to be developed with the full range of urban services available in the City.
- **Medium Density Residential (MDR)**: The MDR designation is intended for small-lot, single-family homes, townhouses, and row houses with a maximum gross density of 6.2 DU/AC (up to 8 DU/AC with a Planned Residential Development Permit).
- **Medium-High Density Residential (MHDR)**: The MHDR designation is intended for the development of small-lot, single-family homes, townhouses, row houses, and permanent-style mobile home parks. This designation also allows multi-family units (i.e., condominiums and small apartments) and allows for a maximum gross density of 14.5 DU/AC.

- **High Density Residential (HDR):** The HDR designation is intended for multi-family condominiums, row houses, and apartments with a maximum gross density of 29 DU/AC. Senior housing and multi-family clusters are also permissible under this designation.
- **Very High Density Residential (VHDR):** The VHDR designation is intended for multi-family condominiums and apartments with a maximum gross density of 40 DU/AC. Student housing, senior housing, and multi-family clusters are also permissible under this designation.

The following land use designations also accommodate housing:

- **Mixed-Use – Neighborhood (MU-N):** This designation provides opportunities for primarily neighborhood-serving commercial uses, with limited low-intensity residential uses in a mixed-use environment. This designation is intended to preserve the existing housing stock and residential character of neighborhoods while allowing for the development of new housing opportunities, fostering adaptive reuse of underutilized property, and encouraging pedestrian-oriented retail and service uses. The focus of the development and design standards is on ensuring that new and infill development are distributed and designed in a manner sensitive in scale and design to the street environment and adjacent single-family residential areas. The maximum allowable intensity for the commercial component is 1.0 FAR; for any residential component, the maximum density is 10 DU/AC.
- **Mixed-Use – Village (MU-V):** This designation allows for retail, office, and residential uses in the same building, with horizontal integration as appropriate. Land uses with maximum heights of two to three stories are allowed. The maximum permitted residential density is 30 DU/AC, with up to 40 DU/AC permissible in areas accessible to public transportation. The maximum allowed FAR is 2.5.
- **Mixed-Use – Urban (MU-U):** This designation allows for activity center/activity node mixed-uses; and retail, office, and residential uses in the same building or horizontal integration on the same parcel. Land uses with maximum heights of three to four stories that emphasize entertainment, employment, and student-oriented uses are allowed. The maximum permitted residential density is 40 DU/AC, with up to 60 DU/AC permissible in areas accessible to public transportation. The maximum allowed floor-area ratio (FAR) is 4.0.

The GP 2025 Land Use Element policies relevant to the Project are outlined in Table F-1 in Appendix F-1.

Housing Element

In the 6th cycle, the City's RHNA obligation is a minimum of 18,458 new DUs. The City's previous Housing Element was adopted in 2017 and runs through 2021, thus the need for this update. The Housing Element cycle covering the 2013–2021 period included an RHNA obligation of 8,283 units, of which only a small portion were built during the last 8 years.

Given that 100 percent of potential housing sites will not be developed to full potential, the City has provided a buffer of approximately 5,500 DUs (approximately 30 percent over and above the RHNA obligation), and the City will identify space for up to 24,000 new homes for the 2021–2029 RHNA cycle. This next update cycle comes when California faces a major statewide housing shortage that is affecting all Californians by raising the price of housing and the cost of construction, and increasing homelessness.

The main components of the Housing Element Update are dictated by state law and typically must include:

- A detailed analysis of the City's demographic, economic, and housing characteristics
- A comprehensive analysis of the barriers to producing and preserving housing
- A review of the City's progress in implementing its adopted housing policies and programs
- An identification of goals, objectives, and policies, in addition to a full list of programs that will help the City carry out the plan's vision
- A list of sites that could accommodate new housing, demonstrating the City's ability to meet its target number of new homes established in the RHNA

The updated Housing Element must show the exact locations where future housing can be built, called Opportunity Sites, and identify the potential number of residential units that can be built at those locations.

Because the Housing Element is updated every 8 years, the 5th cycle Housing Element provides a foundation for this 6th cycle update. This update gives the City the opportunity to evaluate the previous Housing Element to determine which parts have been effective and which should be improved.

Proposed guiding principles and policies to be included in the Housing Element Update are listed in Appendix B. The Housing Element Update also includes Environmental Justice Policies to facilitate equitable distribution of housing throughout the City, also described in Appendix B.

Public Safety Element

The goal of a jurisdiction's Public Safety Element is to reduce the potential short- and long-term risk of death, injuries, property damage, and economic and social disruption resulting from fires, floods, droughts, earthquakes, landslides, climate change, and other hazards. Other locally relevant safety issues—such as emergency response, hazardous materials spills, crime reduction, and response to global pandemics like COVID-19—may also be included. The Public Safety Element directly relates to topics mandated in the Land Use and Urban Design and Open Space and Conservation Elements as well as a key consideration for the Environmental Justice Policies of GP 2025. The Public Safety Element must identify hazards and ways to reduce those hazards to guide local decisions related to zoning and development regulations. Policies and implementable actions may include methods for minimizing risks, as well as ways to minimize economic disruption and speed up recovery following disaster. The City's update to the Public Safety Element will identify public safety issues and needs anticipated to be of ongoing concern to people in the City. The Public Safety Element will ensure that the City takes action to reduce natural and man-made hazards and safety threats as well as respond quickly to any public safety incident.

The guiding principle and policies that are proposed for inclusion in the Public Safety Element Update are listed in detail in Appendix B.

Riverside Municipal Code (RMC)

Zoning defines and provides parameters for various types of land uses in a community, including but not limited to commercial, residential, and industrial. The RMC regulates municipal affairs within the City's jurisdiction including, without limitation, subdivision regulations (codified in RMC Title

18) and zoning regulations (codified in RMC Title 19). The purpose of RMC Title 18, Subdivisions, is to regulate and control the design and improvement of subdivisions.

The purpose of RMC Title 19, Zoning, is to encourage, classify, designate, regulate, restrict, and segregate the highest and best location and use of buildings, structures, and land for agriculture, residence, commerce, trade, industry, water conservation, or other purposes in appropriate places; to regulate and limit the height, number of stories, and size of buildings and other structures hereafter erected or altered; to regulate and determine the size of yards and other open spaces; and to regulate and limit the density of population and for such purpose to divide the City into zones of such number, shape, and area as may be deemed best suited to carry out these regulations and provide for their enforcement. Furthermore, such regulations are deemed necessary to encourage the most appropriate use of land; to conserve and stabilize the value of property; to provide adequate open spaces for light and air and to prevent and fight fires; to prevent undue concentration of population; to lessen congestion on streets; to facilitate adequate provisions for community utilities and facilities such as transportation, water, sewerage, schools, parks, and other public facilities; and to promote the public health, safety, and general welfare.

Zoning Code Amendments

As part of the Project, areas of the City are proposed for rezoning to allow for fulfillment of the City's RHNA obligation. The proposed Zoning Code and Specific Plan amendments would include a variety of multi-family residential and mixed-use zoning designations, which would provide for development of some lower-level commercial/retail, office, and potentially live/work uses. Existing zoning is illustrated on Figure 2-6 in Chapter 2, *Project Description*. Areas proposed for rezoning are illustrated on Figure 2-7 in Chapter 2.

The Project involves 239 acres that do not require zoning changes and 581 acres that would require general plan amendments, Zoning Code changes, and Specific Plan amendments, for a total of 870 parcels comprising 820 acres.

The implementation of this Project could result in an increase of up to 31,564 new DUs and 3,181,930 square feet of nonresidential development, or up to 31,175 DUs and 1,433,460 square feet over existing conditions. Rezoning of the Opportunity Sites would also result in non-residential development in those areas to be designated as mixed-use. Mixed-use zones include:

- Mixed-Use Urban (MU-U/MU-U-TA)
- Mixed-Use Village (MU-V/MU-V-TA)

The "TA" designation means Transit Adjacent, applies to parcels within 0.5 mile of a transit stop, and provides a density bonus.

Specific Plan Amendments

In addition to the Zoning Code amendments, the Housing Element Update would require amendments to nine of the City's adopted Specific Plans. The following Specific Plans would require updates, including mapping and land use changes, to accommodate Opportunity Sites that have been identified within their boundaries. Figure 2-8 in Chapter 2, *Project Description*, illustrates the Specific Plans subject to change. Additionally, specific policies with application to land use are discussed in Table F-3 in Appendix F-1.

Canyon Springs Business Park Specific Plan

Canyon Springs is a regionally oriented mixed-use development that combines commercial, office, entertainment, and recreational uses within a total gross area of approximately 222 acres. The Canyon Springs Business Park Specific Plan includes 10 planning areas for a commerce center of retail commercial, office, and recreation uses with appropriate public, quasi-public, and private services and facilities necessary to accommodate shopping, employment, service, and recreational needs.

Downtown Specific Plan

The Downtown Specific Plan area consists of approximately 640 acres in the northern portion of the City and encompasses Downtown Riverside and its immediate surroundings. The Downtown Specific Plan was created to facilitate and encourage development and improvements that help the community's vision of Downtown. The goal of the specific plan is to also strengthen Downtown as a distinctive center for the citizens of Riverside with attractive streets, enjoyable public spaces, historic neighborhoods, lively mixed-use commercial areas, and a variety of housing options and residential environments. These important Specific Plan features are consistent with the goals and policies set forth in GP 2025.

Hunter Business Park Specific Plan

The Hunter Business Park Specific Plan describes a planned industrial park consisting of approximately 1,300 acres of industrial and related uses, northeast of Downtown Riverside. It addresses planning goals relevant to property owners, future tenants, developers, and the City of Riverside; defines the development framework for the Specific Plan area (SPA); and establishes the design guidelines, development criteria, and implementation measures necessary to implement the Hunter Business Park Specific Plan. The Hunter Business Park Specific Plan aims to create a high-quality industrial park environment that improves automobile and pedestrian access while maintaining rail access. This Specific Plan aims to enhance Hunter Park's unique features including Hunter Park, Box Springs Mountain Regional Park, and City vistas, and establish appropriate implementation programs to provide infrastructure improvements.

La Sierra University Specific Plan

Encompassing 531 acres in the western portion of the City, the plan for the La Sierra University Specific Plan envisions a mixed-use community. This community would accommodate the expansion of the La Sierra campus and development of the university's surplus lands, east and south of the existing campus, to help support the university's endowment. The plan includes employment opportunities at La Sierra University (projected to expand from 1,500 to 5,000 students), as well as potential jobs in a new industrial park and in commercial areas anticipated to take on a "town-gown" (uses appropriate for campus users and the community) character. A diverse mix of residential types and densities is also envisioned, providing housing for university faculty, staff, retirees from the Seventh-day Adventist community, and others seeking housing opportunities. In an effort to contribute to the mixed-use character of the area, an open space and circulation network has been planned as a means of encouraging pedestrian circulation and use of alternative modes of transportation.

Magnolia Avenue Specific Plan

This plan, developed in 1999 as part of the Magnolia/Market Corridor Study, focuses on the portion of Magnolia Avenue from the western City limits to the north side of Riverside Community College, at the southern edge of Downtown, for an area totaling approximately 1,588 acres. This Specific Plan is intended to facilitate and encourage development and improvements along Magnolia Avenue to help realize the community's vision for the corridor. It is a tool for developers, property owners, City staff, and decision-makers.

Riverside Marketplace Specific Plan

The Riverside Marketplace SPA totals approximately 200 acres. It establishes standards and guidelines for development within the plan area with the purpose of creating incentives to redevelop the Riverside Marketplace area, preserves and enhances historic buildings and elements, beautifies the entrances to Downtown and University Avenue, provides additional commerce and employment opportunities for the Eastside community, and complements the redevelopment efforts occurring within the Downtown area.

University Avenue Specific Plan

The plan area consists of approximately 179 acres and is on University Avenue, a main thoroughfare connecting the University of California, Riverside campus and Riverside's historic Downtown. The Specific Plan promotes the long-term viability and rejuvenation of the University Avenue corridor, establishes and maintains a viable mix of land uses, encourages high-quality development, accommodates pedestrian activity, maintains visual continuity, recognizes the interdependence of land values and aesthetics.

Northside Neighborhood and Pellissier Ranch Specific Plan

The SPA covers approximately 2,000 acres within the City of Riverside, the city of Colton, and unincorporated Riverside County. The High-Density Residential designation provides opportunities to develop row houses, condominiums, and apartments that could include senior housing and multi-family. High-Density Residential is adjacent to the Central Park and within Colton on the Pellissier Ranch property, adjacent to the Santa Ana River. Medium-density residential is primarily in the southern and eastern portions of the Northside neighborhood. The Specific Plan includes a new area of Medium-High-Density Residential in the City, south of Center Street, between Main Street and Orange Street as well as a new Medium-Density Residential area on land on the west side of Orange Street, south of the proposed Trujillo Adobe Heritage Village and north of Reid Park. The Specific Plan also accommodates mixed-use neighborhoods.

California Baptist University Specific Plan

The Specific Plan provides for California Baptist University (CBU) to evolve to a more urban-intensity campus, with educational, residential, recreational, and other campus life facilities closely integrated to best support CBU's mission and vision. To achieve CBU's goal of 12,000 enrolled students by the year 2025, new and reconfigured educational, housing, administrative support, athletic, and other facilities will be required. A single zoning district—the CBU Specific Plan Zone (CBUSP)—regulates land uses. Two subdistricts are defined—CBUSP-1 and CBUSP-2—to regulate land use, building height, density, and setbacks. CBU owns and manages several apartment complexes within the Specific Plan boundaries. Student housing is permitted by right in subdistrict

CBUSP-1 and with a minor conditional use permit in subdistrict CBUSP-2. Single-family residential is permitted in both subdistricts.

3.7.4 Methodology and Thresholds of Significance

This analysis evaluates whether the Project would physically divide an established community and the consistency or compliance of the Project with relevant land use plans, policies, and regulations.

Local plans and policies (including general plans, Specific Plans, zoning ordinances, land use and zoning maps, etc.) were reviewed to analyze the consistency of the Project with such plans in accordance with the approach described above. The analysis determines if there is the potential for physical incompatibilities between the Project and adjacent land uses based on potential conflict.

Thresholds of Significance

In accordance with Appendix G of the State CEQA Guidelines, the Project would be considered to have a significant effect if it would:

- Cause a significant environmental impact by physically dividing an established community
- 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

3.7.5 Impacts and Mitigation Measures

Impact LU-1: The Project would not physically divide an established community. This impact would be less than significant.

Housing Element Update, Zoning Code Amendments, and Environmental Justice Policies

The Project involves 239 acres that do not require zoning changes and 581 acres that would require general plan amendments, Zoning Code changes, and Specific Plan amendments, for a total of 870 parcels comprising 820 acres. The implementation of this Project could result in an increase of up to 31,564 new DUs and 3,181,930 square feet of nonresidential development, or up to 31,175 DUs and 1,433,460 square feet over existing conditions.

The Project's intent is not to generate the full build-out housing within the planning cycle, but to provide the capacity (i.e., through land use designation and zoning) for the housing market to adequately address housing needs for all income groups and direct that capacity where planned growth is best suited to occur. However, to provide a conservative analysis for the purposes of environmental review, this EIR assumes full build-out of Project capacity by 2029.

The physical division of an established community could occur if a major road (expressway or freeway, for example) were built through an existing community or neighborhood, or if a major development was built that was inconsistent with the land uses in the community such that it divided the community. The environmental effects caused by such a facility or land use could include obstruction or disruption of access to services, schools, or shopping areas.

Rezoning of the Opportunity Sites could result in non-residential development in those areas to be designated as mixed use. The Project involves 239 acres that do not require zoning changes and 581

acres that would require general plan amendments, Zoning Code changes, and Specific Plan amendments, for a total of 870 parcels comprising 820 acres. With Zoning Code and Specific Plan amendments, the number of allowed DUs on Opportunity Sites that are not currently zoned for housing would total 31,564. Most of the future uses would occur through infill development, redevelopment, and/or adaptive reuse, as not all Opportunity Sites are currently zoned to allow for housing development.

The Project would focus development in already urbanized parts of the City, near existing infrastructure, rather than spreading growth to the urban fringes. Additionally, no major roadway (e.g., expressway or freeway) that would traverse an existing community or neighborhood is proposed under the Project. Therefore, Project implementation would not physically divide an established community.

Opportunity Sites have been identified throughout the City, rather than concentrated in a single area, and thus would not divide an established community. Furthermore, as described in Chapter 2, *Project Description*, project build-out would achieve the City's goal to fulfill the City's RHNA. The City reviews development proposals to verify compliance with RMC Title 19 and the most appropriate use of land, and to prevent nonconforming uses. Future development of Opportunity Sites would be subject to RMC Title 19 design requirements and development, site location, and operational standards. Project implementation would not result in the physical division of an existing community and a less-than-significant impact would occur.

Additionally, the Housing Element Update includes Environmental Justice Policies to facilitate equitable distribution of housing throughout the City. These policies promote housing in response to the needs and desires of the residents of environmental justice communities as well as facilitate the development of affordable and supportive housing. These policies would not divide an established community and impacts would be less than significant.

Public Safety Element Update and Environmental Justice Policies

Implementation of the Public Safety Element Updates and related Environmental Justice Policies is policy-based and does not identify specific infrastructure projects. The Public Safety Element Updates and related Environmental Justice Policies provide policies to reduce the potential short- and long-term risk of death, injuries, property damage, and economic and social disruption resulting from fires, floods, droughts, earthquakes, landslides, climate change, and other hazards. The Public Safety Element Update would not physically divide an established community because proposed policies would likely improve physical connections within established communities and would not result in new physical divisions.

The Public Safety Element Update policies and implementing actions address natural hazards; transportation hazards; police, fire, and emergency services; pandemic preparedness and response; homelessness; and climate change and resiliency. These policies and implementing actions aim to reduce the risk to the community and to ensure protection from foreseeable natural and human-caused hazards. Proposed new residential and mixed-use development would be predominantly located in more urbanized areas of the City. Public Safety Element policies and implementing actions would encourage the design and construction of planned developments, such as addition of design elements related to emergency access and pedestrian safety. Implementation of the Public Safety Element Update would update the RMC to minimize the potential risk of development in areas of public safety (e.g., flood risk, fire hazard). This update would not have any significant environmental effects related to land use and impacts would be less than significant.

Impact LU-2: The Project would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. The impact would be less than significant.

Housing Element Update, Zoning Code and General and Specific Plan Amendments, and Environmental Justice Policies

The City regulates land uses within Riverside through its zoning and subdivision ordinances and, indirectly, through the goals and policies of its general plan that guide development. Accordingly, the City is the only entity with jurisdiction over the Project with regard to land use and the avoidance of environmental effects. At a project-specific level, individual development projects under the Project may be subject to federal and state regulations to protect waters of the U.S.

The Housing Element Update addresses the state mandate to update the housing element of the local general plan and accommodate the housing obligation designated in the SCAG 6th cycle of the RHNA, adopted by SCAG in March 2021. The RHNA quantifies the need for housing within each jurisdiction during specified planning periods. The 6th cycle Housing Element Update, and the RHNA, approved in March 2021, specifically identifies the need for 18,458 additional homes in the City, including 4,861 very low-income, 3,064 low-income, and 3,139 moderate-income units; 7,394 units would be above moderate-income housing (SCAG 2021).

The previously adopted Housing Element, covering the 2013–2021 period, included an RHNA obligation of 8,283 units, of which only a small portion was built during the last 8 years. The increase in the City’s RHNA housing number is reflective of the state’s current housing crisis, due in part to the difficulty associated with enabling the construction of new homes to keep up with the need for them. In addition, the City will need to identify space for the obligation of 18,458 units plus an additional approximately 5,500 units to account for some sites that may not be developed to full potential (no net loss requirement), for a total of approximately 24,000 new homes for the 2021–2029 cycle, though 31,547 are used for impact analysis evaluation.

Opportunity Sites have been identified to accommodate future housing and mixed-use development; this includes potential redevelopment sites that will help the City meet housing demand. The Housing Element Update proposes to rezone up to 581 acres within City boundaries to accommodate a variety of housing types and densities to accommodate the needs of households of all income levels. An additional 239 acres can accommodate housing with existing zoning.

Table F-1 in Appendix F-1 provides an analysis of the Project’s consistency with the 2020–2045 RTP/SCS goals and adopted growth forecasts. As demonstrated in Table F-1, the Project is generally consistent with the 2020–2045 RTP/SCS goals and a less-than-significant impact would occur in this regard. Furthermore, GP 2025 includes several policies intended to assist the City in achieving SCAG’s goals. In particular, the GP 2025 Land Use and Urban Design Element incorporates relevant policies to establish the overall policy direction for land use planning decisions in the City. This element works alongside the Housing Element to address housing/jobs balance objectives through the provision of housing for all income levels while providing a diverse collection of housing types, employment-generating land uses, and opportunities for mixed-use development.

Table F-2 in Appendix F provides an analysis of the Project’s consistency with goals and policies in GP 2025. As discussed in Table F-2, the Project would be generally consistent with and would

support relevant goals and policies through the development of mixed-use land use categories. The Project would be consistent with the goals and intent of GP 2025 by facilitating and encouraging new housing development, including both single- and multi-family, that results in livable and sustainable neighborhoods. The Project also includes Zoning Code and Specific Plan amendments to include mixed-use development close to infrastructure, housing, and services, reducing automobile trips, vehicle miles traveled, and associated energy consumption. This development would be focused in already urbanized parts of the City, rather than spreading growth to the urban fringes. Furthermore, the Project would be supportive of the GP 2025 policies that encourage the enhancement of the pedestrian environment, as mixed-use development patterns facilitate a pedestrian environment through the provision of commercial uses intermixed with residential uses. The Project would also be substantially consistent with objectives and policies that aim to provide housing of types, sizes, densities, and affordability levels required to satisfy the varying needs and desires of all segments of the community's population.

Table F-1 in Appendix F-1 discusses the Project's consistency with goals and policies in the identified Specific Plans. As discussed above, the Project would be generally consistent with and would support relevant goals and policies through rezoning of land to allow for higher residential density and non-residential intensities, as infill developments.

For these reasons, the Project is generally consistent with the GP 2025 and 2020–2045 RTP/SCS goals and relevant planning documents and a less-than-significant impact would occur.

The Project includes Environmental Justice Policies to facilitate equitable distribution of housing throughout the City and the development of affordable and supportive housing. RTP/SCS goals and relevant planning documents all generally have policies facilitating the development of affordable housing. Therefore, these policies are consistent with the GP 2025 and 2020–2045 RTP/SCS goals and relevant planning documents and a less-than-significant impact would occur.

Public Safety Element Update and Environmental Justice Policies

The Project also includes an update to the Public Safety Element to incorporate information on natural and human-caused hazards, along with new policies related to environmental justice, climate change, and pandemic preparedness and response, among others. The goal of the City's Public Safety Element is to reduce the potential short- and long-term risk of death, injury, property damage, and economic and social disruption resulting from fires, floods, droughts, earthquakes, landslides, climate change, and other hazards. Other locally relevant safety issues—such as emergency response, hazardous materials spills, crime reduction, and response to global pandemics like COVID-19 beginning in 2020—are included. The Project would not result in conflicts with other land use plans, policies, and regulations (e.g., the SCAG RTP/SCS; the Zoning Code, Specific Plans). Impacts would be less than significant.

3.8 Noise

3.8.1 Introduction

This section describes the environmental and regulatory setting for noise for the Project and provides information regarding noise impacts that would result from the Project.

The analysis methods, data sources, significance thresholds, and terminology used are described. The analysis in this section includes impact determinations under CEQA and identifies mitigation measures that would reduce or avoid significant impacts, where feasible, for the elements of the Project including the Housing and Public Safety Element Updates. Details on the location of the Project and a description of Project activities are included in Chapter 2, *Project Description*, of this EIR.

Noise Fundamentals

Noise is commonly defined as unwanted sound. Sound can be described as the mechanical energy of a vibrating object transmitted by pressure waves through a liquid or gaseous medium (e.g., air) to a hearing organ, such as a human ear. Noise is often defined as sound that is objectionable because it is disturbing or annoying.

In the science of acoustics, the fundamental model consists of a sound (or noise) source, a receptor, and the propagation path between the two. The loudness of the noise source and the obstructions or atmospheric factors, which affect the propagation path to the receptor, determine the sound level and the characteristics of the noise perceived by the receptor.

Technical acoustical terms used in this section are defined in Table 3.8-1.

Table 3.8-1. Definitions of Acoustical Terms

Term	Definition
Decibel (dB)	A unit describing the amplitude of sound equal to 20 times the logarithm to base 10 of the ratio of the pressure of the sound measured to the reference pressure. The reference pressure for air is 20 micropascals.
Sound Pressure Level	Sound pressure is the sound force per unit area, usually expressed in micropascals (or micronewtons per square meter), where 1 pascal is the pressure resulting from a force of 1 newton exerted over an area of 1 square meter. The sound pressure level is expressed in decibels as 20 times the logarithm to base 10 of the ratio between the pressures exerted by the sound to a reference sound pressure (e.g., 20 micropascals in air). Sound pressure level is the quantity that is measured directly by a sound level meter.
Frequency (Hertz [Hz])	The number of complete pressure fluctuations per second above and below atmospheric pressure. Normal human hearing is between 20 Hz and 20,000 Hz. Infrasonic sounds are below 20 Hz, and ultrasonic sounds are above 20,000 Hz.

Term	Definition
A-Weighted Sound Level (dBA)	The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low- and very high-frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise.
Equivalent Noise Level (L_{eq})	The average A-weighted noise level during the measurement period. The hourly L_{eq} used for this report is denoted as dBA $L_{eq}(h)$.
Community Noise Equivalent Level (CNEL)	The average A-weighted noise level during a 24-hour day, which is obtained by adding 5 dB to sound levels in the evening from 7 p.m. to 10 p.m. and 10 dB to sound levels between 10 p.m. and 7 a.m.
Day/Night Noise Level (L_{dn})	The average A-weighted noise level during a 24-hour day, which is obtained by adding 10 dB to sound levels measured at night between 10 p.m. and 7 a.m.
$L_2, L_8, L_{25}, L_{50}, L_{90}, L_{99}$	A-weighted noise levels that are exceeded 2%, 8%, 25%, 50%, 90%, and 99% of the time during the measurement period.
Maximum Sound Level (L_{max})	The maximum sound level measured during the measurement period.
Minimum Sound Level (L_{min})	The minimum sound level measured during the measurement period.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.

Sound Descriptors

Continuous sound can be described by frequency (pitch) and amplitude (loudness). A low-frequency sound is perceived as low in pitch. Frequency is expressed in terms of cycles per second, or Hertz (Hz) (e.g., a frequency of 250 cycles per second is referred to as 250 Hz). High frequencies are sometimes more conveniently expressed in kilohertz (kHz), or thousands of Hz. The audible frequency range for humans is generally between 20 Hz and 20,000 Hz.

The amplitude of pressure waves generated by a sound source determines the loudness of that source. Sound pressure amplitude is measured in micropascals (μPa). One μPa is approximately one hundred-billionth (0.0000000001) of normal atmospheric pressure. Sound pressure amplitudes for different kinds of noise environments can range from less than 100 to 100,000,000 μPa . Because of this large range of values, sound is rarely expressed in terms of μPa . Instead, a logarithmic scale is used to describe the sound pressure level (also referred to simply as the sound level) in terms of decibels (dB). The threshold of hearing for young people is about 0 dB, which corresponds to 20 μPa .

The dB scale alone does not adequately characterize how humans perceive noise. The dominant frequencies of a sound have a substantial effect on the human response to that sound. Although the intensity (energy per unit area) of the sound is a purely physical quantity, the loudness or human response is determined by characteristics of the human ear.

Human hearing is limited in the range of audible frequencies as well as in the way it perceives the sound pressure level in that range. In general, people are most sensitive to the frequency range of 1,000 to 8,000 Hz and perceive sounds within that range better than sounds of the same amplitude in higher or lower frequencies. To approximate the response of the human ear, sound levels of individual frequency bands are weighted, depending on human sensitivity to those frequencies. The

A-weighted sound level (expressed in units of dBA) can be computed on the basis of this information.

The A-weighting scale approximates the frequency response of the average young ear when listening to most ordinary sounds. When people make judgments regarding the relative loudness or annoyance of a sound, their judgments correlate well with the A-scale sound levels of those sounds. Table 3.8-2 describes typical A-weighted sound levels for various noise sources.

Table 3.8-2. Typical A-Weighted Sound Levels

Common Outdoor Noise Source	Sound Level (dBA)	Common Indoor Noise Source
	— 110 —	Rock band
Jet flying at 1,000 feet		
	— 100 —	
Gas lawn mower at 3 feet		
	— 90 —	
Diesel truck at 50 feet at 50 mph		Food blender at 3 feet
	— 80 —	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawn mower at 100 feet	— 70 —	Vacuum cleaner at 10 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	— 60 —	
		Large business office
Quiet urban daytime	— 50 —	Dishwasher in next room
Quiet urban nighttime	— 40 —	Theater, large conference room (background)
Quiet suburban nighttime		
	— 30 —	Library
Quiet rural nighttime		Bedroom at night
	— 20 —	
		Broadcast/recording studio
	— 10 —	
Lowest threshold of human hearing	— 0 —	Lowest threshold of human hearing

Source: Caltrans 2013.

Decibel Addition

Because decibels are logarithmic units, sound pressure levels cannot be added or subtracted through ordinary arithmetic. On the dB scale, a doubling of sound energy corresponds to a 3-dB increase. In other words, when two identical sources are each producing sound of the same loudness, their combined sound level at a given distance would be 3 dB higher than one source under the same conditions. For example, if one excavator produces a sound pressure level of 80 dBA, two excavators would not produce 160 dBA. Rather, they would combine to produce 83 dBA. The cumulative sound level of any number of sources, such as excavators, can be determined using decibel addition.

Noise Descriptors

Because sound levels can vary markedly over a short period of time, a method for describing either the average character of the sound or the statistical behavior of the variations is utilized. Most commonly, environmental sounds are described in terms of an average level that has the same acoustical energy as the summation of all the time varying events. This energy-equivalent sound/noise descriptor is called L_{eq} . A common averaging period is hourly, but L_{eq} can describe any series of noise events of arbitrary duration. The scientific instrument used to measure noise is the sound level meter. Sound level meters can accurately measure environmental noise levels to within approximately plus or minus 1 dBA. Two metrics describe the 24-hour average: day/night noise level (L_{dn}) and Community Noise Equivalent Level (CNEL) (defined in Table 3.8-1). Both include penalties for noise during nighttime hours; CNEL also penalizes noise during the evening. CNEL and L_{dn} are normally within 1 dBA of each other and used interchangeably in this section.

Human Response to Noise

Studies have shown that under controlled conditions in an acoustics laboratory, a healthy human ear is able to discern changes in sound levels of 1 dBA. In the normal environment, the healthy human ear can detect changes of about 2 dBA; however, it is widely accepted that changes of 3 dBA in the normal environment are considered just noticeable to most people. A change of 5 dBA is readily perceptible, and a change of 10 dBA is perceived as being twice as loud. Accordingly, a doubling of sound energy (e.g., doubling the noise source) resulting in a 3-dB increase in sound would generally be barely detectable by the human ear.

Sound Propagation

When sound propagates over a distance, it changes in both level and frequency content. The manner in which noise is reduced with distance depends on the following important factors.

Geometric Spreading

Sound from a single source (i.e., a “point” source) radiates uniformly outward as it travels away from the source in a spherical pattern. The sound level attenuates (or drops off) at a rate of 6 dBA for each doubling of distance. Highway noise is not a single stationary point source of sound. The movement of vehicles on a highway makes the source of the sound appear to emanate from a line (i.e., a “line” source) rather than from a point. This results in cylindrical spreading rather than the spherical spreading resulting from a point source. The change in sound level (i.e., attenuation) from a line source is 3 dBA per doubling of distance.

Ground Absorption

Usually the noise path between the source and the observer is very close to the ground. The excess noise attenuation from ground absorption occurs due to acoustic energy losses on sound wave reflection. Traditionally, the excess attenuation has also been expressed in terms of attenuation per doubling of distance. This approximation is done for simplification only; for distances of less than 200 feet, prediction results based on this scheme are sufficiently accurate. For acoustically “hard” sites (i.e., sites with a reflective surface, such as a parking lot or a smooth body of water, between the source and the receptor), no excess ground attenuation is assumed because the sound wave is reflected without energy losses. For acoustically absorptive or “soft” sites (i.e., sites with an

absorptive ground surface, such as soft dirt, grass, or scattered bushes and trees), an excess ground attenuation value of 1.5 dBA per doubling of distance is normally assumed. When added to the geometric spreading, the excess ground attenuation results in an overall drop-off rate of 4.5 dBA per doubling of distance for a line source and 7.5 dBA per doubling of distance for a point source.

Atmospheric Effects

Research by the California Department of Transportation (Caltrans) and others has shown that atmospheric conditions can have a major effect on noise levels. Wind has been shown to be the single most important meteorological factor within approximately 500 feet, whereas vertical air temperature gradients are more important over longer distances. Other factors, such as air temperature, humidity, and turbulence, also have major effects. Receptors downwind from a source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lower noise levels. Increased sound levels can also occur because of temperature inversion conditions (i.e., increasing temperature with elevation, with cooler air near the surface, where the sound source tends to be and the warmer air above which acts as a cap, causing a reflection of ground level-generated sound).

Shielding by Natural or Human-Made Features

A large object or barrier in the path between a noise source and a receptor can substantially attenuate noise levels at the receptor. The amount of attenuation provided by this shielding depends on the size of the object, proximity to the noise source and receptor, surface weight, solidity, and frequency of the noise source. Natural terrain features (such as hills and dense woods) and human-made features (such as buildings and walls) can substantially reduce noise levels. Walls are often constructed between a source and a receptor with the specific purpose of reducing noise. A barrier that breaks the line of sight between a source and a receptor will typically result in at least 5 dB of noise reduction. A higher barrier may provide as much as 20 dB of noise reduction.

Groundborne Vibration Fundamentals

Groundborne vibration is an oscillatory motion of the soil with respect to the equilibrium position and can be quantified in terms of velocity or acceleration. Groundborne vibration can be a serious concern for nearby neighbors of a transit system route or maintenance facility, causing buildings to shake and rumbling sounds to be heard. It is unusual for vibration from sources such as buses and trucks to be perceptible, even in locations close to major roads. Most perceptible indoor vibration is caused by sources within buildings, such as the operation of mechanical equipment, movement of people, or slamming of doors. Typical outdoor sources of perceptible groundborne vibration are heavy construction equipment (such as blasting and pile driving), steel-wheeled trains, and heavy trucks on rough roads. If a roadway is smooth, the groundborne vibration from traffic is rarely perceptible.

Groundborne vibration can be described in terms of peak particle velocity (PPV). PPV is defined as the maximum instantaneous positive or negative peak amplitude of the vibration velocity. The unit of measurement for PPV is inches per second (in/s). For transient vibration sources (single isolated vibration events such as blasting), the human response to vibration varies from barely perceptible at a PPV of 0.04 in/s, to distinctly perceptible at a PPV of 0.25 in/s, and severe at a PPV of 2.0 in/s. For continuous or frequent intermittent vibration sources (such as impact pile driving or vibratory compaction equipment), the human response to vibration varies from barely perceptible at a PPV of 0.01 in/s, to distinctly perceptible at a PPV of 0.04 in/s, and severe at a PPV of 0.4 in/s (Caltrans

2020). If a person is engaged in any type of physical activity, vibration tolerance increases considerably.

3.8.2 Environmental Setting

The City of Riverside (City) is in western Riverside County and is bounded on the north by the Santa Ana River and the cities of Jurupa Valley, Colton, and Rialto (San Bernardino County); on the south by the unincorporated communities of Woodcrest and Mockingbird Canyon; on the north and east by the unincorporated community of Highgrove and the city of Moreno Valley; and on the west by the unincorporated community of Home Gardens and the cities of Norco and Corona. Major noise sources within or surrounding the City include State Route (SR-) 91, SR-60 and Interstate 215. Other transportation-related noise sources throughout the City include local roadways, the Union Pacific Railroad and BNSF Railway, commuter rail lines, and local airports such as Riverside Municipal Airport within the City and March Air Reserve Base and Flabob Airport adjacent to the City. The *Riverside General Plan 2025 (GP 2025)* Noise Element identifies the 70, 65, and 60 dBA CNEL contours as they extend out from these transportation facilities into the surrounding land uses.

Other noise sources that may be noticeable within the City include localized noise sources associated with housing, commercial, and industrial development, such as parking lot noise, heating, ventilating, and air conditioning (HVAC) systems operating, and other local noise sources.

In order to quantify the existing ambient noise conditions throughout the City, noise monitoring was conducted at 24 locations within the City and were next to Opportunity Sites throughout the City (identified on Figure 3.8-1). Field measurements were conducted from May 17 through 19, 2021. Long-term (LT) noise monitoring was conducted at four locations, designated LT-1 through LT-4, and short-term (ST) noise monitoring was conducted at 20 locations, designated ST-1 through ST-20. Field measurements were taken at representative land uses throughout the City and in close proximity to the Opportunity Sites and within specific wards. The sound-level meters used for both the LT and ST noise monitoring were field calibrated, using a Larson Davis CAL200 acoustical calibrator, prior to each measurement to ensure accuracy; the calibration was also rechecked at the conclusion of each measurement. Field noise survey sheets and measurement location photos are provided in Appendix NOI-1.

Long-Term Noise Measurements

LT ambient noise measurements were conducted from May 17 through 19, 2021, at four locations throughout the City using Type 2 sound-level meters. LT measurement sites were selected to capture daily noise-level patterns and statistics continuously over 1-hour intervals. Approximately 24-hour days of continuous data were recorded at each location. Table 3.8-3 summarizes the results of the LT noise measurements in terms of the range of hourly measured noise levels and the maximum and minimum measured noise level at each location.

Figure 3.8-1
Short and Long-Term Field Measurements

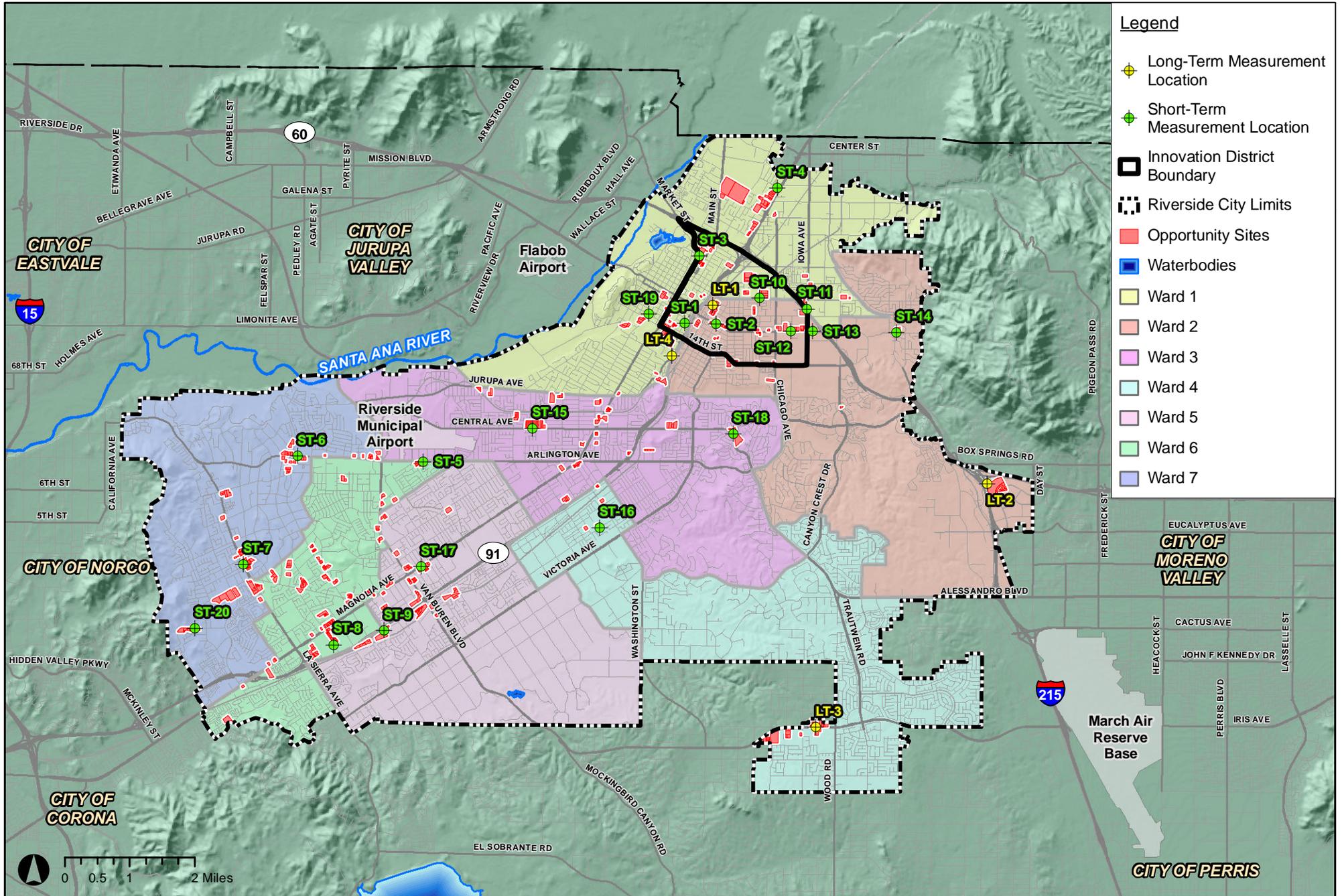


Table 3.8-3. Summary of Noise Measurement Results (Long Term)

Site#	Location/Ward	Start Date	CNEL (dBA)	Range of Hourly Leq Values (average), dBA	Range of L _{max} Values, dBA
LT-1	Near 3450 Commerce St/2	5/17/2021	83.9	60.8–80.1	58.1–106.6
LT-2	Near 2550 Canyon Springs Pkwy/2	5/18/2021	80.4	71.5–75.7	47–98
LT-3	Near 18681 Van Buren Blvd/4	5/18/2021	83.7	71.4–80.1	46.7–104.5
LT-4	Near 4632 Olivewood Ave/1	5/17/2021	80.0	69.7–76.7	68–97.4

Source: ICF field noise measurements (see Appendix NOI-1).

L_{max} = maximum sound level

Short-Term Noise Measurements

ST measurement locations were selected to supplement LT measurements at surrounding land uses. All field measurements were taken with a Larson Davis Model 831 or LxT Type 1 sound-level meter. Each measurement lasted approximately 20 minutes and was conducted with the meter mounted on a tripod at a height of 5 feet above the ground, with a wind screen installed over the measurement microphone to reduce the effects of wind-related interference. Noise metrics—including L_{eq}, minimum sound level (L_{min}), maximum sound level (L_{max}), L_{1.67}, L_{8.33}, L₂₅, L₅₀, L₉₀, and L₉₉ noise descriptors, defined in Table 3.8-1—were recorded subsequent to the conclusion of each measurement. Data from the measurements are shown in Table 3.8-4.

Table 3.8-4. Summary of Noise Measurement Results (Short Term)

Site#	Address/Ward	Date	Time of Day	Hourly L _{eq} Values (average), dBA	L _{max} Values, dBA
ST-1	4080 Lemon St/1	5/17/2021	11:03	67.7	77.1
ST-2	2870 University Ave/2	5/17/2021	11:37	68.6	82.8
ST-3	2727 Main St/1	5/17/2021	09:34	67.3	79.9
ST-4	821 West La Cadena Dr/1	5/17/2021	08:48	69.2	75.9
ST-5	6674 Arlington Ave/6	5/17/2021	12:02	71.3	83.3
ST-6	10249 Arlington Ave/7	5/17/2021	11:20	67.5	84.5
ST-7	5061 La Sierra Ave/7	5/17/2021	09:30	70.6	88.1
ST-8	3625 Polk St/6	5/17/2021	08:05	61.6	74.3
ST-9	10125 Indiana Ave/5	5/17/2021	07:15	72.3	88.3
ST-10	1825 3 rd St/1	5/17/2021	12:11	68.5	81.5
ST-11	3375 Iowa Ave/1	5/18/2021	07:56	64.1	80.6
ST-12	1485 University Ave/2	5/18/2021	08:26	59.4	73.5
ST-13	1223 University Ave/2	5/17/2021	13:00	65.8	77.7
ST-14	191 West Big Springs Rd/2	5/17/2021	14:08	58.3	71.9
ST-15	5055 Central Ave/3	5/17/2021	13:05	71.1	94.4
ST-16	7267 Lincoln Ave/4	5/17/2021	13:31	58.6	76.2
ST-17	9328 Magnolia Ave/5	5/17/2021	10:38	62.1	78.0
ST-18	5500 Alessandro Blvd/3	5/17/2021	14:29	71.5	80.3
ST-19	4381 Brookton Ave/1	5/17/2021	10:23	61.3	76.0

Site#	Address/Ward	Date	Time of Day	Hourly L_{eq} Values (average), dBA	L_{max} Values, dBA
ST-20	12010 Raley Dr/7	5/17/2021	08:55	48.8	70.2

Source: ICF field noise measurements (see Appendix NOI-1).

3.8.3 Regulatory Setting

This section identifies laws, regulations, and ordinances that are relevant to the impact analysis of noise in this EIR.

Federal

There are no federal noise standards that specifically apply to the Project.

State

California Department of Health Services Noise Standards

The California Department of Health Services has established guidelines for evaluating the compatibility of various land uses as a function of community noise exposure. These guidelines for land use and noise exposure compatibility are shown in Table 3.8-5. In addition, Section 65302(f) of the California Government Code requires each county and city in the state to prepare and adopt a comprehensive long-range general plan for its physical development, with Section 65302(g) requiring a noise element to be included in the general plan. The noise element must: (1) identify and appraise noise problems in the community, (2) recognize Office of Noise Control guidelines, and (3) analyze and quantify current and projected noise levels.

Table 3.8-5. California Department of Health Services Community Noise Exposure (L_{dn} or CNEL)

Land Use	Normally Acceptable ¹	Conditionally Acceptable ²	Normally Unacceptable ³	Clearly Unacceptable ⁴
Residential: Low-Density, Single-family, Duplex, Mobile Homes	50–60	55–70	70–75	above 75
Residential: Multi-Family	50–65	60–70	70–75	above 75
Transient Lodging: Motels, Hotels	50–65	60–70	70–80	above 75
Schools, Libraries, Churches, Hospitals, Nursing Homes	50–70	60–70	70–80	above 80
Auditoriums, Concert Halls, Amphitheaters	--	50–70	--	above 70
Sports Arena, Outdoor Spectator Sports	--	50–75	--	above 75
Playgrounds, Neighborhood Parks	50–70	--	67–75	above 75
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50–75	--	70–80	above 80
Office Buildings, Business and Professional Commercial	50–70	67–77	above 75	--
Industrial, Manufacturing, Utilities, Agriculture	50–75	70–80	above 75	---

Source: State of California Governor's Office of Planning and Research 2017.

¹ Normally Acceptable: Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.

² Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning, will normally suffice.

³ Normally Unacceptable: New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

⁴ Clearly Unacceptable: New construction or development should generally not be undertaken.

California Department of Transportation

The City has not designated a basic criterion for limiting groundborne vibration. Caltrans provides suggested criteria to address potential building damage as well as human annoyance as a result of construction-related groundborne vibration. Therefore, although the Project would not be subject to Caltrans oversight, guidance published by the agency nonetheless provides criteria that could be useful in establishing vibration thresholds for the Project. Guideline criteria from Caltrans’ widely referenced *Transportation and Construction Vibration Guidance Manual* (Caltrans 2020) are provided in Table 3.8-12 and Table 3.8-13.

Local

City of Riverside General Plan

GP 2025 was adopted in November 2007 and considers the continued growth of the City to 2025. GP 2025 serves as the major tool for directing growth within the City and presents a comprehensive plan to accommodate the City’s growing needs. GP 2025 is intended to implement the community’s vision for what Riverside can be in 2025.

Noise Element

In compliance with California Government Code Section 65302(a) requirements, the Noise Element includes objectives, policies, and guidance with respect to noise and development within the City (Table 3.8-6).

Table 3.8-6. Relevant Riverside County General Plan, GP 2025, and Specific Plan Policies

Plan	Policy
Riverside General Plan 2025	
Noise Element	
Objective N-1: Minimize noise levels from point sources throughout the community and, wherever possible, mitigate the effects of noise to provide a safe and healthful environment.	<p>Policy N-1.1: Continue to enforce noise abatement and control measures particularly within residential neighborhoods.</p> <p>Policy N-1.2: Require the inclusion of noise-reducing design features in development consistent with standards in Figure N-10 (Noise/Land Use Compatibility Criteria), Title 24 California Code of Regulations and Title 7 of the Municipal Code.</p> <p>Policy N-1.3: Enforce the City of Riverside Noise Control Code to ensure that stationary noise and noise emanating from construction activities, private developments/residences and special events are minimized.</p>

Plan	Policy
Objective N-2: Minimize the adverse effects of airport-related noise through proper land use planning.	Policy N-1.4: Incorporate noise considerations into the site plan review process, particularly with regard to parking and loading areas, ingress/egress points and refuse collection areas.
	Policy N-1-5: Avoid locating noise-sensitive land uses in existing and anticipated noise-impacted areas.
	Policy N-2.1: Ensure that new development can be made compatible with the noise environment by using noise/land use compatibility standards (Figure N-10 – Noise/Land Use Noise Compatibility Criteria) and the airport noise contour maps (found in the Riverside County Airport Land Use Compatibility Plans) as guides to future planning and development decisions. Policy N-2.2: Avoid placing noise-sensitive land uses (e.g., residential uses, hospitals, assisted living facilities, group homes, schools, day care centers, etc.) within the high noise impact areas (over 60 dB CNEL) for Riverside Municipal Airport and Flabob Airport in accordance with the Riverside County Airport Land Use Compatibility Plan.
Specific Plans	
Canyon Springs Business Park Specific Plan	There are no applicable policies relevant to the Project regarding noise.
Downtown Specific Plan	There are no applicable policies relevant to the Project regarding noise.
Hunter Business Park Specific Plan	There are no applicable policies relevant to the Project regarding noise.
La Sierra University Specific Plan	Policy LSU-2.3: As the Specific Plan and its Environmental Impact Report addresses in a comprehensive fashion issues such as land use, traffic, noise, hydrology, earth, air quality, biological resources, public services, cultural resources, aesthetics, infrastructure and grading, a Conditional Use Permit shall not be required for development of uses on the La Sierra University campus which are described in this Specific Plan. Plot plan review by the Planning Commission will be required for significant alteration, expansion and new construction in Subareas 1 and 2.
Magnolia Avenue Specific Plan	There are no applicable policies relevant to the Project regarding noise.
Riverside Marketplace Specific Plan	There are no applicable policies relevant to the Project regarding noise.
University Avenue Specific Plan	There are no applicable policies relevant to the Project regarding noise.

Sources: City of Riverside 1991, 2002, 2005, 2007, 2009, 2017a, 2017b, 2018

Additionally, the Noise Element of GP 2025 City includes a modified version of the California Department of Health Services Community Noise Exposure level table, which is modified for use within the City (Table 3.8-7).

Table 3.8-7. Land Use Compatibility Matrix for Noise Exposure

Land Use Category	Community Noise Exposure L_{dn} or CNEL, dB						
	55	60	65	70	75	80	85
Single Family Residential	█		█	█	█		
Infill Single Family Residential	█			█		█	█
Commercial – Motel, Hotels, Transient Lodging	█		█		█		█
Schools, Libraries, Churches, Hospitals, Nursing Homes	█		█		█		█
Amphitheaters, Concert Halls, Auditoriums, Meeting Halls	█			█			
Sports Arenas, Outdoor Spectator Sports	█				█		
Playgrounds, Neighborhood Parks	█				█	█	
Golf Courses, Riding Stables, Water Recreation, Cemeteries	█				█		█
Office Buildings – Business, Commercial & Professional	█			█		█	
Industrial, Manufacturing, Utilities, Agriculture	█				█		█
Freeway Adjacent Commercial, Office, and Industrial Uses	█			█			█

Land Use Category	Community Noise Exposure L_{dn} or CNEL, dB						
	55	60	65	70	75	80	85
Normally Acceptable	Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.						
Conditionally Unacceptable	New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.						
Normally Unacceptable	New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.						
Clearly Unacceptable	New construction or development should generally not be undertaken.						

Source: State of California Governor’s Office of Planning and Research 2017.

City of Riverside Municipal Code

Section 7.25.010 regulates exterior sound level limits within the City.

A. Unless a variance has been granted as provided in this title, it shall be unlawful for any person to cause or allow the creation of any noise which exceeds the following:

1. The exterior noise standard of the applicable land use category, up to five decibels, for a cumulative period of more than 30 minutes in any hour; or
2. The exterior noise standard of the applicable land use category, plus five decibels, for a cumulative period of more than 15 minutes in any hour; or
3. The exterior noise standard of the applicable land use category, plus ten decibels, for a cumulative period of more than five minutes in any hour; or
4. The exterior noise standard of the applicable land use category, plus 15 decibels, for the cumulative period of more than one minute in any hour; or
5. The exterior noise standard for the applicable land use category, plus 20 decibels or the maximum measured ambient noise level, for any period of time.

B. If the measured ambient noise level exceeds that permissible within any of the first four noise limit categories, the allowable noise exposure standard shall be increased in five decibel increments in each category as appropriate to encompass the ambient noise level. In the event the ambient noise level exceeds the fifth noise limit category, the maximum allowable noise level under said category shall be increased to reflect the maximum ambient noise level.

C. If possible, the ambient noise level shall be measured at the same location along the property line with the alleged offending noise source inoperative. If for any reason the alleged offending noise source cannot be shut down, then the ambient noise must be estimated by performing a measurement in the same general area of the source but at a sufficient distance that the offending noise is inaudible. If the measurement location is on the boundary between two different districts, the noise shall be the arithmetic mean of the two districts.

D. Where the intruding noise source is an air-conditioning unit or refrigeration system which was installed prior to the effective date of this title, the exterior noise level when measured at the property line shall not exceed 60 dBA for units installed before 1-1-80 and 55 dBA for units installed after 1-1-80.

Table 3.8-8. Municipal Code Exterior Noise Standards

Land Use Category	Time Period	Noise Level
Residential	Night (10:00 p.m. to 7:00 a.m.)	45 dBA
	Day (7:00 a.m. to 10:00 p.m.)	55 dBA
Office/commercial	Any time	65 dBA
Industrial	Any time	70 dBA
Community support	Any time	60 dBA
Public recreation facility	Any time	65 dBA
Nonurban	Any time	70 dBA

Section 7.30.015 regulates interior sound level limits within the City.

A. No person shall operate or cause to be operated, any source of sound indoors which causes the noise level, when measured inside another dwelling unit, school or hospital, to exceed:

1. The interior noise standard for the applicable land category area, up to five decibels, for a cumulative period of more than five minutes in any hour;
2. The interior noise standard for the applicable land use category, plus five decibels, for a cumulative period of more than one minute in any hour;
3. The interior noise standard for the applicable land use category, plus ten decibels or the maximum measured ambient noise level, for any period of time.

B. If the measured interior ambient noise level exceeds that permissible within the first two noise limit categories in this section, the allowable noise exposure standard shall be increased in five decibel increments in each category as appropriate to reflect the interior ambient noise level. In the event the interior ambient noise level exceeds the third noise limit category, the maximum allowable interior noise level under said category shall be increased to reflect the maximum interior ambient noise level.

C. The interior noise standard for various land use districts shall apply, unless otherwise specifically indicated, within structures located in designated zones with windows opened or closed as is typical of the season.

Table 3.8-9. Municipal Code Interior Noise Standards

Land Use Category	Time Period	Noise Level
Residential	Night (10 p.m. to 7 a.m.)	35 dBA
	Day (7 a.m. to 10 p.m.)	45 dBA
School	7 a.m. to 10 p.m. (while school is in session)	45 dBA
Hospital	Any time	45 dBA

Section 7.35.010 provides general noise regulations within the City.

A. It is unlawful for any person to make, continue, or cause to be made or continued any noise disturbance. The factors which should be considered in determining whether a violation of this section exists, include the following:

1. The sound level of the objectionable noise.
2. The sound level of the ambient noise.
3. The proximity of the noise to dwelling units, hospital, hotels and the like.
4. The zoning of the area.

5. The population density of the area.
 6. The time of day or night.
 7. The duration of the noise.
 8. Whether the noise is recurrent, intermittent, or constant.
 9. Whether the noise is produced by a commercial or noncommercial activity.
 10. Whether the nature of the noise is usual or unusual.
 11. Whether the noise is natural or unnatural.
- B. It is unlawful for any person to make, continue, or cause to be made or continued any noise disturbance.
- C. Any noise plainly audible through partitions common to two dwelling units within a building shall be prohibited.

Section 7.35.020 provides activities that are exempt within the City.

The following activities shall be exempt from the provisions of this title:

- A. *Emergency work.* The provisions of this title shall not apply to the emission of sound for the purpose of alerting persons to the existence of an emergency or in the performance of emergency work.
- B. *School events.* Sanctioned school activities conducted on public or private school grounds including but not limited to school athletic and entertainment events are exempted from the provisions of this chapter conducted between the hours of 7:00 a.m. and 11:00 p.m.
- C. *Federal or State preempted activities.* The provisions of this Chapter shall not apply to any other activity the noise level of which is regulated by state or federal law.
- D. *Minor maintenance to residential property.* The provisions of this title shall not apply to noise sources associated with minor maintenance to property used for residential purposes, provided the activities take place between the hours of 7:00 a.m. and 10:00 p.m.
- E. *Right-of-way construction.* The provisions of this title shall not apply to any work performed in the City right-of-ways when, in the opinion of the Public Works Director or his designee, such work will create traffic congestion and/or hazardous or unsafe conditions.
- F. *Public health, welfare and safety activities.* The provisions of this title shall not apply to construction maintenance and repair operations conducted by public agencies and/or utility companies or their contractors which are deemed necessary to serve the best interests of the public and to protect the public health, welfare and safety, including but not limited to, trash collection, street sweeping, debris and limb removal, removal of downed wires, restoring electrical service, repairing traffic signals, unplugging sewers, vacuuming catch basins, repairing of damaged poles, removal of abandoned vehicles, repairing of water hydrants and mains, gas lines, oil lines, sewers, storm drains, roads, sidewalks, etc.
- G. *Construction.* Noise sources associated with construction, repair, remodeling, or grading of any real property; provided a permit has been obtained from the City as required; and provided said activities do not take place between the hours of 7:00 p.m. and 7:00 a.m. on weekdays, between the hours of 5:00 p.m. and 8:00 a.m. on Saturdays, or at any time on Sunday or a federal holiday.
- H. *Warning devices.* Warning devices necessary for the protection of public safety, as for example fire, police, and ambulance sirens, including the testing of such devices, are exempted from the provisions of this title.
- I. *Agriculture.* Any agricultural activity, operation, or facility, or appurtenances thereof (e.g., wind machines), conducted or maintained for commercial purposes, and in a manner consistent with

proper and accepted customs and standards as allowed under California Civil Code Section 3482 as amended from time to time.

Policy Consistency

As discussed in Chapter 2, *Project Description*, one of the objectives of the Project is to ensure affordable housing is added across the City and not concentrated in areas with limited access to amenities or near sources of pollution. The Housing Element Update includes a guiding principle that seeks to equitably distribute a mix of housing types, including ownership and rental, that is safe and affordable for people of all income levels, backgrounds, and ages and that meets the needs of current and future Riverside residents.

The Project may result in development that may be inconsistent with City policies relating to noise in the Noise Element (City of Riverside 2018), as described in Table 3.8-6. Implementation of Mitigation Measures **MM-NOI-1** through **MM-NOI-5** would help to address policy inconsistencies. These measures require any future development projects enabled by the Project to evaluate for noise within the City for both construction and operations and provide mitigation to reduce impacts from the Project, where necessary.

3.8.4 Methodology and Thresholds of Significance

This noise impact analysis evaluates the temporary noise and groundborne vibration associated with Project implementation, including potential future construction activities and the changes in noise levels in the City that would occur as a result of the Project. The analysis of these impacts was conducted from a general, programmatic level, as much of the Project consists only of policy and regulatory changes and the development projects that would arise from implementation of the updated Housing and Public Safety Elements would require additional analysis. Mitigation measures to reduce or avoid identified significant impacts accompany each impact discussion (presented below), where necessary.

Construction Noise

Construction-related noise was analyzed using data and modeling methodologies from the Federal Transit Administration's *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018), which provides a list of typical construction equipment and reference emission levels. The reference equipment list is provided in Table 3.8-10. While the use of high-impact, noise-producing equipment such as pile driving is not widely anticipated, reference noise levels have been included.¹

Table 3.8-10. Typical Construction Equipment

Equipment	Typical Noise Level 50 feet from Source, dBA
Air Compressor	80
Backhoe	80
Ballast Equalizer	82
Ballast Tamper	83

¹ It should be noted that construction equipment provided in the *Transit Noise and Vibration Impact Assessment Manual* was provided for transit projects; however, these references are still applicable for the purposes of the construction noise analysis as part of this Project.

Equipment	Typical Noise Level 50 feet from Source, dBA
Compactor	82
Concrete Mixer	85
Concrete Pump	82
Concrete Vibrator	76
Crane, Derrick	88
Crane, Mobile	83
Dozer	85
Generator	82
Grader	85
Impact Wrench	85
Jack Hammer	88
Loader	80
Paver	85
Pile-driver (Impact)	101
Pile-driver (Sonic)	95
Pneumatic Tool	85
Pump	77
Rail Saw	90
Rock Drill	95
Roller	85
Saw	76
Scarifier	83
Scraper	85
Shovel	82
Spike Driver	77
Tie Cutter	84
Tie Handler	80
Tie Inserter	85
Truck	84

Source: FTA 2018

Vibration

Construction-related vibration was analyzed using data and modeling methodologies provided by Caltrans' *Transportation and Construction Vibration Guidance Manual* (Caltrans 2020) and the Federal Transit Administration's *Transit Noise and Vibration Impact Assessment Manual* (2018). These guidance manuals provide typical vibration source levels for various types of construction equipment, as well as methods for estimating the propagation of groundborne vibration over distance. Potential vibration impacts are assessed based on peak levels, rather than long-term average level. As the timing and location of the specific development projects that may arise as a result of the Housing Element Update are not known at the time of this analysis, the source-to-

receptor distances have been calculated to identify the thresholds for damage and annoyance included in Table 3.8-11 through Table 3.8-13.²

Table 3.8-11. Construction Equipment Reference Vibration Levels

Equipment Item	Reference PPV at 25 Feet (in/s)
Vibratory roller	0.210 ¹
Large bulldozer ²	0.0892
Hoe ram	0.0892
Jack hammer	0.0352
Loaded trucks ³	0.0892
Small bulldozer ³	0.0032

¹ Caltrans 2020.

² Considered representative of other heavy earthmoving equipment such as excavators, graders, backhoes, etc.

³ FTA 2018.

Table 3.8-12. Guidelines Vibration Damage Potential Threshold Criteria

	Maximum PPV (in/s)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some old buildings	0.5	0.25
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5

Source: Caltrans 2020

Table 3.8-13. Guidelines Vibration Annoyance Potential Criteria

	Maximum PPV (in/s)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Barely perceptible	0.04	0.01
Distinctly perceptible	0.25	0.04
Strongly perceptible	0.9	0.10
Severe	2.0	0.4

Source: Caltrans 2020.

The following equations from the guidance manuals were used to estimate the change in PPV levels over distance. For pile driving, the equation is:

$$PPV_{rec} = PPV_{ref} \times (25/D)^n \times (E_{equip}/E_{ref})^{0.5}$$

² The City has not designated thresholds for vibration; therefore, the Caltrans standards are used. The Caltrans standards are well-documented standards for vibration damage potential and annoyance. These standards are generally related to construction source vibration.

where PPV_{rec} is the PPV at a receiver; PPV_{ref} is the reference PPV at 25 feet from the pile driver (0.65 in/s); D is the distance from the pile driver to the receiver, in feet; n is a value related to the vibration attenuation rate through ground (the default recommended value for n is 1.1); E_{equip} is the rated energy of the actual impact pile driver in foot-pounds; and E_{ref} is 36,000 foot-pounds (rated energy of reference pile driver). (For the purposes of the analysis, it is assumed that the pile driver would be very similar to the reference pile driver and there would, therefore, be no adjustment for E_{equip} .)

For other equipment, including heavy earthmoving equipment (such as excavators, graders, and backhoes) and vibratory rollers, the equation is:

$$PPV_{rec} = PPV_{ref} \times (25/D)^n$$

where PPV_{rec} is the PPV at a receptor; PPV_{ref} is the reference PPV at 25 feet from the equipment; D is the distance from the equipment to the receiver, in feet; and n is a value related to the vibration attenuation rate through ground (the default recommended value for n is 1.1).

Operational Noise

Traffic noise was analyzed using a proprietary traffic noise model with calculations based on data from the Federal Highway Administration's Traffic Noise Model Version 2.5 Look-Up Tables (FHWA 2004). The inputs used in the traffic noise modeling included average daily traffic volumes derived from data provided in the traffic impact analysis for the Project (Votsch pers. comm.) in Section 3.12, *Transportation*, traffic speeds based on the posted speed limits, and traffic mix (the percentage of automobiles versus medium trucks and heavy trucks). In this case, the traffic mix was based on a general arterial vehicle mix of 97.4 percent autos, 1.8 percent medium trucks, and 0.8 percent heavy trucks (County of Orange 1984).³

Additional noise sources related to the Project were analyzed qualitatively or based on noise measurements of existing or similar facilities, or applicable published noise data.

Thresholds of Significance

In accordance with Appendix G of the State CEQA Guidelines, the Project would be considered to have a significant effect if it would:

- Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies
- Generate excessive groundborne vibration or groundborne noise levels
- Be 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 and expose people residing or working in the project area to excessive noise levels

³ The typical arterial volumes used for the purposes of this analysis represent an appropriate representation of arterial streets within the City and are derived from the best available data incorporated in the Federal Highway Administration's Traffic Noise Model Version 2.5 Look-Up look up tables.

3.8.5 Impacts and Mitigation Measures

The following discussion addresses a range of potential noise and vibration impacts from a variety of sources including construction, traffic, and stationary noise sources. All identified significant environmental effects have proposed mitigation measures that would be used to reduce impacts to the greatest extent practical; however, impacts would remain significant and unavoidable. These mitigation measures will be implemented for subsequent projects that are carried out within the City.

Impact NOI-1: The Project would generate temporary or permanent increases in ambient noise levels in the vicinity of the Project in excess of standards established in a local general plan or noise ordinance or applicable standards for the City. Implementation of Mitigation Measures MM-NOI-1 and MM-NOI-2 would reduce this impact, but not to less-than-significant levels. The impact would be significant and unavoidable.

Housing Element Update, Zoning Code Amendments, and Environmental Justice Policies

As the Housing Element Update would facilitate the development of up to 31,564 residential dwelling units and 3,181,930 square feet of nonresidential development, or up to 31,175 dwelling units and 1,433,460 square feet over existing conditions, the Project could affect nearby noise-sensitive receivers to noise from construction and operations that may exceed the thresholds identified in the City's Noise Element and/or Municipal Code.

The Housing Element Update includes Environmental Justice Policies to facilitate equitable distribution of housing throughout the City. Due to the Environmental Justice Policies being a policy-level planning effort, these policies would not result in temporary or permanent increases in ambient noise levels directly. Additionally, the Project does not include specific development proposals. Future housing development facilitated by the Project would occur as market conditions allow and at the discretion of individual property owners.

Construction

Future developments facilitated by the Project could result in two types of short-term noise impacts during Project construction. First, construction vehicles would incrementally increase noise levels on access roads. This would include construction worker vehicles and haul trucks traveling to and from proposed development sites. Although there would be a relatively high single-event noise level, which could cause an intermittent noise nuisance (e.g., passing trucks at 50 feet would generate up to 77 dBA), the effect on longer-term ambient noise levels would be transitory and minimal.

The second category of construction noise would be noise generated during onsite Project construction. The City's Municipal Code requires construction to be limited to 7 a.m. through 7 p.m. on weekdays and 8 a.m. to 5 p.m. on Saturdays. Construction activities are prohibited on Sundays and federal holidays. Noise levels associated with typical construction equipment that may be used is included in Section 3.8.4 above. The list of construction equipment is broken down by type of equipment and noise levels at a distance of 50 feet.

The loudest piece of construction equipment is predicted to be up to 88 dBA (jackhammer and crane) at a distance of 50 feet.⁴ As shown in Table 3.8-4 above, ambient noise levels measured at Opportunity Sites throughout the City ranged from 49 up to 72 dBA. Noise from sources such as construction equipment attenuates at a rate of 6 dB per doubling of distance. Therefore, construction noise levels would attenuate to below ambient noise levels within 400–3,200 feet from the source (dependent on the ambient measured noise levels referenced in Table 3.8-4). Noise levels would typically reduce at a quicker rate due to intervening structures and general ground and atmospheric absorption.

Section 7.35.020 of the City's Municipal Code exempts noise from construction provided, "a permit has been obtained from the City as required; and provided said activities do not take place between the hours of 7:00 p.m. and 7:00 a.m. on weekdays, between the hours of 5:00 p.m. and 8:00 a.m. on Saturdays, or at any time on Sunday or a federal holiday." Although construction noise is exempt per the Municipal Code, best management practices including but not limited to those listed below could be incorporated to reduce noise levels from construction to the greatest extent practical. Impacts would be less than significant.

Construction Best Management Practices

- To the greatest extent practicable, the quietest available type of construction equipment could be used. Newer equipment is generally quieter than older equipment. Electric-powered equipment is typically quieter than diesel- or gasoline-powered equipment, and hydraulically powered equipment is typically quieter than pneumatically powered equipment.
- All construction equipment, stationary and mobile, would be equipped with properly operating and maintained mufflers, air-inlet silencers where appropriate, and any other shrouds, shields, or other noise-reducing features that meet or exceed original factory specifications. Mobile or fixed "package" equipment (e.g., arc welders, air compressors) would be equipped with shrouds and noise-control features that are readily available for that type of equipment.
- All noisy equipment would be operated only when necessary and would be switched off when not in use.
- The use of noise-producing signals, including horns, whistles, alarms, and bells, would be for safety warning purposes only.
- Construction employees would be trained in the proper operation and use of the equipment.
- Storage, staging, parking, and maintenance areas would be away from sensitive receptors. Where this is not possible, the storage of waste materials, earth, and other supplies would be positioned in a manner that will function as a noise barrier to the closest sensitive receivers.
- Stationary noise sources such as generators and compressors would be positioned as far away as possible from noise-sensitive areas.
- Construction equipment would be stored on the individual development site while in use so as to eliminate noise associated with repeated transport of the equipment to and from the site.
- To the extent possible, haul roads would not be designated through noise-sensitive areas.

⁴ It should be noted that construction equipment such as rail saws, pile drivers, and rock drills exceed the noise level of 88 dBA referenced. These types of construction equipment are generally not needed for residential construction, but had been included in the table for reference only.

Operations

The Housing Element Update would allow for additional development in the form of up to 31,564 residential units and mixed-use development. The Project also includes general plan amendments, zoning changes, and Specific Plan amendments to facilitate new residential and mixed-use development. As such, the Project could expose nearby noise-sensitive receivers to noise from operations associated with increased traffic and/or stationary operational noise. Operational noise may exceed the thresholds identified in the City's Noise Element and/or Municipal Code.

Operational Traffic

As the Project would facilitate new residential and mixed-use developments within the identified Opportunity Sites, impacts at offsite sensitive receptors due to Project-related traffic is assessed with respect to noise increases (rather than solely based on absolute noise levels). The total number of vehicle trips associated with the build-out of the Project would increase traffic volumes throughout the City along the existing roadway network. Table 3.8-14 identifies the existing, existing plus Project, cumulative (future), and cumulative (future) plus Project traffic noise levels calculated along roadway segments throughout the City.

Table 3.8-14. Estimated Traffic Noise Levels

Roadway/Segment	Estimated Traffic Noise Levels at 100 feet from Roadway Centerline, dB CNEL					
	Existing	Existing Plus Project	Increase Over Existing	Cumulative Base	Cumulative Plus Project	Increase Over Cumulative Base
Alessandro Blvd						
East of Mission Grove Pkwy	68.7	69.6	0.9	70.5	70.5	0
North of Via Vista Dr	69.4	70.4	1.0	70.4	70.4	0
West of Sycamore Canyon Blvd	68.7	69.5	0.8	70.5	70.6	0.1
Arlington Ave						
East of Brockton Ave	62.0	62.4	0.4	64.0	64.1	0.1
California Ave						
East of Adams St	60.3	60.9	0.6	62.4	62.6	0.2
East of Van Buren Blvd	60.2	60.8	0.6	62.3	62.5	0.2
Chicago Ave						
North of Spruce St	60.7	62.0	1.3	62.9	63.1	0.2
Indiana Ave						
East of Harrison St	58.3	58.6	0.3	60.7	60.9	0.2
Jackson St						
North of Indiana Ave	59.1	59.7	0.6	60.7	61.2	0.5
La Sierra Ave						
Magnolia Ave to Collett Ave	63.5	64	0.5	64.9	65.0	0.1
North of Cypress Ave	61.5	61.5	0	63.5	63.6	0.1

Estimated Traffic Noise Levels at 100 feet from Roadway Centerline, dB CNEL						
Roadway/Segment	Existing	Existing Plus Project	Increase Over Existing	Cumulative Base	Cumulative Plus Project	Increase Over Cumulative Base
North of Pierce St	63.8	64.5	0.7	65.9	66.2	0.3
North of SR-91	65.2	65.7	0.5	66.4	66.6	0.2
Lincoln Ave						
West of Monroe St	58.5	59.2	0.7	59.0	59.3	0.3
Magnolia Avenue						
East of Harrison St	63.0	63.9	0.9	64.2	64.6	0.4
East of Jackson St	61.3	62.1	0.8	63.7	63.9	0.2
South of Jurupa Ave	61.4	61.9	0.5	62	62.3	0.3
SR-91 westbound off-ramp to SR-91 westbound on-ramp	62.3	62.4	0.1	62.8	62.9	0.1
West of Tyler St	62.6	63.2	0.6	63.9	64.2	0.3
Martin Luther King Blvd						
East of Iowa Ave	64.8	65.3	0.5	66.8	66.8	0
East of Kansas Ave	64.9	65.0	0.1	67.1	67.1	0
Pierce St						
West of La Sierra Ave	56.8	57.4	0.6	59.3	59.6	0.3
Riverwalk Pkwy						
Sierra Vista Ave to Raley Dr	62.7	62.9	0.2	62.8	63.0	0.2
Trautwein Rd						
South of Alessandro Blvd	66.1	66.5	0.4	67.6	67.6	0
Tyler St						
North of Magnolia Ave	61.0	61.6	0.6	62.4	62.6	0.2
North of SR-91	62.7	63.0	0.3	63.5	63.7	0.2
Van Buren Blvd						
North of SR-91	64.1	64.7	0.6	66.0	66.2	0.2
South of Cleveland Ave	64.2	64.3	0.1	65.6	65.7	0.1
West of Washington St	63.5	63.6	0.1	64.3	64.4	0.1
West of Wood Rd	64.4	64.8	0.4	64.8	64.9	0.1
North of Arlington Ave	65.3	65.5	0.2	66.4	66.4	0
North of Colorado Ave	63.9	64.2	0.3	65.5	65.6	0.1
North of Jurupa Ave	66.4	66.6	0.2	67.5	67.5	0
Victoria Ave						
West of Van Buren Blvd	56.9	57.2	0.3	59.7	59.9	0.2

Source: Votsch pers. comm.

As shown, the changes in traffic noise under existing conditions plus the Project would range from 0 dB (no increase over the existing conditions) to 1.3 dB (increase over the existing conditions). The

cumulative plus Project conditions show a similar change, ranging from a 0-dB increase up to 0.5 dB over the cumulative base condition. Noise levels calculated in Table 3.8-14 are considered conservative, as they do not account for any shielding from intervening structures or walls, which would further reduce traffic noise levels. As shown, many of the roadway segments analyzed currently exceed the 60 dBA and 65 dBA CNEL thresholds for the single-family residential and infill single-family residential referenced in the City's Land Use Compatibility Matrix for Noise Exposure. The largest increase would be on the order of 1.3 dB over existing and 0.5 dB over the cumulative base. While noise levels of this magnitude would not likely be discernable, many of the Opportunity Sites within the City currently exceed the relevant thresholds outlined by GP 2025. As a result, mitigation (in the form of Mitigation Measure **MM-NOI-1**) would be necessary in order to reduce the impacts to the greatest extent practical. However, even with the inclusion of Mitigation Measure **MM-NOI-1**, impacts would remain significant and unavoidable.

Operational Stationary Noise

As discussed above, the Project would facilitate the addition of new residential units and mixed-use development throughout the City. The City has identified Opportunity Sites (Figure 3-8.1) throughout the City that could be redeveloped as part of future developments to increase housing stock to meet the City's Regional Housing Needs Assessment obligation.

New residential and mixed-use development would likely result in the installation of HVAC systems. As the Project does not include specific development proposals, locations of HVAC systems are not known; however, noise from HVAC systems could be as loud as 77 dBA at a distance of 1 foot. At a distance of 50 feet (assuming a 6-dB reduction for doubling of distance), HVAC system noise would reduce to 44 dBA. As the location of HVAC systems is not known, it is possible that HVAC systems may exceed both the daytime and/or nighttime sound level limits included in the City's Municipal Code. Therefore, impacts associated with stationary noise sources could be significant and would require mitigation. Mitigation (in the form of Mitigation Measure **MM-NOI-2**) would be required to reduce impacts to the greatest extent practical. However, even with the inclusion of Mitigation Measure **MM-NOI-2**, impacts would remain significant and unavoidable.

New residential and mixed-use development facilitated by the Project would result in other stationary noise sources such as landscaping activities and anti-theft car alarms, among others. These noise sources would be temporary and periodic and would generally not increase noise levels at existing nearby noise-sensitive receptors.

Many of the Opportunity Sites are throughout the City in areas where noise levels exceed compatibility thresholds outlined in GP 2025. The exceedance of the noise compatibility thresholds would be dependent on the location of the Opportunity Site and the surrounding noise source, such as large transportation facilities, the existing rail line(s) that traverse the City, and/or large arterial roadway networks. These Opportunity Sites could expose future developments to noise levels in excess of the standards laid out in the City's Land Use Compatibility Matrix for Noise Exposure. As noise levels could exceed thresholds, adherence to the City's Land Use Compatibility Matrix for Noise Exposure thresholds would be required.

As discussed above, the adoption of the proposed Housing Element and associated policies could potentially result in impacts from traffic noise and stationary noise sources associated with new housing within the City.

The proposed Environmental Justice Policy N-EJ-1.0 provides a directive to “focus on environmental justice communities, reduce noise pollution by enforcing noise reduction and control measures within and adjacent to residential neighborhoods.” Inclusion of Mitigation Measures **MM-NOI-1** and **MM-NOI-2** would help to reduce noise pollution.

In summary, with the inclusion of mitigation measures listed below, impacts from construction would be less than significant; however, impacts from operations would be significant and unavoidable even with mitigation incorporated.

Public Safety Element Update and Environmental Justice Policies

While the Public Safety Element Update would not result in specific development, certain implementation actions could facilitate new construction and operation activities that may expose noise-sensitive receivers to noise from construction and operations that may exceed the thresholds identified in the City’s Noise Element and/or Municipal Code, such as fire control measures like brush-clearance activities to reduce the risk of wildland fires within the Fire Hazard Area.

Construction

Future development facilitated as part of the Public Safety Element Update could have the same types of short-term noise impacts as discussed above during Project construction. These would include construction worker vehicles and haul trucks traveling to and from individual development sites and noise generated during onsite construction. As discussed above, the City’s Municipal Code requires construction to adhere to specified periods permitted by the City’s Municipal Code. Noise levels associated with typical construction equipment that may be used is included in Section 3.8.4 above, and construction noise levels would be similar to those estimated in Table 3.8-10. Best management practices as discussed above could be included to reduce construction noise to the greatest extent practical. As such, impacts would be less than significant.

Operations

As the Public Safety Element Update would allow for additional development through actions, the Project could affect nearby noise-sensitive receivers through operational noise associated with new emergency vehicle traffic and/or stationary operational noise. Operational noise may exceed the thresholds identified in the City’s Noise Element and/or Municipal Code.

Operational Stationary Noise

As discussed above, the actions to implement Public Safety Element policies could occur throughout the City. The City has identified the development of police headquarters in the Downtown area. Development of this type of land use would likely result in the installation of HVAC systems. As the Project does not specifically propose new development, locations of HVAC systems are not known; however, as discussed above, noise from HVAC systems could be as loud as 77 dBA at a distance of 1 foot. At a distance of 50 feet (assuming a 6-dB reduction for doubling of distance), HVAC system noise would reduce to 44 dBA. As the location of HVAC systems is not known, it is possible that HVAC systems may exceed the daytime and/or nighttime sound level limits included in the City’s Municipal Code. As the development of any additional facilities associated with the Public Safety Element (police headquarters) would be subject to project-specific CEQA analysis, impacts would be less than significant.

While the Public Safety Element Update would not directly develop new public safety services, such as police stations, Action PS-4.1-5 would direct the location of new facilities such as a new police headquarters. The development of a new police headquarters could expose nearby noise-sensitive receptors to increased noise levels associated with sirens. The City's Municipal Code Section 7.35.020 (H) exempts noise from warning devices necessary for public safety, including fire and police sirens. As such, noise from new sources such as sirens would be exempt. Impacts would be less than significant.

Mitigation Measures

The potential impacts of the Project described in this section would be reduced with implementation of the following mitigation measures.

MM-NOI-1: Prepare a focused noise study and implement findings to reduce traffic noise.

For Opportunity Site projects that would exceed the 60 or 65 dBA CNEL threshold (based on the noise contour maps included in GP 2025), the applicant shall prepare a detailed analysis and implement mitigation to comply with the applicable City standards outlined in GP 2025. This could include but would not be limited to actions such as:

- Installation of soundwalls to break the line of sight from noise sources such as traffic noise
- Installation of noise-reducing insulation
- Installation of windows with sound transmission class (STC) ratings appropriate to reduce exterior-to-interior noise transmission
- Installation of HVAC systems

MM-NOI-2: For any development where stationary noise sources may exceed interior or exterior noise standards, prepare a focused noise study and implement findings to reduce HVAC noise.

The applicant shall design HVAC systems for Opportunity Sites to comply with the applicable City Municipal Code standards. This could include but would not be limited to actions such as:

- Preparation of a focused noise study to analyze HVAC noise, which shall identify a location for HVAC systems at appropriate distances so as to not exceed a noise level of 55 dBA L_{eq} (exterior) and 45 dBA L_{eq} (interior) between the hours of 7:00 a.m. and 10:00 p.m. and 45 dBA L_{eq} (exterior) and 35 dBA L_{eq} (interior) between the hours of 10:00 p.m. and 7:00 a.m. at the closest noise-sensitive land use. Design features that could be used to comply with the relevant threshold could include but are not limited to:
 - Locating HVAC systems far enough from residences so as to allow noise to attenuate to below the relevant standards
 - Installing housings or structural parapets around HVAC systems
 - Installing noise-reducing insulation
 - Installing windows with STC ratings appropriate to reduce exterior-to-interior noise transmission

Impact NOI-2: The Project could generate excessive groundborne vibration or groundborne noise levels. Implementation of Mitigation Measure MM-NOI-3 would reduce this impact, but not to less-than-significant levels. The impact would be significant and unavoidable.

Housing Element Update, Zoning Code Amendments, and Environmental Justice Policies

Construction

Heavy construction equipment has the potential to produce groundborne vibration levels that are perceptible to people in the surrounding area.

Referring to the equipment provided above in Table 3.8-10, various pieces of heavy equipment such as graders, bulldozers, and excavators would be used at individual development sites. Based on data published by Caltrans (Caltrans 2020), this type of equipment typically produces PPV vibration levels of 0.089 in/s at a distance of 25 feet.

Using the equation (see *Vibration* in Section 3.8.4) to calculate vibration transmission loss, it was determined that heavy construction equipment (e.g., graders, excavators) would generate groundborne vibration levels that would attenuate to levels referenced in Table 3.8-15.

Table 3.8-15. Attenuated Vibration Levels at Distance

Equipment Item	Reference PPV at 25 Feet (in/s)	PPV at 50 Feet (in/s)	PPV at 100 Feet (in/s)	PPV at 200 Feet (in/s)
Large bulldozer	0.0891	0.042	0.019	0.009

As outlined in Table 3.8-12, the threshold for extremely fragile historic buildings is 0.12 PPV for transient vibration sources and 0.08 PPV for frequent intermittent sources for damage. The thresholds for annoyance criteria (Table 3.8-13) show that vibration would be barely perceptible at levels of 0.01 PPV for frequent intermittent sources and 0.04 PPV for transient vibration sources. Vibration levels could potentially exceed the damage threshold of 0.08 PPV if construction occurred within 25 feet of extremely fragile buildings and would be barely perceptible within a distance of approximately 200 feet. It should be noted that the use of high-impact construction equipment such as during pile driving would increase the distance to the reference damage levels; however, as pile driving is generally not used for residential development, it is assumed that this type of high-impact vibration equipment would not be used. As the location of construction is not known at this time, construction vibration levels cannot be calculated at specific vibration-sensitive land uses. Therefore, impacts from vibration could be significant. As such, mitigation (in the form of Mitigation Measure **MM-NOI-3**) would be necessary. Even with the inclusion of Mitigation Measure **MM-NOI-3**, impacts would remain significant and unavoidable.

Operations

The Housing Element Update would potentially add vehicles such as automobiles and could result in a small increase in trucks accessing the local roadway network. Based on the FTA and Caltrans guidance, loaded trucks would produce a PPV of no more than 0.089 PPV at a distance of 25 feet. As the threshold for damage for transient sources (Table 3.8-12) is 0.12 PPV for extremely fragile

Figure 3.8-2

Riverside Municipal and Flabob Airport Noise Contours

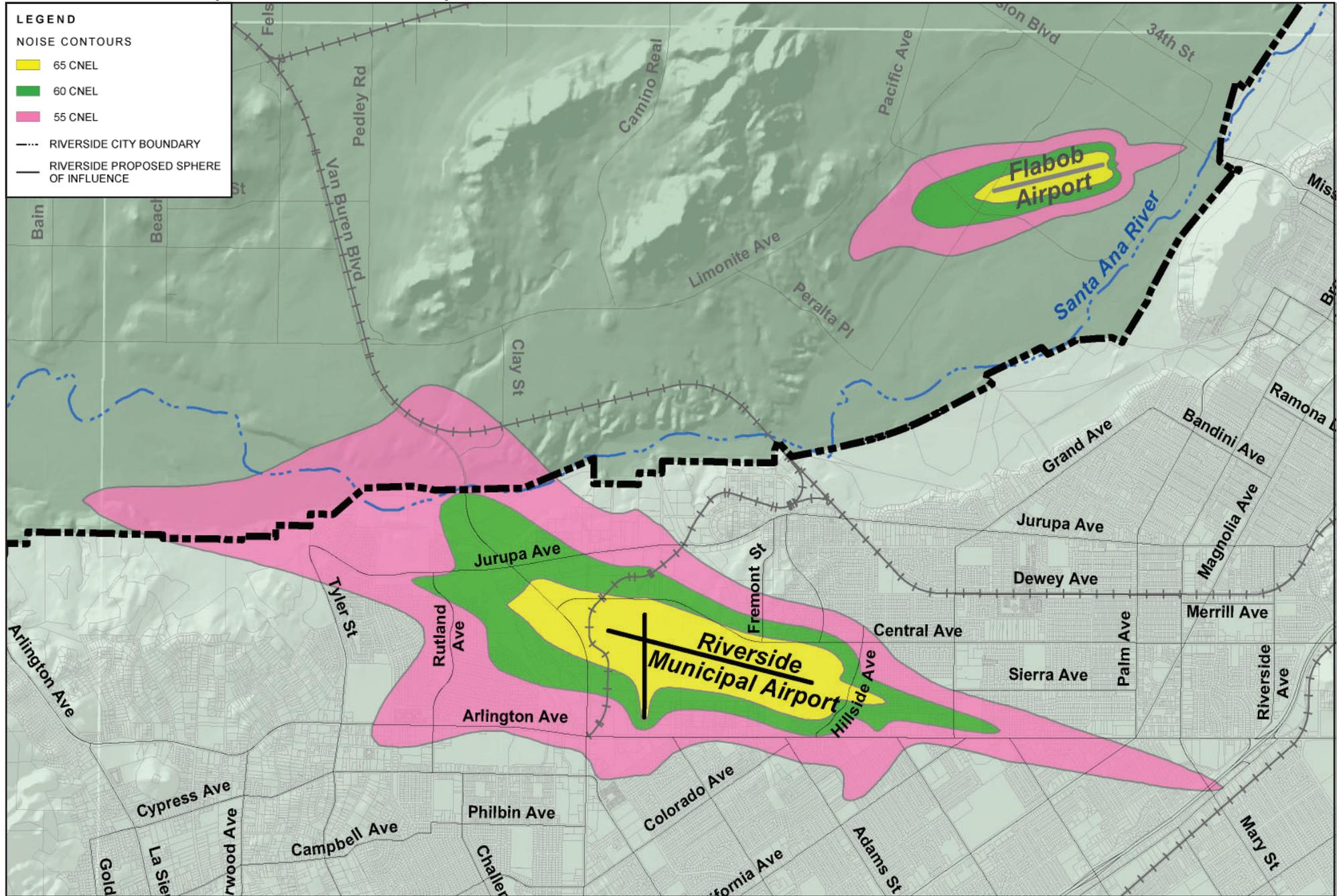
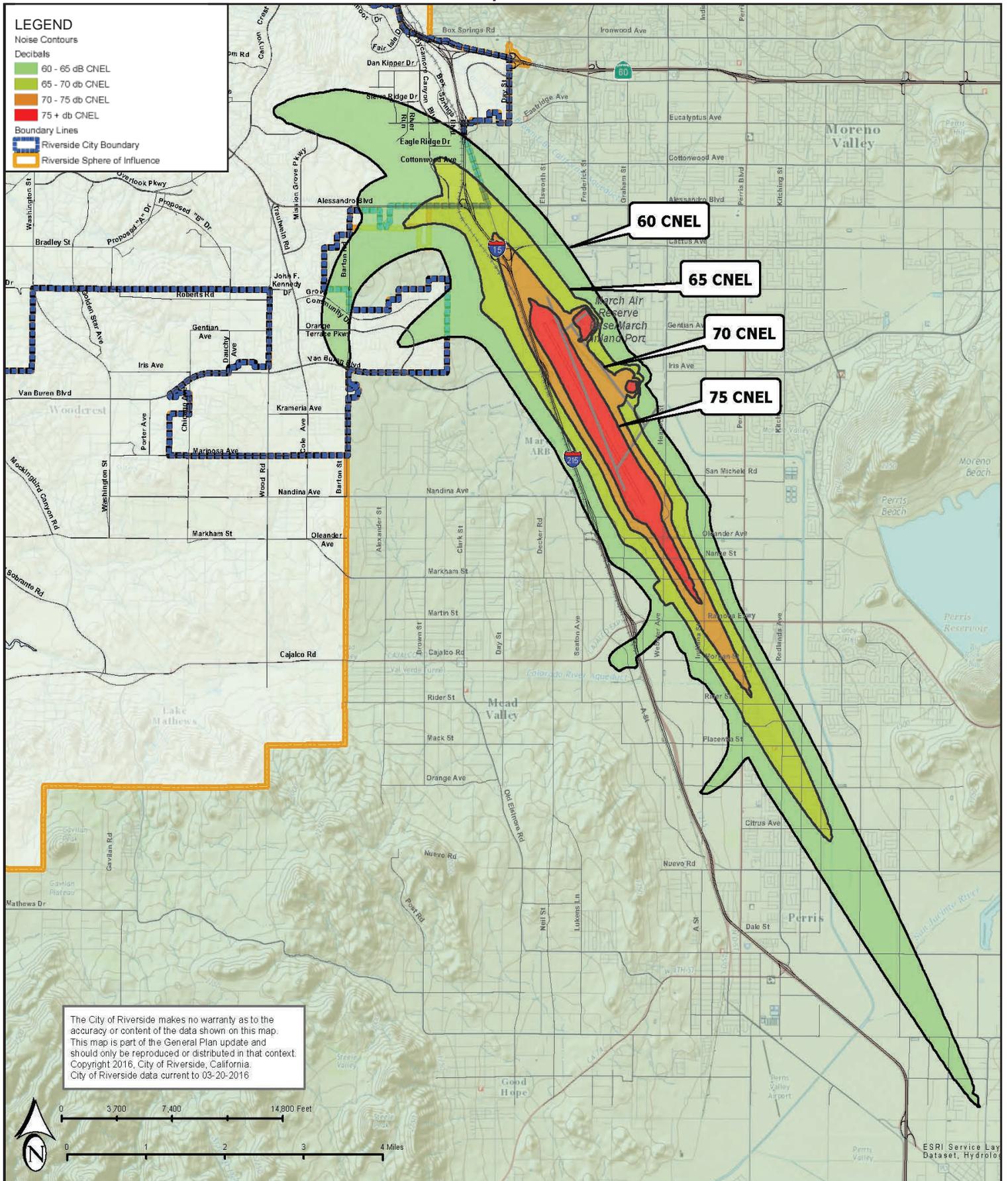


Figure 3.8-3

March Air Reserve Base/Inland Port Airport Noise Contours



buildings, damage associated with a truck pass-by would not result in potential damage to nearby structures. Additionally, a vibration level of 0.04 PPV is considered a barely perceptible threshold of perception (Table 3.8-13). Vibration would not be noticeable outside of 50 feet from the roadway. Therefore, as there is no operational component related to the Housing Element Update that would result in significant sources of vibration, impacts would be less than significant.

Public Safety Element Update and Environmental Justice Policies

While the Public Safety Element Update would not result in specific development, certain implementing actions could facilitate new construction and operations that may expose sensitive receivers to vibration from construction and operations that may exceed the thresholds identified in the City's Noise Element and/or Municipal Code.

Construction

Future developments facilitated as part of the Public Safety Element Update could have the same types of vibration impacts as discussed above during Project construction. Vibration levels associated with typical construction equipment that may be used are included in Table 3.8-10 above. As such, inclusion of Mitigation Measure **MM-NOI-3** would reduce noise impacts to less-than-significant levels.

Operations

The Public Safety Update would potentially add vehicles such as automobiles and some trucks to the local roadway network. These types of vehicles do not produce noticeable levels of vibration. Therefore, as there is no operational component related to the Public Safety Element Update that would result in significant sources of vibration, impacts would be less than significant.

Mitigation Measures

The potential impacts of the Project described in this section would be reduced with implementation of the following mitigation measure.

MM-NOI-3: Reduce construction-generated groundborne vibration to the extent possible.

The City of Riverside Community & Economic Development Department, Planning Division shall, to the extent possible, require that heavy construction equipment (representative equipment such as large bulldozers) is not operated within 25 feet of onsite or offsite sensitive receptors (including, but not limited to, single- and multi-family residences, institutional or care facilities, etc.). If construction is anticipated within 25 feet of onsite or offsite sensitive receptors, the City shall require pre- and post-construction surveys to confirm that vibration did not result in damage to surrounding structures. Additionally, the City shall require vibration monitoring at the structure to determine if vibration levels exceed the 0.08 PPV threshold at the structure. Should an exceedance be identified, construction would be halted and additional measures would be implemented in order to reduce vibration levels. These additional measures could include, but are not limited to:

- Using smaller or less vibration-intensive equipment
- Maximizing the distance from the vibration source

Impact NOI-3: The Project would be in the vicinity of a private airstrip and an airport land use plan, and within 2 miles of a public airport or public use airport but would not expose people residing or working in the City to excessive noise levels. Impacts would be less than significant.

Housing Element Update, Zoning Code Amendments, and Environmental Justice Policies

Airports within the City include Riverside Municipal Airport. Additionally, Flabob Airport and March Reserve Airforce Base are approximately 0.75 mile north/northwest and 1.4 miles southeast, respectively. Flight paths associated with the noise contours are included on Figures 3.8-2 and 3.8-3. Noise from aircraft on departure or approach to any of these airports would be audible at many of the Opportunity Sites identified throughout the City. None of the Opportunity Sites identified would be within the 60 or 65 dBA CNEL contour for any of the surrounding airports. A few of the Opportunity Sites would be within the 55 dBA CNEL contour. Policy N-2.2 and Policy N-3.1 of the City's current Noise Element direct that development of noise-sensitive land uses (including residences) should not occur within the 65 dBA CNEL contour of the surrounding airports, including the three mentioned above. As no Opportunity Sites are planned within the 60 or 65 dBA CNEL contours, impacts on the proposed land uses as facilitated by the Project would be less than significant.

Public Safety Element Update and Environmental Justice Policies

As discussed above, the airports surrounding and within the City are March Reserve Airforce Base, Flabob Airport, and Riverside Municipal Airport. As the Public Safety Element Update would not result in the development of noise-sensitive land uses, no impacts would occur.

3.9 Population and Housing

3.9.1 Introduction

This section describes the environmental and regulatory setting for population and housing for the Project and provides information regarding general neighborhood population and housing characteristics and projected population growth for the City of Riverside (City). An analysis of potential population, housing, and employment impacts that could occur with implementation of the Project is presented. Data presented were obtained from the U.S. Census Bureau, California Department of Finance (DOF), and Southern California Association of Governments (SCAG). The analysis methods, data sources, significance thresholds, and terminology used are described. Details on the location of the Project and a description of Project activities are included in Chapter 2, *Project Description*, of this EIR.

On March 4, 2020, California Governor Gavin Newsom declared a state of emergency in California due to the Coronavirus' (COVID-19's) public health threat. On March 8, 2020, the County of Riverside Public Health Officer declared a local health emergency in Riverside County due to the public health threat of COVID-19. On March 13, 2020, the Riverside City Council proclaimed a Local Emergency, as defined by Government Code §8558(c), in the City due to the COVID-19 pandemic. Given these recent COVID-19-related events, which could potentially result in a significant and sustained recession, it is likely that the growth forecasts presented in this analysis are overstated.

3.9.2 Environmental Setting

The City's demographics are examined in the context of existing and projected population for the Riverside County region and the City. The City is a major economic hub in Southern California. The City is currently ranked as the twelfth largest city in California and the seventh largest city in Southern California.

Riverside is the center of and largest city in the region known as the Inland Empire. SCAG's 2020–2045 Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS), referred to as *Connect SoCal* (adopted May 7, 2020), population, housing, and employment growth forecast for 2045 is shown in Table 3.9-1. The projections estimate that Riverside will continue to steadily grow.

Table 3.9-1. Population, Housing, and Employment Projections for Riverside

Type	City of Riverside	
	2018	2045
Population	325,860	395,800
Housing Units	100,515	115,100
Employment	148,353	188,700

Source: SCAG 2020a.

Population

Population in Riverside has steadily grown with approximately 40,000 new residents added each decade since the 1960s. The City is anticipated to continue increasing in population. According to

the *Riverside General Plan 2025* (GP 2025) EIR, the City projected a population of 383,077 by 2025. Of that total, GP 2025 projects a population of 346,867 within current incorporated boundaries of Riverside and 36,209 residents within the City’s Sphere of Influence. In past decades, migration patterns—in part due to the relative affordability of housing compared to coastal population centers—fueled population growth in Riverside.

Table 3.9-2 shows population growth trends in the City and Riverside County as reported by DOF. Population has consistently increased in the City and Riverside County. The City’s population increased from 303,871 persons in 2010 to 328,155 persons in 2020, which is an approximate 8-percent increase. Riverside County population increased by approximately 11.5 percent from 2010 to 2020.

Table 3.9-2. Population Growth Trends in the City and Riverside County

Year	City of Riverside		Riverside County	
	Population	Percent Change	Population	Percent Change
2010	303,871	N/A	2,189,641	N/A
2011	307,661	1.2%	2,216,250	1.2%
2012	311,038	1.1%	2,244,472	1.3%
2013	314,191	1.0%	2,268,660	1.1%
2014	315,923	0.6%	2,290,907	1.0%
2015	318,387	0.8%	2,315,706	1.1%
2016	320,962	0.8%	2,343,785	1.2%
2017	323,583	0.8%	2,376,580	1.4%
2018	325,417	0.6%	2,400,762	1.0%
2019	326,427	0.3%	2,422,146	0.9%
2020	328,155	0.5%	2,442,304	0.8%
Total Change (2010 to 2020)		7.9%		11.5%

Source: DOF 2020.

Age

Resident age characteristics in Riverside affect housing needs. Riverside’s central location and the presence of four major colleges and universities result in young adults making up a significant percentage of the population. As seen in Table 3.9-3, the median age in the City in 2019 was 31.6. Riverside’s largest groups of age demographics are 45–64 and under 14, with young adults aged 15–24 making up the third largest age group. From 2010 to 2019, young adults aged 15–24 increased by 8.6 percent and young adults aged 25–34 increased by 24.7 percent in the City. Much like the broader region, the percentage of middle-aged adults aged 45 to 64 and older adults (65+) substantially increased. The only two age groups that showed decreases in population between 2010 and 2019 were adolescents under 14 and adults aged 35 to 44. These changes in age structure represent a substantial change in the age composition of Riverside toward an aging population.

Table 3.9-3. Population for the City and Riverside County

Characteristic	City of Riverside			Riverside County		
	Population 2010	Population 2019	Percent Change	Population 2010	Population 2019	Percent Change
Male	149,800	162,664	8.6%	1,050,949	1,200,960	14.3%
Female	150,753	163,750	8.6%	1,058,515	1,210,479	14.4%
Under 14	68,502	64,057	-6.5%	500,607	505,816	1.0%
15–24	58,332	60,099	3.0%	324,443	345,754	6.6%
25–34	44,476	55,445	24.7%	273,040	334,925	22.7%
35–44	41,366	40,432	-2.3%	294,449	308,273	4.7%
45–64	62,871	71,566	13.8%	472,002	576,096	22.1%
65+	25,006	34,815	39.2%	244,923	340,575	39.1%
Median age (years)	29.8	31.6	6.0%	33.4	35.6	6.6%

Source: U.S. Census Bureau 2010, 2019.

Regional and Local Race/Ethnicity Distribution

Like much of Southern California, Riverside’s population is becoming more diverse in race and ethnicity. In 2001, the City adopted the “Building a More Inclusive Riverside Community” statement. This statement affirms the opportunities and challenges of building an inclusive community and the responsibilities of residents, businesses, institutions, and policymakers in Riverside’s future.

According to the U.S. Census Bureau’s 2019 American Community Survey (ACS), 53.7 percent of the population of the City is Hispanic, 29.8 percent is White, 7.4 percent is Asian, and 5.8 percent is African American. These patterns reflect the characteristics in Riverside County and those of central cities in the region.

Table 3.9-4. Race/Ethnicity Distribution for the City and Riverside County

Ethnicity/Race	City of Riverside		Riverside County	
	Population	Percent	Population	Percent
Hispanic/Latino	175,311	53.7%	1,179,478	48.9%
White	97,325	29.8%	851,702	35.3%
Black or African American	18,825	5.8%	147,160	6.1%
American Indian/Alaska Native	10,89	0.3%	10,362	0.4%
Asian	24,090	7.4%	152,347	6.3%
Native Hawaiian/Other Pacific	734	0.2%	6,471	0.3%
Some other race	990	0.3%	5,936	0.2%
Two or more races	8,050	2.5%	57,983	2.4%

Source: U.S. Census Bureau 2019.

Environmental Justice Communities

In 2012, the State Legislature passed, and Governor Brown signed into law, Senate Bill (SB) 535, which provides the framework for how the Cap-and-Trade program’s auction proceeds are appropriated and expended. SB 535 directed the California Environmental Protection Agency to identify environmental justice communities for purposes of the Greenhouse Gas Reduction Fund

programs based on geographic, socioeconomic, public health, and environmental hazard criteria. These communities may include, but are not limited to:

- Areas disproportionately affected by environmental pollution and other hazards that can lead to negative public health effects, exposure, or environmental degradation
- Areas with concentrations of people that are of low-income, high unemployment, low levels of home ownership, high rent burden, sensitive populations, or low levels of educational attainment

The California Environmental Protection Agency uses the CalEnviroScreen methodology to identify SB 535 environmental justice communities. As seen on Figure 3.9-1, there are environmental justice communities within the City and its Sphere of Influence. Environmental justice communities are generally located in the northern and central portions of the City.

Housing

The City offers an attractive housing market primarily for its relative affordability, central location, job opportunities, and the presence of four major colleges. According to Table 3.9-5, the rate of housing production in the City increased consistently from 2010 to 2020. Many homeowners and renters are leaving coastal cities to relocate in San Bernardino and Riverside Counties in search of more affordable housing. Comparing Table 3.9-2 and Table 3.9-5, population and housing growth trends have both steadily increased.

Table 3.9-5. Housing Growth Trends in the City and Riverside County

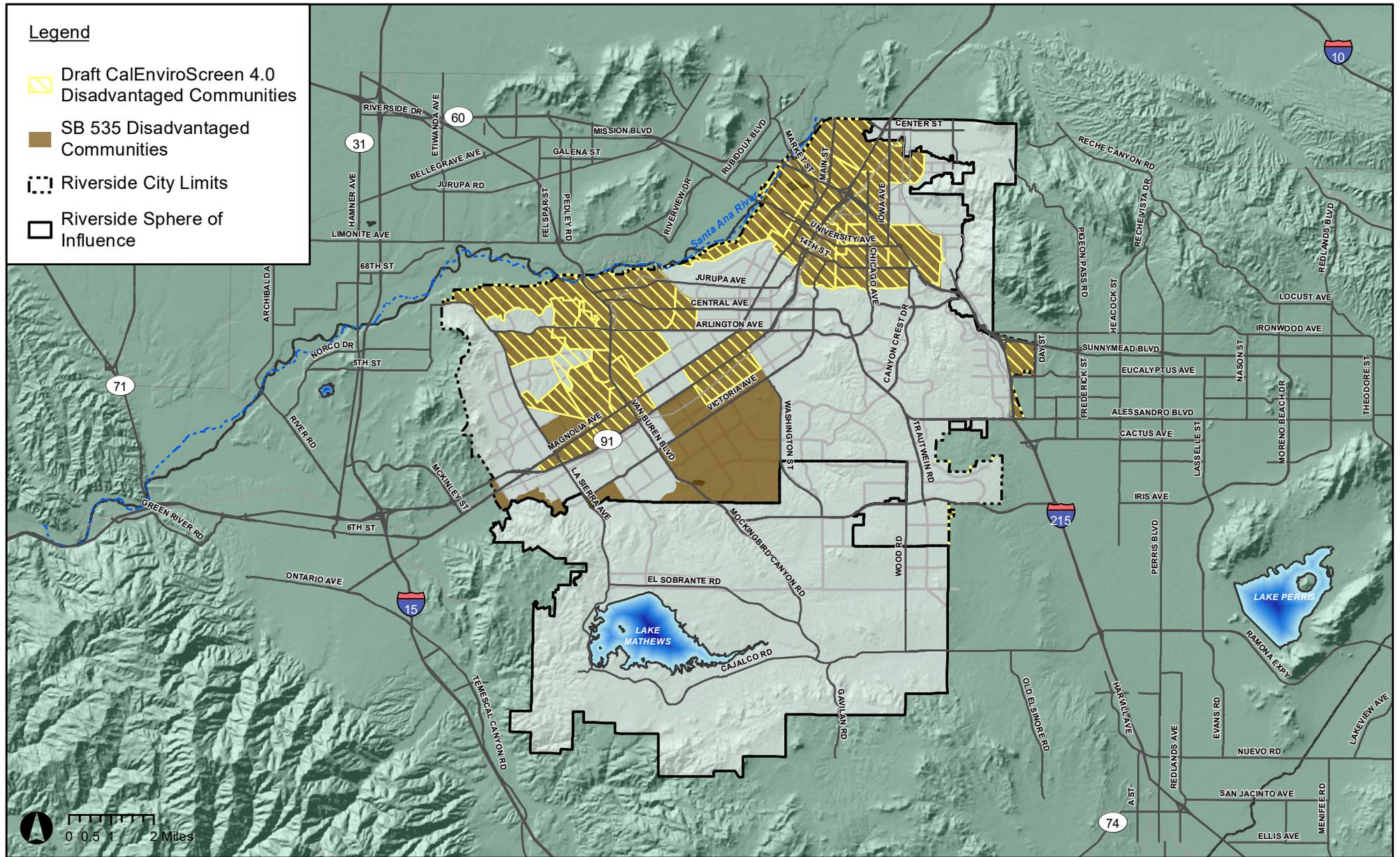
Year	City of Riverside		Riverside County	
	Housing Units	Percent Change	Housing Units	Percent Change
2010	98,444	N/A	800,707	N/A
2011	98,620	0.2%	804,913	0.5%
2012	98,761	0.1%	807,970	0.4%
2013	99,152	0.4%	812,234	0.5%
2014	99,254	0.1%	817,008	0.6%
2015	99,501	0.2%	822,911	0.7%
2016	99,859	0.4%	828,383	0.7%
2017	100,113	0.3%	834,652	0.8%
2018	100,515	0.4%	840,904	0.7%
2019	100,760	0.2%	847,851	0.8%
2020	101,414	0.6%	856,124	1.0%
Total Change (2010 to 2020)	2,970	3.01%	55,417	6.9%

Source: DOF 2020.

Existing Housing Units

Table 3.9-6 shows the housing unit types in the City and Riverside County. As is the case with most inland communities, single-family homes compose the majority (68 percent) of Riverside's housing stock. Within this general category, single-family homes can range from smaller detached homes or attached products with two to four units to larger estate homes. According to 2020 data, most

Figure 3.9-1
Environmental Justice Communities



housing units in the City (64 percent) and Riverside County (68 percent) are single-family detached units.

Table 3.9-6. Housing Units in the City and Riverside County by Type (2020)

Type	City of Riverside		Riverside County	
	Number of Units	Percent	Number of Units	Percent
Single-family detached	64,645	64%	585,544	68%
Single-family attached	3,915	4%	52,844	6%
Multi-family (2–4 units)	6,406	6%	39,044	5%
Multi-family (5 units or more)	24,221	24%	98,023	11%
Mobile homes	2,227	2%	80,669	9%
Total	101,414	100%	856,124	100%
	Household Size= 3.28		Household Size= 3.23	

Source: DOF 2020.

Housing Profile

According to DOF, in 2020 the City has more units occupied compared to Riverside County, as shown in Table 3.9-7. As rent has increased in Riverside County, the vacancy rate—which denotes housing property that is available to be rented or purchased—has dropped substantially. Rental vacancy rates at the county level consistently dropped until reaching a 9-year low of 12.8 percent in 2019. The City saw an even greater drop in vacancy, falling from 6.6 percent in 2010 to 4.9 percent in 2020. This is far below the national vacancy rate of 11.0 percent.

Recent reports in national and local press have highlighted poor upkeep and lack of responsiveness by investor landlords to their tenants. Additionally, the rise in prevalence of bulk rental properties may continue to push rental prices to rise faster than salaries. Low vacancy rates make it more challenging for individuals and families to purchase homes.

Table 3.9-7. Vacancy Rate in the City and Riverside County

Year	City of Riverside Vacancy Rate	Riverside County Vacancy Rate
2010	6.6%	14.3%
2011	6.5%	14.3%
2012	6.4%	14.1%
2013	5.8%	13.7%
2014	5.7%	13.6%
2015	5.7%	13.6%
2016	5.4%	13.3%
2017	5.3%	13.1%
2018	5.0%	12.9%
2019	4.9%	12.8%
2020	4.9%	12.8%

Source: DOF 2020.

Employment

Employment Trends

The City is home to major industries including advanced manufacturing, health and medical services, education, and retail and professional firms. As the region's largest city, and as the Riverside County seat, the City is the location of legal and government services.

To assess California's economic health, the California Employment Development Department provides labor market statistics for the state and different geographic regions of California. Table 3.9-8 illustrates employment trends from 2010 to 2020 for both the City and Riverside County. Both experienced yearly increases in employment from 2010 until 2019, during which time the City gained 26,900 jobs and Riverside County gained 219,600 jobs.

Table 3.9-8. Employment Growth Trends in the City and Riverside County

Type	City of Riverside		Riverside County	
	Employed Persons	Percent Change	Employed Persons	Percent Change
2010	122,000	N/A	839,100	N/A
2011	122,900	0.7%	846,300	0.9%
2012	125,800	2.4%	868,800	2.7%
2013	129,400	2.9%	893,500	2.8%
2014	133,100	2.9%	925,500	3.6%
2015	138,000	3.7%	963,800	4.1%
2016	140,700	2.0%	987,200	2.4%
2017	143,900	2.3%	1,014,900	2.8%
2018	147,000	2.2%	1,041,500	2.6%
2019	148,900	1.3%	1,058,700	1.7%
2020	140,300	-5.8%	997,700	-5.8%

Source: EDD 2021.

Since 2010, there has been a steady increase in employment within the City and Riverside County, with the largest increase in 2015 for both the City (3.7 percent) and Riverside County (4.1 percent). In 2020, there was an employment decline of -5.8 percent in both, which is correlated to the impact of the COVID-19 pandemic and impacts on the economy and job sectors.

Existing Employment

Table 3.9-9 shows the breakdown of the City's employment by occupation and industry. According to the data, the largest industry sector in 2019 was educational services, and health care and social assistance, which accounted for approximately 23.88 percent of civilian jobs. According to the ACS, the City had an employed civilian labor force (16 years and older) of 151,989 persons in 2019 with a margin of error of $\pm 1,638$ persons.

Table 3.9-9. City of Riverside Employment by Industry 2020

Industry	Number	Percent
Agriculture, forestry, fishing and hunting, and mining	944	0.6%
Construction	12,848	8.5%
Manufacturing	16,527	10.9%
Wholesale	4,228	2.8%
Retail Trade	18,001	11.8%
Transportation and warehousing, and utilities	9,870	6.5%
Information	1,711	1.1%
Finance and insurance, and real estate and rental and leasing	6,571	4.3%
Professional, scientific, and management, and administrative and waste management services	14,620	9.6%
Educational services, and health care and social assistance	36,171	23.8%
Arts, entertainment, and recreation, and accommodation and food services	15,446	10.2%
Other services, except public administration	7,974	5.2%
Public administration	7,078	4.7%
Total civilian employed population 16 years and over	151,989	100%

Source: U.S. Census Bureau 2019.

3.9.3 Regulatory Setting

State

California Housing Element Law

California law recognizes the vital role that local governments play in the supply and affordability of housing. Each governing body of a local government is required to adopt a comprehensive, long-term general plan for its physical development. The housing element is one of the seven mandated elements of the general plan.

Housing element law, enacted in 1969, mandates that local governments adequately plan to meet the existing and projected housing needs of all economic segments of the community. The law acknowledges that, for the private market to adequately address housing needs and demand, local governments must adopt land use plans and regulatory systems that provide opportunities for, and do not unduly constrain, housing development. As a result, housing policy in the state rests largely upon the effective implementation of local general plans and local housing elements. Housing element law also requires the Department of Housing and Community Development review local housing elements for compliance and to report its written findings to the local government.

Assembly Bill 1233 (2005)

Assembly Bill (AB) 1233 amended the state housing law to promote the effective and timely implementation of local housing elements. If a local government fails to implement programs in its housing element to identify adequate housing sites or fails to adopt an adequate housing element, this bill requires them to zone or rezone adequate sites by the first year of the new planning period.

The rezoning of sites is intended to address any portion of the Regional Housing Needs Assessment (RHNA) obligation that was not met because a jurisdiction failed to identify or make available adequate sites in the previous planning period. Specifically, AB 1233 applies to local governments that:

- Failed to adopt an updated housing element for the prior planning period
- Adopted a housing element that the California Department of Housing and Community Development found non-compliant due to failure to substantially comply with the adequate site requirement
- Failed to implement the adequate sites programs to make sites available within the planning period
- Failed to identify or make available adequate sites to accommodate a portion of the regional housing need

Where a local government failed to identify or make adequate sites available in the prior planning period, they must zone or rezone adequate sites to address the unaccommodated housing need within the first year of the new planning period. In addition to demonstrating adequate sites for the new planning period, the updated housing element must identify the unaccommodated housing need by income level. To determine the unaccommodated need, jurisdictions may take the following steps:

- Subtract the number of units approved or constructed (by income) since the beginning of the previous planning period's RHNA baseline date.
- Subtract the number of units that could be accommodated on any appropriately zoned sites specifically identified in the element adopted for the previous planning period (not counted above).
- Subtract the number of units accommodated on sites that have been rezoned for residential development pursuant to the site identification programs in the element adopted for the prior planning period.
- Subtract the number of units accommodated on sites rezoned for residential development independent of the sites rezoned in conjunction with the element's site identification programs as described above.

California's Sustainable Communities and Climate Protection Act (Senate Bill 375 [2008])

SB 375 aligns land use and transportation planning to link development with transit-accessible places and reduce car dependency. SB 375 is the land use component of California's wider strategy to reduce greenhouse gas emissions, codified by the 2006 Global Warming Solutions Act (AB 32). AB 32 enabled the state to regulate emission sources and set the aggressive goal of reducing emissions to 1990 levels by 2020. SB 375 requires California Metropolitan Planning Organizations (MPOs) to create an SCS as part of the federally mandated RTP. SCSs lay out the locations and types of development needed to lower vehicle miles traveled and meet greenhouse gas emission reduction targets.

SB 375 affects housing-related planning and policy in California in three main ways. First, SB 375 requires the MPOs to develop an SCS, as part of their federally mandated RTP. The SCS must lay out

plans for development patterns that would accommodate projected growth, while reducing vehicle miles traveled and thus greenhouse gas emissions. Second, SB 375 aligns the existing RHNA planning process with the SCS, in an effort to encourage local governments to plan for housing development consistent with the SCS. Third, SB 375 allows for streamlining of the CEQA review process for SCS-consistent development projects.

Alignment of Housing and Regional Transportation Plans

SB 375 promotes consistency between RTPs and regional housing policy. It requires the RTP to plan for the RHNA, and the RHNA to be consistent with the RTP's projected development pattern. SB 375 also aligned the RHNA with the regional transportation planning process and created an 8-year planning period for cities within MPOs. Allocation of housing share to various cities and counties must be consistent with the SCS.

Implementation of Housing Element

SB 375 extended the time for a local government to review and revise housing elements (i.e., the RHNA planning process) from 5 years to 8 years in certain areas within the state, including nonattainment regions¹ covered by an MPO. SB 375 requires the development of an 8-year program that includes a schedule of actions, with timetables for each action, during the program period. If the local agency fails to submit a valid housing element, it is subject to a 4-year review cycle.

Rezoning

If a local government does not identify enough sites to accommodate its housing need, it must adopt a program to make adequate sites available, including a program for rezoning sites to provide lower-income housing. Pre-SB 375 housing law, cities asserted they were only required to identify actions that would be undertaken to make sites available to accommodate various housing needs—that they were not mandated to actually adopt the rezonings included in the housing element programs. SB 375, however, provides that communities preparing an 8-year housing element must complete all required rezonings if the available housing sites inventory does not identify adequate sites to accommodate the RHNA obligation. The planned rezonings must include “minimum density and development standards” for all sites, and, for sites designated for very low- and low-income housing, rezonings must provide for “by right” zoning at certain minimum densities, with no discretionary approvals allowed except design review and subdivision map approval. CEQA review cannot be required unless a subdivision map is needed. The programmed rezonings must be completed within certain timeframes.

California Housing Crisis Act of 2019 (SB 330)

SB 330 was signed by Governor Newsom in 2019 as a means to combat the state's growing housing crisis. It applies to all urbanized areas or urban clusters as defined by the U.S. Census Bureau

¹ A “nonattainment area” means any geographic region of the United States that has been designated by the Environmental Protection Agency as a nonattainment area under Section 107 of the Clean Air Act for any pollutants for which National Ambient Air Quality Standards exist (23 Code of Federal Regulations 450.104). An MPO in a nonattainment region is required to adopt its RTP every 4 years. The SCS will be adopted as part of its RTP. An MPO that is not in a nonattainment region is required to adopt its RTP not less than every 5 years. SB 375 allows such an MPO to elect to adopt the RTP every 4 years. The purpose of such an election would be to take advantage of the provisions of SB 375 that allow for an 8-year planning period for a housing element (Government Code 65080(b)(2)(L)).

(California Legislative Information 2019). The legislation’s goal is to increase California’s housing stock by 3.5 million new units by 2025. To streamline residential development, a new preliminary application process is established, which includes basic information regarding a project such as:

- Site characteristics
- Project plans
- Certain environmental concerns
- Facts related to any potential density bonus
- Certain coastal zone–specific concerns
- Number of units to be demolished
- Location of recorded public easements

SB 330 further streamlines housing development by reducing the amount of hearings (e.g., workshops, planning commission meetings, city council meetings, subcommittee meetings) to five or fewer for a qualifying project. A shortened approval time of 90 days instead of 120 days from the EIR certification time is included in the bill to also streamline development processes.

Under SB 330, where housing is an allowed use, public agencies may not change a land use designation to remove housing as an allowed use or reduce the intensity of residential uses unless concurrent action is taken to change the standards applicable to other parcels to ensure there is no net loss in residential capacity. Local jurisdictions are no longer able to impose new development standards that would reduce the zoned capacity for housing or adopt new design standards that are not objective. Specifically, an objective standard involves no personal or subjective judgment by a public official and is uniformly verifiable by reference to criteria that are available to the applicant at the time of application. Per SB 330, a design review process is required to include objective development standards, as defined above. Demolition of existing low-income units is only allowed if certain conditions related to affordability and tenant protections are met. Local governments are no longer able to limit the annual number of land use approvals or permits necessary for the approval and construction of housing, create caps on the amount of constructed housing units, or limit the population size of their city.

Assembly Bill 1397

California’s AB 1397 made a number of changes to housing element law by revising what could be included in a local government’s inventory of land suitable for residential development. AB 1397 changed the definition of land suitable for residential development to increase the number of multi-family sites. Identified sites must be “available” and “suitable” for residential development and have a “realistic and demonstrated potential” for redevelopment during the planning period. In addition, AB 1397 requires housing element inventory sites to be 0.5 acre to 10 acres, have sufficient infrastructure, or be included in a program to provide such infrastructure, to support and be accessible for housing development. The local government must specify the realistic unit count for each site and whether it can accommodate housing at various income levels.

Senate Bill 166

SB 166 (2017) requires a local government to ensure that its housing element inventory can accommodate its share of the regional housing need throughout the planning period. It prohibits

them from reducing, requiring, or permitting the reduction of the residential density to a lower residential density than what was used by the California Department of Housing and Community Development for certification of the housing element, unless the city or county makes written findings supported by substantial evidence that the reduction is consistent with the adopted general plan, including the housing element. In such cases, any remaining sites identified in the housing element update must be adequate to accommodate the jurisdiction's share of the regional housing need. A local government may reduce the residential density for a parcel only if it identifies sufficient sites remaining within the housing element as replacement sites, so that there is no net loss of residential unit capacity.

Regional

Southern California Association of Governments' Regional Transportation Plan/Sustainable Communities Strategy

In September 2020, SCAG adopted the 2020–2045 RTP/SCS (referred to as *Connect SoCal*), which includes goals to increase mobility and enhance sustainability for the region's residents and visitors. The RTP/SCS encompasses three principles to improve the region's future: mobility, economy, and sustainability. As previously discussed, the RTP/SCS includes population, housing, and employment growth projections for 2045. These growth projections are used in SCAG's transportation modeling and shape SCAG's regional planning efforts, as outlined in the RTP/SCS. The RTP/SCS minimizes increases in regional traffic congestion by focusing growth, density, and land use intensity within existing urbanized area as the general land use growth pattern for the region while enhancing the existing transportation system and integrating land use into transportation planning. The RTP/SCS recommends local governments accommodate future growth within existing urbanized areas to reduce vehicle miles traveled, congestion, and greenhouse gas emissions.

Southern California Association of Governments' Regional Housing Needs Assessment

The RHNA is a key tool to plan for growth. Communities have to plan, consider, and decide how they will address this need through the process of completing the housing elements of their general plans. The RHNA does not necessarily encourage or promote growth, but rather allows communities to anticipate growth, so that they can grow in ways that enhance quality of life; improve access to jobs, transportation, and housing; and do not adversely affect the environment.

The RHNA is completed periodically by SCAG and its counterparts in other parts of the state, as mandated by state law. It consists of two measurements to meet the housing needs: existing need and future need. The existing need assessment examines variables from the most recent Census to measure ways in which the housing market is not meeting the needs of current residents. These variables include the number of low-income households paying more than 30 percent of their income for housing, as well as severe overcrowding (defined as housing units with more than 1.5 occupants per bedroom). The future need for housing is determined primarily by the forecasted growth in households in a community. Each new household, created by a child moving out of a parent's home, by a family moving to a community for employment, and so forth, creates the need for a housing unit.

The housing need for new households is then adjusted to account for an ideal level of vacancy needed to promote housing choice and moderate cost, and encourage acceptable levels of housing

upkeep and repair. In the SCAG region, many communities currently have more than the ideal number of vacancies, and thereby the vacancy adjustment is, in those cases, subtracted from the total housing need. Finally, a second adjustment is made to account for units expected to be lost due to demolition, natural disaster, or conversion to non-housing uses. The sum of these factors—household growth, vacancy need (generally a negative number), and replacement need—form the new housing need for a community. Finally, the RHNA considers how each jurisdiction might grow in ways that will decrease the concentration of low-income households in certain communities. The need for new housing is distributed among income groups so that each community moves closer to the regional average income distribution.

The housing element cycle covering the 2013–2021 period included an RHNA obligation of 8,283 units, of which only a portion was built during the last 8 years. The 6th cycle comes when California faces a statewide housing shortage that is affecting all Californians by raising the price of housing and the cost of construction, and by increasing homelessness.

In the 2021–2029 housing element cycle (6th cycle), the City’s RHNA obligation is a minimum of 18,458 new housing units (as shown in Table 3.9-10). Given that 100 percent of potential housing sites will not be developed to full potential, the City has provided a buffer of approximately 5,500 dwelling units (approximately 30 percent over and above the RHNA obligation) to provide for no net loss pursuant to SB 166, and thus the City will identify space for up to 24,000 new homes for the 2021–2029 RHNA cycle.

Table 3.9-10. City of Riverside 2021–2029 Regional Needs Assessment

Income Category	Units
Very low income	4,861
Low income	3,064
Moderate income	3,139
Above moderate income	7,394
Total	18,458

Local

GP 2025 was adopted in November 2007 and considers the continued growth of the City to 2025. GP 2025 serves as the major tool for directing growth within the City and presents a comprehensive plan to accommodate the City’s growing needs. GP 2025 is intended to implement the community’s vision for what Riverside can be in 2025. Descriptions of individual elements are provided in Section 3.7, *Land Use and Planning*.

Table 3.9-11 presents an overview of GP 2025 and other local plans, policies, and programs related to population and housing.

Table 3.9-11. Relevant Riverside General Plan and Specific Plan Policies

Plan	Policy
Riverside General Plan 2025	
Land Use and Urban Design Element	Policy LU-8.1 Ensure well-planned infill development Citywide, allow for increased density in selected areas along established transportation corridors.

Plan	Policy
	Policy LU-8.2: Avoid density increases or intrusion of nonresidential uses that are incompatible with existing neighborhoods.
	Policy LU-8.3. Allow for mixed-use development at varying intensities at selected areas as a means of revitalizing underutilized urban parcels.
	Policy LU-9.3: Designate areas for urban land uses where adequate urban levels of public facilities and services exist or are planned, in accordance with the public facilities and service provisions policies of this General Plan.
	Policy LU-9.4: Promote future patterns of urban development and land use that reduce infrastructure construction costs and make better use of existing and planned public facilities when considering amendments to the Land Use Policy Map (Figure LU-10).
	Policy LU-9.5: Encourage the design of new commercial developments as “integrated centers,” rather than as small individual strip development. Integrate pedestrian access, parking, access, building design and landscape themes across all parcels in the commercial center to unify the development.
	Policy LU-9.6: Discourage strip commercial development and encourage a pattern of alternating land uses along major arterials with “nodes” of commercial development separated by other uses such as residential, institutional or office.
	Policy LU-9.7: Protect residentially designated areas from encroachment by incompatible uses and from the effects of incompatible uses in adjacent areas. Uses adjacent to planned residential areas should be compatible with the planned residential uses and should employ appropriate site design, landscaping and building design to buffer the non-residential uses.
	Policy LU-10.1: Discourage the premature development of non-urbanized areas and encourage growth through such programs as the Residential infill Incentive Program, first in undeveloped and under-developed areas within, adjacent to or in close proximity to existing urbanized neighborhoods.
	Policy LU-10.2: Review the Capital Improvement Program of the City and local public works projects of other local agencies within the corporate boundaries of Riverside annually for consistency with this General Plan, pursuant to Government Code Sections 65401 et. seq. and City Code Title 19, 19.050.030 (B).
	Policy LU-10.3: Time the provision of capital improvements to ensure that all necessary public services and facilities for an area planned for new urban development are in place when development in the area occurs.
	Policy LU-10.4: Require development projects to be timed and phased so that projects are not occupied prior to the provision of necessary urban services.
	Policy LU-10.5: Consider the availability of public facilities and services when evaluating proposals for annexation of property into the City of Riverside.

Plan	Policy
Specific Plans	
Canyon Springs Business Park Specific Plan	There are no applicable policies relevant to the Project regarding population and housing.
Downtown Specific Plan	<p>Policy H-1-1: Provide a variety of housing options, including medium and high-density apartments and condominiums, live/work loft space, and mixed-use buildings with a residential component</p> <p>Policy H-1-2: Ensure the preservation and enhancement of the single-family residential neighborhoods in the Downtown.</p> <p>Policy H-1-4: Encourage adaptive reuse of existing structures, or the development of new buildings, for the purpose of live/workspace in the Raincross, North Main Street Specialty Services, Almond Street and Prospect Place Office Districts.</p> <p>Policy H-1-5: Encourage and promote new high density residential projects and the use of upstairs spaces in existing buildings in the Raincross District for housing to increase housing options and help bring daytime, evening, and weekend activity to the Downtown.</p> <p>Policy H-1-7: Promote housing affordability through diversification of housing for varied income groups.</p>
Hunter Business Park Specific Plan	There are no applicable policies relevant to the Project regarding population and housing.
La Sierra University Specific Plan	There are no applicable policies relevant to the Project regarding population and housing.
Magnolia Avenue Specific Plan	<p>Objective 1: Restore the Magnolia/Market Corridor to its historical role as a scenic, “showcase roadway” that spans the City of Riverside while updating its function as a key transit corridor to support future growth. (General Plan Objective LU-12)</p> <p>Policy 1.6: Support and encourage the redevelopment of the Magnolia Avenue corridor with mixed-use development. (General Plan Policy LU-58.7)</p>
Riverside Marketplace Specific Plan	There are no applicable policies relevant to the Project regarding population and housing.
University Avenue Specific Plan	There are no applicable policies relevant to the Project regarding population and housing.

Sources: City of Riverside 1991, 2002, 2005, 2007, 2009, 2017a, 2017b, 2019.

Policy Consistency

The Project would be consistent with GP 2025 and Specific Plan goals and policies as described in Table 3.9-11. As discussed in Chapter 2, *Project Description*, one of the preliminary objectives of the Project is to ensure affordable housing is added across the City and not concentrated in areas with lower access to amenities or near sources of pollution. The Housing Element Update includes a guiding principle that seeks to equitably distribute a mix of housing types, including ownership and rental, that is safe and affordable for people of all income levels, backgrounds, and ages and that meets the needs of current and future Riverside residents.

The principles, policies, actions, and programs within the Housing Element relate directly to, and must be consistent, with other elements of GP 2025. As part of the adoption of the Housing Element,

the City will modify applicable policies in other elements as necessary to maintain consistency. Pursuant to new state law, the City is updating the Public Safety Element concurrent with the Housing Element update to include an analysis of fire, flood, geologic, seismic, traffic, and public safety hazards and policies to reduce the potential loss of life from these hazards. The Public Safety Element will address new state requirements including environmental justice issues and climate change adaptation and resilience.

3.9.4 Methodology and Thresholds of Significance

The analysis of the Project's impacts on population and housing was conducted using a review of the most current population and housing statistics and projections available for the City. These statistics include SCAG's 2021–2029 6th cycle RHNA, Riverside's 2021–2029 Housing Element data, Riverside's GP 2025 background data, and DOF estimates and projections. The following information on population, housing, and employment for the planning area was used in this analysis from several sources:

- **California Department of Finance.** DOF prepares and administers California's annual budget. Other duties include estimating population demographics and enrollment projections. DOF's Table E-5, "City/County Population and Housing Estimates," reports on population and housing estimates for the state, counties, and cities, benchmarked to base year 2010.
- **Southern California Association of Governments.** SCAG's 2020–2045 RTP/SCS growth forecast process projects growth in employment, population, and households at the regional, county, jurisdictional, and sub-jurisdictional levels. The Demographics & Growth Forecast Technical Report for the 2020–2045 RTP/SCS forecasts employment, housing, and population projections data for 2030–2045.
- **United States Census Bureau.** The official United States Census is described in Article I, Section 2 of the Constitution of the United States. It calls for an actual enumeration of the people every 10 years, to be used for apportionment among the states of seats in the House of Representatives. The United States Census Bureau publishes population and household data gathered in the decennial census.

Thresholds of Significance

An Initial Study was prepared for the Project in April 2021. The following environmental threshold was scoped out from detailed review in this section of the Draft EIR because the impact was determined to be less than significant in the Initial Study:

- Displace a substantial number of existing people or housing, necessitating the construction of replacement housing elsewhere

For a complete discussion of the environmental issues that were scoped out from this Draft EIR, refer to Section 3.15, *Effects Not Found to Be Significant*.

In accordance with Appendix G of the State CEQA Guidelines, the Project would be considered to have a significant effect if it would:

- Create substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)

3.9.5 Impacts and Mitigation Measures

Impact POP-1: The Project would result in substantial unplanned population growth either directly or indirectly. This impact would be significant and unavoidable.

Housing Element Update, Zoning Code Amendments, and Environmental Justice Policies

The Project includes policies to encourage housing, meet the City's housing needs with diverse household types, and provide for households that are vulnerable to housing insecurity. The expectation is that as growth occurs, housing would serve all income levels, including very low-, low-, moderate-, and above-moderate-income residents and special-needs residents. The Project is a policy-level planning effort that encourages and facilitates the development and redevelopment of a range of housing types and affordability levels while facilitating mixed-use development and public safety infrastructure.

The Housing Element Update includes environmental justice policies to facilitate equitable distribution of housing throughout the City. Due to the environmental justice policies being a policy-level planning effort, these policies would not create unplanned growth directly or indirectly. Additionally, the Project does not include specific development proposals. Future housing development facilitated by the Project would occur as market conditions allow and at the discretion of individual property owners.

Opportunity Sites have been identified to accommodate future housing and mixed-use development; this includes potential redevelopment sites that will help the City meet housing demand. The Project involves 239 acres that do not require zoning changes and 581 acres that would require general plan amendments, Zoning Code changes, and Specific Plan amendments, for a total of 870 parcels comprising 820 acres. The Housing Element Update proposes to rezone up to 581 acres within City boundaries to accommodate a variety of housing types and densities to accommodate the needs of households of all income levels. In addition to rezoning, the Housing Element will require amendments to seven of the City's Specific Plans including mapping and land use changes to accommodate Opportunity Sites that have been identified within their boundaries.

Because of the rezoning of sites, there would be an increase in the number of new housing units between 2021 and 2029 up to approximately 24,000 to fulfill the City's RHNA obligation. Rezoning that would occur as part of the proposed Project would allow for development of up to 31,564 housing units, if all sites were developed to the maximum proposed zoning capacity.

Development of affordable housing under the Project would encourage a mix of supportive housing, affordable rental, and affordable homeownership units in both new construction and preservation buildings, which is intended to increase affordable housing in the area rather than create new housing for people outside of the City. The rezoning of Opportunity Sites has the potential to increase the City's population if all housing units are constructed and all residents are new to the City. It is also possible that existing residents that are currently sharing homes may relocate to new units. The increase in mixed-use development could increase employment-generating land uses within the City, thereby inducing direct and indirect population growth in the City.

According to SCAG, the population of the City is projected to increase to 395,800 by 2045, which represents an increase of 20.61 percent from the 2020 population of 328,155 (SCAG 2020b). Based on DOF population and housing estimates, the City's current average household size is 3.28 persons. The increase in population that would potentially result by adding 31,564 new housing units would result in a population increase of 103,530 persons, which would be greater than the SCAG 2045 population projection of 67,645 new residents. Implementation of the Housing Element Update would result in additional housing beyond what is currently allowed under the existing GP 2025 and SCAG projections. This could result in an additional net increase of 47,175 in City population beyond what is currently anticipated at build-out under GP 2025 (increase of 56,355 persons). As the Project would result in projections beyond what was anticipated in the GP 2025 and no mitigation is available to reduce this impact to a less-than-significant level, impacts would be significant and unavoidable.

Public Safety Element Update and Environmental Justice Policies

The Public Safety Element Update policies and implementing actions address natural hazards; transportation hazards; police, fire, and emergency services; pandemic preparedness and response; homelessness; and climate change and resiliency. The policies and implementing actions aim to reduce the risk to the community and to ensure protection from foreseeable natural and human-caused hazards.

Proposed new residential and mixed-use development would be predominantly located in more urbanized areas of the City. Public Safety Element policies and implementing actions could affect the design and construction of planned developments, such as addition of design elements related to emergency access and pedestrian safety. Public Safety Element policies do not include specific development proposals that would create unplanned growth through extension of roads or other infrastructure.

The Public Safety Element Update policies and implementing actions also involve Additional Environmental Justice Policies to address public safety issues within environmental justice communities. Many Public Safety Element Update policies could result in community benefits. No specific infrastructure improvements or projects are identified in the Public Safety Element Update. As this is a policy document, this update would not have any significant indirect or direct environmental effects related to population and housing. Impacts would be less than significant.

3.10 Public Services

3.10.1 Introduction

This section addresses public services in the City of Riverside (City), which include fire protection, police protection, schools, and other public facilities such as libraries and community centers. Parks are discussed in Section 3.11, *Recreation*. This section discusses the existing conditions of public services and evaluates whether future development associated with Project implementation would result in substantial physical impacts on government facilities that provide public services. The analysis methods, data sources, significance thresholds, and terminology used in this section are described in the appropriate subsections below. Details on the location of the Project and a description of Project activities are included in Chapter 2, *Project Description*, of this EIR.

3.10.2 Environmental Setting

Fire Protection

The Riverside Fire Department (RFD) provides fire protection for the City. RFD is an all-hazard emergency service agency that provides fire protection, emergency medical services, fire safety inspections, community education, and emergency preparedness planning and training for the City. RFD's major facilities include 14 fire stations throughout the City, administration and prevention offices, an Emergency Operations Center, and a training center. In addition to the 14 stations that serve the City, the Riverside County Fire Department (RCFD) provides service to the unincorporated territory within the City's Sphere of Influence (SOI). RFD's fire stations, their locations, and associated equipment are listed in Table 3.10-1.

Table 3.10-1. Fire Stations

Station	Address	Neighborhoods Served	Personnel	Station Equipment	Ward
Station 1 – Downtown and Fire Administration	3401 University Ave	Downtown, portions of Northside, portions of Wood Streets, portions of Grand, portions of Victoria, portions of eastside, and portions of Hunter Industrial Park	One battalion chief, two captains, two engineers, three firefighter/paramedics, and two firefighters	Engine 1, Truck 1, Squad 1, Battalion 1, Brush 1, ATV 1, and Utility 1	1
Station 2 – Arlington	9449 Andrew St	Arlington, Arlington South, portions of Arlanza, portions of La Sierra, portions of Arlington Heights, portions of Presidential Park, and portions of Ramona	One battalion chief, two captains, two engineers, three firefighter/paramedics, and two firefighters.	Engine 2, Truck 2, Squad 2, Battalion 2, Haz Mat 2, Support 2, and Utility 2	5

Station	Address	Neighborhoods Served	Personnel	Station Equipment	Ward
Station 3 – Magnolia Center (Midtown)	6395 Riverside Ave	Magnolia Center, portions of Victoria, Wood Streets, portions of Grand, portions of Casa Blanca, portions of Ramona, and portions of Hawarden Hills	Two captains, two engineers, two firefighter/paramedics and one firefighter	Engine 3, Truck 3, Rescue 3, Water Rescue 3, Utility 3, ATV 3, HART 3	3
Station 4 – University	3510 Cranford Ave	Eastside, portions of Victoria, University, and Hunter Industrial	One captain, one engineer, one firefighter, and one firefighter/paramedic	Engine 4 and Water Tender 4	2
Station 5 – Airport	5883 Arlington Ave	Airport, portions of Ramona, portions of Grand, and portions of Magnolia Center	One captain, one engineer, one firefighter, and two firefighter/paramedics	Engine 5, Squad 5, Engine 835, Squad 835, Breathing Support 5, and Water Tender 5	3
Station 6 – Northside	1077 Orange St	Northside and portions of Hunter Industrial Park	One captain, one engineer, one firefighter, and one firefighter/paramedic	Engine 6 and Engine 836	1
Station 7 – Arlanza	10191 Cypress Ave	Arlanza, portions of La Sierra Acres, and portions of La Sierra Hills	One captain, one engineer, one firefighter, and one firefighter/paramedic	Engine 7, Utility 7, and Brush 7	7
Station 8 – La Sierra	11076 Hole Ave	La Sierra, portions of La Sierra Hills, portions of La Sierra Acres, and portions of Arlanza	One captain, one firefighter, and one firefighter/paramedic	Engine 8, Utility 8, and Engine 369	6
Station 9 – Mission Grove	6674 Alessandro Blvd	Canyon Crest, portions of Mission Grove, portions of Sycamore Canyon, portions of Hawarden Hills, portions of Victoria, and portions of Alessandro Heights	One captain, one engineer, one firefighter, and one firefighter/paramedic	Engine 9 and Engine 839	4

Station	Address	Neighborhoods Served	Personnel	Station Equipment	Ward
Station 10 – Arlington Heights	2590 Jefferson St	Casa Blanca, portions of Presidential Park, portions of Arlington Heights, portions of Hawarden Hills, and portions of Alessandro Heights	One captain, one engineer, one firefighter, and one firefighter/paramedic	Engine 10	5
Station 11 – Orange Crest	19595 Orange Terrace Parkway	Orangecrest, portions of Alessandro Heights, portions of Mission Grove, and portions of Meridian JPA	One captain, one engineer, one firefighter, and one firefighter/paramedic	Engine 11, Engine 353, and Battalion 831	4
Station 12 – La Sierra South	10692 Indiana Ave	La Sierra South, portions of La Sierra, portions of Arlington South, and portions of Arlington Heights	One captain, one engineer, one firefighter, and one firefighter/paramedic	Engine 12, Brush 842, and Decon 12	5
Station 13 – Sycamore Canyon	6490 Sycamore Canyon Blvd	Portions of Canyon Crest, portions of Sycamore Canyon, Sycamore Canyon Business Park and Canyon Springs, and portions of Meridian JPA	One captain, one engineer, one firefighter, one firefighter/paramedic	Truck 13, Patrol 13, Engine 843, and Utility 13	2
Station 14 – Canyon Crest	725 Central Ave	Canyon Crest, portions of Sycamore Canyon Park, and portions of University	One captain, one engineer, one firefighter, and one firefighter/paramedic	Engine 14, Engine 8635, Quad 14A, Quad 14B, and Utility 14	2

Source: City of Riverside 2021a.

RFD has a mutual aid agreement with RCFD, and responses to emergencies would be provided with the closest resources, regardless of the jurisdiction. RFD's Fire Department Operations Division responds to more than 25,000 calls for service annually. The average time for service calls is 7 minutes and 59 seconds (McDowell pers. comm. 2021). RFD has established a performance goal for emergency response to arrive within 8 minutes of dispatch over 90 percent of the time, slower than the 5-minute response time that is generally preferred by fire officials for urban areas. Ensuring that a high level of service can be provided over the long-term is a community goal (City of Riverside Fire Department 2021; City of Riverside 2021b). (Note: the proposed Public Safety Element Update policies include actions that include updated standards for response times.)

The Riverside Municipal Code (RMC), Chapter 16.52, *Development Fees for Fire Stations*, provides the City with the ability to collect development fees for the construction and purchase of land for fire stations as well as for the acquisition of equipment and furnishings to equip fire stations. However, to date, the City has not adopted a resolution establishing those development fees, so no fees are currently being collected. RFD implemented service improvements through application of Riverside Measure Z funding and achieved an Insurance Services Office (ISO) Rating of ISO Class 1—the

highest awarded level—in December 2019 (City of Riverside Fire Department 2019). Measure Z also continues to provide funding for RFD staff positions, training, and vehicle replacement and maintenance (City of Riverside 2020).

Police Protection

The Riverside Police Department (RPD) provides police protection services to the City. Four RPD stations serve the City. The locations and services provided at each station are shown in Table 3.10-2. The Field Operations Division provides first response to all emergencies, performs preliminary investigations, and provides basic patrol services for the City. The Field Operations Division is managed by a Captain who oversees patrol officers, sergeants, lieutenant Watch Commanders, an Executive Lieutenant, and civilian support staff. The Field Operations Division includes over 130 patrol officers, 24 Sergeants, six Lieutenant Watch Commanders, one Executive Lieutenant, one Traffic Lieutenant, and a civilian support staff position (City of Riverside 2021b).

Table 3.10-2. Police Stations

Station	Address	Services/Divisions	Personnel	Ward
Orange Station	4102 Orange St	Headquarters, Support Services Division – Personnel Bureau, Community Services, Records Bureau, and Administrative Functions	70	1
Lincoln Station	8181 Lincoln Ave	Field Operations Division – Patrol/Traffic Functions, and Technical Services Unit (Bomb Squad)	184	4
Magnolia Station	10540 Magnolia Ave	Investigations and Special Operations Divisions – Investigations, Forensics, Property Room, Communications (Dispatch), Neighborhood Policing Centers, and Training Bureau	281	6
Aviation	7020 Central Ave	Air Support, METRO (SWAT) Team	25	3

Source: Payne pers. comm.

RPD police officers strive to respond within 7 minutes to Priority 1 calls (life-threatening). Officers strive to respond to less-urgent Priority 2 calls within 12 minutes (non-life-threatening).

The City has reconsidered RPD’s centralized form of organization, and RPD has implemented a decentralized Neighborhood Policing Center model in an effort to provide more equitable and responsive services across the City. Additionally, RPD does not use a formula for calculating the number of officers per capita. According to the RPD Policy Manual, adequate staffing ensures that proper supervision is available for all shifts. RPD intends to balance the employee’s needs against the need to have flexibility and discretion in using personnel to meet operational needs. While balance is desirable, the paramount concern is the need to meet operational requirements of RPD (City of Riverside Police Department 2020). (Note: The proposed Public Safety Element Update policies include actions that include updated standards for response times.)

Public Schools

The City is served by two public school districts: the Riverside Unified School District (RUSD) and the Alvard Unified School District (AUSD). RUSD is the fourteenth largest school district in California. RUSD has 47 schools, including 30 elementary schools, one special-education preschool, six middle schools (grades 7–8), five comprehensive high schools, two continuation high schools,

and the Riverside Virtual School. In addition to the two public school districts within the City, relatively small southeastern portions of the City (generally areas south of Dan Kipper Drive, north of Alessandro Boulevard, and east of Sycamore Canyon Wilderness Park) are served by Moreno Valley Unified School District (MVUSD).

AUSD includes 14 elementary schools, four middle schools, three comprehensive high schools, one continuation high school, and one alternative education center. Approximately 42,000 students are enrolled in grades K–12 at RUSD, and 20,000 students are enrolled at AUSD. In addition, RUSD has nearly 7,000 adult education students enrolled in its district (City of Riverside 2021c, 2021d).

Figure E-1 of the *Riverside General Plan 2025* (GP 2025) Education Element shows education facilities in the City. Table 3.10-3 and Table 3.10-4 list the RUSD and AUSD schools, respectively, in the City and their locations.

Table 3.10-3. Riverside Unified School District Schools in the City

School	Location	Ward
Elementary Schools		
Adams	8362 Colorado Ave	5
Alcott	2433 Central Ave	3
Patricia Beatty	4261 Latham St	1
Bryant	4324 3rd St	1
Castle View	6201 Shaker Dr	2
Emerson	4660 Ottawa Ave	2
Franklin	19661 Orange Terrace Pkwy	4
Fremont	1925 Orange St	1
Harrison	2901 Harrison St	5
Hawthorne	2700 Irving St	5
Highland	700 Highlander Dr	2
Hyatt	4466 Mount Vernon Ave	2
Jackson	4585 Jackson St	5
Jefferson	4285 Jefferson St	3
John F. Kennedy	19125 Schoolhouse Ln	4
Liberty	9631 Hayes St	5
Longfellow	3610 Eucalyptus Ave	2
Madison	5700 Arlington Ave	5
Magnolia	3975 Maplewood Pl	1
Mark Twain	19411 Krameria Av	4
Monroe	8535 Garfield St	5
Mt. View	6180 Streeter Ave	3
Pachappa	6200 Riverside Ave	3
REACH Leadership Academy	3422 Rustin Ave	1
Sunshine	9390 California Ave	5
Taft	959 Mission Grove Pkwy N	4
Tomas Rivera	20440 Red Poppy Ln	4
Victoria	2910 Arlington Ave	3

School	Location	Ward
Washington	2760 Jane St	3
Middle Schools		
Amelia Earhart	20202 Aptos St	4
Central	4795 Magnolia Ave	1
Chemawa	8830 Magnolia Ave	5
Gage	6400 Lincoln Ave	3
Frank Miller	17925 Krameria Ave	4
Sierra	4950 Central Ave	3
University Heights	1155 Massachusetts Ave	1
High Schools		
Arlington	2951 Jackson St	5
John W. North	1550 3rd St	2
Martin Luther King	9301 Wood Rd	4
Poly	5450 Victoria Ave	3
Ramona	7675 Magnolia Ave	3

Source: City of Riverside 2021c.

Table 3.10-4. Alvord Unified School District Schools in the City

School	Location	Ward
Elementary Schools		
Arlanza	5891 Rutland Ave	6
Collett	10850 Collett Ave	6
Foothill	8230 Wells Ave	6
La Granada	10346 Keller Ave	7
McAuliffe	4100 Golden Ave	7
Myra Linn	10435 Branigan Way	6
Alan Orrenmaa	3350 Fillmore St	6
Philip Stokoe	4501 Ambs Dr	7
Rosemary Kennedy	6411 Mitchell Ave	7
Terrace	6601 Rutland Ave	7
Twinhill	11000 Campbell Ave	7
Valley View	11750 Gramercy Pl	7
Middle Schools		
Arizona	11045 Arizona Ave	5
Loma Vista	11050 Arlington Ave	7
Wells	10000 Wells Ave	6
High Schools		
Alvord Continuation	3606 Pierce St	6
Hillcrest	11800 Indiana Ave	6
La Sierra	4145 La Sierra Ave	6
Norte Vista	6585 Crest Ave	7

Source: City of Riverside 2021d.

Other Public Facilities

Libraries

The Riverside Public Library (RPL) system provides library service to the City. Eight existing libraries serve the City, with an additional library (Main Library) to be opened in 2021. Four university and college libraries also serve the City. The locations of libraries that serve the City are shown in Table 3.10-5. Collectively, RPL offers the following services at their library locations:

- Books and E-media, including E-books
- Wi-Fi and internet access
- Computer, laptop, and iPad access
- Printing
- Home delivery of books and audiovisual materials
- Technology and literacy programs
- Reference and research services
- Public meeting rooms
- Veteran resource center
- Community outreach efforts
- Annual summer reading program
- Cultural programming
- Makerspace containing computers, 3-D printers, audio and video capture and editing tools, and traditional arts and crafts supplies
- Youth services
- Toy-lending library

Table 3.10-5. Public Libraries in the City

Library/Branch	Address	Square Footage	Ward
Arlington Branch	9556 Magnolia Ave	13,000	5
Arlanza Branch	8267 Philbin Ave	10,000	6
Sgt. Salvador J. Lara Casa Blanca Library	2985 Madison St	10,000	4
SPC. Jesus S. Duran Eastside Library	4033-C Chicago Ave	10,816	2
La Sierra Branch	4600 La Sierra Ave	11,500	7
Main Library ¹	3581 Mission Inn Ave	60,000	1
Marcy Branch	6927 Magnolia Ave	8,769	3
Orange Terrace	20010-B Orange Terrace Pkwy	13,000	4
New Main Library (under construction) ¹	3900 Mission Inn Ave	42,000	1
University of California, Riverside	900 University Ave	38,871	2
La Sierra University	4500 Riverwalk Pkwy	60,200	7
Cal Baptist University	8432 Magnolia Ave	47,000	5

Source: City of Riverside 2021e.

¹ New Main Library opened on June 26, 2021, and replaced the existing Main Library.

Construction of the New Main Library is substantially complete and the new facility replaced the existing Main Library on June 26, 2021. It will house 60,000 books and other materials, a community room, a bookstore space, a 100-seat community room, a two-story city archive, and an outdoor arcade space for community events such as youth performances, farmers markets, concerts, and family festivals.

Library service needs and standards are determined by the following methods: volumes by population; community need/service gaps (including services provided/not provided by other area departments and agencies); customer requests; and innovation/success of pilot projects. The City does not collect assessed development impact fees on the library's behalf. Library funding sources include the General Fund, trust funds, gift funds/donations, and grants. In addition, voters approved the Riverside Library Parcel Tax (Measure I) in November 2011 to fund library services through June 2022.

3.10.3 Regulatory Setting

Fire Protection

Federal

National Fire Protection Association 1710

The National Fire Protection Association recommends that fire departments respond to fire calls within 6 minutes of receiving the request for assistance for 90 percent of incidents. These time recommendations are based on the demands created by a structural fire. It is crucial to attempt to arrive and intervene at a fire scene prior to the fire spreading beyond the room of origin. Total structural destruction typically starts within 8 to 10 minutes after ignition. Response time is generally defined as 1 minute to receive and dispatch the call, 1 minute to prepare to respond to the fire station or field, and 4 minutes (or less) travel time. (National Fire Protection Association 2020.)

State

California Code of Regulations Title 24, Parts 2 and 9 – Fire Codes

California Code of Regulations (CCR) Part 2 of Title 24 refers to the California Building Code (CBC), which contains complete regulations and general construction building standards of state adopting agencies, including administrative, fire and life safety, and field inspection provisions. Part 2 was updated in 2008 to reflect changes in the base document from the Uniform Building Code to the International Building Code. CBC Part 9 refers to the California Fire Code (CFC), which contains other fire safety-related building standards. In particular, the 2010 CBC Chapter 7A, *Materials and Construction Methods for Exterior Wildfire Exposure*, addresses fire safety standards for new construction. In addition, CBC Section 701A.3.2, *New Buildings Located in Any Fire Hazard Severity Zone*, states:

New buildings located in any Fire Hazard Severity Zone within State Responsibility Areas, any Local Agency Very-High Fire Hazard Severity Zone, or any Wildland-Urban Interface Fire Area designated by the enforcing agency for which an application for a building permit is submitted on or after January 1, 2008, shall comply with all sections of this chapter.

California Public Resources Code Sections 4290–4299 and General Code Section 51178

Public Resources Code Sections 4290–4299 and General Code Section 51178 require minimum statewide fire safety standards pertaining to: roads for fire equipment access; signage identifying streets, roads, and buildings; minimum private water supply reserves for emergency fire use; and fire fuel breaks and greenbelts. They also identify primary fire suppression responsibilities among the federal, state, and local governments. In addition, any person who owns, leases, controls, operates, or maintains a building or structure in or adjoining a mountainous area or forest-covered, brush-covered, or grass-covered land, or any land covered with flammable material, must follow procedures to protect the property from wildland fires. This regulation also helps ensure fire safety and provide adequate access to outlying properties for emergency responders and safe evacuation routes for residents.

Regional

There are no regional regulations directly applicable to fire protection with respect to the Project.

Local

City of Riverside Fire Department Strategic Plan

The *City of Riverside Fire Department Strategic Plan 2017–2022* identifies RFD's key goals and objectives and articulates the agency's core responsibilities, mission, and guiding principles (City of Riverside 2017a). The plan includes emergency planning goals and objectives for RFD's Emergency Services Division.

City of Riverside Municipal Code

Chapter 16.32.020 of the RMC is adopted as the Uniform Fire Code and states:

The 2018 International Fire Code as amended by the California State Fire Marshal, also known as the 2019 California Fire Code ("this Code"), including Appendices Chapter 4 , B, C, E, F, G, I, M, and O which prescribes regulations consistent with nationally recognized good practice for the safeguarding, to a reasonable degree, of life and property from the hazards of fire and explosion arising from the storage, handling and use of hazardous substances, materials and devices and from conditions hazardous to life or property in the use or occupancy of buildings or premises is adopted and by this reference is made a part of this Code...

RMC Chapter 16.52, *Development Fees for Fire Stations*, provides for payment of development fees to be used for the purchase of land for and construction of fire stations, and acquisition of equipment and furnishings to equip fire stations. It is noted that the City has not adopted resolutions for RMC Chapter 16.52 and does not currently implement development fees for fire stations.

Riverside General Plan 2025

Public Safety Element

The goal of a jurisdiction's Public Safety Element is to reduce the potential short- and long-term risk of death, injuries, property damage, and economic and social disruption resulting from fires, floods, droughts, earthquakes, landslides, climate change, and other hazards. Other locally relevant safety issues—such as emergency response, hazardous materials spills, crime reduction, and response to global pandemics like COVID-19 beginning in 2020 and continuing through 2021—may also be included. The Public Safety Element directly relates to topics mandated in the Land Use and Urban

Design and Open Space and Conservation Elements as well as a key consideration for the Environmental Justice Policies of the general plan. The Public Safety Element must identify hazards and ways to reduce those hazards to guide local decisions related to zoning and development regulations. Policies and implementable actions may include methods for minimizing risks, as well as ways to minimize economic disruption and speed up recovery following disaster. The City's update to the Public Safety Element will identify public safety issues and needs anticipated to be of ongoing concern to people in the City. The Public Safety Element will ensure that the City takes action to reduce natural and man-made hazards and safety threats as well as respond quickly to any public safety incident. The GP 2025 Public Safety Element includes policies to address the City's fire protection needs. Objectives and policies relevant to the Project are shown in Table 3.10-6 below.

Land Use and Urban Design Element

In compliance with California Government Code Section 65302(a) requirements, the Land Use and Urban Design Element includes existing and proposed land uses as well as their relationship to the City's visionary goals. The element incorporates objectives and policies for land development and usage. The GP 2025 Land Use Element includes policies to address the City's fire protection needs. Policies relevant to the Project are shown in Table 3.10-6 below.

Police Protection

Federal

There are no federal regulations directly applicable to police protection with respect to the Project.

State

There are no state regulations directly applicable to police protection with respect to the Project.

Regional

There are no regional regulations directly applicable to police protection with respect to the Project.

Local

Riverside 2.0 Strategic Plan – Implementing the City Council's Strategic Priorities

The Riverside 2.0 Strategic Plan is intended to be a concise tool for implementing the strategic priorities of the Riverside City Council. The City Council identified seven priorities, including improving quality of life and providing appealing, accessible, and safe venues for community services.

Riverside General Plan 2025

Public Safety Element

The GP 2025 Public Safety Element includes policies to address the City's police protection needs. Policies relevant to the Project are shown in Table 3.10-6 below. Objectives and policies that are proposed for inclusion in the Public Safety Element Update are listed in detail in Chapter 2, *Project Description*.

Land Use and Urban Design Element

The GP 2025 Land Use Element includes policies to address the City's fire protection needs. Objectives and policies relevant to the Project are shown in Table 3.10-6 below.

Public Schools

Federal

There are no federal regulations directly applicable to schools with respect to the Project.

State

California Government Code 66000

According to California Government Code 66000, a qualified agency, such as a local school district, may impose fees on developers to compensate for the impact that a project will have on existing facilities or services. The California legislature passed Senate Bill 50 in 1998, which inserted new language into the Government Code (Sections 65995.5–65995.7) that authorized school districts to impose fees on developers of new residential construction in excess of mitigation fees authorized by Government Code 66000. School districts must meet a list of specific criteria, including the completion and annual update of School Facility Needs Analysis, in order to be legally able to impose the additional fees.

Leroy F. Green School Facilities Act

California Government Code Section 65995 (The Leroy F. Green School Facilities Act of 1998) set base limits and additional provisions for school districts to levy development impact fees and to help fund expanded facilities to house new pupils that may be generated by the development project. Sections 65996(a) and (b) state that such fees collected by school districts provide full and complete school facilities mitigation under CEQA. These fees may be adjusted by the district over time as conditions change.

Regional

There are no regional regulations directly applicable to schools with respect to the Project.

Local

Riverside General Plan 2025 Education Element

The Education Element (City of Riverside 2007a) addresses the educational resources that serve the City and surrounding region. Beyond the City's educational facilities, this element addresses the City's public library system and municipal museum. The Education Element includes objectives and policies intended to ensure a "comprehensive and flexible education in which all sectors, from pre-kindergarten through postsecondary education, offer the resources and services to provide a rigorous and quality education." Objectives and policies relevant to the Project are shown in Table 3.10-6 below.

City of Riverside Municipal Code – School Development Fee

Chapter 16.56, *School Development Fee*, of the RMC establishes coordination between the City and the applicable school district to develop a school development fee for mitigating the impact of residential development on local school districts.

Riverside Unified School District

Property owners and developers pay developer fees to RUSD to mitigate the impact created by new development within RUSD boundaries on its school facilities (RUSD 2019). Level I and Level II fees are primarily applied to industrial and commercial buildings, and residential additions above 500 square feet. Level II fees are for all new residential developments. RUSD is not currently authorized to collect Level III fees.

Alvord Unified School District

AUSD determined that school fees should be levied on new development projects within AUSD boundaries, if findings can be made that such projects will lead to higher student enrollment and increased facility costs. School fees finance school facilities necessitated by students generated from new development. School development fees were recently updated in 2020 and vary for new residential construction, residential addition, commercial/industrial construction, senior housing, and self-storage (AUSD 2020).

Moreno Valley Unified School District

MVUSD also requires landowners and developers to pay developer fees to MVUSD to mitigate the impact created by new development within MVUSD boundaries on its school facilities. MVUSD applies Level I fees to new residential construction on an accessory dwelling unit, room additions or room conversions, and industrial and commercial construction. Level II fees are applied for all new residential developments. MVUSD is not currently authorized to collect Level III fees (MVUSD 2021).

Other Public Facilities

Federal

There are no federal regulations directly applicable to other public facilities with respect to the Project.

State

There are no state regulations directly applicable to other public facilities with respect to the Project.

Regional

There are no regional regulations directly applicable to other public facilities with respect to the Project.

Local

Measure C and Measure I

In 2002, the City placed a \$19 annual parcel tax (i.e., Measure C) on the ballot to secure a dedicated funding source for local libraries. The measure passed but had a 10-year term that expired in June 2012. In 2011, Measure I was placed on the ballot to extend the \$19 annual parcel tax for another 10 years. The measure also passed. Therefore, the library parcel tax will continue to be collected and used for library services in the City through June 2022. In the past, the Riverside Public Library used Measure C and I funds (along with general funds) to serve City residents through extended hours of operation, books, electronic resources, homework and reading programs, new programming, and acquisitions of new computers.

Riverside General Plan 2025 Public Facilities and Infrastructure Element

The Public Facilities and Infrastructure Element addresses the City’s public facilities (i.e., libraries, hospitals, and community centers) and infrastructure, including water service and supply, wastewater, stormwater control, solid waste, electric power, and telecommunications. The element includes goals and policies intended to ensure the City supports well-designed and adequately maintained infrastructure and quality public facilities for its residents.

The Public Facilities and Infrastructure Element policies relevant to the Project are addressed in this section and Section 3.14, *Utilities and Service Systems*. Objectives and policies relevant to the Project are shown in Table 3.10-6.

Table 3.10-6. Relevant General Plan and Specific Plan Policies

Policy Title	Summary
Riverside General Plan 2025	
Public Safety Element	<ul style="list-style-type: none"> ● Objective PS-6: Protect property in urbanized and nonurbanized areas from fire hazards. <ul style="list-style-type: none"> ○ Policy PS-6.1: Ensure that sufficient fire stations, personnel and equipment are provided to meet the needs of the community as it grows in size and population. ○ Policy PS-6.2: Endeavor to meet/maintain a response time of five minutes for Riverside’s urbanized areas. ○ Policy PS-6.3: Integrate fire safety considerations in the planning process. ○ Policy PS-6.4: Promote the use of buildings, setbacks, walls, landscaping, and other design features to buffer and reduce conflicts between adjacent properties. ○ Policy PS-6.5: Promote green building design. ○ Policy PS-6.6: Continue to implement stringent brush-clearance requirements in areas subject to wildland fire hazards. ○ Policy PS-6.7: Continue to involve the City Fire Department in the development review process. ○ Policy PS-6.9: Provide outreach and education to the community regarding fire safety and prevention. ● Objective PS-7: Provide high-quality police services to all residents and businesses in Riverside. <ul style="list-style-type: none"> ○ Policy PS-7.1: Deploy human and financial resources to ensure adequate and equitable distribution of police services.

Policy Title	Summary
	<ul style="list-style-type: none"> ○ Policy PS-7.2: Support the transition of the Riverside Police Department from a centralized agency to one built around precincts as a means of providing more rapid, equitable and proactive community policing services. ○ Policy PS-7.3: Coordinate police services with college and university campus police forces and private security forces. ○ Policy PS-7.4: Coordinate with the Riverside County Sheriff in its efforts to provide law enforcement services within Sphere of Influence areas. ○ Policy PS-7.5: Endeavor to provide minimum response times of seven minutes on a Priority 1 calls and twelve minutes on all Priority 2 calls. ● Objective PS-8: Improve community safety and reduce opportunities for criminal activity through appropriate physical design. <ul style="list-style-type: none"> ○ Policy PS-8.1: Maximize natural surveillance in all new development through physical design features that promote visibility. ○ Policy PS-8.2: Promote land use and design policies and regulations which encourage a mixture of compatible land uses to promote and increase the safety of public use areas and pedestrian travel. ○ Policy PS-8.3: Involve the Police Department in the development review process of public areas relative to building and site plan vulnerabilities to criminal activities. ○ Policy PS-8.4: Coordinate efforts between the Police Department and Planning Division to develop guidelines for implementation of CPTED-related issues. ○ Policy PS-8.5: Continue to encourage residents and apartment managers to become involved in the Crime Free Multi-Housing Program as a way to reduce crime in apartment communities. ● Objective PS-9: Minimize the effects from natural and urban disasters by providing adequate levels of emergency response services to all residents in Riverside. <ul style="list-style-type: none"> ○ Policy PS-9.1: Maintain an effective, coordinated and up-to-date community-wide emergency response plan. ○ Policy PS-9.2: Support the Riverside Emergency Management Office in coordinating the City's response to disasters, providing public outreach and presentations and assisting residents to prepare for major events. ○ Policy PS-9.3: Review and test the City's Emergency Operations Plan periodically to note any deficiencies or practices requiring modification. ○ Policy PS-9.4: Ensure that equipment and structures designed to provide emergency disaster services are located and designed to function after a disaster or emergency event, or relocate any such structures which are not adequate to provide emergency services ○ Policy PS-9.5: Provide effective and relevant information to the public regarding disaster preparedness. ○ Policy PS-9.6: Conduct regularly scheduled disaster exercises to better prepare Police, Fire and other City employees with disaster responsibilities. ○ Policy PS-9.7: Identify actions to reduce the severity and probability of hazardous occurrences. ○ Policy PS-9.8: Reduce the risk to the community from hazards related to geologic conditions, seismic activity, flooding and structural and wildland fires by requiring feasible mitigation of such impacts on discretionary development projects. ● Objective PS-10: Improve the community's ability to respond effectively to emergencies.

Policy Title	Summary
	<ul style="list-style-type: none"> ○ Policy PS-10.1: Ensure that Police and Fire service facilities are strategically located to meet the needs of all areas of the City. ○ Policy PS-10.2: Consider means to develop joint police and general community facilities within the City. ○ Policy PS-10.3: Ensure that public safety infrastructure and staff resources keep pace with new development planned or proposed in Riverside and the Sphere of Influence. ○ Policy PS-10.4: Continue to ensure that each development or neighborhood in the City has adequate emergency ingress and egress, and review neighborhood access needs to solve problems, if possible.
Land Use and Urban Design Element	<ul style="list-style-type: none"> ● Objective LU-26: Ensure that a network of modern, effective and adequate community facilities are equitably distributed across the entire City. ○ Policy LU-26.1: Develop and enforce standards for community facilities (such as fire and police stations, libraries and parks) based upon population densities and proximity of existing facilities.
Education Element	<ul style="list-style-type: none"> ● Objective ED-5: Ensure that the library system remains a premier information and independent learning resource for the Riverside residents and a complement to formal education. ○ Policy ED-5.1: Provide ample and convenient library facilities. ○ Policy ED-5.2: Outreach to the community to assess, select, organize and maintain collections of materials and information sources of value desired by the community. ○ Policy ED-5.3: Partner with the school districts, universities, colleges and community and child care centers to operate joint-use learning and information resource centers.
Housing Element	<ul style="list-style-type: none"> ● Objective H-1: To provide livable neighborhoods evidenced by well-maintained housing, ample public services, and open space that provide a high quality living environment and instill community pride. ○ Policy H-1.5: Public Facilities and Infrastructure. Provide quality community facilities, physical infrastructure, traffic management, public safety, and other public services to promote and improve the livability, safety, and vitality or residential neighborhoods.
Specific Plans	
Canyon Springs Business Park Specific Plan	There are no applicable policies relevant to the Project regarding public services.
Downtown Specific Plan	Contains an assessment and vision for cultural and art resources and facilities.
Hunter Business Park Specific Plan	There are no applicable policies relevant to the Project regarding public services.
La Sierra University Specific Plan	<p>Goal LSU-1: To provide a high quality, attractive mixed-use development which includes educational, residential, commercial, industrial and recreational uses, all integrated with and enhancing the existing campus environment.</p> <p>Policy LSU-1.7: A public elementary school site is to be provided in Subarea 6, at the corner of Raley Drive and Pierce Street, eventually to total ten acres. The school site is subject to the approval by the State of California.</p>

Policy Title	Summary
Magnolia Avenue Specific Plan	Objective 1: Restore the Magnolia/Market Corridor to its historical role as a scenic, “showcase roadway” that spans the City of Riverside while updating its function as a key transit corridor to support future growth. Policy 1.11: Collaborate on strong joint use arrangements to create partnerships with the City, Riverside Unified School District, Alvord Unified School District, Sherman Indian School and California Baptist University to remove barriers to joint use of facilities.
Riverside Market Place	There are no applicable policies relevant to the Project regarding public services.
University Avenue Specific Plan	There are no applicable policies relevant to the Project regarding public services.

Sources: City of Riverside 1991, 2002, 2005, 2007a, 2007b, 2009, 2017b, 2017c, 2018a, 2018b, 2019.

Policy Consistency

CEQA regulations require a discussion of inconsistencies or conflicts between a project and federal, state, regional, or local plans and laws. Several federal and state laws and regional policies pertain to public services. As discussed in Chapter 2, *Project Description*, one of the objectives of the Project, through the Housing Element Update, is to provide livable neighborhoods that facilitate and encourage new sustainable neighborhoods by designing safe and healthy complete neighborhoods that take into consideration schools and other needs. Additionally, another Project objective is to address the public safety and public health needs and concerns of its residents, businesses, institutions, and visitors, and set forth a proactive and coordinated program of protection for all foreseeable natural and human-caused hazards. Therefore, implementation of the Project would be consistent with all relevant plans and laws.

3.10.4 Methodology and Thresholds of Significance

The methods for analysis are based on an assessment of existing public services such as fire and police resources, standards and capacities, existing public school resources and enrollment data, and recreational resources and standards. In order to conduct an analysis for the Project, desktop research was conducted to determine service capabilities, service ratios, response times, and performance objectives. This impact analysis considers the potential public services impacts associated with the implementation of the Housing Element Update, Zoning Code and Specific Plan amendments, Public Safety Element Update, and Environmental Justice Policies.

Thresholds of Significance

In accordance with Appendix G of the State CEQA Guidelines, the Project would be considered to have a significant effect if it would:

- Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:
 - Fire protection
 - Police protection

- Schools
- Other facilities, including libraries

3.10.5 Impacts and Mitigation Measures

This section describes potential impacts related to public services that could result from implementation of the Project and recommends mitigation measures as needed to reduce significant impacts.

Impact PS-1: The Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities or a 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, police protection, schools, or other public facilities. This impact would be less than significant.

Housing Element Update, Zoning Code Amendments, and Environmental Justice Policies

Future development facilitated by the Project would increase demand for public services over time. Potential impacts would include greater demands for fire protection, police protection, schools, and library facilities potentially resulting in the need to provide for new or expanded public facilities in order to maintain acceptable service ratios, response times, or other performance objectives. Additionally, future development facilitated by the Project would increase the use of existing public facilities, which could cause physical deterioration of the facilities.

Fire Protection

Demand for fire protection services would increase as a result of future development facilitated by the Project. Potential impacts would include placing greater demands on fire protection services, potentially resulting in the need to provide new or expanded fire protection facilities in order to maintain an acceptable level of service. Additionally, future residential and mixed-use development facilitated by the Project would increase the use of existing fire protection services, which could cause physical deterioration of existing facilities. As discussed in Chapter 2, *Project Description*, implementation of the Project could result in the future development of an additional 31,564 dwelling units. This increase in dwelling units would increase population and could result in a permanent increase in demand for fire protection services in areas served by RFD.

RFD provides fire protection for the City and has 14 fire stations that serve the City (see Table 3.10-1). In addition, RCFD provides service to the unincorporated territory within the City's Sphere of Influence through a mutual aid agreement. According to the RFD Strategic Plan, RFD responded to 32,000 calls for service in 2015. GP 2025 Public Safety Element, Policy PS-6.2 endeavors to meet/maintain a response time of 5 minutes for the City's urbanized areas (City of Riverside 2018a). RFD's average response time is 7 minutes and 59 seconds (McDowell pers. comm. 2021), which is below RFD's established performance goal of 8 minutes of dispatch over 90 percent of the time. Ensuring that a high level of service can be provided over the long-term is a community goal. RFD implemented service improvements through application of Riverside Measure Z funding and

achieved an ISO Rating of ISO Class 1—the highest awarded level—in December 2019 (City of Riverside Fire Department 2019). Measure Z also continues to provide funding for RFD staff positions, training, and vehicle replacement and maintenance (City of Riverside 2020).

State, county, and City jurisdictions have policies related to providing adequate fire services to the area. All development would be constructed in accordance with current building and fire/life/safety ordinances and codes, including all applicable County of Riverside and City jurisdiction code requirements related to construction, access, water mains, fire flows, and hydrants. Fire services are based on community needs because local departments conduct ongoing evaluations and annual budgeting processes to determine infrastructure, equipment, and staffing needs for the upcoming year. If ongoing evaluations indicate increased response time, then the acquisition of equipment, personnel, and new stations is considered. GP 2025 Public Safety Element, Policy PS-6.1 ensures that sufficient fire stations, personnel, and equipment are provided to meet the needs of the community as it grows in size and population.

RCFD's *Strategic Plan 2009–2029* (RCFD 2009) also guides the development of fire station facilities. Future development within Riverside County would be required to comply with fire safety regulations. As previously stated, RFD has a mutual aid agreement with RCFD that stipulates that the closest station would respond to emergencies regardless of jurisdiction. This would ensure that adequate fire service is available to respond to calls for service within the City.

Compliance with the above-mentioned state and local regulations would ensure that there would be sufficient fire protection service and facilities to accommodate additional population resulting from residential and mixed-use development and associated population growth facilitated by the Project. As such, impacts related to fire protection services would be less than significant.

Police Protection

Future development would increase demand for police protection over time. Implementation of the Project could result in the future development of an additional 31,564 dwelling units and mixed-use development. This increase in dwelling units would increase population and could result in a permanent increase in demand for police protection services in areas served by the RPD.

In the City, RPD provides police protection services. There are four RPD stations that serve the City (see Table 3.10-2). The Field Operations Division provides first response to all emergencies, performs preliminary investigations, and provides basic patrol services for the City. The Field Operations Division is managed by a Captain who oversees patrol officers, sergeants, lieutenant Watch Commanders, an Executive Lieutenant, and civilian support staff. The Field Operations Division includes over 130 sworn officers, 24 Sergeants, six Lieutenant Watch Commanders, one Executive Lieutenant, one Traffic Lieutenant, and a civilian support staff position (City of Riverside 2021b).

The GP 2025 Public Safety Element, Policy PS-7.5 provides for response time of within 7 minutes to Priority 1 calls (life-threatening) and within 12 minutes for Priority 2 calls (non-life-threatening) (City of Riverside 2018a).

Implementation of the Housing Element Update would increase demands of police services over time. However, RPD would evaluate its budget annually to provide adequate police services, including police staffing increases, to accommodate additional growth associated with development facilitated by the Project. The City would continue to meet the recommended police response times

(7 minutes to Priority 1 calls and 12 minutes for Priority 2 calls); therefore, the Project would not cause any adverse effects. Therefore, impacts on police services would be less than significant.

Compliance with the above-mentioned state and local regulations would ensure that there would be sufficient police protection service and facilities to accommodate additional population resulting from development and associated population growth facilitated by the Project. As such, impacts related to police protection services would be less than significant.

Public Schools

Future development and population growth facilitated by the Project would increase the demand for RUSD and AUSD school facilities and services over time. Implementation of the Project could result in the future development of an additional 31,564 dwelling units. This increase in dwelling units would increase population and could result in a permanent increase in demand for public school services in areas served by RUSD and AUSD. Some of the new residents may attend private schools or charter schools, or they may be home schooled. Future residential development would comply with RMC Chapter 16.56, *School Development Fee*, which establishes coordination between the City and the applicable school district to develop a school development fee for mitigating the impact of residential development on local school districts. In addition, legislation allows school districts to collect impact fees from developers of new residential and commercial uses. Pursuant to Government Code Section 65996, school fees imposed through the Education Code are deemed to be full mitigation for new development projects; the City cannot impose additional mitigation measures.

RUSD, MVUSD, and AUSD school impact fees would be imposed on future development within their districts' boundaries. RUSD and MVUSD collect Level I fees for residential additions and commercial/industrial construction based on the square footage of new developments. Similarly, RUSD collects Level II fees for new residential construction based on the square footage of new developments (RUSD 2019; MVUSD 2021). AUSD collects school fees levied on new development projects, if findings can be made that such projects will lead to higher student enrollment and increased facility costs. School fees finance school facilities necessitated by students generated from new development. School development fees were recently updated in 2020 and vary for new residential construction, residential addition, commercial/industrial construction, senior housing, and self-storage (AUSD 2020).

Fees paid by the developer would be used to offset the impact of the number of new students generated by the development facilitated by the Project and would ensure that the development contributes to a fair-share amount to help maintain adequate school facilities and levels of service. Therefore, the provision of schools is the responsibility of the school district. Senate Bill 50 provides that the statutory fees found in the Government and Education Codes are the exclusive means of considering and mitigating for school impacts. Imposition of the statutory fees constitutes full and complete mitigation (Government Code Section 65995(b)).

Future development must also comply with GP 2025 Education Element Policies ED-1.1 and ED-3.1. Policy ED-1.1 requires an adequate level of infrastructure and services to be provided to accommodate campus growth at all educational levels (City of Riverside 2007a). Policy ED-3.1 requires educational institutions to accommodate the needs of City residents.

Compliance with the above-mentioned state and local regulation would ensure that there would be sufficient facilities and service to accommodate additional students resulting from development and

associated population growth facilitated by the Project. As such, impacts related to schools would be less than significant.

Other Public Facilities

Future development would increase demand for other public services—such as libraries, community centers, and museums—over time. Potential impacts would include placing greater demands on public service facilities, potentially resulting in the need to provide new or expanded facilities in order to maintain an acceptable level of service. Additionally, use of existing public services facilities would increase, which could cause physical deterioration of the facility.

The City has nine existing libraries (see Table 3.10-5). Service expansion would be evaluated regularly. Library service needs and standards are determined by the following methods: volumes by population, community need/service gaps (including services provided/not provided by other area departments and agencies), customer requests, and innovation/success of pilot projects. Impacts would be less than significant.

While there are no development impact fees that would fund the RPL system, the Project would comply with GP 2025 Education Element Objective ED-5, which states that a project should help to ensure that the library system remains a premier information and independent learning resource for the Riverside residents and a complement to formal education, and Policy ED-5.1, which states that the City is required help to provide ample and convenient library facilities. Compliance with GP 2025 would ensure that the Project would not affect the City's ability to provide adequate libraries. Therefore, the Project would result in less-than-significant impacts on library service and no mitigation is required.

Public Safety Element Update and Environmental Justice Policies

The Public Safety Element Update policies and implementing actions address natural hazards; transportation hazards; police, fire, and emergency services; pandemic preparedness and response; homelessness; and climate change and resiliency. These policies and implementing actions aim to reduce the risk to the community and to ensure protection from foreseeable natural and human-caused hazards.

Proposed new residential and mixed-use development would be predominantly located in more urbanized areas of the City. Public Safety Element Update policies and implementing actions could affect the design and construction of planned developments, including addition of design elements related to emergency access and pedestrian safety. The Public Safety Element Update policies and implementing actions would also involve evaluation of public services, with respect to responding to risks of natural hazards, transportation hazards, etc. Public Safety Element policies do not include specific development proposals that would result in the need for public services.

The Public Safety Element Update policies and implementing actions would also involve additional Environmental Justice Policies to address public safety issues within environmental justice communities. Many Public Safety Element Update policies could result in community benefits. No specific infrastructure improvements or projects are identified in the Public Safety Element Update. As this is a policy document, this update would not have any significant environmental effects related to public services. Impacts would be less than significant.

3.11 Recreation

3.11.1 Introduction

This section describes the environmental and regulatory setting for parks and recreation for the Project, and provides an analysis of potential parks and recreation impacts that could occur with the implementation of the Project. The analysis examines the degree to which the Project may result in changes to parks and recreational resources in the City of Riverside (City) and includes analysis of potential impacts related to recreational resources. The analysis methods, data sources, significance thresholds, and terminology used in this section are described in the appropriate subsections below.

Details on the location of the Project and a description of Project activities are included in Chapter 2, *Project Description*, of this EIR.

3.11.2 Environmental Setting

The Parks and Recreation Element of the *Riverside General Plan 2025* (GP 2025) describes *parks* as:

Intended as public green space where city dwellers can escape from the rush of urban life. Passive parks may include such amenities as large open green spaces, meadows, meandering pathways, ponds and gardens. Active parks, on the other hand, include a variety of facilities for recreation. Baseball and softball diamonds, basketball courts, horseshoe rings, football fields, playgrounds and swimming pools are examples of facilities often found in active parks.

The City has 68 parks and additional open space areas with approximately 2,940.61 acres of City-owned parkland (City of Riverside 2020). The acreage for each park type is shown in detail in Table 3.11-1 and locations of parks that would serve the Project are shown on Figure 3.11-1. According to the *City of Riverside Comprehensive Park, Recreation & Community Services Master Plan* (Parks Master Plan), adopted on February 4, 2020, the City has identified nine undeveloped City-owned park sites in underserved areas of the City that can be developed into parks contingent upon availability of funds. These sites include City Citrus State Park, Golden Star Park, Hole Lake, Mission Ranch Park, Mount Vernon Park, Savi Ranch Park, Seven Mile Trail, Tequesquite Open Space, and Victoria Cross Park (City of Riverside 2020).

Table 3.11-1. Acreage for Existing Parks and Recreation Facilities in the City of Riverside

Park Category	City of Riverside Acreage
Developed Parks	
Pocket Parks	3.5
Neighborhood Parks	225.57
Community Parks	370.18
Regional Parks	279.45
Joint-Use Facilities	—
Special-Use Facilities	97.54

Park Category	City of Riverside Acreage
Natural Parks	
Regional Reserve	1,615.33
Miscellaneous Facilities	
Undeveloped City-owned property	349.05
Total City-Owned Acres	2,940.61
Total City-Owned Acres excluding Undeveloped City-Owned Property	2,595.07

Source: City of Riverside 2020.

The Parks Master Plan defines parks as areas that are “intended as public green space where city dwellers can escape for the rush of urban life.” The City categorizes its parks into three categories: Developed Parks, Natural Parks, and Miscellaneous Facilities (City of Riverside 2020).

Developed Parks

Pocket parks are small parks that the general public has access to. They are often designed and built in a single lot or smaller parcel. These parks may be created as a component of public space requirements of larger developments and can occur in all manner of settings.

Neighborhood parks may provide green space, recreation centers, sports facilities, or playgrounds. They are often landscaped and serve a multitude of functions from passive recreation to a planned center for sports activities. They are typically less than 30 acres in total size and will often present themselves as a community or neighborhood focal point.

Community parks are typically larger parks meant to serve a larger geographic area than the immediate neighborhood. These parks are formed with the intent to engage the community and visitors for longer periods of time and offer more diverse activities and amenities.

Regional parks are areas preserved to protect or bring attention to natural features, historic significance, or recreational use or other reasons. These parks are administered by a local jurisdiction, usually a city or a county.

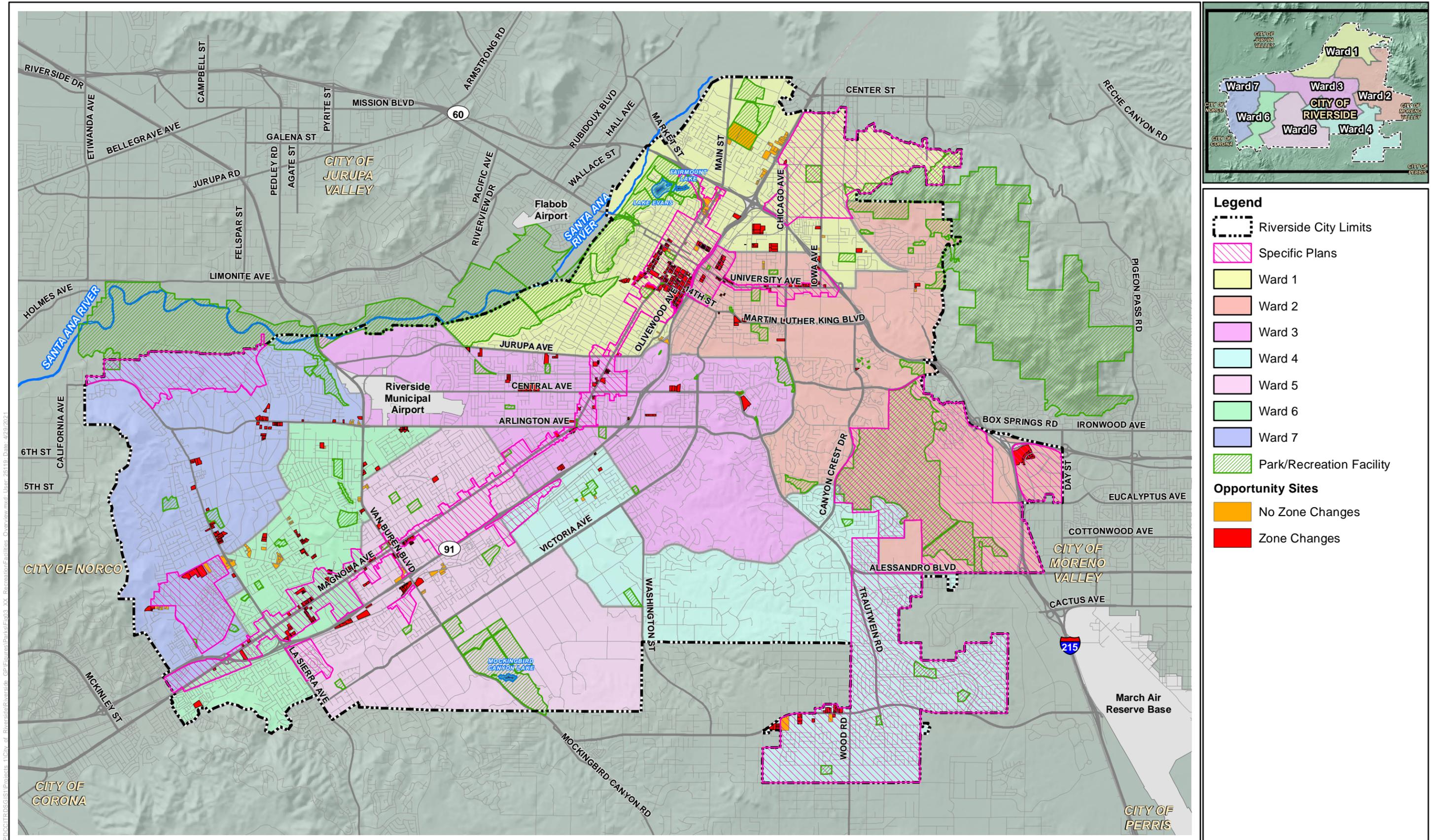
Joint-use facilities can also be referred to as shared-use or community-use sites. These sites are managed by jurisdictions or quasi-government entities and allow access for community use.

Special-use facilities cover a broad range of specialized park and recreation facilities, often with a single major use. Golf courses, historical sites, community center sites, theme parks, and water parks are other special-use facilities that fall into this use type.

County and state parks exist within the City of Riverside and the City’s Sphere of Influence. Although not directly owned or controlled by the City, these parks also provide recreation opportunities to the community.

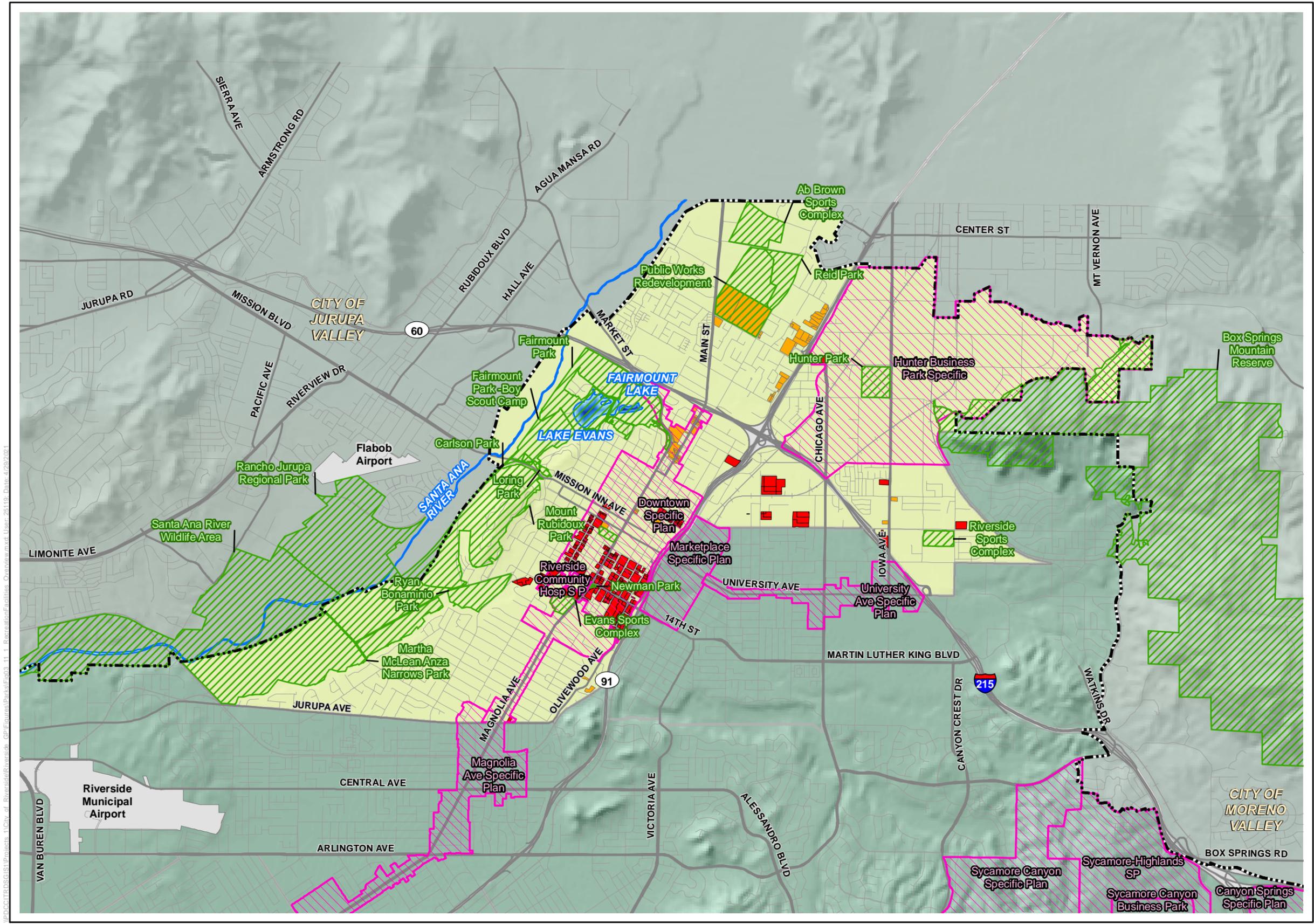
Natural Parks

Regional reserves areas set aside for the protection of wildlife, habitat, and other ecological considerations. There is usually minimal infrastructure within the park beyond trails and signs. These areas may be accessible for low-impact use.



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Figure 3.11-1
Recreational Resources for City of Riverside - Overview
Riverside General Plan Update



Legend

- Riverside City Limits
- Ward 1
- Specific Plan Boundary
- Park/Recreation Facility

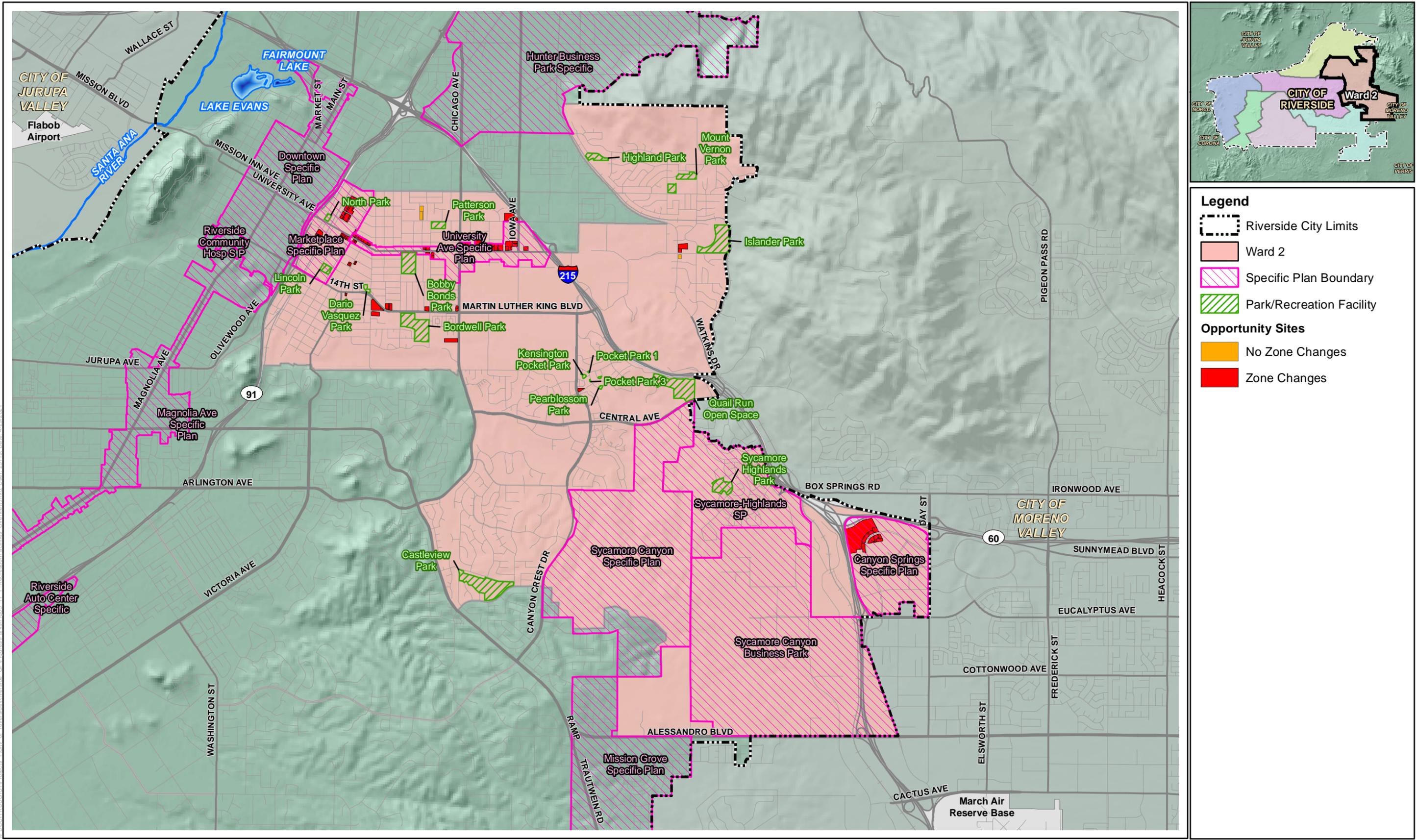
Opportunity Sites

- No Zone Changes
- Zone Changes

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Figure 3.11-1 - Sheet 1
Ward 1 - Opportunity Sites & Recreational Resources for City of Riverside
Riverside General Plan Update



Legend

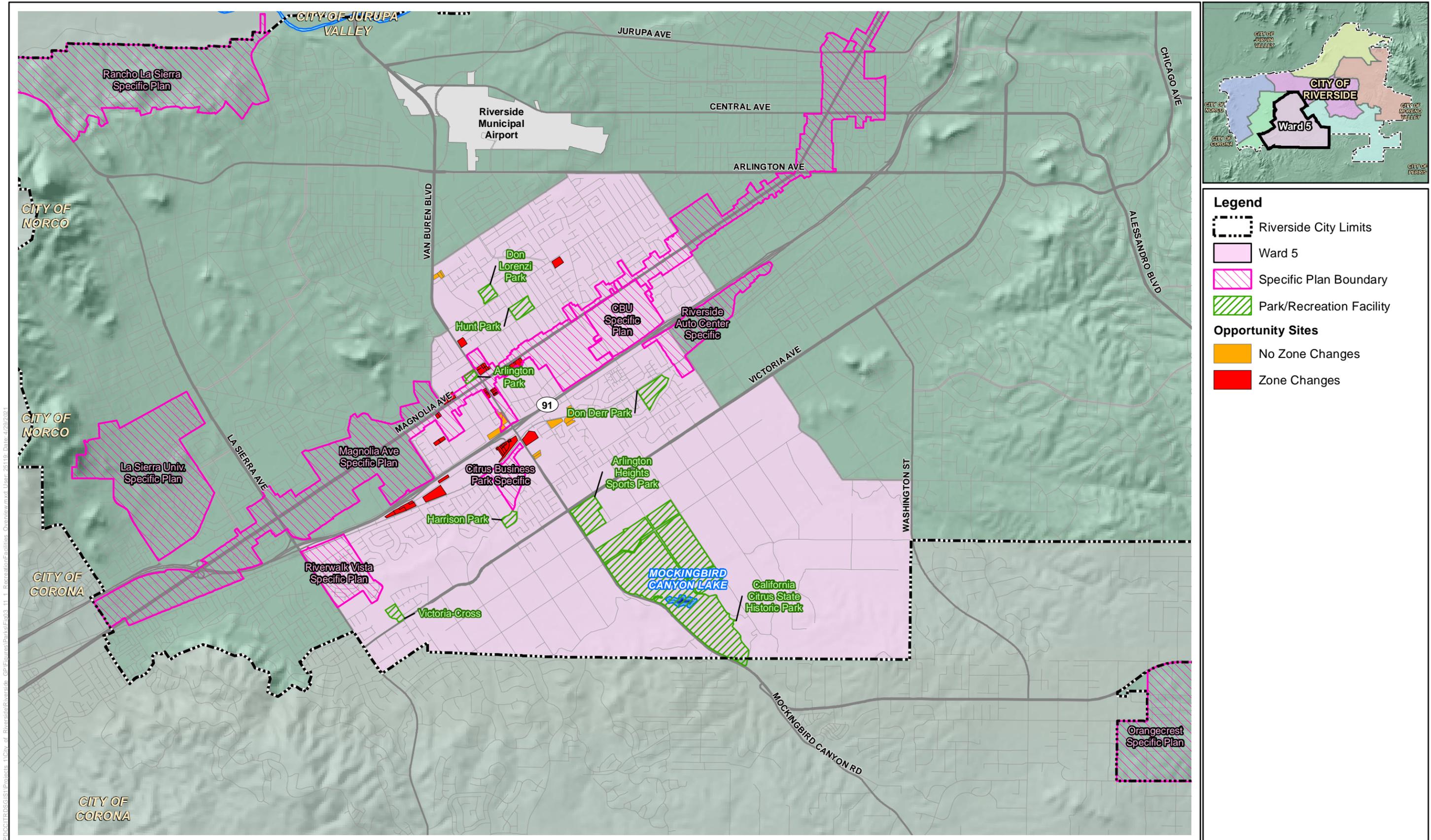
- Riverside City Limits
- Ward 2
- Specific Plan Boundary
- Park/Recreation Facility

Opportunity Sites

- No Zone Changes
- Zone Changes

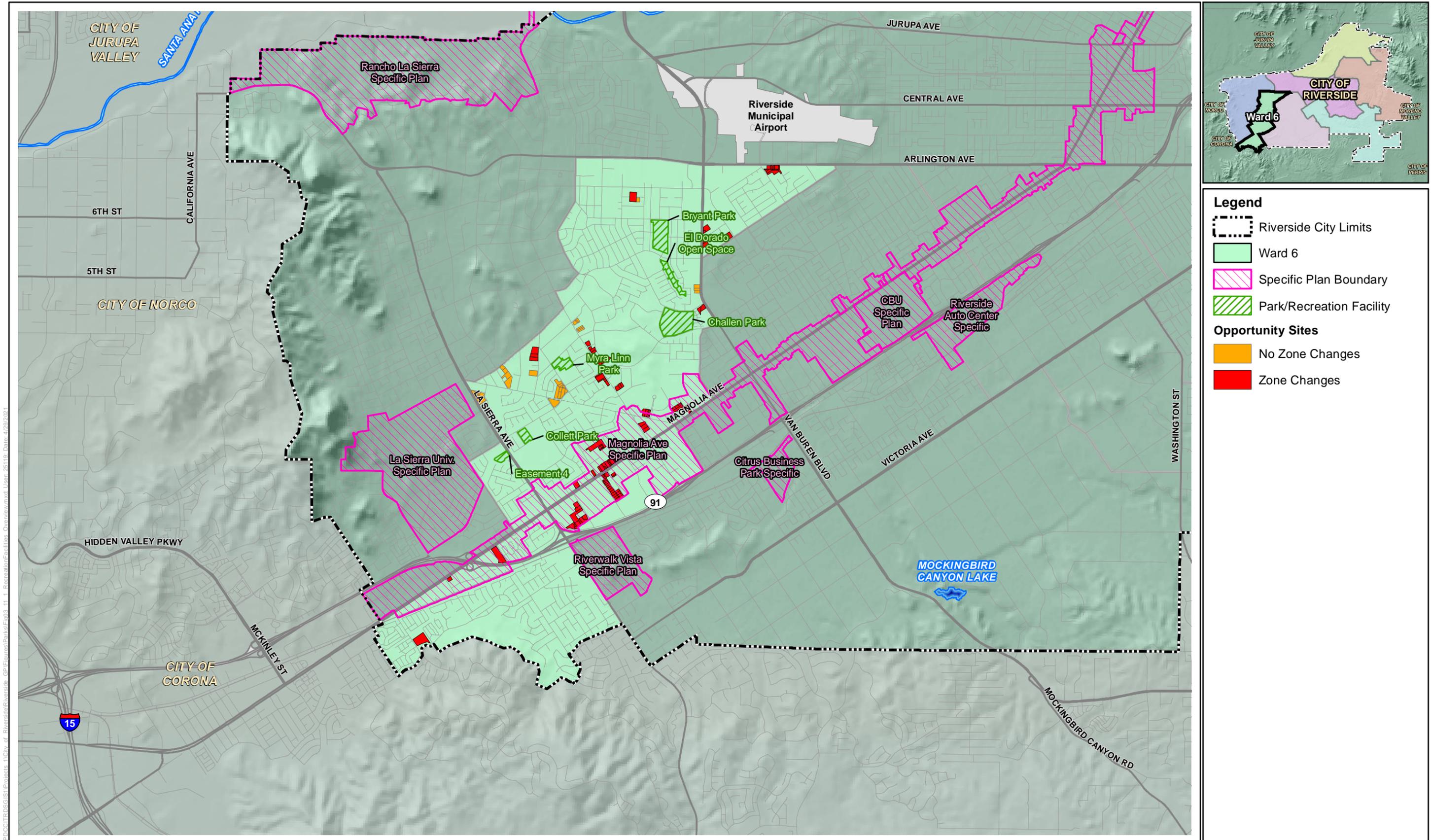
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Figure 3.11-1 - Sheet 2
Ward 2 - Opportunity Sites & Recreational Resources for City of Riverside
Riverside General Plan Update



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Figure 3.11-1 - Sheet 5
Ward 5 - Opportunity Sites & Recreational Resources for City of Riverside
Riverside General Plan Update



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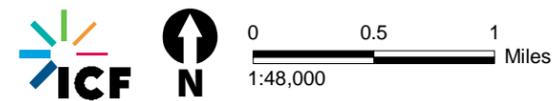
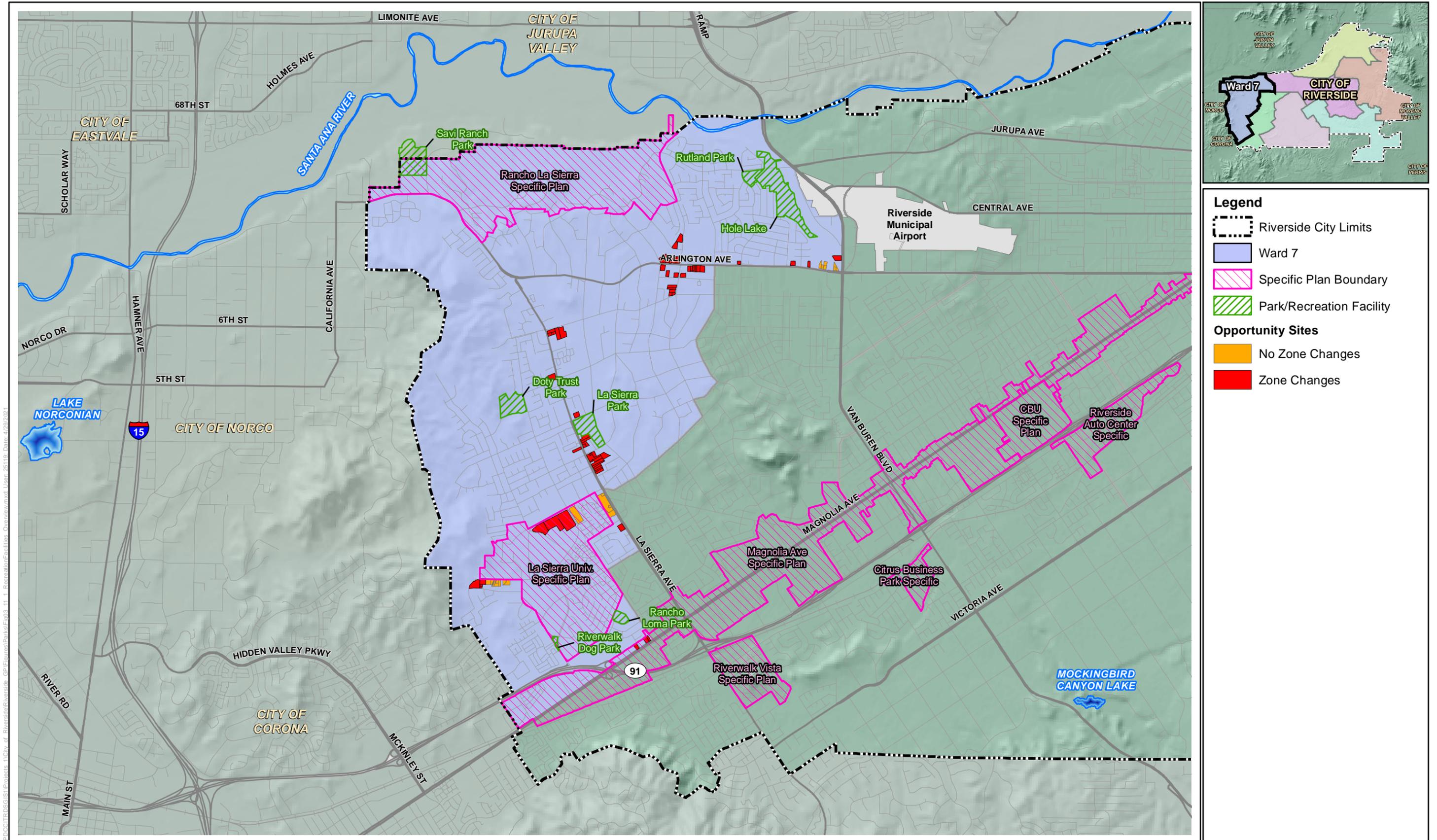


Figure 3.11-1 - Sheet 6
Ward 6 - Opportunity Sites & Recreational Resources for City of Riverside
Riverside General Plan Update



Legend

- Riverside City Limits
- Ward 7
- Specific Plan Boundary
- Park/Recreation Facility

Opportunity Sites

- No Zone Changes
- Zone Changes

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Figure 3.11-1 - Sheet 7
Ward 7 - Opportunity Sites & Recreational Resources for City of Riverside
Riverside General Plan Update

Miscellaneous Facilities

Private use parks are areas that have restricted access and are generally only available for use by the local community, such as a homeowners' association or a private club.

Undeveloped City-owned property is land owned by the City. It can potentially be leased for use. It also may be projected as a potential park site in the future but is not included in calculations of acres or parkland per thousand people until improved as a Developed Park.

Wards

Parks, open space, and recreational facilities are in all seven wards throughout the City. Table 3.11-2 describes the parks, open space, and recreational facilities that are within 0.5 mile (an approximately 15-minute walk) from the Opportunity Sites identified in the Project.

Table 3.11-2. Existing Parks and Open Space by Ward and Distance from Opportunity Site

Name of Resource	Description of Resource	Location	Park Type	Distance from nearest Opportunity Site
Ward 1				
Ab Brown Sports Complex	Size: Approximately 55.5 acres Features: 39 acres of playing fields, 15 acres of gravel parking lot, concession stand, restrooms, maintenance facility	3700 Placentia Ln	Special Use Facility	1,702 feet
Box Springs Mountain Reserve	Size: Approximately 3,400 acres Features: Hiking trails, protected habitat	9699 Box Springs Mountain Rd	Regional Reserve	1,789 feet
Carlson Bark Park	Size: 1.77 acres Features: Off-leash dog park, picnic area, historic site	4700 Buena Vista Ave	Special Use Facility	3,486 feet
Evans Sports Complex	Size: 11.89 acres Features: gymnasium, aquatics complex, athletic fields	4759 Magnolia Ave	Special Use Facility	Adjacent
Fairmount Park	Size: 209.58 acres Features: Band shell, cultural heritage, fishing, golf course, tennis courts, public barbecues, boat rentals, sailing, walking trails	2601 Fairmount Blvd	Regional Park	100 feet
Hunter Hobby Park	Size: 32 acres Features: Softball fields, picnic tables, barbecues, 10,000 feet of miniature train track and steam locomotives	1401 Iowa Ave	Neighborhood Park	1,496 feet
Loring Park	Size: 2.45 acres Features: Open space	3787 Mt. Rubidoux Dr	Special Use Facility	2,212 feet
Martha McLean Anza Narrows Park	Size: 40 acres Hiking and equestrian trails, picnic areas, fishing, horseshoe pits	5759 Jurupa St	Community Park	88 feet
Mount Rubidoux Park	Size: 225 acres Features: Open space, rock formations, running paths, over 3 miles of trails, historic site.	Mt. Rubidoux Dr at 9th St	Regional Reserve	1,072 feet

Name of Resource	Description of Resource	Location	Park Type	Distance from nearest Opportunity Site
Newman Park	Size: 0.41 acres Features: De Anza Statue, Sport Hall of Fame – Historic Site	3780 14th St	Pocket Park	Adjacent
Rancho Jurupa Regional Park	Size: 548 acres Features: Playground, picnic shelters, concession facilities, restrooms, sports fields, walking paths	Crestmore Rd off Mission Blvd	Regional Park	2,391 feet
Reid Park	Size: 42.24 acres Features: indoor and outdoor recreational areas, playgrounds, ball and athletic fields	701 N Orange St	Community Park	Adjacent
Riverside Sports Complex	Size: 17.7 acres Features: Baseball stadium, lighted sports field, restrooms, onsite parking, and bike trail connections	1000 Blaine St	Joint Use Facility	128 feet
Ryan Bonaminio Park	Size: 42.9 acres Features: Baseball field, restrooms, picnic tables, walking paths, community center, fitness stations, gymnasium, parking, playground, softball field, outdoor volleyball, trails, connection to community garden	5000 Tequesquite Ave	Community Facility	623 feet
Santa Ana River Wildlife Area	Size: 2290 acres Features: Undeveloped	2 miles southeast of Limonite on Riverview Dr	Regional Reserve	2,081 feet
White Park	Size: 6 acres Features: Senior center gazebo, botanical garden, maintenance facility, picnic area, walking trails, restrooms	3936 Chestnut St	Special Use Facility	Adjacent
Ward 2				
Bobby Bonds Park	Size: 15 acres Features: Lighted softball field, lighted basketball/tennis courts, sports field, soccer field, social service center, Olympic pool, picnic tables, and childcare	2060 University Ave	Community Park	443 feet

Name of Resource	Description of Resource	Location	Park Type	Distance from nearest Opportunity Site
Bordwell Park	Size: 23 acres Features: Lighted softball field, lighted basketball court, community center, senior activity area, childcare center, playground, picnic tables, and barbecues	2008 Martin Luther King Blvd	Community park	390 feet
Castleview Park	Size: 31.5 acres Features: Playground, picnic tables, undeveloped open space, walking trails	1410 Via Vista Dr	Neighborhood Park	5,771 feet
Dario Vasquez Park	Size: 1.8 acres Features: Lighted basketball court, playground, covered picnic tables, barbecues, and onsite parking	2400 14 th St	Neighborhood Park	304 feet
Highland Park	Size: 7.1 acres Features: Basketball court, two playgrounds, picnic facilities, covered picnic area, and onsite parking	780 Glenhill St	Neighborhood Park	1,101 feet
Islander Park	Size: 23 acres Features: Community pool, bathhouse/lockers/showers, onsite parking, picnic facility, and open space	3794 Mount Vernon Ave	Special Use Facility	441 feet
Kensington Pocket Park	Size: 0.7 acre Features: Open space	5050 Kensington Ave	Pocket Park	436
Lincoln Park	Size: 3.7 acres Features: Lighted basketball court, T-ball field, horseshoe courts, community center, fitness stations, horseshoes, playground, and picnic facilities	4261 Park Ave	Neighborhood Park	698 feet
Mount Vernon Park	Size: 8 acres Features: Undeveloped	Blaine St and Valencia Hill Blvd	Undeveloped City-Owned Property	2,283 feet
North Park	Size: 1.4 acres Features: Historic site with arbor structure, parking	3172 Mission Inn Ave	Special Use Facilities	436 feet

Name of Resource	Description of Resource	Location	Park Type	Distance from nearest Opportunity Site
Patterson Park	Size: 4.25 acres Features: Lighted softball and sports fields, playground, picnic shelters, snack bar, restrooms and onsite parking	1846 Linden St	Neighborhood Park	367 feet
Quail Run Open Space	Size: 27 acres Features: Natural open space	Quail Run Rd	Regional Reserve	3,111 feet
Sycamore Highlands Park	Size: 10.48 acres Features: Playground, picnic tables, barbecues, covered picnic area, ballfield, butterfly garden, and water spray feature	Fair Isle Dr	Neighborhood Park	5,336 feet
Ward 3				
Andulka Park	Size: 36.64 acres Features: Tennis courts, basketball courts, baseball and soccer field	5201 Chicago Ave	Community Park	123 feet
Don Jones Park	Size: 5.77 acres Features: Lighted softball and soccer field, picnic tables, restrooms, snack bar	3995 Jefferson St	Neighborhood Park	3,554 feet
Pachappa Hill	Size: 0.39 acre Features: Open space	Pachappa Hill	Regional Reserve	643 feet
Helen Hays Memorial Grove	Size: 0.72 acre Features: Historic site	2720 Rumsey Dr	Citrus Grove	1,140 feet
Low Park	Size: 1.25 acres Features: Picnic facilities	7101 Magnolia Ave	Pocket Park	70 feet
Mountain View Park	Size: 5.51 acres Features: Basketball half courts, playground, picnic tables, barbecues, and exercise course	6241 Wiehe Ave	Neighborhood Park	Adjacent
Nichols Park	Size: 14.72 acres Features: Two lighted softball fields, basketball and volleyball courts, sports field, community center with gym, playground, picnic tables, and barbecues	5505 Dewey Ave	Community Park	335 feet

Name of Resource	Description of Resource	Location	Park Type	Distance from nearest Opportunity Site
Parent Navel Orange Tree	Size: 0.09 acre Features: Historic resource; one of two original Parent Washington Navel Orange Trees is preserved at this site with fence surrounding it	7101 Magnolia Ave	Neighborhood Park	220 feet
Shamel Park	Size: 9.84 acres Features: Lighted ball fields, lighted tennis courts, covered picnic area, horseshoe courts, pool, picnic tables and barbecues, restroom, and onsite parking	3650 Arlington Ave	Neighborhood Park	1,204 feet
Streeter Park	Size: 4.42 acres Features: Senior and handicapped citizens' center, patio area includes covered picnic area, basketball half court, arbors, horseshoe courts	5257 Sierra Ave	Special Use Facility	1,114 feet
Swanson Park	Size: 0.80 acre Features: Picnic tables	5725 Glenhaven Ave	Pocket Park	929 feet
Washington Park	Size: 3.90 acres Features: Playground, restrooms, picnic tables, barbecues, onsite parking	2769 Mary St	Neighborhood Park	2,623 feet
Ward 4				
Bergamont Park	Size: 5.32 acres Features: Basketball half courts, playground, picnic tables, and exercise course	9229 Bergamont Dr	Neighborhood Park	2,531 feet
Golden Star Park	Size: 19.31 acres Features: Undeveloped	Bradley St and Washington Ave	Undeveloped City-Owned Property	7,247 feet
Mission Ranch Park	Size: 12 acres Features: Undeveloped park	Lurin Ave & Obsidian Dr	Neighborhood Park	3,333 feet
Orange Terrace Park	Size: 29.81 acres Features: Lighted softball fields, restrooms, snack bar, playground, and picnic shelters	20010 Orange Terrace Pkwy	Community Park	5,932 feet

Name of Resource	Description of Resource	Location	Park Type	Distance from nearest Opportunity Site
Sycamore Canyon Wilderness Park	Size: 1,590.06 acres Features: Wilderness reserve, Stephens' kangaroo rat habitat, onsite parking, bike and hiking trails	400 Central Ave	Regional Reserve	2,805 feet
Taft Park	Size: 7.18 acres Features: Basketball half courts, tennis courts, playground, picnic tables, and barbecues	6826 New Ridge Dr	Neighborhood Park	11,056 feet
Thundersky Park	Size: 12.65 acres Features: Playground, covered picnic areas, ballfield, picnic tables, walking trails, barbecues	20440 Thundersky Cir	Neighborhood Park	8,738 feet
Villegas Park	Size: 17.46 acres Features: Lighted ballfields, lighted soccer fields, basketball court, handball court, covered picnic area, community center, playground, pool, picnic tables, barbecues, restrooms, onsite parking	7260 Marguerita Ave	Community Park	Adjacent
Ward 5				
Arlington Heights Sports Park	Size: 34.39 acres Features: Water features, walking trails, lighted softball field and basketball courts, multi-use field, playground, pool, picnic table, covered picnic table, barbecue, restrooms	Van Buren Ave & Cleveland Ave	Community Park	2,761 feet
Arlington Park	Size: 4.77 acres Features: Basketball, tennis, and roller hockey courts, picnic areas, swimming pool, restroom, community center, and playground	3860 Van Buren Ave	Community Park	122 feet
California Citrus State Historic Park	Size: 377 acres Features: Visitor center, exhibits, hiking trails, picnic tables, barbecues, Sunkist Center, and small amphitheater	9400 Dufferin Ave	State Park	1,139 feet

Name of Resource	Description of Resource	Location	Park Type	Distance from nearest Opportunity Site
Don Derr Park	Size: 21.44 acres Features: Lighted ball fields, basketball courts, football, softball field, playground, snack bar, picnic tables, barbecues, restrooms, and onsite parking	3003 Monroe Ave	Neighborhood Park	2,856 feet
Don Lorenzi Park	Size: 9.08 acres Features: Lighted sports fields, baseball field, picnic tables, barbecues, restrooms, and onsite parking	4230 Jackson St	Community Park	2,104 feet
Harrison Park	Size: 6.49 acres Features: Beach volleyball, playground, horseshoe pit, picnic tables, and covered picnic areas.	2851 Harrison St	Neighborhood Park	2,236 feet
Hunt Park	Size: 13.93 acres Features: Lighted softball field and basketball court, sports field, volleyball court, community center, playground, pool, picnic tables, barbecues, and skate park	4015 Jackson St	Community Park	1,681 feet
Victoria-Cross	Size: 7.83 acres Features: Undeveloped park	Victoria Ave and Cross St	Undeveloped City-Owned Property	3,810 feet
Ward 6				
Bryant Park	Size: 19.65 acres Features: Lighted softball fields, basketball and tennis courts, community center, playground, picnic tables, barbecues, covered picnic areas, snack bar, childcare, and social services center	5950 Philbin Ave	Community Park	962 feet
Challen Park	Size: 33.01 acres Features: Parking and trails	4602 Challen Ave	Regional Reserve	184 feet
Collett Park	Size: 5.60 acres Features: Beach volleyball, playground, horseshoe pits, picnic tables, and covered picnic areas	10950 Collet Ave	Neighborhood Park	1,497 feet
El Dorado Open Space	Size: 8.75 acres Features: Natural open space	Warren Rd	Neighborhood Park	359 feet

Name of Resource	Description of Resource	Location	Park Type	Distance from nearest Opportunity Site
Myra Linn Park	Size: 7.89 acres Features: Lighted tennis courts, playground, picnic tables, barbecues, and exercise course	4540 Meredith St	Neighborhood Park	541 feet
Ward 7				
Doty Trust Park	Size: 21.31 acres Features: Water feature, walking trails, playground, lighted basketball court, picnic tables, barbecues	Golden Ave and Campbell Ave	Neighborhood Park	1,312 feet
Hole Lake	Size: 61.0 acres Features: Undeveloped park	Bradford St and Jurupa Ave	Undeveloped City-Owned Property	1,038 feet
La Sierra Park	Size: 23.15 acres Features: Lighted ball fields, community center, covered picnic area, playground, picnic tables, snack bar, barbecues, restrooms, onsite parking	5205 La Sierra Ave	Community Park	Adjacent
Rancho Loma Park	Size: 6.48 acres Features: Tether ball courts, beach volleyball, volleyball courts, playground, picnic tables, barbecues, and covered picnic area	11343 Rancho Loma Dr	Neighborhood Park	1,005 feet
Riverwalk Dog Park	Size: 5.83 acres Features: Off-leash dog park, picnic table	Corner of Pierce St and Riverwalk Pkwy	Special Use Facility	2,018 feet
Rutland Park	Size: 8.63 acres Features: Basketball half courts, beach volleyball, horseshoe pits, playground, picnic tables, barbecues, and covered picnic areas	7000 Rutland Ave	Neighborhood Park	3,319 feet
Savi Ranch Park	Size: 37.62 acres Features: Undeveloped park	N of Arlington Ave, NW corner of the City	Undeveloped City-Owned Property	8,723 feet

Source: City of Riverside 2021

3.11.3 Regulatory Setting

Federal

There are no federal regulations directly applicable to parks and recreation with respect to this Project.

State

The Quimby Act (Government Code Section 66477)

The Quimby Act, enacted in 1975, creates a framework that allows cities and counties to provide parks for growing communities. The Quimby Act authorizes jurisdictions to adopt ordinances that require parkland dedication or payment of in-lieu fees as a condition of approval of residential subdivisions. The Quimby Act also specifies acceptable uses and expenditures of such funds, and allows developers to set aside land, donate conservation easements, or pay direct fees for park improvements.

Proposition 40 Park Bond Act

Proposition 40 allows for the maintenance and preservation of parks for the state's growing population. This is conducted by borrowing money through general obligation bonds. This money is then used for the development, restoration, and acquisition of state and local parks, recreation areas, and historical resources, and for land, air, and water conservation programs.

California Public Park Preservation Act (California Public Resources Code, § 5400–5409)

The California Public Park Preservation Act is the primary instrument for protecting and preserving parkland. Under the Public Resources Code, cities and counties may not acquire any real property that is in use as a public park for any non-park use unless compensation or land or both is provided to replace the parkland acquired. It provides that a public agency that acquires public parkland for non-park use must either pay compensation that is sufficient to acquire substantially equivalent substitute parkland or provide substitute parkland of comparable characteristics. This act ensures no net loss of parkland and facilities. However, the Project would not acquire parkland for non-park use, and this act would not apply.

Local

Riverside General Plan 2025

Enhancing Riverside's existing park and recreation facilities, as well as creating new recreational opportunities, will be carried out through the objectives and policies of the Parks and Recreation Element. The City will continue to maintain its existing recreation programs and facilities, as well as making those resources accessible to all Riverside citizens. Access to park facilities and connections between open space resources through pedestrian, bicycle, and equestrian trails are important to enhancing Riverside's recreational experiences.

Protecting Riverside’s open space areas, scenic resources, and hillsides will be carried out through the objectives and policies of the Open Space and Conservation Element. The City is committed to preserving its natural resources and open spaces of the highest quality and in a cost-effective manner to enhance the living environment of all residents. The City believes that individual interests must be balanced against the general public interest and particularly the conservation of natural resources.

City of Riverside Comprehensive Park, Recreation & Community Services Master Plan (Parks Master Plan)

On February 4, 2020, the City adopted the Parks Master Plan (City of Riverside 2020), which serves as a guide and implementation tool for the management and development of parks and recreational facilities and programs in the City.

The policies that have been developed in the Parks Master Plan are intended to provide a framework of support and guidance. They are for the benefit of City staff, as well as the community, as a tool for decision-making about all parks and recreation programs and resources that affect the City. Policies and implementation strategies for the Parks Master Plan include the following:

- Secure adequate funding mechanisms to support facility and program development.
- As recreation needs develop with generational shifts, facilities should be re-evaluated for potential improvements, preserving as much open naturalized areas as possible.
- Secure adequate funding mechanisms to support parks maintenance programs to preserve and extend the life of the Riverside Park System.
- Develop and implement a public outreach mechanism to continuously coordinate park updates and re-assess community needs at periodic intervals.
- For locations of Opportunity Sites for parks, each recommendation should be considered against the overall distribution of existing parkland.

Table 3.11-3 summarizes GP 2025 and Specific Plan policies relevant to recreation.

Table 3.11-3. Relevant General Plan and Specific Plan Policies

Policy Title	Summary
Riverside General Plan 2025	
Parks and Recreation Element	<ul style="list-style-type: none"> • Objective PR-1: Provide a diverse range of park and recreational facilities that are responsive to the needs of Riverside residents. <ul style="list-style-type: none"> ○ Policy PR-1.1: Implement the policies of the City of Riverside Comprehensive Park, and Recreation Master Plan. Revise the neighborhood/community park ratio standard to two acres of community park and one acre of neighborhood park, and five acres overall per one thousand residents. ○ Policy PR-1.2: Distribute recreational facilities equally throughout Riverside’s neighborhoods, for all residents regardless of age, gender, ethnicity, economic status, or physical capability. ○ Policy PR-1.3: Encourage private development and/or operation of new and existing recreational facilities to complement, and supplement, and economize the public recreational system. ○ Policy PR-1.6: Develop sustainable standards to design park facilities and landscaping that enhance and preserve natural site characteristics as

Policy Title	Summary
	<p>appropriate, to minimize maintenance demands, encourage the planting of native landscapes, and to incorporate xeriscape (low-water demand) principles where feasible. •</p> <ul style="list-style-type: none"> ○ Policy PR-1.7: Evaluate opportunities to “naturalize” many existing facilities, especially those built near and around creeks and other drainages. This could include the elimination of turf in areas of little public use and expansion of riparian and natural areas. ○ Policy PR-1.8: Pursue potential funding sources and partnerships for a multi-use sports park, community and special-use facilities that do not rely on future private development. ○ Policy PR-1.9: Seek funding opportunities, including feasibility of voter-approved measure to support development identified within the Comprehensive Park, Recreation and Community Services Master Plan. ○ Policy PR-1.10: Adopt as part of the Comprehensive Park, Recreation and Community Services Master Plan including the update to the Financial Strategy relating to development impact fees. Development fees should be updated annually with a recovery of a minimum of 80% of the impact. ○ Policy PR-1.11: Review and comment on local and regional planning documents for consistency with the Comprehensive Park, Recreation and Community Services Master Plan. ○ Policy PR-1.12: Decision makers and staff from both the city and local school districts should meet and discuss changes required to initiate and/or modify existing agreements to meet the changing recreational needs and demands of the community. <ul style="list-style-type: none"> ● Objective PR-2: Increase access to existing and future parks and expand pedestrian linkages between park and recreational facilities throughout Riverside. <ul style="list-style-type: none"> ○ Policy PR-2.1: Integrate public transportation routes, including Class I Bike Routes, when locating regional reserve parks, community parks and community centers. ○ Policy PR-2.2: Implement recommend trail expansions, improvements and linkages between parks throughout the City’s trails system as identified in the adopted Park Master Plan and Trails System Master Plan. ○ Policy PR-2.5: Encourage the development of community sponsored recreational opportunities for the trail and pedestrian system in Riverside. Opportunities could include walk-a-thons, 5K-and-over runs, triathlons, and bike races. ○ Policy PR-2.7: Pursue partnerships with the County, other local government agencies, and non-profits in securing funding from Federal Transportation Funds, the State Bicycle Commuter Program, State Park Bonds, and other funding sources. ○ Policy PR-2.8: Evaluate/update at a minimum every 5 years, the trails component of the Comprehensive Park, Recreation and Community Services Master Plan, to reevaluate routes/alignments and trail design/construction standards and trail related City policies/codes.
<p>Open Space and Conservation Element</p>	<ul style="list-style-type: none"> ● Objective OS-1: In conjunction with the County, RCRC, Riverside Land Conservancy, and other appropriate agencies, preserve and expand open space areas and linkages throughout the City and sphere of influence to protect the natural and visual character of the community and to provide for appropriate active and passive recreational uses.

Policy Title	Summary
	<ul style="list-style-type: none"> ○ Policy OS-1.1: Protect, restore, and preserve environmentally sensitive areas with unique resources, including plant communities, wildlife habitats and corridors, special geology or physical features, and wetlands, riparian areas, and floodplains along creeks where possible. ○ Policy OS-1.2: Establish an open space acquisition priority program that identifies acquisition area priorities based on, establishment of a maintenance endowment, capital costs, operation, and maintenance costs, accessibility, needs, resource preservation, ability to complete or enhance the existing open space linkage system and unique environmental features. ○ Policy OS-1.5: Require the provision of open space linkages between development projects, consistent with the provisions of the Comprehensive Park, Recreation and Community Services Master Plan, Trails Master Plan, Open Space Plan, and other environmental considerations, including the Multi-Species Habitat Conservation Plan (MSHCP). ○ Policy OS-1.15: Recognize the value of major institutional passive open spaces as important components of the total open space systems and protect their visual character. ● Objective OS-3: Preserve designated agricultural lands in recognition of their economic, historic, and open space benefits and their importance to the character of the City of Riverside. <ul style="list-style-type: none"> ○ Policy OS-3.3: Identify park locations or portions of existing parks that could be utilized to promote and encourage agricultural activities including community gardens or for leased agricultural activities. Recreation use should be the priority use of parkland. Agricultural activities should be temporary unless it is integrated into the overall theme of the park, like the CA Citrus State Park. ● Objective OS-5: Protect biotic communities and critical habitats for endangered species throughout the General Plan Area. ● Objective OS-6: Preserve and maintain wildlife movement corridors. <ul style="list-style-type: none"> ○ Policy OS-6.3: Preserve the integrity of Riverside’s arroyos and riparian habitat areas through the preservation of native plants through the removal of non-natives and reintroduction of native species. ● Objective OS-7: Turn the Santa Ana River Task Force “Vision” into reality. <ul style="list-style-type: none"> ○ Policy OS-7.2: Give priority to the Fairmount Park Camp Evans wetlands enhancement project and the completion of the Santa Ana River Trail. ○ Policy OS-7.3: Preserve and expand open space along the Santa Ana River to protect water quality, riparian habit, and appropriate recreational uses. ○ Policy OS-7.4: Interconnect the Santa Ana River Trail with other parks, cultural and community centers throughout the City through trails and linkages to encourage more pedestrian and bicycle usage. ● Objective OS-10: Preserve the quantity and quality of all water resources throughout Riverside. <ul style="list-style-type: none"> ○ Policy OS-10.4: Develop a required native plant policy that requires 80% minimum level for native plants at open space and park developments or improvements. Include this list in the recommended landscape standards for private development. ○ Policy OS-10.5: Establish standards for the use of reclaimed water for landscaping including medians and street trees.
<p>Land Use and Urban Design Element</p>	<ul style="list-style-type: none"> ● Objective LU-1: Increase the prominence of the Santa Ana River by providing better connections, increased recreational opportunities, and development of Class I Bike Path and Recreational Trail along the length of the river within the City of Riverside including an adjacent decomposed granite walkway.

Policy Title	Summary
	<ul style="list-style-type: none"> ● Objective LU-7: Preserve and protect significant areas of native wildlife and plant habitat, including endangered species. <ul style="list-style-type: none"> ○ Policy LU-7.1: Continue to maintain Sycamore Canyon Wilderness Park as primarily a functioning open space area featuring native flora and fauna. ○ Policy LU-7.2: Design new development adjacent and in close proximity to native wildlife flora and fauna in a manner which protects and preserves habitat. ● Objective LU-11: Create a network of parkways to establish stronger linkages between Riverside’s neighborhoods, major elements of its natural environment, and neighborhood parks and schools. <ul style="list-style-type: none"> ○ Policy LU-11.2: Recognize Victoria Avenue, Magnolia Avenue/Market Street, University Avenue, Van Buren Boulevard, Riverwalk Parkway, La Sierra Avenue, Arlington Avenue, Canyon Crest Drive, and Overlook Parkway as the fundamental elements of the City’s parkway landscape network, and open space components linking Riverside’s Park system. ○ Policy LU-11.3: Recognize and maintain Victoria Avenue as a historic scenic boulevard/ parkway and the Rosanna Scott Memorial Bicycle Trail (RSMBT), providing a vital pedestrian, bicycle and vehicular connection to the Arlington Neighborhood and linking neighborhoods to schools, parks and other vital resources in the Greenbelt. ○ Policy LU-11.5: Recognize that University Avenue serves as a parkway linking neighborhoods with such major components of open space components linking Riverside’s Park System. ○ Policy LU-11.6: Recognize Van Buren Boulevard as a significant parkway, linking neighborhoods along its path to the Santa Ana River, the Arlington Heights Greenbelt, Victoria Avenue, and the California Citrus State Historic Park. ○ Policy LU-11.7: Recognize Riverwalk Parkway as a vital link between neighborhoods and open space features in the western end of the City. ○ Policy LU-11.8: Identify the completed Overlook Parkway as an important parkway connection between the Arlington Heights Greenbelt and Sycamore Canyon Park. ○ Policy LU-11.9: Recognize Canyon Crest Drive as a vital parkway connection for the eastern portion of the City. ○ Policy LU-11.10: Designate La Sierra Avenue as a City parkway, providing links to major northern and southern open space areas. ○ Policy LU-11.11: Recognize and enhance Arlington Avenue as a cross-city roadway that connects east to west. ● Objective LU-26: Ensure that a network of modern, effective, and adequate community facilities are equitably distributed across the entire City. <ul style="list-style-type: none"> ○ Policy LU-26.1: Monitor local land-use changes for opportunities to facilitate and/or implement City strategies, policies, and priorities including procuring trail acquisitions or easements and park and open space acquisition or easements through new development, donations, partnerships, and grants consistent with the Comprehensive Park, Recreation and Community Services Master Plan. ○ Policy LU-26.2: Develop and enforce standards for community facilities (such as fire and police stations, libraries and parks) based upon population densities and proximity of existing facilities.

Policy Title	Summary
	<ul style="list-style-type: none"> ○ Policy LU-26.3: Encourage new community facilities to be jointly developed and utilized by one or more City department, City/regional agency, and/or appropriate non-profits. ● Objective LU-71: Establish the Northside Community as a balanced community in which it is pleasant to live, work and play. ● Objective LU-79: Preserve and enhance the natural character and qualities of Sycamore Canyon Wilderness Park. <ul style="list-style-type: none"> ○ Policy LU-79.3: Seek to balance the Park’s potentially conflicting roles as both habitat for native flora and fauna and a community recreational and open space resource. ● Objective LU-85: Preserve and enhance the largely residential character of the Victoria Neighborhood. <ul style="list-style-type: none"> ○ Policy LU-85.4: Maintain current designation of Victoria Avenue as a historic, scenic parkway, and the Rosanna Scott Memorial Bicycle Trail.
Public Facilities and Infrastructure Element	<ul style="list-style-type: none"> ● Objective PF-2: Find new and expanded uses for recycled wastewater. <ul style="list-style-type: none"> ○ Policy PF-2.1: Expand the use of reclaimed water for irrigation and other applications as permitted under state law ● Objective PF-4: Provide sufficient levels of storm drainage service to protect the community from flood hazards and minimize the discharge of materials into the storm drain system that are toxic or which would obstruct flows. <ul style="list-style-type: none"> ○ Policy PF-4.4: Comply with Federally mandated requirements of the National Pollutant Discharge Elimination System (NPDES) for treatment of urban storm-water runoff in new facility design. ○ Policy PF-4.5: Within available resources, utilize the low-impact development plans to design all parking lots, walkways, and other paved surfaces with bioswales or other similar on-site facilities to help environmentally process water runoff. ● Objective PF-10: Meet the varied recreational and service needs of Riverside’s diverse population. <ul style="list-style-type: none"> ○ Policy PF-10.1: Provide every neighborhood with easy access to recreation and service programs by decentralizing community centers and programs. Promote the development of shared facilities and satellite offices in each Riverside neighborhood either by the City or in cooperation with another public agency, private business, or non-profit organization. ○ Policy PF-10.3: Explore innovative funding and development concepts with private businesses or non-profit organizations. ○ Policy PF-10.4: Ensure that youth activities and programs are provided or are accessible by all neighborhoods, either in City facilities or through joint-use or cooperative agreements with other public, private, or non-profit service providers.
Specific Plans	
Canyon Springs Business Park Specific Plan	There are no applicable policies relevant to the Project regarding parks and recreation.
Downtown Specific Plan	There are no applicable policies relevant to the Project regarding parks and recreation.
Hunter Business Park Specific Plan	Goal: To enhance on Hunter Business Park’s unique features, including Hunter Park, Box Springs Mountain Regional Park and city vistas

Policy Title	Summary
La Sierra University Specific Plan	<ul style="list-style-type: none"> • Policy LSU-5.4 The tops of natural hill forms shall be developed as landscaped open spaces.
Magnolia Avenue Specific Plan	<ul style="list-style-type: none"> • Objective 1: Maintain the established residential character of the Magnolia Heritage District while allowing for higher intensity transit oriented residential and mixed-use development on opportunity sites, particularly along Magnolia and California Avenues. <ul style="list-style-type: none"> ○ Policy 1.2 Preserve historic landscaping and increase green space along the Magnolia Corridor. ○ Policy 1.5 Enhance and celebrate the Parent Navel Orange Tree as a historic and cultural landmark.
Riverside Marketplace Specific Plan	There are no applicable policies relevant to the Project regarding parks and recreation.
University Avenue Specific Plan	There are no applicable policies relevant to the Project regarding parks and recreation.

Sources: City of Riverside 1991, 2002, 2005, 2007, 2009, 2012a, 2012b, 2012c, 2017a, 2017b, 2019.

City of Riverside Municipal Code

The City has enacted a development fee ordinance in accordance with the Quimby Act.

Chapter 16.44 – Regional Parks and Reserve Parks Development Fee

16.44.010 - Purpose. The purpose of this chapter is to provide for the payment of a development fee to be utilized for the acquisition and development of regional parks and reserve parks, and if necessary, to be utilized for interfund borrowing for local parks.

Chapter 16.60 - Local Park Development Fees

16.60.010 - Purpose. The purpose of the Local Park Development Fee is to enable the acquisition and/or development and/or improvement of neighborhood and community parks to provide both passive and active recreational opportunities to the residents of the City of Riverside in order to improve the quality of life and for the public health, welfare and benefit. New development within the City generates a need for added facilities and an increased demand upon existing facilities, and the imposition of a Local Park Development Fee upon such new development is necessary to provide funding for such new or improved facilities meeting established standards for such new development.

Policy Consistency

CEQA regulations require a discussion of inconsistencies or conflicts between a proposed project and federal, state, regional, or local plans and laws. Several state laws and regional policies pertain to parks, recreation, and open space resources. The Project would be consistent with GP 2025, the Parks Master Plan, and applicable Specific Plan goals and policies. As discussed in Chapter 2, *Project Description*, one of the objectives of the Project is to locate new housing in areas readily accessible to services, parks and other amenities, transit, jobs, and activity centers. Policy HE-4, Thriving Neighborhoods, in the Housing Element Update is to facilitate and encourage new housing development that results in livable and sustainable neighborhoods. This in part would be accomplished through implementation of Action-HE-4.1 by preparing design regulations that create links between private development and public space to create safe, healthy, complete

neighborhoods that promote proximity of quality housing to schools, transit, parks, and other needs. The implementation of the Project would be consistent with all relevant plans and laws.

3.11.4 Methodology and Thresholds of Significance

The methods for analysis are based on review of GP 2025, the Riverside Municipal Code (RMC), and the Parks Master Plan. This impact analysis considers the potential recreation impacts associated with implementation of the Project. Because the existing population would change under build-out of the Project, this analysis is based on a comparison of existing City park and recreation land with the amount of park and recreation land necessary to serve the population adequately under the Project as a means of estimating the extent to which existing parks would be affected by the Project. The analysis considers whether the Project would result in deterioration of existing parks and recreational facilities as a result of the projected population increase. Additionally, this analysis considers the prospective impacts of future recreational facilities and the expansion of existing facilities that would be allowed under the Project to meet the adopted area standards related to parks and recreation and provide sufficient park and recreation resources for the increased population.

Thresholds of Significance

In accordance with Appendix G of the State CEQA Guidelines, the Project would be considered to have a significant effect if it 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
- Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment

3.11.5 Impacts and Mitigation Measures

Impact REC-1: The Project could potentially 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. The impact would be less than significant.

Housing Element Update, Zoning Code Amendments, and Environmental Justice Policies

The City has a current population of 328,155 people. With the implementation of the Project, with maximum build-out the population could increase to 431,685 people. Maximum build-out of the Opportunity Sites identified in the Housing Element Update would result in a 31.4-percent increase in population. The potential increase from the implementation of the Project could result in increased use of park and recreational facilities listed in Table 3.11-1 and on Figure 3.11-1.

Within all wards, the amount of land designated as neighborhood parks provided per resident is already inadequate based on the ratios that the City has outlined. The implementation of the Project could result in an increased use of nearby existing neighborhood parks, regional parks, and community parks. Potential impacts would include greater demands on parkland and recreational

facilities, potentially increasing the use of existing parks and other recreational facilities, which could cause physical deterioration of the facility. However, the impacts associated with park development and operation would be less than significant.

New residential and mixed-use development within the City is required to adhere to minimum open space standards of the Zoning Code (Title 19 of the RMC), which could include pocket parks, tot lots, court facilities, barbecue facilities, jogging or walking trails, community gardens, accessible green roof space, and traditional neighborhood parks. The development of these parks would offset the Project's increased demand and thereby minimize physical deterioration of existing parks and open space facilities. The potential environmental impacts associated with the development and operation of these new park facilities are not known at this time. Subsequent project-specific CEQA analysis will be required to evaluate future projects on a case-by-case basis. If potential impacts (e.g., noise, dust) would result from development and operation of new park facilities, specific mitigation measures can be applied at that time.

The City currently has 2,940.61 acres of existing parkland. Also, spaces categorized as undeveloped City-owned property are not included in the parkland-to-resident-ratio analysis as determined by the Parks Master Plan (City of Riverside 2020). Approximately 345.54 acres of parkland in the City is categorized as undeveloped City-owned property. Therefore, for the purposes of the parkland-to-resident-ratio analysis, the City currently has 2,595.07 acres of existing parkland. The GP 2025 Parks and Recreation Element currently has an adopted standard of 3 acres per 1,000 residents (City of Riverside 2012). This is further broken down to 2 acres of neighborhood parkland provided per 1,000 persons, and 1 acre of community parkland per 1,000 residents. There are 129.5 acres of neighborhood park, which leaves a deficit of neighborhood parks within walking distance before development of Opportunity Sites has occurred (Table 3.11-4). New development of parks and Opportunity Sites would require new parks and open space facilities to minimize new demand on existing facilities. Furthermore, the new facilities would be subject to subsequent project-specific CEQA analysis on a case-by-case basis.

City parkland ratio goals versus parkland ratios with implementation of the Housing Element Update would decrease the overall parkland-to-resident ratio. The existing parkland-to-resident ratio is 7.91 acres per 1,000 residents citywide, and implementation of the Housing Element Update would result in 6.07 acres per 1,000 residents citywide. Although the parkland-to-resident ratio would potentially be reduced with implementation of the Project, the projected parkland-to-resident ratio would remain compliant with both the current standard of 3 acres per 1,000 residents and the suggested standard of 5 acres per 1,000 residents. New development under the Project would be required to provide facilities to serve its own needs.

Adoption and implementation of the Project with the resulting potential population growth would exacerbate the already-existing neighborhood parkland deficiency but, for the reasons explained above, would not lead to a further substantial physical deterioration of recreational facilities (Table 3.11-4). The City has signed joint-use agreements with the Alvord Unified School District to use aquatic facilities and with Riverside Unified School District and Ramona High School to use the stadium at the school campus. As stated in the Parks Master Plan, the City will continue to look for opportunities to implement joint-use agreements with the local school districts.

Table 3.11-4. City of Riverside Parkland Ratio Goals versus Parkland Ratios with Implementation of the Housing Element Update

Current Population (2018) ¹	Current Parkland Acreage	Parkland-to-Resident Ratio (Current Standard)	Existing Parkland-to-Resident Ratio	Population with Implementation of Project (max) ²	Projected Parkland-to-Resident Ratio
328,155	2,595.07	3 acres per 1,000 residents	7.91 acres per 1,000 residents	431,685	6.01

¹ Existing City population is assumed to be 328,155 (Department of Finance 2020)

² The full implementation of the Housing Element Update would add 103,530 persons to the City. With the addition of this population to the existing 328,155 (Department of Finance 2020), the total City population with implementation of the Housing Element Update was assumed to be 431,685 residents at maximum build-out.

There is a scarcity of neighborhood parks in Wards 1, 4, and 5 within a walkable distance of Opportunity Sites. However, in Ward 1, there are several recreational resources within a walkable distance from the proposed Opportunity Sites including county and City community parks, citywide special-use areas, and regional reserve within 0.5 mile of the proposed Opportunity Sites. The Santa Ana River Wildlife Area, Rancho Jurupa Regional Park, and Box Springs Mountain Reserve extend partially into Ward 1. Ryan Bonaminio Park, Martha McLean Anza Narrows Park, Carlson Bark Park, White Park, Loring Park, Mount Rubidoux Park, Newman Park, Reid Park, Fairmount Park, and Hunter Hobby Park, as well as the Riverside Sports Complex, Evans Sports Complex and Ab Brown Sports Complex, are all within 0.5 mile of the Opportunity Sites and provide upward of 7,188 acres of park and open space (Table 3.11-2).

Similarly, in Ward 4, there are several recreational opportunities within a walkable distance of proposed Opportunity Sites including the Bergamont Park, Orange Terrace Park, Thundersky Park, Taft Park, and Villegas Park, and access to the 1,590-acre reserve Sycamore Canyon Wilderness Park (Table 3.11-2). In addition, the Mission Ranch Park and Golden Star Park are undeveloped sites that in the future could add acreage to the City’s parks inventory. The Parks Master Plan (City of Riverside 2020) includes a recommendation that future development in Ward 4 should consider a new multiuse sports complex and new dog parks in response to community feedback received.

Ward 5 is similar to Wards 1 and 4, with a large recreational resource situated within it (the 377-acre California Citrus State Historic Park). Also within a walkable distance of Opportunity Sites in Ward 5 are Don Lorenzi Park, Hunt Park, Arlington Park, Harrison Park, Don Derr Park, and Arlington Heights Sports Park (Table 3.11-2). The Arlington Heights Sports Park at the corner of Cleveland and Van Buren Avenue provides additional recreation opportunities for the residents of Ward 5. Also, Victoria Cross is an undeveloped site that in the future could add acreage to the City’s Parks inventory.

The Quimby Act authorizes jurisdictions to adopt ordinances that require parkland dedication or payment of in-lieu fees as part of the subdivision process, which ensures that recreational resources are included in new plans. To provide more local recreational resources for City residents, developers will adhere to RMC 16.60, Local Park Development Fees, from build-out of the Opportunity Sites and are encouraged to incorporate living roofs and/or rooftop greenspace on mixed-use and high-density residential and, wherever possible, to design pocket parks into development plans to provide more local recreational resources. Chapter 6 of the Parks Master Plan (City of Riverside 2020) outlines additional funding sources for the creation of new parks, including state funding through the June 2018 Park Bond and through the California Department of Housing and Community Development’s Housing-Related Parks Program.

Implementation of the Project could result in a substantial increase in demand for neighborhood parks and create the need for more parks in underserved areas of the City. The implementation of proposed Housing Element Policy HE-4, Thriving Neighborhoods (Appendix B), would facilitate and encourage new housing that provides access to fresh food within a quarter mile, livable neighborhoods that link private development with public space including parks, and new housing development, including both single- and multi-family housing, that results in livable and sustainable neighborhoods. Related implementation actions including the preparation of design regulations to create safe and healthy complete neighborhoods that promote proximity of quality housing development to commercial uses, schools, transit, parks, and other needs would have a positive effect in providing additional park resources for the City. The inclusion of public parks and green space would help offset the impacts on recreational resources in the City. New development of parks and Opportunity Sites would require subsequent project-specific CEQA analysis on a case-by-case basis.

Public Safety Element Update and Environmental Justice Policies

The Public Safety Element Update policies and implementing actions address natural hazards; transportation hazards; police, fire, and emergency services; pandemic preparedness and response; homelessness; and climate change and resiliency. These policies and implementing actions aim to reduce the risk to the community and ensure protection from foreseeable natural and human-caused hazards. Proposed new residential and mixed-use development would be predominantly located in more urbanized areas of the City. Public Safety Element Update policies and implementing actions could affect the design and construction of planned developments, including e.g., addition of design elements related to emergency access and pedestrian safety.

The Public Safety Element Update policies and implementing actions would also involve additional Environmental Justice Policies to address public safety issues within environmental justice communities. Many Public Safety Element Update policies could result in community benefits. No specific infrastructure improvements or projects are identified in the Public Safety Element Update. As this is a policy document, this update would not have any significant environmental effects related to park and recreation facilities. All proposed policies and implementing actions are included in Appendix B.

Impact REC-2: The Project could include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment. This impact would be less than significant.

Housing Element Update, Zoning Code Amendments, and Environmental Justice Policies

Implementation of the Housing Element Update would result in additional housing beyond what is currently allowed under the existing GP 2025. As stated previously, this could result in an additional 31,564 dwelling units and an increase of 103,530 in City population or up to 31,175 dwelling units over existing conditions and is anticipated at build-out under the City's 2014–2021 Housing Element. City parkland standards, RMC Chapter 16, and GP 2025 Policy PR-1.2 require a minimum of 3 acres of developed parkland per 1,000 residents and other requirements applicable to new residential development to accommodate demand for recreational facilities. The City requires that private developers proposing residential projects in the City include open space within their project

as well as adhere to RMC 16.60 and pay park development impact fees as described in Section 3.11.3 above. These dedications and fees are collected by the City as part of the development review process and are used for the purpose of supporting the City's recreational budget for past and present facilities to serve the community.

Typical environmental impacts associated with expansion of existing parks or construction of new parks include construction noise and temporary disruption of access. When in use, neighborhood parks may result in noise, lighting (e.g., lighted ball courts), and minor traffic impacts on their surrounding neighborhoods. Construction of new parks on undeveloped sites would have similar impacts to those of other construction projects on undeveloped land. They may result in impacts related to site-specific conditions, such as biological or cultural resources, depending on their location. Construction of park facilities would be subject to policies, standards, and mitigation measures from GP 2025 and the GP 2025 EIR, or the mitigation identified in Project-specific analyses. Such impacts can generally be mitigated to a less-than-significant level. Mitigation measures for impacts of implementation of the Project on other resource topics such as air quality are presented in the relevant resource sections of this EIR. No new or substantially more severe impacts would be associated with implementation of the Project. The impacts of park construction to be facilitated by the Project would be less than significant.

Public Safety Element Update and Environmental Justice Policies

The Public Safety Element Update policies and associated Environmental Justice Policies address natural hazards, transportation hazards, emergency services, pandemic preparedness and response, homelessness, and climate change and resiliency. These policies aim to reduce the risk to the community and to ensure protection from foreseeable natural and human-caused hazards.

There are no infrastructure projects proposed or new policies related to environmental justice under the proposed Public Safety Element Update that would impede future development or the construction of new housing, public safety infrastructure, and mixed-use development. Rather, these policies and implementing actions describe treatment of hazardous materials associated with contaminated sites within environmental justice communities; ensure access to affordable housing, health care, and emergency services; consider the needs of environmental justice communities in planning for emergency response and recovery; consider health implications for land use decisions that could involve hazardous uses; and minimize the potential for vehicular and pedestrian accidents in underserved areas. Implementation of these policies and implementing actions would not affect recreational facilities.

The Public Safety Element Update would not have any environmental effects related to park and recreation facilities because there are no specific infrastructure projects identified in the update. As this is a policy document, the implementation of the Public Safety Element update of the Project would have a less-than-significant impact.

3.12 Transportation

3.12.1 Introduction

This section describes the environmental and regulatory setting for transportation for the Project and provides information regarding changes in vehicle miles traveled (VMT) for the City of Riverside (City). An analysis of potential VMT impacts that could occur with implementation of the Project is presented. Data presented were obtained from the U.S. Census Bureau, Western Riverside Council of Governments (WRCOG), Riverside County, the City, and Southern California Association of Governments (SCAG). The analysis methods, data sources, significance thresholds, and terminology used are described. Details on the location of the Project and a description of Project activities are included in Chapter 2, *Project Description*, of this EIR.

3.12.2 Environmental Setting

An existing conditions report for transportation was prepared in January 2021. The subsections below contain abridged information from this report.

Travel Characteristics

Mode Share

Residents and employees in the City use many different forms of transportation. The proportion of travelers taking different transportation modes (e.g., driving alone, riding transit, walking) is referred to as “mode share.” The California Household Travel Survey data collected in 2012–2013 provide the most recent comparison data between commute mode share patterns and overall mode share patterns. The commute and overall mode shares for the City and Riverside County residents are shown in Table 3.12-1.

Table 3.12-1. Mode Share for Commute Trips and General Trips

	City of Riverside	Riverside County
Population	325,860	2,415,000
Mode	Commute Trips	All Trips
Drove alone	75%	77%
Carpooled	14%	13%
Public transit	3%	1%
Walked	3%	2%
Worked at home	4%	5%
Other	1%	2%

Sources: U.S. Census Bureau 2018; NREL 2013.

Residents of the City primarily rely on driving both for commuting and other trips. Driving alone or carpooling accounts for 89 percent of commute trips, which is comparable to countywide averages. Transit use is slightly higher than countywide averages, likely related to availability of transit in the City.

Commute Patterns

Of the approximately 144,000 employed residents from the City, only 25 percent live and work in the City. The rest typically commute to Los Angeles, Corona, Ontario, San Bernardino, Orange County, and beyond.

Commute times for residents in the City are lower than commute times to jobs in the rest of the county. The commute averages 31 minutes per direction compared to the county average commute of 34 minutes. The difference is particularly pronounced for transit commutes, which take 56 minutes compared to 31 minutes for commuters who drove alone. This means that the typical inbound transit commuter spends more than 2 hours of the day traveling to and from work in the City.

Vehicle Miles Traveled

VMT measures the total amount of vehicular travel for a specific area. It is typically normalized on a per-household, per-resident, per-employee, or per-service-population (residents plus employees) basis such that it is a metric of travel efficiency (e.g., fewer vehicle trips per person or shorter distances traveled in an automobile per person means that travel is more efficient). Ultimately, VMT is a powerful performance indicator of a city's land use plan and multi-modal transportation network.

VMT generation is influenced by several factors that may or may not be affected by city goals, policies, and plans. These factors include, but are not limited to:

- The location of the city within the Inland Empire region
- The diversity, density, and location of land uses internal and external to the city
- Access to destinations (accessibility) and speed of travel/congestion (mobility) along automobile, bicycle, pedestrian, and transit networks
- Convenience of travel (e.g., service frequency, Wi-Fi availability on transit, lockers/showers at the end of a bicycle trip)
- Costs of travel (e.g., gas prices, transit fares, auto/bike maintenance costs)

The VMT-per-service-population data from the Riverside County Traffic Analysis Model (RIVTAM)¹ travel demand model yield the following conclusions on the existing state of VMT generation in the City as shown in Table 3.12-2:

- Riverside VMT per service population is 6 percent lower than the average of western Riverside County and total for Riverside County.
- The total VMT per household (e.g., the total VMT in the City divided by the total number of households) is higher than the region.

The total VMT on a per-household basis in the City is higher than the VMT on a per-household basis in surrounding jurisdictions, which is likely an indication that the City draws people from the surrounding region to access employment, goods, and services, attracting visitors and employees at

¹ At the time that analysis was performed, RIVTAM was the most recently updated regional model, which was validated and calibrated with local data for use in Riverside County. It is the most appropriate tool for estimating VMT in Riverside County.

a higher rate than that of other cities. This could be due to the City's robust Downtown, multiple university and college campuses, employment areas, and commercial uses that attract regional trips.

Table 3.12-2. Riverside VMT Summary

	City of Riverside	Riverside County	Western Riverside County	SCAG Region
VMT per Service Population	27.6	29.3	29.8	24.3
VMT per Household	130.1	120.9	126.4	106.4

Source: Fehr & Peers 2021.

Roadway System

Interstates

Interstate 215

Interstate (I-) 215 is an interstate highway that runs in the north-south direction from Murrieta at the southern terminus to San Bernardino at the northern terminus. I-215 is at the eastern end of the City and is a six-lane facility (three lanes in each direction) with an additional high-occupancy vehicle (HOV) lane in each direction.

State Routes

California State Route 91

State Route (SR-) 91 is a major east-west freeway within Southern California and runs from Vermont Avenue in Gardena to Riverside at the junction of SR-60 and I-215. SR-91 bisects the City from the southwestern end to the northeastern boundary. SR-91 is a six-lane facility (three lanes in each direction) with an additional HOV lane in each direction.

California State Route 60

SR-60, also known as the Moreno Valley Freeway, runs in the east-west direction from Beaumont and terminates in Los Angeles. It provides direct access through the northeastern region of the City and, near the City, generally has four general purpose lanes plus an HOV lane in each direction south and east of SR-91 and has three general purpose lanes plus an HOV lane in each direction north and west of SR-91.

Local Circulation

In the City, the local street system is organized into a hierarchy of three roadway types according to *Riverside General Plan 2025 (GP 2025)*. These three types are arterial, collector, and local. GP 2025 classifies all streets within the City according to their functional classification. Functional classifications of roadway networks categorize streets by purpose, location, and typical land uses to which they provide access.

The list below presents a description of some key roadways within the City. Note that this is not an exhaustive list that describes every roadway in the City; rather, it is a sampling of roadways in the City to provide context for the local setting.

Arterial Roadways

Alessandro Boulevard: Alessandro Boulevard is classified as a 120-foot arterial and varies between two and three travel lanes in each direction. This roadway runs in the east-west orientation. The speed limit varies between 45 and 55 miles per hour.

Arlington Avenue: Arlington Avenue is classified as a 120-foot arterial and varies between two and three lanes in each direction. This roadway runs in the east-west orientation. Field observations reveal that Arlington Avenue is a four-lane arterial. The posted speed limit is 45 miles per hour.

California Avenue: California Avenue is classified as an 88-foot four-lane arterial. This roadway runs in the east-west orientation. The speed limit is 40 miles per hour.

Chicago Avenue: Chicago Avenue is classified as a 110-foot, four-lane arterial in GP 2025 and runs in the north-south direction. The posted speed limit varies between 40 and 45 miles per hour.

Indiana Avenue: Indiana Avenue is classified as an 88-foot, four-lane arterial in GP 2025 and runs in the east-west direction. Field observation reveals that currently Indiana Avenue is a two-lane collector east of Harrison Street. The speed limit is 40 miles per hour.

Jackson Street: Jackson Street is classified as an 88-foot, four-lane arterial north of Victoria Avenue and as an 80-foot, two-lane collector south of Victoria Avenue in GP 2025. This roadway runs in the north-south direction. Field observation reveals that currently Jackson Street is a two-lane collector south of Victoria Avenue and a four-lane arterial north of Lincoln Avenue. The posted speed limit varies between 40 and 45 miles per hour.

La Sierra Avenue: La Sierra Avenue is classified as a 110-foot, four-lane arterial in GP 2025 and runs in the north-south direction. Field observation reveals that currently La Sierra Avenue is a six-lane arterial. The posted speed limit varies between 40 and 45 miles per hour.

Lincoln Avenue: Lincoln Avenue is classified as an 88-foot, four-lane arterial west of Madison Street and as a 66-foot, two-lane collector east of Madison Street in GP 2025. Lincoln Avenue runs in the east-west direction. The posted speed limit varies between 40 and 45 miles per hour.

Magnolia Avenue: Magnolia Avenue is classified as a 110-foot, four-lane arterial west of Polk Street and a 110-foot, four-lane arterial between Jurupa Avenue and Ramona Drive in GP 2025. This roadway is classified as a 120-foot, six-lane arterial between Polk Street and Jurupa Avenue. Magnolia Avenue runs in the east-west direction. Field observation reveals that currently Magnolia Avenue is a four-lane arterial east of Harrison Street. The posted speed limit varies between 35 and 45 miles per hour.

Martin Luther King Boulevard: Martin Luther King Boulevard is classified as a 110-foot, four-lane arterial in GP 2025 and runs in the east-west direction. Field observation reveals that currently Martin Luther King Boulevard is a six-lane arterial. The posted speed limit varies between 35 and 50 miles per hour.

Pierce Street: Pierce Street is classified as a 110-foot, four-lane arterial east of Golden Avenue and as a 66-foot, two-lane collector west of Golden Avenue in GP 2025. This roadway runs in the east-west direction. The posted speed limit varies between 30 and 40 miles per hour.

Riverwalk Parkway: Riverwalk Parkway is classified as a 110-foot, four-lane arterial in GP 2025 and runs in the north-south direction. The posted speed limit is 40 miles per hour.

Trautwein Road: Trautwein Road is classified as a 110-foot, four-lane arterial north of Orange Terrace Parkway and as an 88-foot, four-lane arterial south of Orange Terrace Parkway in GP 2025. Trautwein Road runs in the north-south direction. The posted speed limit is 50 miles per hour.

Tyler Street: Tyler Street is classified as a 110-foot, four-lane arterial north of Magnolia Avenue and a 120-foot, six-lane arterial between Magnolia Avenue and Indiana Avenue in GP 2025. This roadway is classified as an 88-foot, four-lane arterial between each extension of Indiana Avenue and then as an 80-foot, two-lane collector between Indiana Avenue and Dufferin Avenue. South of Dufferin Avenue, this roadway is classified as a 66-foot, two-lane collector. Tyler Street runs in the north-south direction. Field observation reveals that currently Tyler Street is a six-lane arterial north of Magnolia Avenue and an eight-lane arterial north of SR-91. The posted speed limit is 35 to 40 miles per hour.

Van Buren Boulevard: Van Buren Boulevard is classified as a 120-foot, six-lane arterial in GP 2025. This roadway is classified as a 144-foot, eight-lane arterial north of Jurupa Avenue. This roadway runs in the north-south direction. Field observation reveals that Van Buren Boulevard north of Jurupa Avenue currently is a four-lane arterial. Between Colorado Avenue and Hayes Street, as well as between Rudicill Street and Wood Road, Van Buren Boulevard currently contains four lanes. The posted speed limit varies between 40 and 55 miles per hour.

Victoria Avenue: Victoria Avenue is classified as a local street and scenic boulevard in GP 2025 south of Arlington Avenue and runs in the northeast-southwest direction. Victoria Avenue consists of one lane in each direction south of Arlington Avenue, with a special landscaped median and rural character in this area. This roadway is classified as a 110-foot, four-lane arterial between Arlington Avenue and Ivy Street and a 66-foot, two-lane collector north of Ivy Street. The posted speed limit on the arterial section is 35 and 45 miles per hour.

Transit

Public Transit Services

Public transportation is a vital part of the circulation system within the City. Transit expands mobility options to citizens that may not be able to afford or physically operate other means of travel, while some choose not to drive. Intercity buses, local buses, and demand-responsive service are provided, all of which help people move. It is important that the City continue to invest in and improve local transit service because the most frequent users include some of the most vulnerable, such as older adults, persons with disabilities, and students.

Riverside Transit Agency

The majority of the available public transportation is provided by the Riverside Transit Agency (RTA) via fixed-route bus services. RTA provides four bus routes within the City that connect to the Downtown Riverside Metrolink Station, La Sierra Metrolink Station, University of California, Riverside (UCR), and surrounding cities. Major City bus routes include routes 1, 10, 12, 13, 14, 15, 16, 20, 21, 22, 27, 29, 49, and 50. In addition, RTA has two commuter link express bus routes. Route 200 connects Downtown Riverside and the La Sierra Metrolink Station with the cities of Orange and Anaheim. Route 204 connects UCR and Downtown Riverside with Montclair Transit Center and Ontario Mills. Route 208 connects the cities of Riverside, Temecula, Murrieta, Perris, and Moreno Valley, while commuter link express bus routes provide peak-hour services for commuters in the morning and evening on weekdays. The RapidLink express bus service offers frequent bus service

between UCR and Corona, serving 14 stops via University Avenue, Market Street, and Magnolia Avenue.

RTA's "Bring Your Bike or Scooter" program features bike racks on all fixed-route buses including commuter link routes. A partnership with schools allows anyone age 18 and under to ride RTA buses for free until July 2021. The general base fare for a ride is \$1.75, a day pass is \$5, a 7-day pass is \$20, and a 30-day pass is \$60, with reduced fares for youths, seniors, people with disabilities, and veterans. RTA also accepts Orange County Transportation Authority passes on Route 200 and valid Metrolink passes for the full fare on routes. RTA's Dial-a-Ride service offers complimentary service to people with disabilities throughout the RTA service area that are within 0.75 mile of local fixed-route bus service and during the hours of bus service operation.

Sunline Transit Agency

A commuter link bus route (220) connects the cities of Riverside, Moreno Valley, Beaumont, Cabazon, Thousand Palms, and Palm Desert and provides peak-hour services on weekday mornings and evenings. This route connects to the Riverside Metrolink Station.

Omnitrans

A commuter link bus route (215) connects the cities of Riverside, Grand Terrace, Colton, and San Bernardino and provides service every 30 minutes during peak hours on weekdays and every 60 minutes during off-peak hours on weekdays and weekends. The route connects to Downtown Riverside and the Riverside Metrolink Station.

Metrolink

Metrolink is a commuter rail program operated by the Southern California Regional Rail Authority providing service from outlying suburban communities to employment centers such as Burbank, Irvine, and Downtown Los Angeles. For the City, the Riverside Line connects Downtown Riverside with Jurupa Valley, Ontario, Pomona, Diamond Bar, Industry, Commerce, and Downtown Los Angeles. The Inland Empire-Orange County Line connects Downtown Riverside with San Bernardino to the north and Corona, Anaheim, Orange, Tustin, Irvine, and San Diego to the south. The 91/Perris Valley Line connects all stations in Riverside with Downtown Los Angeles to the west and Perris to the east. Four Metrolink rail transit stations serve the City, with the La Sierra, Downtown, and Hunter Park stations within City limits and the Moreno Valley/March Field station adjacent to the City's southern boundary in unincorporated Riverside County. The 24-mile extension of the Perris Valley Line was the first major enhancement to the route network in 14 years. The establishment of the Perris Valley Line was a joint effort of the Riverside County Transportation Commission (RCTC) and Federal Transit Administration.

Amtrak

Amtrak, the National Railroad Passenger Corporation, provides service to the Downtown Riverside station, connecting it with the rest of the country.

Biking and Walking

With relatively flat terrain throughout a majority of the City and a rectilinear street grid, the City is an inherently bikeable and walkable community. Improving bicycling and pedestrian facilities and diversifying land use patterns can increase the likelihood and desirability of active transportation

modes for short-distance trips, school trips, and recreational activities. By shifting mode share to include higher rates of active travel, the City can reduce greenhouse gas emissions and promote a healthy lifestyle, consistent with Assembly Bill 32 and other state laws.

PACT

The City of Riverside Active Transportation Plan is currently being developed to integrate walking, bicycling, and other transportation modes into a single plan that includes policies, infrastructure recommendations, and supporting programs, as well as identifying context-specific funding sources, prioritized infrastructure projects, and implementation strategies. This plan is one component of the Pedestrian Target Safeguarding Plan, Active Transportation Plan, Complete Streets Ordinance, and Trails Master Plan (PACT) for the City. The PACT will provide a framework for a multi-modal network for the City's future bicycle and pedestrian improvement projects.

Active Transportation Plan

The draft Active Transportation Plan outlines the need for comfortable bicycle and pedestrian facilities for achieving the following goals:

- Economic prosperity: connecting residents to employment and commercial centers
- Improved safety
- Socially responsible and equitable investment throughout the City
- Reduction of VMT by establishing a culture of biking and walking
- Access to community destinations

Complete Streets Ordinance

As part of PACT, the City is undertaking the update of the Complete Streets Ordinance to provide guidance on street character, connectivity, access for all users, development of continuous pedestrian paths and urban trails/recreation opportunities, and inclusion of public gathering spaces equitably placed throughout the City. The proposed street cross-sections include recommended modifications to the roadway of the four primary arterial types that are prevalent within the City.

Bicycle Network

Bicycle facilities in Riverside consist of bike lanes, routes, trails, and paths. On-street bicycle facilities are classified into four categories depending on their design and function as described below; numbers in parentheses indicate the lengths of bicycle facilities.

Class I (14 miles): Provides a completely separated right-of-way for the exclusive use of cyclists and pedestrians with crossflow minimized. Typically, the most desirable for all ages and abilities.

Example: Santa Ana River Trail

Class II (122 miles and 7 miles of buffered Class II): Provides a striped lane for one-way travel on a street, which may include a buffer zone consisting of a striped portion of roadway between the bicycle lane and the nearest vehicle travel lane. Typically, suitable for some bicyclists comfortable sharing some space with cars.

Example: Market Street

Class III (2 miles): Provides for shared use with motor vehicle traffic to help guide bicyclists between major destinations. Typically, not suitable for most bicyclists except on local residential streets.

Example: Mission Inn Avenue

Class IV (1 mile): Provides a right-of-way designated exclusively for bicycle travel, which is protected from vehicular traffic. Types of separation include, but are not limited to, grade separation, flexible posts, inflexible physical barriers, or on-street parking. Typically, suitable for most bicyclists.

Example: Canyon Crest Drive between Martin Luther King Boulevard and El Cerrito Drive

Pedestrian Network

Pedestrian facilities in the City consist of sidewalks and paths, trails, crossing facilities, curb treatments, beacons and signals, and pedestrian-support facilities. Pedestrian-oriented land uses, street widths, lighting, and landscaping also contribute to the quality of the pedestrian environment. Pedestrian activity in the City tends to be highest around Downtown, the Downtown Riverside Station, the UCR campus, schools, and retail destinations along major corridors.

Safe Routes to School

Safe Routes to School (SRTS) promotes walking and bicycling to school in a safe and supportive environment through education and encouragement activities. The Riverside County Department of Public Health Injury Prevention Services received SRTS Cycle 1 funds to provide pedestrian and bicycle education and encouragement activities at schools in the City. SRTS recommendations include:

- Expanding the number of SRTS site assessments
- Partnering with local agencies and school districts to deliver education and encouragement programs
- Reducing speed limits to 15 miles per hour, when warranted, in school zones
- Continuing to implement pedestrian recommendations

Near-Term Planned Improvements

The City's Capital Improvement Program includes updates to the vehicle, bicycle, and pedestrian networks. The Capital Improvement Program includes funding for pre-construction activities such as feasibility studies and design, as well as construction funding. The proposed network improvements in the City with construction funding through 2020–2021 include the following.

General:

- Traffic Management Center Program
- BNSF Railway (BNSF) Quiet Zone: Mission Inn, 3rd, Spruce (1 of 2, Funded Portion)
- Mission Boulevard Bridge Replacement at Santa Ana River

Vehicle Traffic:

- Miscellaneous Traffic Projects Program
- Arterial Interconnect Project Program

Bike and Pedestrian:

- SR-91 Pedestrian Bridge-Metrolink to Downtown (1 of 2, Funded Portion)
- High-friction surface & high-intensity activated crosswalk signals
- Pedestrian Ramps Program
- Mission Boulevard Bridge Replacement at Santa Ana River
- Santa Ana Walking Trail-McLean Park to Fairmount Park (1 of 2, Funded Portion)
- Sidewalk/Trail Construction at Various Locations Program
- Sidewalk Repair Program

Major Planned Improvements

According to the SCAG 2020–2045 Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS) approved project list, the following strategic roadway improvements are planned.

Grade-Separation Projects

Construction of quiet zones or rail grade-separation projects are planned on Harrison Street, Gibson Street, Jefferson Street, Palm Avenue, Washington Street, Brockton Avenue, Panorama Road, Cridge Street, Palmyrita Avenue, Center Street, Main Street, 3rd Street, Jackson Street, Mary Street, and Mission Inn Avenue. RCTC is the lead agency for implementing these projects.

Bicycle and Sidewalk Improvements

The City continually evaluates bicycle and pedestrian improvements throughout the City. Most recently, this has included a variety of improvements including buffered bike lanes, green paint, and other improvements on a variety of streets within the City. Future major improvements include those outlined in the Eastside Mode Shift and Eastside Climate Collaborative projects.

The City's Capital Improvement Program also identifies the installation of 1.28 miles of Americans with Disabilities Act-compliant sidewalk on Carmine Street, Richmond Street, Norwood Avenue, from College Avenue to Sierra Vista Avenue, on Doverwood Drive from Butler Drive to La Sierra Avenue, on a portion of Butler Drive, and on College Avenue from Doverwood Drive Norwood Avenue in the La Sierra neighborhood

Roadway Improvements

- Reconfiguration of SR-91 at Adams Street interchange ramps, including reconstruction of the Adams Street overpass, on Adams Street from Auto Center Drive to Briarwood Drive and Indiana Avenue from Vance Street to Detroit Drive
- Completion of the remaining work from the SR-91 HOV associated with the Union Pacific Railroad line along Pachappa underpass; paving of the full structure section of westbound SR-91

auxiliary lane and shoulder; and construction of the full structure section for the second lane of Mission Inn westbound exit ramp

Transit Improvements

- Vine Street mobility hub, which includes construction of an intermodal station on the west side of Vine Street that will allow for bus access from the Metrolink Station. This project is currently finalizing design.

Rail and Goods Movement

Rail Movement

The Union Pacific Railroad and BNSF provide freight service in Riverside County, connecting the county with major markets within California and other destinations north and east. The City has 25 at-grade railroad crossings and actively pursues grade-separation projects (such as its current design to grade separate the 3rd Street crossing) to enhance vehicular and pedestrian safety and reduce delays, which will also have the beneficial side effect of improving local air quality by minimizing the number of idling vehicles waiting for trains to pass.

Truck Traffic

Goods movement plays an important role in both the circulation network and the economy of the City and the region. Often, it can be difficult to accommodate trucks and other vehicles without impeding other modes or the well-being of residents. Due to the City's important location between two highways and the role of logistics in the local economy, effectively accommodating goods movement along its roadways is critical for local transportation planning.

Truck traffic on City streets is restricted as outlined in City ordinances 10.56.010 and 10.56.020, which prohibit trucks over 3 tons and 5 tons, respectively, from certain routes throughout the City.

Airport Facilities

Riverside Municipal Airport

The Riverside Municipal Airport, within the City, is owned and operated by the City, with airport operations overseen by the City of Riverside Airport Commission. The *Airport Master Plan for Riverside Airport*, updated in 2009, is used by the City to guide development of the airport to ensure the airport's long-term viability and reduce the risk of potential aircraft-related hazards.

March Air Reserve Base

The March Air Reserve Base, to the east of the City boundary, has transitioned from a military base to a joint-use facility housing the National Air Force and a commercial cargo port.

3.12.3 Regulatory Setting

Federal

Federal rules and regulations govern many facets of the City's traffic and circulation system including transportation planning and programming; funding; design, construction, and operation of facilities; and others. The City complies with all applicable rules and regulations of the Federal Highway Administration, Urban Mass Transit Administration, Federal Railroad Administration, Federal Aviation Administration, and other federal agencies. In addition, the City coordinates with federal resource agencies where appropriate in the environmental clearance process for transportation facilities.

State

Assembly Bill 1358

Assembly Bill 1358, also known as the California Complete Streets Act of 2008, requires cities and counties to include "Complete Street" policies in their general plans. These policies address the safe accommodation of all users, including bicyclists, pedestrians, motorists, public transit vehicles and riders, children, the elderly, and the disabled. These policies can apply to new streets as well as the redesign of corridors.

As discussed in Section 3.12.2, the City is currently preparing the PACT. This effort will further expand implementation of the City's complete streets policies and direction.

Senate Bill 375

Senate Bill (SB) 375 provides guidance regarding curbing emissions from cars and light trucks. There are four major components to SB 375. First, SB 375 requires regional greenhouse gas emission targets. These targets must be updated every 8 years in conjunction with the revision schedule of the housing and transportation elements of local general plans. Second, Metropolitan Planning Organizations are required to create an SCS that provides a plan for meeting regional targets. Third, SB 375 requires housing elements and transportation plans to be synchronized on 8-year schedules. Finally, Metropolitan Planning Organizations must use transportation and air emissions modeling techniques that are consistent with the guidelines prepared by the California Transportation Commission.

Senate Bill 743

SB 743 changes the focus of transportation impact analysis in CEQA from measuring impacts on drivers, to measuring the impact of driving. The change replaces level of service (LOS) with VMT and provides streamlined review of land use and transportation projects that will help reduce future VMT growth. This shift in transportation impact focus is expected to better align transportation impact analysis and mitigation outcomes with the state's goals to reduce greenhouse gas emissions, encourage infill development, and improve public health through more active transportation.

WRCOG released the WRCOG SB 743 Implementation Pathway in March 2019, a guiding document for VMT analysis methodology, thresholds, and mitigation strategies for transportation impact evaluation for WRCOG agencies such as the City. The City adopted thresholds of significance and identified a VMT analysis methodology in its updated traffic impact study guidelines in July 2020.

California Department of Transportation

The California Department of Transportation's *VMT-Focused Transportation Impact Study Guide* provides a starting point and a consistent basis with which the department evaluates traffic impacts on state highway facilities. The guide provides information on when a traffic impact study is needed based on VMT, the scope of a traffic impact study (i.e., the boundaries of the traffic study and the analysis scenarios), the required data for a traffic impact study, analysis methodologies for various types of state facilities, and guidelines for mitigating impacts. A future update will include a basis for requesting transportation impact analysis that is not based on VMT.

Regional

Riverside County Congestion Management Program

RCTC is in charge of preparing the Congestion Management Program (CMP) in Riverside County. It is an effort to align land use, transportation, and air quality management efforts to promote reasonable growth management programs that effectively use statewide transportation funds, while ensuring that new development pays its fair share of needed transportation improvements.

The focus of the CMP is the development of an Enhanced Traffic Monitoring System in which real-time traffic count data may be accessed by RCTC to evaluate the condition of the Congestion Management System (CMS), as well as to meet other monitoring requirements at the state and federal levels. RCTC's Long Range Transportation Study, approved in 2019, incorporates the state and federal CMPs into the plan, including performance standards, conformance, monitoring, deficiency plan process, and management strategies.

Per the target of LOS E adopted by RCTC, when a CMS segment falls to LOS F, a deficiency plan must be prepared by the local agency where the deficiency is located. Other agencies identified as contributors to the deficiency will also be required to coordinate with the development of the plan. The plan must contain mitigation measures, including Transportation Demand Management (TDM) strategies and transit alternatives, and a schedule of mitigating the deficiency. To ensure that the CMS is appropriately monitored to reduce the occurrence of CMP deficiencies, it is the responsibility of local agencies to consider the traffic impacts on the CMS when reviewing and approving development proposals.

Southern California Association of Governments' Regional Transportation Plan/ Sustainable Communities Strategy

In September 2020, SCAG adopted the 2020–2045 RTP/SCS (*Connect SoCal*), which includes goals to increase mobility and enhance sustainability for the region's residents and visitors. The 2020–2045 RTP/SCS encompasses three principles to improve the region's future: mobility, economy, and sustainability. The 2020–2045 RTP/SCS includes population, housing, and employment growth projections for 2045. These growth projections are used in SCAG's transportation modeling and shape SCAG's regional planning efforts, as outlined in the 2020–2045 RTP/SCS. The 2020–2045 RTP/SCS minimizes increases in regional traffic congestion by focusing growth, density, and land use intensity within existing urbanized area as the general land use growth pattern for the region while enhancing the existing transportation system and integrating land use into transportation planning. The 2020–2045 RTP/SCS recommends local governments accommodate future growth within existing urbanized areas to reduce VMT, congestion, and greenhouse gas emissions.

Local

Walk Riverside: Routes & Trails

In partnership with the County of Riverside Department of Health, the City prepared its Walk Riverside: Routes & Trails in 2005 using a grant from Kaiser Permanente. Walk Riverside details the locations of various walking routes throughout the City, along with their distances, terrain type, major cross streets, and available parking.

Riverside General Plan 2025

GP 2025's Circulation and Community Mobility Element contains goals and policies intended to manage and plan for the City's transportation network. Table 3.12-3 presents policies that are relevant to the Project.

Circulation and Community Mobility Element

The Circulation and Community Mobility Element (amended February 2018) addresses the City's transportation needs by incorporating objectives and goals "focusing future development near existing transportation corridors, ensuring land uses are supported by an efficient local roadway network, embracing innovative solutions to congestion on freeways and regional arterials, supporting alternative modes of transportation such as walking, biking and transit and ensuring that transportation options are maximized for all community members as necessary components of an effective and safe circulation system for Riverside."

Riverside Municipal Code

Chapter 13.18, Trails Master Plan

Riverside Municipal Code (RMC) Chapter 13.18, *Trails Master Plan*, provides minimum standards for recreational trails to safeguard the health, property, and public welfare by regulating the design, construction, quality of materials, location, and maintenance of recreational trails shown on the GP 2025 Trails Master Plan Map, and to require that the City's recreational trails be developed according to approved standards and design elements as set forth in the Trails Master Plan. As previously mentioned, the PACT is currently being completed and is updating the Trails Master Plan.

Chapter 16.64, Traffic Signal and Railroad Signal Mitigation Fees and Transportation Impact Fees

According to RMC Chapter 16.64, *Traffic Signal and Railroad Signal Mitigation Fees and Transportation Impact Fees*, new private development in the City increases the amount of traffic using the City street system, thereby requiring installation of additional traffic signals, railroad signals, and street improvements at specified locations to increase or improve transportation capacity to protect the public health, safety, and welfare and that such private new development should pay its fair share of such improvements. This chapter further notes the following:

- Section 16.64.030, *Traffic Signal and Railroad Signal Mitigation Fees*: A traffic signal and railroad signal mitigation fee is hereby imposed on the construction of all new nonresidential units, dwelling units and mobile home spaces in accordance with the schedule of fees that may be established by the City Council by resolution. No fee shall be assessed on any City, County, state or federal governmental use. Fees required by this section shall be paid upon application to the City for a building permit for any construction which adds a nonresidential unit, new dwelling

unit or new mobile home space to any parcel of real property. No building permit shall be issued until the fee is paid.

- Section 16.64.040, *Transportation Impact Fee*: A transportation impact fee is hereby imposed on the construction of all new dwelling units and mobile home spaces in accordance with the schedule of fees that may be established by the City Council by resolution. Fees required by this section shall be paid upon application to the City for a building permit for any construction which adds a new dwelling unit or new mobile home space to any parcel of real property. No building permit shall be issued until the fee is paid.
- Section 16.64.050, *Use of Traffic Signal and Railroad Signal Mitigation Fees*: A special traffic signal and railroad crossing improvement mitigation fee account is hereby established and all fees collected pursuant to Section 16.07.030 shall be deposited therein. Such funds shall be expended solely for the purchase and installation of traffic signals and railroad signals.
- Section 16.64.060, *Use of Transportation Impact Fees*: A special transportation impact fee account is established and all fees collected pursuant to RMC Section 16.07.040 shall be deposited therein. Such funds shall be expended solely for the construction of improvements on those streets or portions thereof as designated from time to time by the City Council, in order to increase or improve the transportation capacity of such streets.

Chapter 16.68, Transportation Uniform Mitigation Fee

RMC Chapter 16.68, *Transportation Uniform Mitigation Fee*, is known as the “Western Riverside County Transportation Uniform Mitigation Fee Program Ordinance of 2009.” The City is a member agency of WRCOG. Acting in concert, the WRCOG member agencies developed a plan whereby the shortfall in funds needed to enlarge the capacity of the regional system of highways and arterials in western Riverside County could be made up in part by a Transportation Uniform Mitigation Fee on future residential, commercial, and industrial development. Compliance with the Transportation Uniform Mitigation Fee Program, in accordance with the provisions established in this RMC chapter (i.e., payment of fees), is intended to ensure that each development contributes its fair share of the total program costs.

Chapter 19.120, Mixed Use Zones (MU-N, MU-V, MU-U)

According to RMC Chapter 19.120, *Mixed-Use Zones (MU-N, MU-V, MU-U)*, the mixed-use zones are established to encourage a mixture of compatible and synergistic land uses, such as residential with compatible non-residential uses including office, retail, personal services, public spaces, and other community amenities. The permitted uses in these zones are detailed in RMC Section 19.120.020, *Permitted Land Uses*, and the standards are specified in RMC Section 19.120.060, *Development Standards*, and RMC Section 19.120.070, *Design Standards and Guidelines*.

Table 3.12-3 presents an overview of GP 2025 and other local plans, policies, and programs related to transportation.

Table 3.12-3. Relevant Riverside General Plan and Specific Plan Policies

Plan	Policy
Riverside General Plan 2025	
Circulation and Community Mobility Element	Policy CCM-2.1: Complete the Master Plan of Roadways shown on Figure CCM-4 (Master Plan of Roadways)
	Policy CCM-3.5: Apply neighborhood traffic control measures as warranted on the parallel local residential streets to limit cut-through, non-local traffic

Plan	Policy
	Policy CCM-5.2: Support implementation of the SCAG Regional Transportation Plan.
	Policy CCM-5.5: Participate in programs to mitigate regional traffic congestion.
	Policy CCM-6.1: Encourage the reduction of vehicle miles, reduce the total number of daily peak hour vehicular trips, increase the vehicle occupancy rate and provide better utilization of the circulation system through the development and implementation of TDM programs contained in the SCAQMD and County of Riverside TDM Guidelines.
	Policy CCM-9.1: Encourage increased use of public transportation and multi-modal transportation as means of reducing roadway congestion, air pollution and non-point source water pollution, through such techniques as directing new growth along transportation corridors.
	Policy CCM-9.5: Incorporate facilities for transit and other alternative modes of transportation, such as park-and-ride lots and bus turnouts, in the design of future developments.
	Policy CCM-10.1: Ensure the provision of bicycle facilities consistent with the Bicycle Master Plan.
	Policy CCM-10.2: Incorporate bicycle and pedestrian trails and bicycle racks in future development projects.
	Policy CCM-10.4: Identify and seek to eliminate hazards to safe, efficient bicycle or pedestrian movement citywide.
	Policy CCM-10.8: Maximize links between trails and major activity centers, residential neighborhoods, schools, shopping centers and employment centers.
	Policy CCM-10.10: Evaluate the needs of bicycle traffic in the planning, design, construction and operation of all roadway projects funded by the City.
	Policy PR-2.3: Improve and create more connections and increase the safety of the bicycling, equestrian and pedestrian trail system within the City.
Specific Plans	
Canyon Springs Business Park Specific Plan	There are no applicable policies relevant to the Project regarding transportation.
Downtown Specific Plan	Policy C-1-2: Provide enhanced transit amenities within the Downtown, including bus stops and a downtown transit center.
	Policy C-1-10: Provide bike lanes on major streets approaching Downtown and within downtown where feasible.
	Policy C-1-11: Provide for pedestrian circulation at ground level. Do not provide grade-separated pedestrian facilities (except freeway over crossing).
Hunter Business Park Specific Plan	There are no applicable policies relevant to the Project regarding transportation.
La Sierra University Specific Plan	Policy LSU-1.14 The mixed use community shall be designed to foster pedestrian circulation among various land uses including a pedestrian path along the new arterial street, and pedestrian paths that link the planned residential areas with the campus, neighborhood schools, parks, and the community multi-use trail proposed along the flood control channel, and the Five Points shopping area.
	Policy 2.2: Consider the implementation of off-street shared parking with parking signage improvements, consolidation of driveways, installation of

Plan	Policy
Magnolia Avenue Specific Plan	<p>raised landscaped medians, bus turnouts, traffic signal enhancements, special pavement treatments at pedestrian crossings and intersections, curb extensions, signalized/enhanced crosswalks, wider sidewalks and other appropriate measures which enhance traffic flow, transit efficiency and pedestrian movements</p> <hr/> <p>Policy 2.4: Improve Magnolia Avenue to a standard Class II bike lane the length of the corridor.</p> <hr/> <p>Policy 2.7: Explore the feasibility of installing signalized midblock crosswalks at heavily used pedestrian areas, meeting warrants, along portions of the corridor where long stretches of roadway exist between signalized intersections.</p>
Riverside Marketplace Specific Plan	There are no applicable policies relevant to the Project regarding transportation.
University Avenue Specific Plan	There are no applicable policies relevant to the Project regarding transportation.
Northside Specific Plan	There are no applicable policies relevant to the Project regarding transportation, only design guidelines related to streets within the Specific Plan.

Sources: City of Riverside 1991, 2002, 2005, 2007, 2009, 2017a, 2017b, 2018, 2020.

Policy Consistency

The Project would be consistent with GP 2025 and Specific Plan goals and policies as described in Table 3.12-3. As discussed in Chapter 2, *Project Description*, one of the objectives of the Project is to ensure affordable housing is added across the City and not concentrated in areas with lower access to amenities or near sources of pollution. The Housing Element Update includes a guiding principle that seeks to equitably distribute a mix of housing types, including ownership and rental, that is safe and affordable for people of all income levels, backgrounds, and ages and that meets the needs of current and future City residents.

The principles, policies, actions, and programs within the Housing Element Update relate directly to and must be consistent with other elements of GP 2025. As part of the adoption of the Housing Element Update, the City will modify applicable policies in other elements as necessary to maintain consistency. Pursuant to new California law, the City is updating the Public Safety Element concurrent with the Housing Element to include an analysis of fire, flood, geologic, seismic, transportation, and public safety hazards and policies to reduce the potential loss of life from these hazards. The Public Safety Element Update will address new California requirements including environmental justice issues and climate change adaptation and resilience.

3.12.4 Methodology and Thresholds of Significance

The analysis of the Project's impacts on transportation was conducted using a review of the most current population and housing statistics and projections available for the City. These statistics include SCAG's 2021–2029 6th Regional Housing Needs Assessment cycle, Riverside's 2021–2029 Housing Element data, Riverside's GP 2025 background data, and SCAG estimates and projections. The following information on population, housing, and employment for the planning area was used in this analysis from several sources:

- **SCAG:** SCAG produces land use projections that represent future year conditions and a financially constrained list of transportation projects as part of the RTP/SCS. These assumptions were used to project future transportation trends in the regional model produced by WRCOG as described below.
- **WRCOG:** WRCOG utilizes SCAG's data and regional travel demand model to produce and maintain RIVTAM. RIVTAM has a base year of 2012 and a future year of 2040 and was used to evaluate baseline and future-year VMT. Note that when this Project initiated the technical studies, RIVTAM had not yet been updated to reflect the 2020–2045 SCAG RTP/SCS. WRCOG is in the process of finalizing a new model for Riverside County, RIVCOM, that will reflect the SCAG 2020–2045 RTP/SCS, but that model was not yet available when technical studies for this Project were initiated.
- **City of Riverside:** The City's assumptions for land use growth under the 2021–2029 Housing Element were used to develop land use estimates for the scenarios modeled that included the Project.

Thresholds of Significance

An initial study was prepared for the Project in April 2021. The following environmental threshold was identified as having a less-than-significant impact in the initial study and is therefore not addressed in this EIR section:

- Substantially increase hazards because of a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)

For a complete discussion of the environmental issues that were scoped out from this Draft EIR, refer to Section 3.15, *Effects Not Found to Be Significant*.

In accordance with Appendix G of the State CEQA Guidelines, the Project would be considered to have a significant effect if it would:

- Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities
- Conflict or be inconsistent with State CEQA Guidelines Section 15064.3, subdivision (b)

The City adopted the following thresholds of significance in accordance with State CEQA Guidelines Section 15064.3, subdivision (b):

A project would result in a significant project-generated VMT impact if the following conditions are satisfied:

1. For residential projects: the baseline or cumulative project-generated VMT per capita exceeds 15% below the current jurisdictional baseline VMT per capita or
2. For office and industrial projects: the baseline or cumulative project generated VMT per employee exceeds 15% below the current jurisdictional baseline VMT per employee or
3. For new retail & other land use projects, utilizing a threshold consistent with the net total VMT of the jurisdiction.

For projects inconsistent with the General Plan or RTP/SCS, or those found to have an impact using efficiency-based metrics (above), additional assessment is needed. In these instances, the project's effect on VMT would be considered significant if it resulted in either of the conditions to be satisfied:

1. For residential projects: The baseline or cumulative link-level boundary VMT per capita (City) to increase under the plus project condition compared to the no project condition, or
2. For office projects: the baseline or cumulative link-level boundary VMT per employee (City) to increase under the plus project condition compared to the no project condition.
3. For retail & other land use projects: the baseline or cumulative link-level boundary VMT (City) to increase under the plus project condition compared to the no project condition.

Project-Generated VMT Metrics

Project-generated VMT includes trips that start or end within the City. VMT is calculated by multiplying the Project trip length by the number of trips. Ideally, those trips are tracked to their ultimate destinations and the whole of the trip length is included. RIVTAM includes a six-county region: Riverside, San Bernardino, San Diego, Los Angeles, Imperial, and Orange Counties. Given the City's central location within this region, the majority of all trip lengths is accounted for in the model.

The City's adopted VMT thresholds are presented by land use types and do not specifically identify how to evaluate mixed-use projects. Although the Project is primarily a residential project, there is also a mix of commercial and housing uses planned within the Housing Element Update in the mixed-use zones and certain Specific Plans. Also, some of the identified Opportunity Sites have existing land uses on them that would transition over to new development. As such, the Project is mixed-use in nature.

In accordance with the City's adopted threshold for residential projects, home-based VMT per capita was calculated and is presented below. Home-based VMT is all VMT that starts or ends at a residence. *Per capita* indicates this is an efficiency metric; in this case, home-based VMT is presented on a per-resident basis. This metric represents the average daily VMT for City residents for trips that start or end at their homes.

However, as the Project would include retail and other uses, the net total VMT is also presented. Net total VMT is the sum of all VMT that starts or ends in the City (at a residence, place of work, or any other location). This is not an efficiency metric and is not presented on a per-person basis.

These metrics evaluate how much, if at all, the Project would change the average home-based travel per capita and the total travel in the City. The Housing Element Update proposes additional housing and commercial land use growth, which would influence travel in the City. The total VMT-per-service-population metric captures all trip types and measures the change in average total VMT due to the Project. This metric represents the average daily VMT for City residents and employees for all trips that start or end in the City and is also presented below.

Although RIVTAM is the best available tool to estimate VMT in the City, there are limitations within the model that should be disclosed. There is a small amount of City VMT that is truncated at the model boundary. Given the small amount of VMT that exits this large area and that the Project is benchmarked against existing travel that also exits the model boundary area, this limitation is inherent in the tools available for assessing VMT impacts from the Project but would not affect the significance findings in this section. Additionally, to estimate VMT generated by only residential uses in the City, VMT is extracted at the *production-attraction* level before trips exiting the model boundary are included. The VMT-per-service-population metrics are extracted at the *origin-destination* level, which includes trips that exit the model boundary; however, trips are aggregated by this point in the model and VMT by land use type cannot be separated for use in this assessment.

The origin-destination-based VMT provides a more comprehensive estimate of VMT and is consistent with how VMT is estimated for other sections of this EIR; however, based on the City's desire to also look at only home-based VMT, the production-attraction information has been included for reference and consistency with the City's guidelines.

All of these VMT metrics are presented below in Impact TRA-2 to provide full disclosure of the Project impacts.

Project Effect on VMT Metrics

As with the Project-generated VMT metrics discussed above, the Project's effects on VMT thresholds are presented by land use type.

Link-level boundary VMT includes all vehicles on a roadway within a designated boundary. VMT is calculated by multiplying the number of vehicles on each roadway by the length of that roadway.

As discussed above, the Project is primarily a residential project, so link-level boundary VMT per capita is specified within the City's adopted threshold. However, link-level boundary VMT captures all trip purposes, not only trips produced by residents of the City, and this is not considered an appropriate efficiency metric for the Project's effect on VMT. Additionally, boundary VMT includes trips that pass through the City and do not stop (such as a trip on SR-91 that originates in San Bernardino and ends in Orange County), which, although this VMT is not attributable to the City, is included in these estimates.

The total link-level boundary VMT was calculated and is presented below. To provide the full context of how average VMT would change for all residents and employees, link-level boundary VMT per service population is also presented below.

VMT metrics are presented below in Impact TRA-2.

3.12.5 Impacts and Mitigation Measures

Impact TRA-1: The Project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. This impact would be less than significant.

Housing Element Update, Zoning Code Amendments, and Environmental Justice Policies

Because site specific designs showing driveway locations have not been developed, there are no specific details to review and assess impacts on pedestrian, bicycle, and transit facilities. As part of the standard development review process, the City would require all future development of identified Opportunity Sites to go through a review of pedestrian, bicycle, and transit facilities in the area surrounding the individual development project to ensure that future developments do not conflict with existing or planned facilities supporting those travel modes. All pedestrian, bicycle, and transit facilities proposed would be designed using the appropriate design standards. Furthermore, implementation of the Environmental Justice Policies is policy-based and does not identify any changes to the transportation network or to land use growth in the City. The impact would be less than significant.

Public Safety Element Update and Environmental Justice Policies

Implementation of the Public Safety Element Updates and related Environmental Justice Policies is policy-based and does not identify any changes to the transportation network or to land use growth in the City. The Public Safety Element Update would not result in any changes to daily VMT because proposed policy changes would improve the risk of death, injuries, property damage, and economic and social disruption resulting from fires, floods, droughts, earthquakes, landslides, climate change, and other hazards, and would not affect daily travel patterns.

Public Safety Element policies and implementing actions would encourage the design and construction of planned developments, such as addition of design elements related to emergency access and pedestrian safety. This update would not have any significant environmental effects related to transportation and impacts would be less than significant.

Impact TRA-2: The Project would conflict or be inconsistent with State CEQA Guidelines Section 15064.3, subdivision (b), as the Project would affect the VMT in the City of Riverside. This impact would be significant and unavoidable.

Housing Element Update, Zoning Code Amendments, and Environmental Justice Policies

The Project would affect the VMT in the City. Because the Project would increase population and employment within the City, VMT would increase. However, as shown in the table, the VMT per service population would decrease within the City, showing that travel on a per-person basis would be more efficient with the addition of the Project.

As discussed above, the City adopted thresholds of significance that evaluate the Project-generated VMT and the Project’s effect on VMT in the baseline and cumulative conditions. If any of these thresholds are exceeded, the Project is considered to have significant transportation impacts.

Table 3.12-4. City of Riverside Project-Generated VMT Summary

	Threshold	No Project Baseline ¹	Project Baseline ²	No Project Cumulative ³	Project Cumulative ⁴
Residential: Home-Based VMT per Capita ⁵	9.1 ⁶	10.7	10.8	9.8	9.6
Retail: Net Total VMT ⁷	No Project ⁸	12,311,159	13,985,353	20,946,604	21,665,761
Other: Total VMT per Service Population ⁷	23.7 ⁹	27.6	25.6	30.96	28.9

Source: Fehr & Peers 2021.

Bold font indicates a significant impact.

¹ No Project baseline results shown are the City total/average VMT in the model (RIVTAM) base year without the addition of the Project.

² Project baseline results shown are the City total/average VMT in the model (RIVTAM) base year with the addition of the Project land uses.

³ No Project cumulative results shown are the City total/average VMT in the model (RIVTAM) future year without the addition of the Project.

⁴ Project cumulative results shown are the City total/average VMT in the model (RIVTAM) future year with the addition of the Project land uses.

⁵ Home-based VMT was calculated using the production-attraction trip matrices generated and does not include any VMT from trips to/from the model boundary. See text for more information.

⁶ Home-based VMT-per-capita threshold is 15% below the No Project baseline City average home-based VMT per capita.

⁷ Total VMT and VMT/service population uses the origin-destination matrix and includes VMT to/from the model boundary (although it truncates the trips at the model boundary). See text for additional information.

⁸ Net total VMT threshold is the No Project baseline City net total VMT for the Project baseline result, and No Project cumulative City net total VMT for the Project cumulative result.

⁹ Total VMT-per-service-population threshold is 15% below the No Project baseline City average total VMT per service population.

As shown in Table 3.12-4, the Project would result in an increase in Project-generated VMT from No Project baseline conditions, which is considered a significant impact for all VMT metrics presented.

The home-based VMT per capita would increase between the No Project and Project conditions in the base year, and the Project VMT per capita (10.8) would be approximately 18 percent above the threshold of 9.1 VMT per capita. The home-based VMT per capita would decrease between the No Project and Project conditions in the future year; however, despite this Project benefit, the VMT per capita (9.6) would be approximately 5 percent above the threshold of 9.1 VMT per capita.

Net total VMT would increase between the No Project and Project conditions in the base and future years, which is the criterion for a significant impact.

The total VMT per service population would decrease between the No Project and Project conditions in the base and future years; however, despite this Project benefit, the VMT per service population (25.6 and 28.9, respectively) would be approximately 8 percent and 22 percent above the current No Project baseline threshold of 23.7 VMT per service population.

It should be noted that under No Project cumulative conditions (e.g., year 2045), some of the proposed population and employment growth was already anticipated; specifically, approximately 32 percent of households and approximately 59 percent of jobs were already assumed in the SCAG 2020–2045 RTP/SCS land use growth forecasts. Therefore, the increase in VMT from No Project baseline to Project baseline is larger than the increase from No Project cumulative to Project cumulative conditions.

Table 3.12-5. City of Riverside Project Effect on VMT Summary

	Threshold	No Project Baseline ¹	Project Baseline ²	No Project Cumulative ³	Project Cumulative ⁴
Link-Level Boundary VMT ⁵	No Project ⁶	5,482,137	5,911,828	8,495,877	8,715,231
Link-Level Boundary VMT per Service Population ⁵	No Project ⁶	12.42	10.83	12.56	11.66

Source: Fehr & Peers 2021.

Bold font indicates a significant impact.

¹ No Project baseline results shown are the City total/average VMT in the model (RIVTAM) base year without the addition of the Project.

² Project baseline results shown are the City total/average VMT in the model (RIVTAM) base year with the addition of the Project land uses.

³ No Project cumulative results shown are the City total/average VMT in the model (RIVTAM) future year without the addition of the Project.

⁴ Project cumulative results shown are the City total/average VMT in the model (RIVTAM) future year with the addition of the Project land uses.

⁵ Boundary VMT presents the sum of all VMT on roadways within the City boundary (e.g., total trips on each roadway segment in the City multiplied by the length of that segment). See text for additional information.

⁶ Threshold is the No Project baseline City for the Project baseline result, and No Project cumulative City for the Project cumulative result.

As shown in Table 3.12-5, the Project's effect on VMT is considered a significant impact for the total link-level boundary VMT, and a less-than-significant impact for the link-level boundary VMT per service population.

The results show that the total link-level VMT within the City boundary would increase with the addition of the Project in the base and future years. Because the Project would increase population and employment within the City, VMT would increase. However, as shown in the table, the VMT per service population would decrease within the City, showing that travel on a per-person basis would be more efficient with the addition of the Project.

Mitigation Measure **MM-TRA-1** would be required to reduce impacts, as the Project would affect the VMT in the City. Given the uncertainty in some components of the measure that influence VMT (such as the cost of fuel) combined with the City's inability to influence other measures that would have the largest effect on VMT (such as implementation of a VMT tax or an increase in the fuel tax), the effectiveness of these TDM measures cannot be guaranteed to reduce impacts and the impact is considered significant and unavoidable.

Implementation of Mitigation Measure **MM-TRA-1** would reduce this impact, but not to less-than-significant levels. The impact would be significant and unavoidable.

Public Safety Element Update and Environmental Justice Policies

The Project also includes an update to the Public Safety Element to incorporate information on natural and human-caused hazards, along with new policies related to environmental justice, climate change, and pandemic preparedness and response, among others. The goal of the City's Public Safety Element is to reduce the potential short- and long-term risk of death, injury, property damage, and economic and social disruption resulting from fires, floods, droughts, earthquakes, landslides, climate change, and other hazards. Other locally relevant safety issues—such as emergency response, hazardous materials spills, crime reduction, and response to global pandemics like COVID-19 beginning in 2020—are included. The Project would not result in conflicts with other land use plans, policies, and regulations (e.g., the SCAG RTP/SCS, the Zoning Code, Specific Plans) or affect VMT. Impacts would be less than significant.

Mitigation Measures

The potential impacts of the Project described in this section would be reduced with implementation of the following mitigation measure.

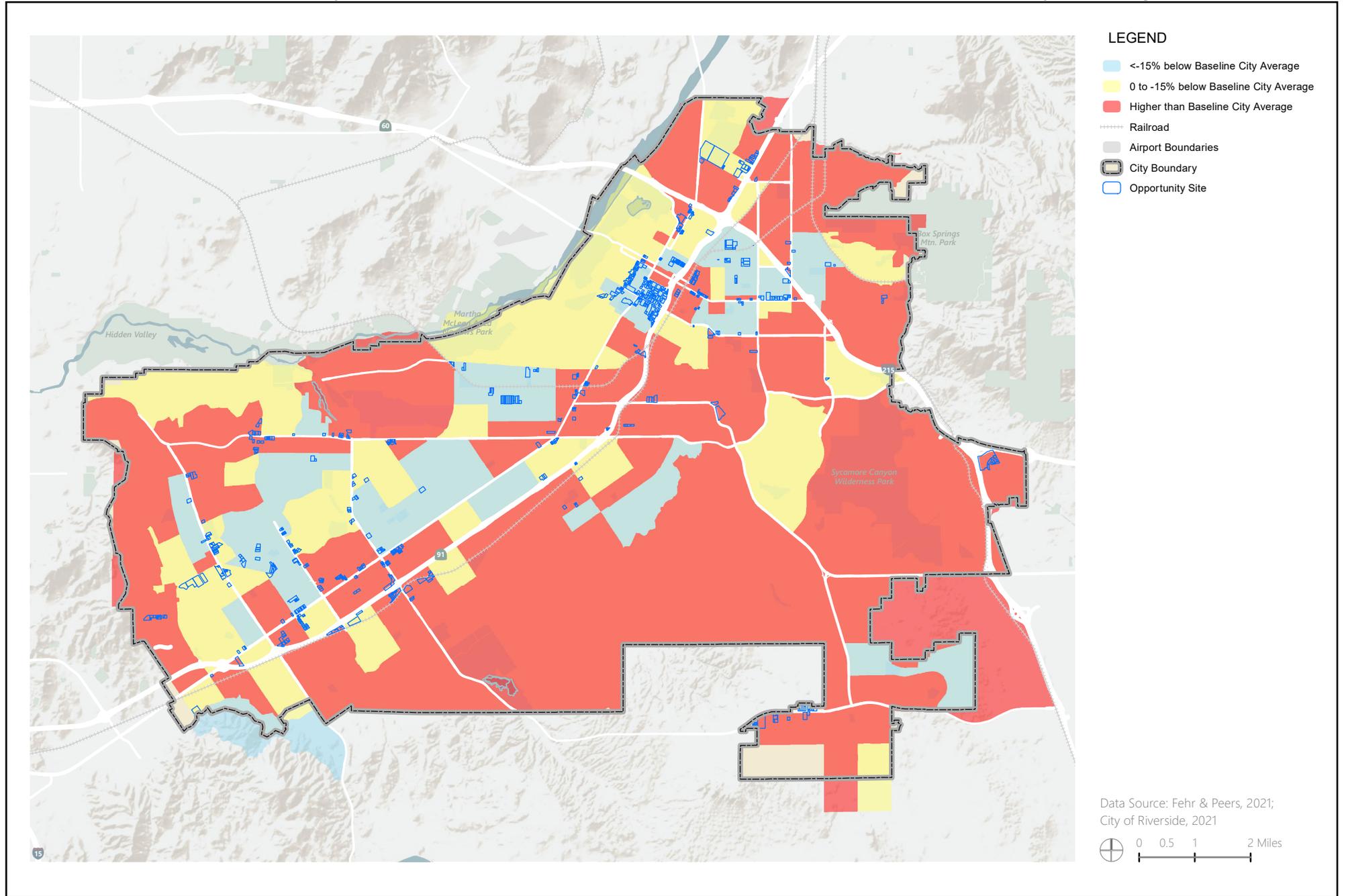
MM-TRA-1: Implement VMT mitigation options.

As individual Opportunity Sites are developed, future development projects shall implement all feasible mitigation measures to reduce VMT.

The amount and type of mitigation needed will vary based on the type and location of projects, as development in some areas of the City will generate VMT that is 15 percent below the existing VMT, some will generate VMT that is 0–15 percent below the City average, and others are in areas with VMT higher than the City average. Figure 3.12-1 shows the VMT per service population for each transportation analysis zone in the City and summarizes these three different efficiency areas of the City.

Figure 3.12-1

Cumulative Build-Out Daily VMT per Service Population Compared to Baseline City Average



Opportunity Site development projects in very efficient areas (e.g., more than 15 percent below the City average) shown in blue on the figure can be presumed not to have a significant VMT impact and would not need any VMT mitigation due to their location efficiency.

Opportunity Site development projects in moderately efficient areas (e.g., between 0 percent and 15 percent below the City average) proposed pursuant to the Project shown in yellow on the figure shall incorporate a moderate amount of VMT mitigation. Potential measures for each individual development include, but are not limited to:

- Consider incorporating affordable housing into the Opportunity Site project (expected range of effectiveness 0.04–1.20 percent VMT reduction).²
- Connect the Opportunity Site project to transit, bicycle, and pedestrian facilities (expected range of effectiveness 0.25–0.5 percent VMT reduction).²
- Provide bicycle parking (expected range of effectiveness 0.05–0.14 percent VMT reduction).²
- Consider unbundling parking costs (expected range of effectiveness 2.6–13.0 percent VMT reduction).²
- Provide car-sharing, bike sharing, or ride-sharing programs (expected range of effectiveness 0.4–15.0 percent VMT reduction).²
- Provide transit passes (expected range of effectiveness 0.3–20.0 percent VMT reduction).²
- Increase Opportunity Site project density up to maximum zoning density to the extent feasible (expected range of effectiveness 0.8–30.0 percent VMT reduction).²
- For Opportunity Site projects that are 2 acres or larger, provide publicly accessible shared-mobility zones.³

Opportunity Site development projects in the least-efficient areas (e.g., higher VMT per service population than the City average) shown in red on the figure shall be subject to the maximum amount of TDM considered feasible in the City. These measures⁴ include, but are not limited to:

- Identify measures for moderately efficient areas.
- Improve or increase access to transit (expected range of effectiveness 0.5–24.6 percent VMT reduction).²
- Increase access to common goods and services, such as groceries, schools, and daycare (expected range of effectiveness 6.7–20.0 percent VMT reduction).²
- Improve pedestrian or bicycle networks or transit service (expected range of effectiveness 0.02–8.2 percent VMT reduction).²

² Expected range of effectiveness in VMT reduction from *Quantifying Greenhouse Gas Mitigation Measures* (CAPCOA 2010). Expected range of effectiveness will vary based on specific project implementation. Measures' effectiveness will dampen as multiple measures are applied together.

³ The California Air Pollution Control Officers Association does not provide an estimated range of effectiveness for shared-mobility zones.

⁴ TDM measures are consistent with those identified in the WRCOG Implementation Pathway Study as documented in the TDM Strategy Assessment (Fehr & Peers 2019).

- For Opportunity Site projects that are 3 acres or larger, provide traffic calming on site in accordance with the Complete Streets Ordinance (expected range of effectiveness 0.25–1.0 percent VMT reduction).²
- Increase connectivity and/or intersection density on the Opportunity Site projects that are 3 or more acres (expected range of effectiveness 3.0–21.3 percent VMT reduction).²

The maximum total reduction potential for suburban development from TDM strategies described above is 15 percent (CAPCOA 2010). Recent research indicates that other factors such as building tenants play a substantial role in maximum TDM reduction potential. For the City, outside of the Downtown core, a maximum TDM reduction potential of between 3 percent and 5 percent is expected.

In addition to onsite TDM measures noted above, Opportunity Sites could potentially contribute to future VMT mitigation fee programs, banks, or exchanges. No regional VMT mitigation programs currently exist; however, if a relevant program that provides VMT mitigation is available through the City, the County of Riverside, or other regional entity, development projects could potentially pay into a fee program or purchase mitigation credits to achieve needed VMT mitigation instead of, or in addition to, onsite TDM measures.

It should be noted that the California Air Resources Board's Scoping Plan has shown that VMT per person has continued to grow throughout California even though the regional 2020–2045 RTP/SCS predicted that VMT would decrease. The Scoping Plan supports two key observations that are relevant to the findings in this EIR:

1. VMT is influenced by a variety of factors that are outside of local land use control and are not sensitive enough in regional travel demand forecasting tools, including the price of fuel, income levels, and auto accessibility, among other factors.
2. California has more ability to influence VMT reduction through legislative action (e.g., VMT tax, increase in fuel tax, vehicle registration fees) than the regional agencies or the City of Riverside Community & Economic Development Department, Planning Division does through their regional planning and local land use authority.

Given the uncertainty in some components that influence VMT (such as the cost of fuel) combined with the City's inability to influence other measures that would have the largest effect on VMT (such as implementation of a VMT tax or an increase in the fuel tax), the effectiveness of these TDM measures cannot be guaranteed to reduce impacts and the impact is considered significant and unavoidable.

Implementation of this measure would reduce this impact, but not to less-than-significant levels. The impact would be significant and unavoidable.

3.13 Tribal Cultural Resources

3.13.1 Introduction

This section describes existing conditions and applicable laws and regulations pertaining to tribal cultural resources (TCRs), with an analysis of the potential impacts on TCRs that could result from implementation of the Project. The analysis and assessment are based on consultation with Native American tribes traditionally and culturally affiliated with the City of Riverside (City), and other cultural resources studies recently conducted by ICF for the City. Refer to Section 3.3, *Cultural Resources*, of this Draft EIR for additional details regarding archaeological and historical resources on the Opportunity Sites. Details on the location of the Project and a description of Project activities are included in Chapter 2, *Project Description*, of this EIR.

A TCR is a site, feature, place, cultural landscape, sacred place, or object that is of cultural value to a recognized Native American tribe. The resource may be in or eligible for listing in the California Register of Historical Resources (CRHR) or a local historic register, or a lead agency may choose to treat a resource as a TCR. The City is near an ethnographic transition zone between the Gabrielino/Tongva, Serrano, Luiseño, and Cahuilla Native American tribes.

3.13.2 Environmental Setting

Natural Setting

The City is in the South Coast subregion of the southwestern California region and within the California Floristic Province (Baldwin et al. 2012). The natural vegetation of the subregion consists primarily of chaparral, sage scrub, annual grasslands, woodland, and riparian scrub and forest. Much of the natural vegetation occurs in preserved open space or fragmented patches in undeveloped areas. Additional detailed environmental setting information is provided in Section 3.3, *Cultural Resources*.

Ethnohistoric Setting

The City is near an ethnographic transition zone between multiple Native American groups, including the Gabrielino/Tongva, Serrano, Luiseño, and Cahuilla. All four groups are speakers of Takic languages, which are part of the Uto-Aztecan linguistic stock. Because the Project, including the boundaries of the City and individual Opportunity Sites, occupies a transitional zone among these groups, it is necessary to consider all four groups to fully understand the occupation history of the City and adjacent region. The ethnographic contexts presented in Section 3.3, *Cultural Resources*, of this report are drawn from ethnographic sources and were often recorded and written by non-Indian authors; they do not necessarily represent the individual perspectives of the Native American tribes that are represented by this Project. Native American groups have occupied this region for many millennia. The City and the surrounding region contains numerous archaeological remnants of this occupation history. A discussion of the archaeological background for this Project is presented in detail in Section 3.3, *Cultural Resources*.

3.13.3 Regulatory Setting

The Project is subject to a number of federal, state, and local regulations that are pertinent to the delineation, treatment, and discussion of TCRs. Detailed discussion of the applicable regulatory statutes are provided in Section 3.3, *Cultural Resources*. Federal statutes that are applicable in some way to the treatment of TCRs include Section 106 of the National Historic Preservation Act, the Native American Graves Protection and Repatriation Act of 1990, and the American Indian Religious Freedom Act. Pertinent state regulations include CEQA and Public Resources Code (PRC) Section 5024.1 (CRHR), Government Code Section 65352.3 (Senate Bill [SB] 18), Assembly Bill (AB) 52, PRC Section 5097, Health and Safety Code Section 7050.5, California Government Code Section 6254(r) and 6254.10, and the California Native American Graves Protection and Repatriation Act of 2001. Local regulatory guidance includes the Historic Preservation Element of the *Riverside General Plan 2025* (GP 2025) (see Table 3.13-1 for specific policies that are applicable for the study of TCRs) and Title 20 (Cultural Resources) of the City of Riverside Municipal Code.

Federal

See Section 3.3, *Cultural Resources*, for federal regulations that pertain to the Project.

State

Government Code Section 65352.3 (Senate Bill 18)

SB 18 requires local governments to consult with tribes prior to making certain planning decisions and to provide notice to tribes at certain key points in the planning process. These consultation and notice requirements apply to approvals and amendments of both general plans (defined in Government Code §65300 et seq.) and specific plans (defined in Government Code §65450 et seq.).

Prior to the approval or any amendment of a general plan or specific plan, a local government must notify the appropriate tribes (on the contact list maintained by the Native American Heritage Commission [NAHC]) of the opportunity to conduct consultations for the purpose of preserving, or mitigating impacts on, cultural places on land within the local government's jurisdiction that is affected by the proposed plan adoption or amendment. Tribes have 90 days from the date on which they receive notification to request consultation, unless a shorter timeframe has been agreed to by the tribe (Government Code §65352.3).

Assembly Bill 52

On September 25, 2014, California Governor Jerry Brown signed into law Assembly Bill (AB) 52, which amended PRC Section 5097.94 and added Sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3 to establish a new category of environmental resources that must be considered under CEQA: TCRs. This amendment took effect on July 1, 2015. TCRs are defined as either (1) sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are included in the CRHR or a local register of historical resources, or that are determined to be eligible for inclusion in the CRHR; or (2) resources determined by the lead agency, in its discretion, to be significant based on the criteria for listing in the CRHR. For projects with applications filed on or after July 1, 2015, lead agencies are also required to consult with California Native American tribes that are traditionally and culturally affiliated with the geographic area of a proposed project, including tribes that may not be federally

recognized, if the tribe requested to the lead agency, in writing, to be informed by the lead agency of proposed projects in that geographic area, and the tribe requests consultation prior to determining whether a negative declaration, mitigated negative declaration, or EIR is required for a project.

Section 6 of AB 52 adds Section 21080.3.2 to the PRC, which states that parties may propose mitigation measures “capable of avoiding or substantially lessening potential significant impacts to a tribal cultural resource or alternatives that would avoid significant impacts to a tribal cultural resource.” Furthermore, if a California Native American tribe requests consultation regarding project alternatives, mitigation measures, or significant effects on TCRs, the consultation must include those topics (PRC Section 21080.3.2(a)). The environmental document and the mitigation monitoring and reporting program (where applicable) must include any mitigation measures that are adopted (PRC Section 21082.3(a)).

Assembly Bill 168

AB 168 became law on September 25, 2020. AB 168 amends Sections 65400, 65913.4, and 65941.1 of the Government Code and was written to address an “oversight” in SB 35 (Chapter 366 of the Statutes of 2017) that did not consider potential destruction of TCRs that are either listed on registers or are potential TCRs. SB 35 provides for a streamlined ministerial approval process of multi-family housing. AB 168 requires projects applying for SB 35 approval to submit a notice of intent to submit an application, which includes a preliminary application. AB 168 provides requirements for the local agency to engage in scoping consultation with Native American tribes for projects seeking review under the ministerial approval process outlined in SB 35. Local agencies must engage in consultation with Native American tribes traditionally and culturally affiliated with the geographic area of the project, and contact the NAHC to assist in identifying the appropriate Native American tribe(s) for consultation. The consultation must proceed on a timeline whereby the local government formally notifies each tribe within 30 days of receiving the preliminary application, the tribe has 30 days to accept the invitation to engage in consultation, and the local government must initiate consultation within 30 days of the tribe’s acceptance. CEQA does not apply to the consultation process (Government Code 65913.(b)(1)(E)).

If the parties in consultation agree that there is no potential impact on TCRs as a result of the project, then the proponent may submit an application for a ministerial approval per SB 35. If a potential impact on TCRs is identified through consultation, then a mutually accepted agreement must be made that identifies methods and conditions for treatment of TCRs. The agreement is a condition of approval for the project application under SB 35. Tribal consultation concludes upon the documentation of an agreement for how TCRs will be treated at the project site (if present) or if the parties in consultation, acting in good faith and after a reasonable effort, conclude that a mutual agreement cannot be reached. If consulting parties do not reach an agreement for treatment of TCRs, then the project proponent is not eligible for ministerial approval under AB 35.

To qualify for SB 35 ministerial approval the following conditions must be met:

- A tribe that has received notice of a project proponent’s submission of a pre-application does not respond to the invitation for consultation within 30 days.
- A tribe accepts the invitation to conduct consultation, but does not engage the local agency after repeated attempts by the location agency.

- The consultation between the tribe(s) and the local agency agrees that there is no potential harm to TCRs that will result from the proposed project.
- Consultation has identified potential impacts on TCRs, and an agreement has been documented that provides the methods for treatment of the potentially affected TCRs.

If after consultation it is determined that no TCRs would be affected by the project, then no further documentation is necessary. If an agreement between a tribe and the lead agency is reached for treatment of potentially affected TCRs, then that agreement must be attached to the approved application for SB 35 ministerial exemption. If consultation results in denial of the project for SB 35 ministerial approval, the local agency must provide written documentation of the explanation of the project’s denial to the project proponent and the tribe(s) participating in consultation. If changes are made to the project after consultation has been closed, then the local agency must engage in additional, subsequent consultation.

A project will not be eligible for SB 35 streamlined ministerial process if:

- There is a TCR present that is on a national, state, tribal, or local historic register.
- There is a potential TCR that could be affected by the proposed project and the consulting parties cannot reach an agreement on the treatment of the TCR.
- Consulting parties do not agree as to whether a potential TCR will be affected by the project.

Local

Riverside General Plan 2025

GP 2025 aims to “provide guidance in developing and implementing activities that ensure that the identification, designation, and protection of cultural resources are part of the City’s community planning development and permitting processes” (City of Riverside 2012). The Historic Preservation Element acknowledges that the California Office of Historic Preservation State Historic Preservation Officer has recognized Riverside’s historic preservation program with a designation as a Certified Local Government. The Historic Preservation Element provides historic context with themes important for identifying and evaluating cultural resources within the City.

Table 3.13-1. Relevant Riverside General Plan and Specific Plan Policies

Plan	Policy
Riverside General Plan 2025	
Historic Preservation Element	<p>Policy HP-1.3: The City shall protect sites of archaeological and paleontological significance and ensure compliance with all applicable state and federal cultural resources protection and management laws in its planning and project review process.</p> <p>Policy HP-2.1: The City shall actively pursue a comprehensive program to document and preserve historic buildings, structures, districts, sites (including archaeological sites), objects, landscapes, and natural resources.</p> <p>Policy HP-2.3: The City shall provide information to citizens, and the building community about what to do upon the discovery of archaeological resources and burial sites, as well as, the treatment, preservation, and repatriation of such resources.</p>

Plan	Policy
	<p>Policy HP-4.3: The City shall work with the appropriate tribe to identify and address, in a culturally appropriate manner, cultural resources and tribal sacred sites through the development review process.</p> <p>Policy HP-7.1: The City shall apply code enforcement, zoning actions, and building safety/construction regulations as tools for helping to protect cultural resources.</p> <p>Policy HP-7.2: The City shall incorporate preservation as an integral part of its specific plans, general plan, and environmental processes.</p>
Specific Plans	
Canyon Springs Business Park Specific Plan	There are no applicable policies relevant to the Project regarding TCRs.
Downtown Specific Plan	There are no applicable policies relevant to the Project regarding TCRs.
Hunter Business Park Specific Plan	There are no applicable policies relevant to the Project regarding TCRs.
La Sierra University Specific Plan	There are no applicable policies relevant to the Project regarding TCRs.
Magnolia Avenue Specific Plan	There are no applicable policies relevant to the Project regarding TCRs.
Riverside Marketplace Specific Plan	There are no applicable policies relevant to the Project regarding TCRs.
University Avenue Specific Plan	There are no applicable policies relevant to the Project regarding TCRs.

Source: City of Riverside 1991, 2002, 2005, 2007, 2009, 2012, 2017a, 2017b.

Policy Consistency

The Project would be consistent with GP 2025 Historic Preservation Element policies related to TCRs as listed in Table 3.13-1 because it complies with state laws and the Cultural Resources Ordinance aimed at identifying and protecting cultural resources and TCRs.

3.13.4 Methodology and Thresholds of Significance

Efforts to identify TCRs included a Sacred Lands File search with the NAHC and invitations to Native American tribes to consult on the EIR pursuant to AB 52 and SB 18.

Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential significant impacts on TCRs, and reduce the potential for delay and conflict in the environmental review process (see PRC Section 21083.3.2). Information may also be available from the NAHC’s Sacred Lands File per PRC Section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that PRC Section 21082.3(c) contains provisions specific to confidentiality.

On the City’s behalf, ICF contacted the NAHC on January 25, 2021, requesting a search of the Sacred Lands File and a listing of potentially interested Native American groups and individuals. The NAHC responded on February 8, 2021, stating that the search was positive. While the NAHC did not identify the locations of any resources, it recommended contacting the Gabrieleño Band of Mission

Indians – Kizh Nation and the Los Coyotes Band of Cahuilla and Cupeño Indians for additional information. Additionally, the NAHC provided a list of 31 Native Americans who may also have knowledge of cultural resources in the City.

The City sent the NAHC a Notice of Preparation (NOP) of a Draft EIR on April 5, 2021. The NAHC responded to the City on April 6, 2021, confirming receipt of the NOP and providing applicable CEQA, AB 52, and SB 18 regulatory language and recommending that a search of the Sacred Lands File be conducted.

As part of the effort to determine whether the Project may result in impacts on TCRs, the City sent letters on April 1, 2021, via email and certified U.S. Mail, to the tribes listed below in Table 3.13-2 as formal notification of the Project and to invite them to consult on the Project under AB 52 and SB 18:

Table 3.13-2. List of Tribes Sent AB 52 and/or SB 18 Letters

Tribe	Representative	AB 52	SB 18
Agua Caliente Band of Cahuilla Indians	Jeff Grubbe - Chairperson	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Agua Caliente Band of Cahuilla Indians Tribal Historic Preservation Office	Patricia Garcia-Plotkin – Director, Tribal Historic Preservation Office		<input checked="" type="checkbox"/>
Augustine Band of Cahuilla Indians	Amanda Vance -Chairperson		<input checked="" type="checkbox"/>
Cabazon Band of Mission Indians	Doug Welmas – Chairperson		<input checked="" type="checkbox"/>
Cahuilla Band of Indians	Daniel Salgado - Chairperson		<input checked="" type="checkbox"/>
Cahuilla Band of Indians	Bobby Ray Esparza – Cultural Coordinator	<input checked="" type="checkbox"/>	
Gabrieleño Band of Mission Indians - Kizh Nation	Andrew Salas - Chairperson	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Gabrieleno/Tongva San Gabriel Band of Mission Indians	Anthony Morales – Chairperson	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Gabrielino Tongva Indians of California Tribal Council	Robert Dorame – Tribal Chair, Cultural Resources		<input checked="" type="checkbox"/>
Gabrielino/Tongva Nation	Sandonne Goad - Chairperson		<input checked="" type="checkbox"/>
Gabrielino-Tongva Tribe	Charles Alvarez - Chairperson		<input checked="" type="checkbox"/>
Juaneno Band of Mission Indians Acjachemen Nation	Joyce Perry – Tribal Manager		<input checked="" type="checkbox"/>
Juaneno Band of Mission Indians Acjachemen Nation	Matias Belardes – Chairperson		<input checked="" type="checkbox"/>
Los Coyotes Band of Cahuilla and Cupeño Indians	Shane Chapparosa - Chairperson		<input checked="" type="checkbox"/>
Morongó Band of Mission Indians	Robert Martin - Chairperson	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Morongó Band of Mission Indians	Denisa Torres – Cultural Resources Manager		<input checked="" type="checkbox"/>
Pala Band of Mission Indians	Shasta Gaughen, PhD – Tribal Historic Preservation Officer		<input checked="" type="checkbox"/>
Pechanga Band of Luiseño Indians	Mark Macarro - Chairperson		<input checked="" type="checkbox"/>
Pechanga Band of Luiseño Indians	Paul Macarro – Cultural Resources Coordinator		<input checked="" type="checkbox"/>
Pechanga Cultural Resources Department	Ebru T. Ozdil – Planning Specialist	<input checked="" type="checkbox"/>	
Quechan Tribe of the Fort Yuma Reservation	Manfred Scott – Acting Chairman		<input checked="" type="checkbox"/>

Tribe	Representative	AB 52	SB 18
Quechan Tribe of the Fort Yuma Reservation	Jill McCormick – Tribal Historic Preservation Officer		<input checked="" type="checkbox"/>
Ramona Band of Cahuilla	Joseph Hamilton Chairperson		<input checked="" type="checkbox"/>
Ramona Band of Cahuilla	John Gomez – Environmental Coordinator		<input checked="" type="checkbox"/>
Rincon Band of Luiseño Indians	Bo Mazzetti - Chairperson		<input checked="" type="checkbox"/>
Rincon Band of Mission Indians	Cheryl Madrigal – Tribal Historic Preservation Officer	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
San Manuel Band of Mission Indians	Jessica Mauck – Director of Cultural Resources Management	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Santa Rosa Band of Cahuilla Indians	Lovina Redner - Chairperson		<input checked="" type="checkbox"/>
Serrano Nation of Mission Indians	Wayne Walker – Co-Chairperson		<input checked="" type="checkbox"/>
Serrano Nation of Mission Indians	Mark Cochrane – Co-Chairperson		<input checked="" type="checkbox"/>
Soboba Band of Luiseno Indians	Scott Cozart - Chairperson		<input checked="" type="checkbox"/>
Soboba Band of Luiseno Indians	Joseph Ontiveros – Cultural Resource Director	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Torres-Martinez Desert Cahuilla Indians	Mary Resvaloso - Chairperson		<input checked="" type="checkbox"/>

At the time of this report, six tribes responded to invitation to consult letters from the City. Table 3.13-3 below presents the results of consultation to this point.

Table 3.13-3. Native American Consultation

Tribe	Response Date	Response
San Manuel Band of Mission Indians – Ryan Nordness (Cultural Resources Analyst)	April 13, 2021	The tribe initially requested consultation, then declined. Upon clarification requests from the City, the tribe decided to consult. Consultation occurred between the City and San Manuel.
	June 23, 2021	The tribe requested to close out consultation with the City.
Pechanga Band of Luiseño Indians – Juan Ochoa (Assistant Tribal Historic Preservation Officer)	April 14, 2021	The tribe formally requested consultation under SB 18. The tribe also requested notification and involvement in the entire CEQA environmental review process for the duration of the Project. The tribe indicated that the area is culturally sensitive and identified types of resources that exist within the City that could be considered TCRs.
Gabrieleño Band of Mission Indians – Kizh Nation - Brandy Salas (Administrative Specialist)	April 22, 2021	The tribe has stated that there is no need for consultation because no ground disturbance will take place. If ground disturbance occurs in the future, the tribe would like to consult.
Agua Caliente Tribal Historic Preservation Office - Lacy Padilla (Archaeologist)	May 7, 2021	The tribe stated that the City is not within the boundaries of the Agua Caliente Band of Cahuilla Indians Reservation but is within the tribe's Traditional Use Area. The tribe requested copies of any cultural resources documentation generated in connection with the Project.

Tribe	Response Date	Response
Soboba Band of Luiseño Indians – Joseph Ontiveros (Tribal Historic Preservation Officer)	June 15, 2021	Although the Project is outside of the existing reservation, the City falls within the bounds of the Tribal Traditional Use Areas. The Project is in proximity to known sites, is a shared use area that was used in ongoing trade between tribes, and is considered to be culturally sensitive by the people of Soboba. The tribe requests government-to-government consultation and that Native American monitor(s) be present during any ground-disturbing activities, including surveys and archaeological testing.
Rincon Band of Luiseño Indians – Cheryl Madrigal (Tribal Historic Preservation Officer)	May 7, 2021	The tribe stated that the Project is not within the boundaries of the reservation; however it is within the tribe's Traditional Use Area. The tribe requested consultation. Consultation between the City and the tribe was conducted.
	July 7, 2021	The tribe requested to close out consultation with the City.

At the time of this writing, responses to requests for consultation have not been received from the Cahuilla Band of Indians, the Morongo Band of Mission Indians, or the San Gabriel Band of Mission Indians. The period for responses to the City's request for consultation ended on June 29, 2021.

Thresholds of Significance

In accordance with Appendix G of the State CEQA Guidelines, the Project would be considered to have a significant effect if it would:

- Cause a substantial adverse change in the significance of a TCR, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is listed or eligible for listing in the CRHR or in a local register of historical resources as defined in PRC Section 5020.1(k)
- Cause a substantial adverse change in the significance of a TCR, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

3.13.5 Impacts and Mitigation Measures

Impact TCR-1: The Project could cause a substantial adverse change in the significance of a tribal cultural resource that has cultural value to a California Native American tribe and that is listed or eligible for listing in the California Register of Historical Resources or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k). Implementation of Mitigation Measures MM-CUL-2 through MM-CUL-9, MM-TCR-1, and MM-TCR-2 would reduce this impact to less-than-significant levels.

Housing Element Update, Zoning Code Amendments, and Environmental Justice Policies

Opportunity Sites selected by the City are distributed throughout Riverside. Using data from citywide records searches, Applied EarthWorks, Inc. (2007) conducted an archaeological sensitivity analysis, as described in the *Cultural Resources Study for the City of Riverside General Plan 2025 Update Program EIR*. Through this analysis, areas of high, medium, low, and unknown sensitivity were identified within the city limits. Substantial portions of the City were identified as unknown due to a lack of archaeological survey in these areas. Because Opportunity Site-specific records searches were not conducted for this analysis, the results of the 2007 study were used for analytical purposes. It is likely that numerous archaeological studies have taken place since this study was conducted 15 years ago, so a similar study with current data may yield slightly different results. However, this work can be viewed as a proxy for understanding relative archaeological sensitivity throughout the City and at Opportunity Sites. In Section 3.3 (Figure 3.3-2), the results of the Applied Earthworks study are overlain with the locations of Opportunity Sites in the City. The results of this analysis are presented in Section 3.3 (Table 3.3-2) in terms of total acreage and numbers of Opportunity Sites within the sensitivity categories defined by Applied Earthworks.

Most of the Opportunity Sites identified for this Project are in areas of unknown archaeological sensitivity, while a smaller number of these sites are in areas of low to high archaeological sensitivity. The locations with unknown archaeological sensitivity are areas where archaeological studies had not been conducted at the time of the 2007 study. It is likely that many archaeological surveys have been conducted throughout the City since the Applied Earthworks study, and many additional archaeological sites have been recorded and evaluated. Because the Opportunity Sites under the proposed Housing Element Update are situated throughout the City in mostly urban and developed areas and in mostly unsurveyed areas, the potential for Opportunity Sites to encounter archaeological resources is unknown. Some prehistoric resources may be considered TCRs and can include sites, features, and objects that are listed in the CRHR, eligible to be listed in the CRHR, or locally listed as defined in PRC Section 5020.1(k). Future cultural resource studies at Opportunity Site locations (see Mitigation Measure **MM-CUL-2**) could identify both archaeological resources and/or TCRs through survey and consultation with Native American tribes.

The City has provided information about the Project to nine tribes who have requested formal notification in accordance with AB 52 and 31 individuals in accordance with SB 18. Six tribes have responded to AB 52 consultation requests. The Pechanga Band of Luiseño Indians, the Rincon Band of Luiseño Indians, the Soboba Band of Luiseño Indians, and the San Manuel Band of Mission Indians requested formal consultation. Additionally, Pechanga and Soboba indicated that the area is

culturally sensitive and identified types of resources that exist in the City that could be considered TCRs, although the specific locations of such resources were not provided. Therefore, it is unknown whether such resources are listed or eligible for listing in the CRHR or in a local register of historical resources as defined in PRC Section 5020.1(k). It is likely, however, that resources such as those described by Pechanga (e.g., rock art, pictographs, petroglyphs) would be considered eligible TCRs and are likely to be identified as such. Additionally, the NAHC has identified the City as being positive for Sacred Lands, although the locations are unspecified. The NAHC recommended contacting the Gabrieleño Band of Mission Indians – Kizh Nation and the Los Coyotes Band of Cahuilla and Cupeño Indians for additional information. Through continued consultation with tribes on a project-specific basis and implementation of Mitigation Measure **MM-CUL-2**, it is possible that the City will be able to determine whether specific Opportunity Sites overlap with known locations of TCRs.

Development of Opportunity Sites would potentially include the excavation of soils in undeveloped (vacant) areas and demolition of existing structures in developed areas. Excavation and demolition activities, particularly those that involve disturbance of previously unexcavated native soil, could result in the discovery of previously unidentified resources that might be considered TCRs. At least one tribe has described the presence of resources that could be considered TCRs in the City. Therefore, ground-disturbing activities could result in disturbance or destruction of TCRs, which would be a potentially significant impact. For Opportunity Site projects that are not eligible for the ministerial approval process (and not projects per CEQA), and with continued consultation with Native American tribes, implementation of Mitigation Measures **MM-CUL-2** through **MM-CUL-9** (presented in Section 3.3, *Cultural Resources*), **MM-TCR-1**, and **MM-TCR-2** would reduce this impact to less-than-significant levels.

Public Safety Element Update and Environmental Justice Policies

The Public Safety Element Update policies and implementing actions address natural and human-caused hazards; transportation hazards; police, fire, and emergency services; pandemic preparedness and response; homelessness; climate change; and other safety issues. These policies would not enable future development and they would not demolish, physically alter, or otherwise diminish the integrity of a TCR. No specific infrastructure improvements or projects are identified in the Public Safety Element Update. As this is a policy document, this update would not cause a substantial adverse change in the significance of a TCR. Policies related to environmental justice under the proposed Public Safety Element Update would not involve future development or the construction of new development (housing, public safety infrastructure, and mixed-use development). Rather, these policies describe treatment of hazardous materials associated with contaminated sites within environmental justice communities; access to affordable housing, health care, and emergency services; consideration of the needs of environmental justice communities in planning for emergency response and recovery; health implications for land use decisions that could involve hazardous uses; and the potential for vehicular and pedestrian accidents in underserved areas.

Policy HP-EJ-1.0, proposed for incorporation within the existing Historic Preservation Element of GP 2025, encourages the identification and preservation of historic and cultural resources associated with communities whose histories and historical contributions are not well documented. This policy could result in the preservation of a particular archaeological resource (prehistoric or historic period in age), and, by extension, TCRs. Rather than being destructive, this policy would work to preserve archaeological resources (and TCRs) if it is enacted and would not result in ground

disturbance. Therefore, this policy would not cause a substantial adverse change in the significance of a TCR.

Mitigation Measures

The potential impacts of the Project described in this section would be reduced to less-than-significant levels with implementation of the following mitigation measures.

Implementation of Mitigation Measures **MM-CUL-2** through **MM-CUL-9** (described in Section 3.3, *Cultural Resources*) would reduce potential impacts on TCRs to less-than-significant levels.

- MM-CUL-2: Conduct an archaeological study.
- MM-CUL-3: Avoid archaeological sites through establishment of Environmentally Sensitive Areas (ESAs).
- MM-CUL-4: Develop and implement an Archaeological Treatment Plan (ATP) for evaluation of newly discovered and/or unevaluated archaeological resources.
- MM-CUL-5: Implement data recovery for CRHR-eligible sites that cannot be avoided.
- MM-CUL-6: Retain an on-call archaeologist for monitoring.
- MM-CUL-7: Conduct archaeological and Native American monitoring.
- MM-CUL-8: Employ procedures for treatment and disposition of cultural resources.
- MM-CUL-9: Conduct cultural sensitivity training.

MM-TCR-1: Implement tribal cultural resources protocols and measures determined through consultation.

During project-level CEQA review, when required, of Opportunity Site projects that would cause a substantial adverse change in the significance of a TCR, the City can and should develop project-level protocols and mitigation measures with consulting tribes, consistent with PRC Section 21080.3.2(a), to avoid or reduce impacts on TCRs during construction and operation of future development projects. Individual project proponents shall fund the effort to identify these resources through records searches, survey, consultation, or other means, to develop minimization and avoidance methods where possible and to consult with Native American tribes participating in AB 52 consultation to develop mitigation measures for TCRs that may experience substantial adverse changes.

In the absence of any specific mitigation measures developed during AB 52 consultation, the City shall develop standard mitigation measures set forth in PRC Section 21084.3(b).

The following are standard mitigation measures for TCRs.

1. Avoid and preserve the resources in place including, but not limited to, planning and constructing to avoid the resources and protect the cultural and natural context, or planning greenspace, parks, or other open space to incorporate the resources with culturally appropriate protection and management criteria.
2. Treat the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to:

- a. Protecting the cultural character and integrity of the resource
- b. Protecting the traditional use of the resource
- c. Protecting the confidentiality of the resource
- d. Creating permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or using the resources or places
- e. Protecting the resource

MM-TCR-2: Conduct consultation with City and applicant.

Prior to grading permit issuance, if there are any changes to project site design and/or proposed grades, the applicant or project sponsor and the City shall contact consulting tribes to provide an electronic copy of the revised plans for review. Additional consultation shall occur among the City, applicant, and consulting tribes to discuss any proposed changes and review any new impacts and/or potential avoidance/preservation of the cultural resources on the individual development sites. The City and the applicant shall make all attempts to avoid and/or preserve in place as many cultural and paleontological resources as possible on the individual development site if the site design and/or proposed grades should be revised. In the event of inadvertent discoveries of archaeological resources, work shall temporarily halt until agreements are executed with consulting tribes to provide tribal monitoring for ground-disturbing activities.

Impact TCR-2: The Project could cause a substantial adverse change in the significance of a tribal cultural resource that has cultural value to a California Native American tribe and that is a resource determined by the lead agency to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. Implementation of Mitigation Measures MM-CUL-2 through MM-CUL-9, MM-TCR-1, and MM-TCR-2 would reduce this impact to less-than-significant levels.

Housing Element Update, Zoning Code Amendments, and Environmental Justice Policies

As discussed above, the development of Opportunity Sites has the potential to encounter prehistoric archaeological resources that could be considered or have elements that could be considered TCRs. A determination would have to be made on a project-by-project basis as to whether an Opportunity Site has any known TCRs; however, it is possible that ground-disturbing activities could result in the discovery of previously unknown TCRs as well.

As stated above, no TCRs have been identified specifically for the Project; however, at least one tribe has discussed types of resources that could be considered TCRs within the City. In addition, the NAHC has identified the City as being positive for Sacred Lands and has suggested the City conduct additional consultation with Native American tribes to gather more information about them. Resources listed as Sacred Lands are likely to be considered TCRs, and the delineation of the locations of such resources would be necessary prior to construction activities at any one

Opportunity Site. Additionally, because the Project could result in impacts on prehistoric archaeological sites that might be considered TCRs or have elements that might be considered TCRs, it is possible that individual projects could cause a substantial adverse change in the significance of a TCR with value to a California Native American tribe and that is a resource determined by the lead agency to be significant.

Not all tribes responded to the City's invitation to consult under AB 52 and SB 18, and the period to request consultation ended on June 29, 2021. During individual project-by-project CEQA analysis and/or consultation under AB 168 (for ministerial projects), it is possible locations of individual TCRs can be delineated and a determination can be made as to whether TCRs would be affected. As such, any ground-disturbing activities associated with proposed development of Opportunity Sites that have not had a cultural resources study at them within the past 5 years could cause a substantial adverse change in the significance of a TCR that has cultural value to a California Native American tribe and that is a resource determined by the lead agency to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. For Opportunity Site projects that are not eligible for the ministerial approval process (and not projects per CEQA), and through continued consultation with Native American tribes, implementation of Mitigation Measures **MM-CUL-2** through **MM-CUL-9** (listed in Section 3.3, *Cultural Resources*), **MM-TCR-1**, and **MM-TCR-2** would reduce these impacts to less-than-significant levels. These mitigation measures would ensure that the project applicant is aware of the potential of TCRs on individual Opportunity Sites; additionally, these mitigation measures provide procedures for implementing proper cultural resource studies, consultation, unanticipated discovery procedures, preservation in place (if possible), and methods for identification, evaluation, and treatment of resources (including TCRs) if necessary such that potential impacts on TCRs are reduced to a level that is less than significant.

Public Safety Element Update and Environmental Justice Policies

As presented previously, the Public Safety Element Update policies and implementing actions address natural hazards; transportation hazards; police, fire, and emergency services; pandemic preparedness and response; homelessness; climate change; and other safety issues. However, no specific infrastructure improvements or projects are identified in the Public Safety Element Update. As this is a policy document, this update would not cause a substantial adverse change in the significance of a TCR that has cultural value to a California Native American tribe and that is a resource determined by the lead agency to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. Policies related to environmental justice under the proposed Public Safety Element Update would not involve future development or the construction of new development (housing, public safety infrastructure, and mixed-use). Rather, these policies describe treatment of hazardous materials associated with contaminated sites within environmental justice communities; access to affordable housing, health care, and emergency services; consideration of the needs of environmental justice communities in planning for emergency response and recovery; health implications for land use decisions that could involve hazardous uses; and the potential for vehicular and pedestrian accidents in underserved areas.

Policy HP-EJ-1.0 encourages the identification and preservation of historic and cultural resources associated with communities whose histories and historical contributions are not well documented. This policy could result in the preservation of a particular archaeological resource (prehistoric or historic period in age) and, by extension, TCRs. Rather than being destructive, this policy would work to preserve archaeological resources (and TCRs) if it is enacted and would not result in ground

disturbance. Therefore, this policy would not cause a substantial adverse change in the significance of a TCR.

Mitigation Measures

The potential impacts of the Project described in this section would be reduced to less-than-significant levels with implementation of the following mitigation measures.

Implementation of Mitigation Measures **MM-CUL-2** through **MM-CUL-9** (described in Section 3.3, *Cultural Resources*), **MM-TCR-1**, and **MM-TCR-2** (described under Impact TCR-1) would reduce potential impacts on TCRs to less-than-significant levels.

- MM-CUL-2: Conduct an archaeological study.
- MM-CUL-3: Avoid archaeological sites through establishment of Environmentally Sensitive Areas (ESAs).
- MM-CUL-4: Develop and implement an Archaeological Treatment Plan (ATP) for evaluation of newly discovered and/or unevaluated archaeological resources.
- MM-CUL-5: Implement data recovery for CRHR-eligible sites that cannot be avoided.
- MM-CUL-6: Retain an on-call archaeologist for monitoring.
- MM-CUL-7: Conduct archaeological and Native American monitoring.
- MM-CUL-8: Employ procedures for treatment and disposition of cultural resources.
- MM-CUL-9: Conduct cultural sensitivity training.
- MM-TCR-1: Implement tribal cultural resources protocols and measures determined through consultation.
- MM-TCR-2: Conduct consultation with City and applicant.

3.14 Utilities and Service Systems

3.14.1 Introduction

This section discusses the environmental and regulatory setting of utilities and service systems for the Project and provides an analysis of potential impacts that could occur with implementation of the Project. The analysis examines the degree to which the Project may result in changes to utility and service system demands in the City of Riverside (City) and includes analysis of potential impacts. Analysis methods, data sources, significance thresholds, and terminology used in this section are described. This section discusses the existing conditions and assesses the potential Project impacts. Mitigation measures to avoid or lessen potential impacts are identified, where necessary. Details on the location of the Project and a description of Project activities are included in Chapter 2, *Project Description*, of this EIR.

3.14.2 Environmental Setting

Water

The Riverside Public Utilities (RPU) water service area covers the majority of customers within the City boundaries, with the exception of a small southeasterly area, known as the Orangecrest community, which is within Western Municipal Water District's (WMWD's) service area, and a small easterly area within Eastern Municipal Water District's service area. Additionally, RPU provides water service to customers within a small portion of the city of Corona and Home Gardens (a census-designated community in Riverside County), generally from the City of Riverside boundary to the Magnolia Avenue and McKinley Street intersection.

In general, the City's northerly portion is within the RPU service area, while the southeasterly portion is within the WMWD service area.

Riverside Public Utilities

Water Sources and Supplies

RPU adopted its latest Urban Water Management Plan (UWMP) in June of 2016, which summarizes water demands by sector and characterizes the source waters available to meet those demands for the years 2020 through 2040. The purpose of the UWMP is to improve sustainability by managing the quantity and quality of groundwater resources. Water for the City is mainly supplied by RPU. RPU supplied 18,345 million gallons of water for its in-service area retail customers (750 million gallons wholesale) through more than 66,000 connections to over 331,000 people within its 68-square-mile service area in 2020 (RPU 2021b). The City extracts domestic water from the Bunker Hill, Riverside North, and Riverside South groundwater basins through wells operated by RPU and the Gage Canal Company. Forty-six wells then pump water from the aquifers to treatment plants, reservoirs, and customers and around the City through more than 951 miles of transmission and distribution pipelines. RPU's potable distribution system delivers water to RPU retail customers, the Home Gardens County Water District, WMWD, and the city of Norco. RPU's non-potable canal system delivers water to the Gage Canal Company and WMWD. All of RPU's customers are metered.

Additionally, RPU uses non-potable recycled water from the Riverside Regional Water Quality Control Plant (RWQCP). The RWQCP is in the City at 5959 Acorn Street, and provides preliminary, primary, secondary, and tertiary wastewater treatment in addition to recycled water infrastructure. The RWQCP is operated and maintained by the City's Public Works Department.

RPU's water supply consists primarily of local groundwater, with 60 percent originating from the Bunker Hill Basin, which is bounded on the northwest by the San Gabriel Mountains, on the northeast by the San Bernardino Mountains, and on the south by the Crafton Hills and the Badlands. RPU's wells at Bunker Hill Basin are generally located in the section of the basin with the greatest thickness of water-bearing layers. Therefore, RPU's water supply from the Bunker Hill Basin is considered reliable during single- and multi-year dry periods (RPU 2016). RPU also extracts groundwater from the Riverside North and Riverside South sub-basins and the Rialto-Colton Basin. None of these basins are currently in a critical overdraft condition (RPU 2016).

Additionally, RPU has the ability to purchase State Water Project water from WMWD through a connection at the Metropolitan Water District of Southern California's Henry J. Mills Treatment Plant. Up to 30 cubic feet per second or 19.4 million gallons per day (mgd) of imported water can be purchased from Metropolitan Water District through an existing agreement and conveyed through existing infrastructure. However, RPU has implemented several measures to maximize the use of local water resources and eliminate reliance on imported water, and this connection has not been utilized since 2008. According to Table 7-8 in the UWMP, eight water supply projects have been identified by RPU to maximize use of local water resources. For example, RPU intends to augment natural groundwater resources at Bunker Hill Basin Groundwater Banking Project through conjunctive-use projects as well as develop other forms of conservation to increase water supply reliability (e.g., recycled water) (RPU 2016).

Planned Sources of Water

The UWMP describes the reliability of RPU's water supplies and discusses RPU's water shortage contingency plan during a catastrophic event or drought conditions. Table 3.14-1 identifies the RPU UWMP water supplies for planning years 2020 to 2040. The RPU UWMP accounts for population growth as a result of development within the remaining vacant land, increased density within areas already developed as part of *Riverside General Plan 2025 (GP 2025)*, and water demand associated with growth and expansion at University of California Riverside and Cal Baptist University. According to the RPU UWMP, the City's conservation and long-range planning efforts have made it such that identified supplies exceed demands through planning year 2040.

As shown in Table 3.14-1, the RPU UWMP projects supplying 124,703 acre-feet (AF) (40,634 million gallons) of water by 2040 to meet increasing demand under anticipated build-out from GP 2025. In 2015, RPU received 75,126 AF of water from two sources: approximately 99 percent (74,926 AF) was local groundwater supplies and less than 1 percent (200 AF) was recycled water from the RWQCP (RPU 2016). All of RPU's groundwater is retrieved from the Bunker Hill and Riverside Basins (City of Riverside 2017a).

Table 3.14-1. Riverside Public Utility Actual and Projected Water Supply

Water Supply	Water Supply Source	2015	2020	2025	2030	2035	2040
		Actual					
Groundwater	Bunker Hill	53,793	55,263	55,263	55,263	55,263	55,263
Groundwater	Banking Bunker Hill Conjunctive Use	0	0	2,000	2,000	2,000	2,000
Groundwater	Seven Oaks Enhanced Phase II	0	1,000	1,000	1,000	1,000	1,000
Groundwater	Bunker Hill Active Recharge 2025	0	0	1,500	1,500	1,500	1,500
Groundwater	Riverside North	6,357	10,902	10,902	10,902	10,902	10,902
Groundwater	Riverside North Aquifer Storage and Recovery Project	0	2,000	2,000	2,000	2,000	2,000
Groundwater	Riverside South	13,571	16,880	16,880	16,880	16,880	16,880
Groundwater	Box Springs	0	0	0	2,800	2,800	2,800
Groundwater	Columbia, Etc. Stormwater	0	0	1,500	1,500	1,500	1,500
Groundwater	Rialto-Colton	1,205	2,728	2,728	2,728	2,728	2,728
Groundwater	RWQCP	200	6,430	6,430	6,430	6,430	6,430
Recycled Water	From WMWD	0	21,700	21,700	21,700	21,700	21,700
Total		75,126	116,903	121,903	124,703	124,703	124,703

Source: RPU 2016.
Units shown in acre-feet (AF)

RPU has historically met water demand from groundwater sources and imported water has only been purchased during the peak demand months when needed (RPU 2016). According to RPU's UWMP and as shown in Table 3.14-2, RPU's identified water supplies exceed estimated demand projections through 2040 under normal and multiple-dry-year conditions but may result in a shortage under 2040 single dry-year conditions (RPU 2016). During a period of multiple dry years, the expected supplies are slightly higher because of the higher average availability of water from the State Water Project (RPU 2016).

Table 3.14-2. Riverside Public Utility Projected Supply and Demand

Types	Year				
	2020	2025	2030	2035	2040
Water Supply (AFY)					
Normal Year	116,903	121,903	124,703	124,703	124,703
Single Dry Year	96,288	101,288	104,088	104,088	104,088
Multiple Dry Year 1st, 2nd, and 3rd Year Supply	102,364	107,364	110,164	110,164	110,164
Water Demand (AFY)					
All Conditions	95,221	96,534	99,015	101,589	104,257
Difference (AFY)					
Normal Year	21,682	25,369	25,688	23,114	20,446
Single Dry Year	1,067	4,754	5,073	2,499	(169)
Multiple Dry Year 1st, 2nd, and 3rd Year Supply	7,143	10,830	11,149	8,575	5,907

Source: RPU 2016.

AFY = acre-feet per year

Western Municipal Water District (WMWD)

Water Sources and Supplies

As discussed in Section 3.14.1, WMWD also provides water to the Orangecrest community, located at the southeastern end of the City, that is approximately 10,000 square miles in size, and Eastern Municipal Water District provides water to a small easterly area within City limits that serves approximately 104 residential customers. In 2020, WMWD received 74,925 AF of water from two sources: approximately 94 percent (70,112 AF) was imported and purchased supplies from Metropolitan Water District of Southern California or Meeks and Daley Water Company, and approximately 6 percent (4,814 AF) was local supplies from WMWD's existing desalter system (WMWD 2020).

Planned Sources of Water

The UWMP identifies water supplies for planning years 2025 through 2045, which are shown in Table 3.14-3. The WMWD UWMP estimates population growth based on population estimates and projections developed by the Southern California Association of Governments' (SCAG's) 2020–2045 Regional Transportation Plan/Sustainable Community Strategy (SCAG 2020). According to the UWMP, WMWD's supplies exceed demands for normal year and multiple dry-year conditions through 2045.

Table 3.14-3. Western Municipal Water District Actual and Projected Water Supply (in acre-feet per year)

Water Supply	2015 Actual	2025	2030	2035	2040	2045
Metropolitan I	70,112	91,816	95,908	101,261	107,664	116,443
Arlington Desalter	4,814	5,000	5,000	5,000	5,000	5,000
Total	74,925	96,816	100,908	106,261	112,664	121,443

Source: WMWD 2016.

Wastewater

The majority of Riverside's wastewater (generally that which originates in areas northeast of Van Buren Boulevard) is treated at the Public Works Department's RWQCP, which is at 5950 Acorn Street. Areas southwest of Van Buren Boulevard are treated at WMWD's Western Riverside County Regional Wastewater Authority (WRCRWA) Treatment Plant at 14634 Riverside Road in Corona, or at the Western Water Recycling Facility near March Air Reserve Base (WMWD 2021).

Public Works Department Sewer Division

The transport, treatment, and disposal of wastewater generated in the City is provided by the Public Works Department Sewer Division. The Public Works Department operates and maintains the treatment works and a wastewater collection system including over 800 miles of public sewer mains and 400 miles of City-owned laterals throughout the City (City of Riverside 2021a).

Riverside Water Quality Control Plant

The RWQCP provides preliminary, primary, secondary, and tertiary treatment with a hydraulic rated capacity of 46 mgd average dry-weather flow (City of Riverside 2021b). Wastewater is treated using two separate treatment trains, Activated Treatment Train and Membrane Bioreactor Train, with a combined effluent available for reclaimed water use or discharge to the Santa Ana River. As of 2020, the average daily influent flows are 25.3 mgd (City of Riverside Public Works Department 2021). RWQCP operations are subject to the waste discharge requirements outlined under Order No. R8-2013-0016, National Pollutant Discharge Elimination System (NPDES) Permit No. CA0105350.

Western Municipal Water District

WMWD provides wastewater services to relatively small areas in the southeastern portion of the City. Water in these areas is conveyed for treatment at the WRCRWA Treatment Plant or at the Western Water Recycling Facility described below.

Western Riverside County Regional Wastewater Authority

WRCRWA has a design capacity of 14 mgd and currently treats an average of approximately 8 mgd. WRCRWA operations are subject to the waste discharge requirements outlined under Order No. R8-2015-0013, NPDES Permit No. CA8000316.

Western Water Recycling Facility

The Western Water Recycling Facility is adjacent to Interstate 215 near the March Air Reserve Base. It was expanded in 2011 to achieve a design capacity of 3 mgd and currently processes an average

flow of 0.8 mgd (or 0.25 percent capacity). Treated wastewater from this facility is used for irrigation for the City's parks, schools, groves, and nurseries. Western Water Recycling Facility operations are subject to waste discharge requirements outlined under Order No. R8-3002-0113. The facility does not operate under an NPDES Permit.

Stormwater

Regional stormwater drainage facilities within the City are managed by the Riverside County Flood Control and Water Conservation District. The City's smaller drainage facilities (storm drain inlets or pipes less than 36 inches in diameter and some open channels) are maintained by the City (City of Riverside 2017a). The majority of stormwater flows directly into the City's storm drain system, which then discharges into the Santa Ana River and greater Santa Ana Watershed. The City has 11 principal drainage areas, ten of which flow into the Santa Ana River (City of Riverside 2017a). These ten drainage areas include Box Springs, Central Riverside, Home Gardens, La Sierra, Mead Valley, Monroe, Moreno Valley West End, Norco, Southwest Riverside, and University (City of Riverside 2017a). A small portion of the Orangecrest area drains to the Perris Valley drainage area, which eventually discharges to Canyon Lake and Lake Elsinore.

Electric Power, Natural Gas, and Telecommunications Facilities

RPU is the main electric power provider within the City. RPU serves more than 106,000 metered electric customers in and around the City, with an infrastructure that includes more than 800 miles of underground distribution lines, 513 miles of overhead distribution lines, approximately 23,000 power poles, and 15 substations (RPU 2015, 2018). RPU's electrical interconnection with the California transmission grid is established at Southern California Edison's (SCE's) Vista Substation, northeast of the RPU system. RPU currently takes delivery of the electric supply at 69 kilovolts (kV) through two 280-megavolt-ampere transformers (RPU 2018). RPU generates, transmits, and distributes electricity to a 90-square-mile territory to a service area population of 325,801 (RPU 2018). According to RPU's Integrated Resource Plan, RPU is a vertically integrated utility that operates electric generation, subtransmission, and distribution facilities. RPU receives most of its system power through the regional bulk transmission system owned by SCE and operated by the California Independent System Operator (RPU 2018). RPU has obtained permission to provide a second connection to the state power transmission grid through SCE, known as the Riverside Transmission Reliability Project (RTRP). In addition, a second substation will improve distribution (RPU 2021b). Power is supplied primarily by natural gas, hydroelectric, and nuclear (California Energy Commission 2018).

Electricity for the City's Sphere of Influence is additionally provided to the City by SCE. SCE serves approximately 15 million people over a 50,000-square-mile service area (SCE 2021). This service area includes 195 incorporated cities, 15 counties, 5,000 large businesses, and 280,000 small businesses (Edison International and SCE 2019). SCE's electricity system includes 12,635 miles of transmission lines, 91,375 miles of distribution lines, 1,433,336 electric poles, 720,800 distribution transformers, and 2,959 substation transformers (SCE 2021). As stated in RPU's 2018 Integrated Resource Plan, RPU and SCE are planning on moving forward with the RTRP. The RTRP will provide additional transmission capacity to meet future projected load growth, along with a second point of interconnection for system reliability and transmission capacity to import bulk electric power (RPU 2018).

Fiber optic and telecommunication facilities are located throughout the City. According to the California Public Utilities Commission, the majority of the City's telecommunication and fiber optics services are provided by AT&T. There are more than 45 cellular tower sites throughout the City (City of Riverside 2018). RPU also offers dark fiber leases on its 120-mile network, which connects office buildings, industrial properties, and data centers and serves 5G-ready sites throughout the City limits. Internet service providers or wireless operators can lease fiber and use it to deliver connectivity to customers, and businesses can use it to create their own wide area enterprise networks. More locations will be added, with the goal of making dark fiber connections available to industrial and commercial customers everywhere in the City (RPU 2021a).

The City's natural gas services are provided by Southern California Gas Company (SoCalGas). SoCalGas provides energy to 21.8 million consumers through over 3,600 miles of pipelines in more than 500 communities. The service territory encompasses approximately 24,000 square miles throughout Central and Southern California (SoCalGas 2021).

Solid Waste

The City of Riverside Public Works Department is responsible for the collection and disposal of approximately 70 percent of the City's residential and commercial solid waste. The remainder of the City's residential solid waste disposal needs are met by a private contractor, Burrtec Waste. Non-hazardous waste is processed through the County of Riverside-owned Robert A. Nelson Transfer Station under a 20-year contract by Burrtec Waste Inc. (California Integrated Waste Management Board 2002). Waste is then transferred to the Badlands Landfill for disposal. In addition, the Riverside County Department of Waste Resources operates four other Class III landfills that also serve the City. Refer to Table 3.14-4 for the locations and capacities of the landfills that serve the City. The Riverside County Department of Waste Resources operates the Agua Mansa Permanent Household Hazardous Waste Facility, which provides the City a location for hazardous household waste disposal.

Table 3.14-4. Existing Disposal Facilities

Disposal Facility	Location	Maximum Permitted Capacity (Cubic Yards)	Remaining Capacity (Cubic Yards)	Estimated Closure Date	Maximum Daily Load (Tons/Day)
Badlands Sanitary Landfill	31125 Ironwood Ave, Moreno Valley 92555	34,400,000	15,748,799	1/1/2022	4,800
El Sobrante Landfill	10910 Dawson Canyon Rd, Corona 91719	6,229,670	3,834,470	8/1/2047	400
Lamb Canyon Sanitary Landfill	16411 State Highway 79, Beaumont 92223	38,935,653	19,242,950	4/1/2029	5,000
Mid-Valley Sanitary Landfill	2390 N Alder Ave, Rialto 92377	101,300,000	61,219,377	4/1/2045	7,500
Total		180,865,323	100,045,596	-	17,700

Source: CalRecycle 2021a, 2021b, 2021c, 2021d

The Public Works Department also provides recycling collection services for business and residential customers within the City. The California Integrated Waste Management Act of 1999

required local jurisdictions to divert at least 20 percent of all solid waste by January 1, 2000, and at least 50 percent on and after January 1, 2004. The City has historically met the state requirements until July 2020, when the City was required to pay for recycling rather than it being free. The City is currently achieving a 31-percent diversion rate, which is below the state diversion requirements. To comply with the state requirements, the City has implemented numerous waste reduction and recycling programs including the Assembly Bill (AB) 341 Mandatory Commercial Recycling and AB 1826 Mandatory Commercial Organic Recycling program to oversee the implementation of waste management plans and recycling/reuse programs. Additionally, the City has partnered with the haulers to send out non-compliance notifications to businesses and multi-family residences to encourage them to subscribe to the services. The City has also made continuous efforts to provide recycling education to the community via Zoom, its webpage, and flyers.

In addition, the California Green Building Standards Code (CALGreen) required all developments to divert 50 percent of nonhazardous construction and demolition debris and 100 percent of excavated soil and debris from land clearing associated with all nonresidential projects beginning January 1, 2011 (California Legislative Information 2021).

3.14.3 Regulatory Setting

Water

Federal

Federal Safe Drinking Water Act of 1974

The Safe Drinking Water Act was established to protect the quality of drinking water in the U.S. It authorizes the U.S. Environmental Protection Agency (EPA) to set national health-based standards for drinking water to protect against both naturally occurring and manmade contaminants that may be found in drinking water. EPA, states, and water systems then work together to make sure that these standards are met. Originally, the act focused primarily on treatment as the means of providing safe drinking water at the tap. The 1996 amendments greatly enhanced the existing law by recognizing source water protection, operator training, funding for water system improvements, and public information as important components of safe drinking water. This approach ensures the quality of drinking water by protecting it from source to tap. The act applies to every public water system in the United States. There are currently over 148,000 public water systems providing water to most Americans.

State

State of California Recycled Water Policy

On January 22, 2013, the California State Water Resources Control Board (SWRCB) adopted a revision of a 2009 statewide recycled water policy, with the ultimate goal of increasing the use of recycled water from municipal wastewater sources. Included in the statewide policy is the mandate to increase the use of recycled water in California to 1.5 million acre-feet per year (AFY) by 2020, and an additional 2.5 million AFY by 2030. The plan also states that the SWRCB expects to increase the use of stormwater from 2007 levels to at least 500,000 AFY by 2020 and 1 million AFY by 2030.

California Code of Regulations, Title 22, Division 4

The SWRCB – Division of Drinking Water is authorized to set the criteria for recycled water production and use. Title 22, Division 4 of the California Code of Regulations (CCR) defines these criteria, which pertain to treatment processes, water quality, and reliability. It establishes minimum water quality criteria requirements for various use categories, including irrigation, wetlands, and industrial uses. For unrestricted reuse, including use at parks and playgrounds, schoolyards, and other unrestricted access facilities, and specifies disinfected tertiary treatment. Title 22 also specifies that for disinfected tertiary-treated water, there must be a separation of 50 feet between areas irrigated with recycled water and domestic groundwater wells.

California Code of Regulations, Title 17

Title 17, Section 7584 of the CCR requires the water supplier to protect the public water supply from contamination by implementing a cross-connection control program. This program must include, but not be limited to, surveys to identify water use premises where cross-connections are likely to occur, and provisions of backflow protection by the water user downstream (after) the user's connection to the public water system.

In accordance with Title 17, Section 7604 of the CCR, the type of protection required to prevent backflow into the public water supply is determined by the degree of hazard that exists on the consumer's property. Required backflow devices must include, but not be limited to, a double-check valve assembly reduced-pressure principal device, and air-gap separation. The required backflow protection device is determined by the City and/or the appropriate state agency.

Urban Water Management Act

The Urban Water Management Plan Act (UWMP Act) was passed in 1983 and codified as Water Code Sections 10610 through 10657. Since its adoption in 1983, the UWMP Act has been amended on several occasions. The act requires every public and private urban water supplier that directly or indirectly provides water for municipal purposes to more than 3,000 customers or supplying more than 3,000 AF of water annually to prepare and adopt, in accordance with prescribed requirements, a UWMP and to update its plan once every 5 years.

Senate Bill 610

Senate Bill (SB) 610 (Water Code Sections 10910 et seq.) requires the preparation of a water supply assessment for projects within cities and counties that propose certain projects. The Water Code requires that a water supply assessment be prepared for any "project" that would consist of one or more of the following:

- A proposed residential development of more than 500 dwelling units
- A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space
- A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space
- A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space
- A proposed hotel or motel, or both, having more than 500 rooms

- A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area
- A mixed use project that includes one or more of the projects specified above
- A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500-dwelling-unit project

Senate Bill 221

SB 221 amended state law, effective January 1, 2002, to improve the link between information on water supply availability and land use at the tentative map preparation phase of a project. SB 610 and SB 221 are companion measures that seek to:

- Promote more collaborative planning between local water suppliers and cities and counties
- Require detailed information regarding water availability be provided to city and county decisionmakers prior to approval of specific large development projects
- Require that this detailed information be included in the administrative record that serves as the evidentiary basis for an approval action by the city or county on such projects
- Recognize local control and decision making regarding the availability of water for projects and the approval of projects

Efficiency Standards

CCR Title 24 contains the California Building Code, including the California Plumbing Code (Part 5), which promotes water conservation. CCR Title 20 addresses public utilities and energy and includes appliance efficiency standards that promote water conservation. In addition, a number of California laws listed below require water-efficient plumbing fixtures in structures:

- CCR Title 20 Section 1604(g) establishes efficiency standards that give the maximum flow rate of all new showerheads, lavatory faucets, sink faucets, and tub spout diverters.
- CCR Title 20 Section 1606 prohibits the sale of fixtures that do not comply with established efficiency regulations.
- CCR Title 24 Sections 25352(i) and (j) address pipe insulation requirements, which can reduce water used before hot water reaches equipment or fixtures. Insulation of water-heating systems is also required.
- Health and Safety Code Section 17921.3 requires low-flush toilets and urinals in virtually all buildings.

Regional

There are no regional regulations directly applicable to water supply and utility service with respect to this Project.

Local

2015 Urban Water Management Plan for Riverside Public Utilities Water Division

The City established RPU in 1913. RPU provides water services to an approximately 68-square-mile service area, which includes the City and areas within its Sphere of Influence. The RPU UWMP summarizes RPU's projected retail and wholesale water demands and identifies water supplies available to meet those demands for planning years 2020 through 2040. The 2015 RPU UWMP also discusses RPU's supply reliability and offers a water shortage contingency plan for use during catastrophic events or drought conditions.

Western Municipal Water District Urban Water Management Plan

WMWD provides water services to an approximately 9.85 square mile area within southeast Riverside. The WMWD UWMP (WMWD 2016) analyzes long-term water supply and plans for future wholesale and retail demands for planning years 2020 through 2040.

Riverside Public Utilities Utility 2.0 Strategic Plan

RPU developed the Utility 2.0 Strategic Plan, a 10-year plan that calls for sustainable consumption of water and electricity resources. The strategic plan identifies goals, strategies, objectives, and key performance indicators to guide the allocation of resources and management of water and electricity assets (City of Riverside 2017a). The Utility 2.0 Strategic Plan's key goals concern reliability and resiliency, affordability, sustainability, customer experience, and operational excellence. To achieve compliance with statewide targets related to water and electricity efficiency, renewable resources, and greenhouse gas emissions, the City has put into effect local policy provisions. All standards presented in the Utility 2.0 Strategic Plan respond to the needs of development by achieving more efficient and sustainable uses for resources.

Public Facilities and Infrastructure Element

The Public Facilities and Infrastructure Element of GP 2025 addresses the City's public facilities (i.e., libraries, hospitals, and community centers) and infrastructure, including water service and supply, wastewater, stormwater control, solid waste, electric power, and telecommunications. The element includes goals and policies intended to ensure the City supports well-designed and adequately maintained infrastructure and quality public facilities for its residents.

The Public Facilities and Infrastructure Element policies relevant to the Project are addressed in this section. Policies relevant to the Project are shown in Table 3.14-5.

Riverside Municipal Code, Title 14 Public Utilities, Chapter 14.22

Water Conservation Chapter 14.22, Water Conservation, of the Riverside Municipal Code (RMC) establishes procedures for implementing and enforcing water conservation measures. Section 14.22.010 establishes unreasonable water uses in the City, including, among others, application of potable water to outdoor landscapes in a manner that causes runoff to adjacent property, non-irrigated areas, or walkways; non-recirculating fountains or water features that use potable water; and application of potable water to outdoor landscaping within 48 hours of measurable rainfall. The ordinance also establishes a four-stage Water Conservation Program, where stages increase with the severity of the water shortage. The four stages of the Water Conservation Program are as follows:

- **Stage One:** Normal Water Supply. The City can meet all water demands, but baseline conservation measures, such as time restrictions on non-agricultural irrigation, still apply.
- **Stage Two:** Minimum Water Shortage. There is a reasonable probability that the City will not be able to meet all of its water demands. Stage One restrictions apply, as well as other restrictions on irrigation and plumbing leaks. Customers will be asked to reduce monthly water consumption by up to 15 percent, and construction operations are not authorized to use water unnecessarily for any purpose, other than those required by regulatory agencies.
- **Stage Three:** Moderate Water Shortage. All measures from preceding stages apply and more restrictive irrigation measures are implemented. Water customers will be asked to reduce monthly consumption by up to 20 percent.
- **Stage Four:** Severe Water Shortage. The City's ability to meet water demand is seriously impaired. Stage Four includes the most restrictive irrigation measures, including a prohibition on outdoor lawn watering, as well as prohibitions on automobile washing and pool filling. Concurrently with a Stage Three or Stage Four declaration, the City Council may proclaim a Water Shortage Emergency. During such time, no new construction meters may be issued, no construction water may be used for earthwork including dust control, and no new building permits may be issued unless such projects meet certain water conservation requirements.

RPU is operating currently under Stage One of the Water Conservation Program (RPU n.d.).

Wastewater

Federal

Federal Clean Water Act (33 United States Code Sections 1251, et seq.)

The Clean Water Act's (CWA) primary goals are to restore and maintain the chemical, physical, and biological integrity of the nation's waters and to make all surface waters fishable and swimmable. The CWA forms the basic national framework for the management of water quality and the control of pollution discharges; it provides the legal framework for several water quality regulations, including the NPDES, effluent limitations, water quality standards, pretreatment standards, antidegradation policy, nonpoint-source discharge programs, and wetlands protection. EPA has delegated the responsibility for administration of CWA portions to state and regional agencies. In California, the SWRCB administers the NPDES permitting program and is responsible for developing NPDES permitting requirements. The SWRCB works in coordination with the Regional Water Quality Control Boards (RWQCB) to preserve, protect, enhance, and restore water quality.

U.S. Environmental Protection Agency

EPA is responsible for implementing the federal Clean Air Act, which was first enacted in 1955 and has been amended numerous times. The act gives EPA authority to limit emissions of air pollutants coming from sources such as utilities, among others. Wastewater is mainly treated at RPU's RWQCP at 5950 Acorn Street. However, areas southwest of Van Buren Boulevard receive wastewater services from WMWD's WRCRWA Treatment Plant at 14634 Riverside Road, Corona, and Western Water Recycling Facility (formerly the March Wastewater Treatment Plant), near March Air Reserve Base. In order for the wastewater treatment facilities to conform to Clean Air Act requirements, their design capacities are based on the regional growth forecast adopted by SCAG; refer to Section

5.3, *Growth-Inducing Impacts*. Specific SCAG regional growth forecast policies are incorporated into the Clean Air Plans prepared by air quality management districts.

State

Integrated Waste Management Act of 1989

The California Integrated Waste Management Act of 1989, also known as AB 939, requires that each city or county prepare a new integrated waste management plan. The act also required each city to prepare a Source Reduction and Recycling Element by July 1, 1991. Each Source Reduction and Recycling Element includes a plan for achieving a solid waste goal of 25 percent by January 1, 1995, and 50 percent by January 1, 2000. In 2011, AB 341 was passed, which directs the California Department of Resources Recycling and Recovery to require local agencies to include strategies to enable the diversion of 75 percent of all solid waste by 2020.

Regional

Regional Water Quality Control Board

EPA NPDES permits are required for operators of municipal separate storm sewer systems, construction projects, and industrial facilities. These permits specify limits on the amount of pollutants that can be contained in the discharge of each facility of property. The City operates its wastewater treatment plant (RWQCP) and wastewater collection and disposal systems pursuant to the requirements of Order No R8-2013-0016, issued by the Santa Ana RWQCB.

Local

City of Riverside Wastewater Collection and Treatment Facilities Integrated Master Plan

The City's Wastewater Collection and Treatment Facilities Integrated Master Plan was approved in February of 2008. The document serves as a planning document for facility planning for the City's RWQCP and collection system. The plan is intended to enable the RWQCP to continue to reliably provide wastewater treatment to the City as wastewater flows increase with projected population growth. The plan addresses facility needs up until 2025.

Public Facilities and Infrastructure Element

Refer to the regulatory discussion under the *Water* section above for a description of the Public Facilities and Infrastructure Element. Policies relevant to the Project are shown in Table 3.14-5.

Riverside Municipal Code, Title 18 Subdivision Code Drainage Fees

This section of the RMC requires the payment of fees for the construction of drainage facilities as a condition of the division of land. Whenever land that is proposed to be divided lies within the boundaries of an area drainage plan, adopted by resolution of the City Council, a drainage fee in the amount set forth in the adopted plan shall be paid as a condition of approval of the filing of a final map or parcel map, or as a condition of the waiver of the filing of a parcel map.

Riverside Municipal Code, Chapter 14.04, Sewer Service Charges

RMC Chapter 14.04, Sewer Service Charges, stipulates that every person whose premises are served by a connection with the City's system of sewerage whereby the sewage or industrial water wastes or either or both are disposed of by the City through the sewage treatment plant or otherwise shall pay a sewer service charge as set by resolution by the City Council. The City Council shall set such charge by resolution and may, from time to time, in its discretion, revise such charges. In setting such charges the City Council shall take into consideration the amount and type of sewage discharged into the system by a particular type of land usage and may also take into consideration any factor such as added pumping costs that might justify a charge in one area of the City that might vary from charges in other areas of the City. In setting such charge, the City Council may make allowances for vacancies in apartment houses served by master electric meters wherein the number of vacant dwelling units cannot readily be ascertained by the City.

Stormwater

Federal

National Pollutant Discharge Elimination System

Refer to the regulatory discussion under the *Wastewater* section above.

State

There are no state regulations directly applicable to wastewater with respect to this Project.

Regional

Regional Water Quality Control Board

EPA NPDES permits are required for operators of municipal separate storm sewer systems, construction projects, and industrial facilities. These permits specify limits on the amount of pollutants that can be contained in the discharge of each facility of property. The City operates its wastewater treatment plant (RWQCP) and wastewater collection and disposal systems pursuant to the requirements of Order No R8-2013-0016, issued by the Santa Ana RWQCB.

Local

Riverside General Plan 2025

Public Facilities and Infrastructure Element

Refer to the regulatory discussion under the *Water* section above for a description of the Public Facilities and Infrastructure Element. Policies relevant to the Project are shown in Table 3.14-5.

Electric Power, Natural Gas, and Telecommunications Facilities

Federal

There are no federal regulations directly applicable to electric power, natural gas, or telecommunications facilities with respect to this Project.

State

California Green Building Standards Code

CALGreen (CCR Title 24) is the minimum standard established in law for the design and construction of buildings and structures in California. The California Building Code contains the mandatory CALGreen standards for residential and nonresidential structures, including the 2019 Building Energy Efficiency Standards. The requirements of CALGreen include, but are not limited to, the following measures:

- Compliance with relevant regulations related to future installation of electric vehicle charging infrastructure in residential and nonresidential structures
- Mandatory periodic inspections of energy systems (i.e., furnace, air conditioner, mechanical equipment) for nonresidential buildings of more than 10,000 square feet to ensure that all are working at their maximum capacity according to their design efficiencies
- Mandatory use of low-pollutant-emitting interior finish materials such as paints, carpet, vinyl flooring, and particle board
- For some single-family and low-rise residential development developed after January 1, 2020, mandatory onsite solar energy systems capable of producing 100 percent of the electricity demand created by the residence(s). Certain residential developments, including those developments that are subject to substantial shading, rendering the use of onsite solar photovoltaic systems infeasible, are exempted from the foregoing requirement.

Building Energy Efficiency Standards

The 2019 Building Energy Efficiency Standards represent a portion of the California Building Standards Code, which expands upon energy-efficiency measures from the 2016 Building Energy Efficiency Standards. The 2019 Building Energy Efficiency Standards are in effect for building permit applications submitted after January 1, 2020. The 2019 standards provide for additional efficiency improvements beyond the current 2016 standards. Nonresidential buildings built in compliance with the 2019 standards are anticipated to use approximately 30 percent less energy compared with buildings built in compliance with the 2016 standards, primarily due to lighting upgrades (California Energy Commission 2019). For residences, compliance with the 2019 standards will result in homes using approximately 7 percent less energy because of energy efficiency measures compared with homes built under the 2016 standards. Once rooftop solar electricity generation is factored in, homes built under the 2019 standards will use approximately 53 percent less energy than those built under the 2016 standards (California Energy Commission 2018).

California Public Utilities Commission

The California Public Utilities Commission regulates privately owned electric, natural gas, telecommunications, water, railway, and passenger transportation companies. It is a court and an administrative agency, with both legislative and judicial powers. It may take testimony in the same manner as a court, issue decisions and orders, cite for contempt, and subpoena records of regulated utilities.

Regional

There are no regional regulations directly applicable to electric power, natural gas, or communication utility service with respect to this Project.

Local

Riverside General Plan 2025

Public Facilities and Infrastructure Element

Refer to the regulatory discussion under the *Water* section above for a description of the Public Facilities and Infrastructure Element. Policies relevant to the Project are shown in Table 3.14-5.

Riverside Public Utilities Utility 2.0 Strategic Plan

Refer to the local policy discussion under *Water*, above.

Riverside Municipal Code, Chapter 19.530 – Wireless Telecommunication Facilities

The City's Wireless Telecommunication Facilities code warrants that wireless telecommunication facilities and adjacent land use and properties be compatible with adjacent land uses to avoid impacts associated with uses, which encouraging orderly development of wireless communication infrastructure within the City. A wireless telecommunications facility is permitted to be sited in the City subject to applicable requirements, which may include a design review process, a conditional use permit application process, or both. These processes are intended to permit wireless telecommunications facilities that blend with their existing surroundings and do not negatively affect the environment, historic properties, or public safety.

Solid Waste

Federal

There are no federal regulations directly applicable to solid waste with respect to this Project.

State

California Integrated Waste Management Act

AB 939, known as the California Integrated Waste Management Act of 1989 (California Public Resources Code, Sections 40000 et seq.), was passed due to the increase in the waste stream and the decrease in landfill capacity. The statute established the California Integrated Waste Management Board, which oversees a disposal reporting system. AB 939 requires a reduction of waste being disposed where jurisdictions were required to meet diversion goals of all solid waste through source reduction, recycling, and composting activities of 25 percent by 1995 and 50 percent by the year 2000. AB 341 amended the California Integrated Waste Management Act of 1989 to include a provision declaring that it is the policy goal of the state that not less than 75 percent of solid waste generated be source-reduced, recycled, or composted by the year 2020, and annually thereafter.

Regional

There are no regional regulations directly applicable to solid waste with respect to this Project.

Local

Countywide Integrated Waste Management Plan

The Riverside Countywide Integrated Waste Management Plan (CIWMP) was prepared in accordance with the California Integrated Waste Management Act of 1989, Chapter 1095 (AB 939). AB 939 redefined solid waste management in terms of both objectives and planning responsibilities for local jurisdictions and the state. AB 939 required each city and unincorporated portions of counties throughout the state to divert a minimum of 25 percent by 1995 and 50 percent of solid waste landfilled by the year 2000. To achieve these disposal reduction goals, AB 939 established a planning hierarchy utilizing new integrated solid waste management practices, including requiring local governments to prepare and implement plans to improve the management of waste resources.

The CIWMP’s components include the Countywide Summary Plan, the Countywide Siting Element, the Source Reduction and Recycling Element, the Household Hazardous Waste Element, and the Non-Disposal Facility Element. The Countywide Summary Plan summarizes the steps needed to cooperatively implement programs among the county’s jurisdictions to meet and maintain the 50-percent diversion mandates. The Siting Element demonstrates that there are at least 15 years of remaining disposal capacity to serve all the jurisdictions in the county. If there is not adequate capacity, a discussion of alternative disposal sites and additional diversion programs must be included in the Siting Element. The Source Reduction and Recycling Element was developed separately by each Riverside County jurisdiction, including the unincorporated county, and their purpose was to analyze the local waste stream to determine where to focus diversion efforts, including programs and funding. The Household Hazardous Waste Element was developed by jurisdictions and provides a framework for recycling, treatment, and disposal practices for Household Hazardous Waste programs. The Non-Disposal Facility Element identifies and describes existing and proposed facilities, other than landfills and transformation facilities, requiring a solid waste permit to operate. Non-disposal facilities are also those facilities that will be used by a jurisdiction to meet its diversion goals.

Riverside General Plan 2025

Public Facilities and Infrastructure Element

Refer to the regulatory discussion under the *Water* section above for a description of the Public Facilities and Infrastructure Element. Policies relevant to the Project are shown in Table 3.14-5.

Table 3.14-5. Relevant General Plan and Specific Plan Policies

Policy Title	Summary
Riverside General Plan 2025	
Public Facilities and Infrastructure Element	<ul style="list-style-type: none"> ● Objective PF-1: Provide superior water service to customers. <ul style="list-style-type: none"> ○ Policy PF-1.1: Coordinate the demands of new development with the capacity of the water system. ○ Policy PF-1.2: Support the efforts of the Riverside Public Utilities Department, Eastern Municipal Water District and Western Municipal Water District to work together for coordination of water services. ○ Policy PF-1.3: Continue to require that new development fund fair-share costs associated with the provision of water service.

Policy Title	Summary
	<ul style="list-style-type: none"> ○ Policy PF-1.4: Ensure the provision of water services consistent with the growth planned for the General Plan area, including the Sphere of Influence, working with other providers. ○ Objective PF-3: Maintain sufficient levels of wastewater service throughout the community. ○ Policy PF-3.1: Coordinate the demands of new development with the capacity of the wastewater system. ○ Policy PF-3.2: Continue to require that new development fund fair-share costs associated with the provision of wastewater service. ○ Policy PF-3.3: Pursue improvements and upgrades to the City’s wastewater collection facilities consistent with current master plans and the City’s Capital Improvement Program. ● Objective PF-4: Provide sufficient levels of storm drainage service to protect the community from flood hazards and minimize the discharge of materials into the storm drain system that are toxic or which would obstruct flows. <ul style="list-style-type: none"> ○ Policy PF-4.1: Continue to fund and undertake storm drain improvement projects as identified in the City of Riverside Capital Improvement Plan. ○ Policy PF-4.2: Continue to cooperate in regional programs to implement the National Pollutant Discharge Elimination System program. ○ Policy PF-4.3: Ensure that youth activities and programs are provided or are accessible by all neighborhoods, either in City facilities or through joint-use or cooperative agreements with other service providers. ● Objective PF-5: Minimize the volume of waste materials entering regional landfills. <ul style="list-style-type: none"> ○ Policy PF-5.1: Develop innovative methods and strategies to reduce the amount of waste materials entering landfills. The City should aim to achieve 100% recycling citywide for both residential and nonresidential development.

Specific Plans	
Canyon Springs Business Park Specific Plan	There are no applicable policies relevant to the Project regarding utilities and service systems.
Downtown Specific Plan	There are no applicable policies relevant to the Project regarding utilities and service systems.
Hunter Business Park Specific Plan	<ul style="list-style-type: none"> ● Policy 1.4: All existing and new utilities 12kv or less within the project area along adjacent major arterials (Columbia, Iowa, Marlborough and Spruce Avenues) shall be installed underground. Funding for the undergrounding of these lines shall be accomplished by means of an assessment district as provided for in Chapter IV: Implementation. All 69kv lines are required to remain above ground. Other lines on the 69kv poles shall be undergrounded. For subdivision approvals the installation of cable conduits in the public right-of-way is required to the Public Works and Public Utilities Departments.
La Sierra University Specific Plan	<ul style="list-style-type: none"> ● Policy LSU:4: To provide planned infrastructure (streets and utilities) that meets the needs of the development in an efficient and cost-effective manner, and reduces dependency on the automobile.
Magnolia Avenue Specific Plan	There are no applicable policies relevant to the Project regarding utilities and service systems.

Policy Title	Summary
University Avenue Specific Plan	There are no applicable policies relevant to the Project regarding utilities and service systems.

Sources: City of Riverside 1994, 2002, 2007, 2009, 2012, 2017b, 2017c.

Policy Consistency

CEQA regulations require a discussion of inconsistencies or conflicts between a proposed project and federal, state, regional, or local plans and laws. Several federal and state laws and regional policies pertain to utilities and service systems. Implementation of the Project would be consistent with all relevant plans and laws. As discussed in Chapter 2, *Project Description*, one of the objectives of the Project, through the Housing Element Update, is to develop design standards that promote sustainable buildings, advance technological changes (such as those in alternative energy sources that increase energy efficiency), reduce water and energy consumption, reduce waste, and minimize environmental impacts, all of which would help reduce housing costs. Therefore, implementation of the Project would be consistent with all relevant plans and laws.

3.14.4 Methodology and Thresholds of Significance

GP 2025 and the City of Riverside UWMP were consulted to obtain the information required for the environmental and regulatory setting related to water supplies. This impact analysis considers the potential water supply impacts associated with implementation of the Project. Because the existing population would change under build-out of the Project, this analysis is based on a comparison of the demand of existing utility and service systems with the increase in demand necessary to serve the population under the Project.

Thresholds of Significance

An Initial Study was prepared for the EIR in April 2021 and is available on the City's website. The below environmental threshold was scoped out from detailed review in this section of the Draft EIR in the Initial Study because the impact was determined to be less than significant:

- Comply with federal, state, and local management and reduction statutes related to solid waste

For a complete discussion of the environmental issues that were scoped out from this Draft EIR, refer to Section 3.15, *Effects Not Found to Be Significant*.

In accordance with Appendix G of the State CEQA Guidelines, the Project would be considered to have a significant effect if it would:

- Result in relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunications facilities, with the potential to cause significant environmental effects
- Result in insufficient water supply 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 that serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments

- Result in generation of solid waste in exceedance of state or local standards or in excess of the capacity of local infrastructure, or other impediment to the attainment of solid waste reduction goals

3.14.5 Impacts and Mitigation Measures

Impact UT-1: The Project would not result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electrical power, natural gas, or telecommunications facilities. This impact would be less than significant and no mitigation is required.

Housing Element Update, Zoning Code Amendments, and Environmental Justice Policies

Future development would increase demand for utilities over time. Potential impacts would include greater demands for water, wastewater treatment, stormwater drainage, electrical power, natural gas, or telecommunications facilities, potentially resulting in the need for the relocation or construction of facilities in order to maintain utility demands. Additionally, future development would increase the use of existing utilities services, which could cause physical deterioration of public infrastructure.

Water Supply

As stated in Table 3.14-3, water supplies are estimated to accommodate demand projections through 2040 under normal and multiple dry-year conditions, but may result in a shortage under 2040 single dry-year conditions. According to the RPU UWMP, the average base daily per-capita water use was 266 gallons per capita per day. Implementation of the Project could result in the future development of an additional 31,564 housing units. This increase in housing units could increase population by approximately 103,530 residents and would result in a permanent increase in demand for water supply.

At full build-out, development facilitated by the Project would increase water demands by approximately 28 million gallons per capita per day (30,848 AFY) over existing conditions. In Table 3.14-3, the estimated maximum water demand is 104,257 AFY with an estimated water supply of 124,703 AFY in year 2040. The increased demand of 30,848 AFY would not be accommodated in accordance with the 2015 RPU UWMP. However, none of the groundwater basins from which RPU extracts water from are currently in a critical overdraft condition (RPU 2016). Adverse environmental impacts are not expected from the use of groundwater sources because groundwater extraction would be within the safe yield of the groundwater basin. Additionally, future development facilitated by the Project would be built using new building standards for water efficiency and would be designed to use less water than existing development. Future development facilitated by the Project would also occur incrementally over time, based on market conditions and other factors, such that existing water services are not overburdened by substantially increased demands at any single point in time. In compliance with SB 221 and SB 610 requirements, future development satisfying certain criteria would require preparation of a water supply assessment in order to verify sufficient water supply is available to meet future development's water demand. Future development associated with the Project would also be required to coordinate its demands with the capacity of the water system and work with RPU and WMWD to coordinate water services

(GP 2025 Policies PF-1.1 and PF-1.2). Future development would also be required to fund fair-share costs associated with the provision of water, and to ensure that the provision of water is consistent with the growth planned for the City including the Sphere of Influence, working with other providers (GP 2025 Policies PF-1.3 and PF 1.4). In addition, existing GP 2025 Final Programmatic EIR Mitigation Measure UTL-1 would require the City to review population and development trends with respect to water sources and supply to ensure that growth facilitated by the Project that can be accommodated with present and expected water sources. This would further reduce impacts related to the provision of water services.

While development facilitated by the Project would require extension, relocation, and expansion of new water lines within and to the Opportunity Sites, construction activities associated with future development would be subject to compliance with the local, state, and federal laws, ordinances, and regulations, as well as any Project-specific mitigation measures necessary to ensure construction-related impacts are not significant. In particular, future development would be required to uphold the goals and objectives of GP 2025 related to water facilities, to ensure the adequate water treatment and distribution systems are planned for concurrent with projected growth. Compliance with the abovementioned existing regulatory framework and implementation of existing GP 2025 Final Programmatic EIR Mitigation Measure UTL-1 would ensure adequate water facilities are available to serve future development facilitated by the Project within the City. Therefore, impacts due to the extension, relocation, and expansion of new water facilities would be less than significant.

Wastewater

Development facilitated by the Project could result in an additional 31,564 housing units over existing conditions in the next 8 years. This increase in housing units would result in an increase in population of 103,530 residents that would result in increased demand for wastewater treatment services.

The majority of wastewater generated in the City flows to the RWQCP. According to the City of Riverside's 2008 Wastewater Collection and Treatment Facilities Integrated Master Plan, historic populations and flows in the City estimated an average flow of 96.6 gallons per capita per day (City of Riverside 2008). Development facilitated by the Project would increase the population by approximately 103,530 residents. At maximum build-out, the Project would generate an estimated 10 mgd within the City's wastewater service area. As of 2019, the RWQCP was treating an average of 27 mgd. The additional wastewater of 10 mgd generated within the City from full build-out of the Project would be adequately treated by the RWQCP because it would not exceed its treatment capacity of 46 mgd.

Future sewer line upgrades and developments within the City would assume their full fair-share costs (GP 2025 Policy PF-3.2) by implementing sewer service charges, which would be deposited with the City (RMC Chapter 14.04, Sewer Service Charge). The Project would maintain sufficient levels of wastewater service throughout the community (GP 2025 Objective PF-3). Sewer line upgrades would be aligned with the goals of the 2008–2021 Wastewater Collection and Treatment Facilities Integrated Master Plan as the sewer line upgrades and improvements associated with the Project would align with the plan's goal to increase system reliability in conjunction with projected population growth in the City (City of Riverside 2008).

To serve future residents of the Project, sewer lines would have to be expanded within the City. However, nearby sewer lines would provide potential connection points. While implementation of the Project would alter the composition of development within the City, future sewer resource

planning efforts are required to be updated every 2 years by SWRCB State Order 2006-0003 (issued May 2, 2006) and as updated in State Order No. WQ 2013-0058-EXEC, and the next update would include the Project if approved. While development of the Project would require extension, relocation, and expansion of new sewer lines within the City, construction activities associated with future development would be subject to compliance with the local, state, and federal laws, ordinances, and regulations, as well as any Project-specific mitigation measures necessary to ensure construction-related impacts are not significant. Therefore, impacts due to the extension, relocation, and expansion of new sewer lines would be less than significant.

Stormwater Drainage

Future development would increase impervious surfaces within the City. As a result, development facilitated by the Project may require the construction of new or expanded stormwater drainage facilities to address alterations in drainage patterns or increased flows. Development associated with the Project would occur incrementally such that existing stormwater drainage facilities are not overburdened by substantially increased demands at a single point in time. There are storm drains within and/or near the opportunity zone sites that could be accessed for future development.

Future development would also be subject to compliance with GP 2025, which requires the City to continue to fund and undertake storm drain improvement projects as identified in the City of Riverside's Capital Improvement Plan (GP 2025 Policy PF-4.1). GP 2025 also requires continued cooperation between the City and regional programs to implement the NPDES, and requires the City to continually monitor and evaluate the effectiveness of its storm drain system and make adjustments as needed (GP 2025 Policies PF-4.2 and PF-4.3) (City of Riverside 2012). Compliance with the abovementioned existing regulatory framework would ensure adequate stormwater drainage facilities are available to serve the Project.

Payment of applicable fees established by the City (RMC Title 18) (CM-US-1a), City of Colton (RMC Chapter 12.34) (CM-US-1b), and County of Riverside (RMC Chapter 12.08.070) (CMUS-2c) would be paid when development associated with the Project is proposed. These fee payments would ensure that stormwater drainage facilities would serve the drainage needs of any future development allowed under the Project. While development facilitated by the Project would require extension, relocation, and construction of new storm drain facilities within the City, construction activities associated with future development would be subject to compliance with the local, state, and federal laws, ordinances, and regulations, as well as any Project-specific mitigation measures necessary to ensure construction-related impacts are not significant. Therefore, impacts due to the extension, relocation, and expansion of new storm drain facilities would be less than significant.

Electric Power, Natural Gas, or Telecommunications Facilities

Electric services are provided to the City by RPU while SCE provides electric service to the areas in the City's Sphere of Influence. Natural gas services are provided by SoCalGas. There are existing telecommunication facilities that serve the City. Any new potential telecommunication facilities would be subject to RMC Chapter 16.530 (Wireless Telecommunication Facilities) (CM-US-3a), which dictates appropriate land uses where telecommunication facilities can be constructed and guidelines. Infrastructure improvements that need to be coordinated with the utility service providers within the City and any capital improvements needed to accommodate an increase in utility services would be organized through the service providers.

RPU provides electric utility services to the City. The RPU Utility 2.0 Strategic Plan identifies goals, strategies, and objectives to meet energy needs resulting from a growing population. Goals for this plan include renewing, replacing, upgrading, modernizing, and extending water and electric system infrastructure. There are existing plans to upgrade RPU facilities to align with the increased energy use with a growing population. RPU's Integrated Resource Plan and RTRP identify needed upgrades to electrical facilities throughout the City. The Project would not result in additional need for upgrades to electrical facilities. Additionally, build-out of the Project would be incremental throughout the 8-year planning period so that existing energy facilities are not overburdened by substantially increased demands at a single point.

Development facilitated by the Project would occur in areas of the City where electrical utility services are already available and would therefore not require the building of new electrical facilities. Upgrades to existing overhead and underground lines would be expected to be completed within existing urban areas. The construction of new, upgraded, or expanded electricity utility facilities is already anticipated and planned in the Project, RPU's Integrated Resource Plan, the Utility 2.0 Strategic Plan, and RTRP.

Any new telecommunication connections would be constructed by the private utility service provider and follow all appropriate regulatory requirements of such a connection. New service point connections to provide telecommunications services to the new buildings would be provided in conformance with all applicable federal, state, and county requirements. The Project would not result in the relocation or expansion of telecommunication facilities.

While development of the Project would require extension, relocation, and construction of above-ground and underground electric power, natural gas, or telecommunications facility improvements within the City, construction activities associated with future development would be subject to compliance with the local, state, and federal laws, ordinances, and regulations, as well as any Project-specific mitigation measures necessary to ensure construction-related impacts are not significant. Therefore, impacts due to the extension, relocation, and expansion of new underground and overhead electric power, natural gas, or telecommunications facilities would be less than significant.

Public Safety Element Update and Environmental Justice Policies

The Public Safety Element Update policies and implementing actions address natural hazards; transportation hazards; police, fire, and emergency services; pandemic preparedness and response; homelessness; and climate change and resiliency. These policies and implementing actions aim to reduce the risk to the community and to ensure protection from foreseeable natural and human-caused hazards.

Proposed new residential and mixed-use development would be predominantly located in more urbanized areas of the City. Public Safety Element policies and implementing actions could affect the design and construction of planned developments, including addition of design elements related to emergency access and pedestrian safety. The Public Safety Element's updated policies and implementing actions would also involve evaluation of public facilities, including utilities and service systems, with respect to risks of natural hazards, transportation hazards, etc. Public Safety Element policies would not include individual development proposals that would create unplanned growth through extension of roads or other infrastructure.

The Public Safety Element Update policies and implementing actions would also involve additional Environmental Justice Policies to address public safety issues within environmental justice communities. Many Public Safety Element Update policies could result in community benefits. No individual infrastructure improvements or projects are identified in the Public Safety Element Update. As this is a policy document, this update would not have any significant environmental effects related to utilities and service systems. Impacts would be less than significant.

Impact UT-2: The Project would have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years. This impact would be less than significant.

Housing Element Update, Zoning Code Amendments, and Environmental Justice Policies

Future development would increase demand for water supplies over time. Potential impacts would include greater demands for water supplies to serve the City. As shown in Table 3.14-3, the City's water supplies exceed estimated demand projections through 2040 under normal and multiple dry-year conditions but fall short of single dry-year projections in 2040. The increased water demand facilitated by the Project of 30,848 AFY would not be accommodated in accordance with the 2015 RPU UWMP under normal, dry, or multiple-dry years. However, future development would occur incrementally over time, based on market conditions and other factors, such that existing water services are not overburdened by substantially increased demands at any single point in time. In addition, compliance with the existing regulatory framework discussed under Impact UT-1 and implementation of existing GP 2025 Final Programmatic EIR Mitigation Measure UTL-1 would ensure adequate water supplies are available to serve future development associated with the Project under normal, dry, and multiple-dry years. Therefore, impacts would be less than significant.

Public Safety Element Update and Environmental Justice Policies

The Public Safety Element Update policies and implementing actions address natural hazards; transportation hazards; police, fire, and emergency services; pandemic preparedness and response; homelessness; and climate change and resiliency. These policies and implementing actions aim to reduce the risk to the community and to ensure protection from foreseeable natural and human-caused hazards.

Proposed new residential and mixed-use development would be predominantly located in more urbanized areas of the City. Public Safety Element policies and implementing actions could affect the design and construction of planned developments, including addition of design elements related to emergency access and pedestrian safety. The Public Safety Element Update policies and implementing actions would also involve evaluation of public facilities, including water supply service systems, with respect to risks of natural hazards, transportation hazards, etc. Public Safety Element policies would not include individual development proposals that would create unplanned growth through extension of roads or other infrastructure.

The Public Safety Element Update policies and implementing actions would also involve additional Environmental Justice Policies to address public safety issues within environmental justice communities. No individual infrastructure improvements or projects are identified in the Public Safety Element Update. Potential environmental impacts on public services could result from planned improvements in emergency access, flood control, and other mitigation measures related to

natural hazards, many of which could result in community benefits. As this is a policy document, this update would not have any significant effects related to water supply. Impacts would be less than significant.

Impact UT-3: The Project has adequate capacity to serve the Project's projected wastewater treatment demand in addition to the provider's existing commitments. This impact would be less than significant.

Housing Element Update, Zoning Code Amendments, and Environmental Justice Policies

Future development would increase demand for wastewater treatment provider services to adequately serve the Project's demand in addition to existing commitments. As discussed in Impact UT-1, this increase in wastewater generation would not exceed the treatment capacity of wastewater treatment facilities that serve the City. Therefore, impacts would be less than significant.

Public Safety Element Update and Environmental Justice Policies

The Public Safety Element Update policies and implementing actions address natural hazards; transportation hazards; police, fire, and emergency services; pandemic preparedness and response; homelessness; and climate change and resiliency. These policies and implementing actions aim to reduce the risk to the community and to ensure protection from foreseeable natural and human-caused hazards.

Proposed new residential and mixed-use development would be predominantly located in more urbanized areas of the City. Public Safety Element policies and implementing actions could affect the design and construction of planned developments, including e.g., addition of design elements related to emergency access and pedestrian safety. The Public Safety Element Update policies and implementing actions would also involve evaluation of public facilities, including wastewater treatment service systems. Public Safety Element policies would not include individual development proposals that would create unplanned growth through extension of roads or other infrastructure.

The Public Safety Element Update policies and implementing actions would also involve additional Environmental Justice Policies to address public safety issues within environmental justice communities. Many Public Safety Element Update policies could result in community benefits. No individual infrastructure improvements or projects are identified in the Public Safety Element Update. As this is a policy document, this update would not have any significant environmental effects related to public services. Impacts would be less than significant.

Impact UT-4: The Project would not generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. This impact would be less than significant.

Housing Element Update, Zoning Code Amendments, and Environmental Justice Policies

Future development associated with the Project would result in an increase of 31,564 housing units and 103,530 new residents, which would result in an increase in solid waste generation over

existing conditions. Within the four landfills that would serve the Project, there is a remaining capacity of approximately 100 million cubic yards (Table 3.14-4).

The Project would comply with all sustainability goals as dictated by state and local standards, such as the California Integrated Waste Management Act, AB 341, Riverside County Waste Management Department's Design Guidelines and its Construction and Demolition Recycling Plan, and Riverside's CIWMP. Additionally, the Project build-out would be incremental as to not overwhelm solid waste collectors and landfills with a substantial increase in solid waste at one point in time.

The California Integrated Waste Management Act requires countywide planning to show that there are at least 15 years of remaining disposal capacity to serve all the jurisdictions within the county. Currently, this is demonstrated via the Riverside CIWMP (County of Riverside 1996). If the Project is adopted, future landfill planning would incorporate the updated designations and associated build-out expectations in accordance with the California Integrated Waste Management Act.

Additionally, in compliance with GP 2025 Policy PF-5.1, future development would be subject to compliance with GP 2025 Final Programmatic EIR Mitigation Measure UTL-4, which requires the City to review the County Waste Management Annual Reports to the California Integrated Waste Management Board every 5 years to ensure adequate capacity. If consultation with the California Integrated Waste Management Board determines landfill capacity is becoming limited or exhausted, GP 2025 Final Programmatic EIR Mitigation Measure UTL-4 requires the City to increase solid waste diversion efforts. Compliance with the 2016 (or most recent) CALGreen, AB 939, and GP 2025 Final Programmatic EIR Mitigation Measure UTIL-4 would ensure operational impacts on solid waste disposal are less than significant.

The Project would not generate solid waste in excess of state or local standards or impair the attainment of solid waste reduction goals. The Project would be compliant with all applicable standards, inclusive of the standards that require solid waste regulations and reductions. The City has implemented numerous waste reduction and recycling programs including the AB 341 Mandatory Commercial Recycling and AB 1826 Mandatory Commercial Organic Recycling Program to meet the state-required 50-percent diversion rate. Additionally, compliance with mitigation identified in the GP Programmatic EIR would reduce this impact to less-than-significant levels.

Public Safety Element Update and Environmental Justice Policies

The Public Safety Element Update policies and implementing actions address natural hazards; transportation hazards; police, fire, and emergency services; pandemic preparedness and response; homelessness; and climate change and resiliency. These policies and implementing actions aim to reduce the risk to the community and to ensure protection from foreseeable natural and human-caused hazards.

Proposed new residential and mixed-use development would be predominantly located in more urbanized areas of the City. Public Safety Element policies and implementing actions could affect the design and construction of planned developments, including addition of design elements related to emergency access and pedestrian safety. The Public Safety Element Update policies and implementing actions would also involve evaluation of public facilities, including solid waste service systems, with respect to risks of natural hazards, transportation hazards, etc. Public Safety Element policies would not include individual development proposals that would create unplanned growth through extension of roads or other infrastructure.

The Public Safety Element Update policies and implementing actions would also involve additional Environmental Justice Policies to address public safety issues within environmental justice communities. Many Public Safety Element Update policies could result in community benefits. No individual infrastructure improvements or projects are identified in the Public Safety Element Update. This update would not have any significant effects related to waste reduction goals. Impacts would be less than significant.

3.15 Effects Not Found to Be Significant

As discussed in Chapter 1, *Introduction and Scope of Environmental Impact Report*, the City of Riverside (City), acting as the Lead Agency for the planning and environmental review of the Project, has prepared this Draft EIR in compliance with CEQA, including the State CEQA Guidelines. Section 15128 of the State CEQA Guidelines requires a brief description of any possible significant effects that were determined not to be significant and were not analyzed in detail within the environmental analysis. Therefore, this section has been included in this Draft EIR as required by CEQA.

The discussion below presents the analysis of the effects related to aesthetics; agriculture and forestry resources; air quality; biological resources; cultural resources; energy; geology, soils, and paleontological resources; hazards and hazardous materials; hydrology and water quality; mineral resources; population and housing; transportation; utilities and service systems; and wildfire not found to be significant. Any items not addressed in this section are addressed in Chapter 3, *Impact Analysis*, of this Draft EIR.

3.15.1 Aesthetics

Threshold: Would the Project have a substantial adverse effect on a scenic vista?

Less-than-Significant Impact. *Riverside General Plan 2025 (GP 2025)*, Figure LU-3, *Riverside Parks*, identifies the City's natural and scenic vistas (City of Riverside 2019a). Within the northwest portion of the City is the Santa Ana River floodplain. To the east, southeast, and west, the uplands and low mountains include Box Springs Mountain, Alessandro Heights, Arlington Mountain, and La Sierra/Norco Hills. A variety of prominent natural features in the City include Mount Rubidoux, Pachappa Hill, Sycamore Canyon, Hawarden Hills, distinctive arroyos, and isolated hills. Open space areas include the Santa Ana River Corridor, Box Springs Mountain Regional Park, Sycamore Canyon Wilderness Park, Mount Rubidoux Park, and California Citrus State Historic Park.

Development under the Project would increase residential densities and nonresidential land use intensities in specific areas and would be concentrated in existing transit corridors or urban areas and not in open space areas and would not block scenic views of the surrounding mountains or the Santa Ana River. Pursuant to Riverside Municipal Code (RMC) standards and as part of each future development's design review process (RMC Chapter 19.710), all development under the Project would require design review and must demonstrate conformance with relevant GP 2025 policies and RMC standards. For example, future development must demonstrate conformance with GP 2025 Objective LU-3 policies, which are intended to preserve prominent ridgelines and hillsides as important community visual assets (i.e., Policy LU-3.1). In addition, future development must comply with GP 2025 Objective OS-2 policies, which are intended to minimize the extent of urban development in the hillsides and mitigate any significant adverse consequences associated with urbanization (i.e., Policies OS-2.1 through OS 2.4). RMC standards would regulate land uses, building heights, setbacks, landscaping, parking, fences and walls, and other development characteristics to protect the City's hills and ridgelines. The Project would not have a substantial adverse effect on a scenic vista, and the impact would be less than significant.

Threshold: Would the Project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings along a scenic highway?

Less-than-Significant Impact. The City does not include a State Scenic Highway. However, the *City of Riverside General Plan and Supporting Documents Final Program Environmental Impact Report 2025* (GP FPEIR) identifies the City's scenic parkways in Table 5.1-B, *Scenic Parkway* (City of Riverside 2007). According to GP FPEIR Table 5.1-B, the City's scenic parkways include:

- Victoria Avenue
- Magnolia Avenue/Market Street
- University Avenue
- Van Buren Boulevard
- Riverwalk Parkway
- La Sierra Avenue
- Overlook Parkway
- Canyon Crest Drive
- Arlington Avenue

The Project would not result in any effects on scenic highways or scenic resources. Many of the Opportunity Sites are near GP 2025-designated scenic parkways, particularly Magnolia Avenue/Market Street, University Avenue, Van Buren Boulevard, and Arlington Avenue.

There would be no development under the Project on sites with rock outcroppings, and no scenic historic resources would be removed. Project-related impacts would be reduced to less than significant through compliance with the RMC and the *Riverside Citywide Design Guidelines and Sign Guidelines* (City of Riverside 2019b). Pursuant to RMC requirements and as part of the design review process, the City would assess all future development proposals on a project-by-project basis. The RMC would regulate land uses, building heights, setbacks, landscaping, parking, fences and walls, and other development standards to protect the City's scenic parkways and resources. Compliance with the RMC and the *Riverside Citywide Design Guidelines and Sign Guidelines* would ensure Project impacts remain less than significant.

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

Less-than-Significant Impact. The Project would not result in any effects on visual character or quality. The City includes a mixture of developed, partially developed, and vacant land anticipated for future development. Where Zoning Code and Specific Plan amendments occur on vacant, rural, or agricultural land uses, implementation of the Project would have the potential to alter the existing visual character or quality of these sites. However, compliance with GP 2025 policies and RMC and

Specific Plan standards, as well as the *Riverside Citywide Design Guidelines and Sign Guidelines* (City of Riverside 2019b), would ensure no substantial degradation of visual character and quality, and Project impacts would be less than significant.

Future residential and mixed-use development must demonstrate conformance with GP 2025 Objective OS-4 policies, which are intended to preserve designated buffers between urban and rural uses for their open space and aesthetic benefits (i.e., Policies OS-4.1 and OS-4.2) (City of Riverside 2012). Pursuant to RMC requirements and as part of the design review process, the City would assess all future development proposals on a project-by-project basis to prevent nonconforming uses and structures with the potential to affect the City's visual character. The RMC regulates land uses, building heights, setbacks, landscaping, parking, fences and walls, and other development characteristics to protect the City's visual character. Compliance with GP 2025 Objective OS-4 policies, among others, as well as RMC standards would ensure impacts on visual character would be less than significant.

Threshold: Would the Project create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?

Less-than-Significant Impact. The development of new housing units and associated Zoning Code and Specific Plan amendments to accommodate housing and mixed-use development could introduce new sources of light or glare with the potential to adversely affect daytime or nighttime views in some areas. The Riverside County Light Pollution Ordinance (Riverside County Ordinance No. 655) restricts nighttime lighting for areas within a 15-mile radius (Zone A) and a 45-mile radius (Zone B) of the Palomar Observatory. As shown in GP FPEIR Figure 5.1-1, *Palomar Observatory Lighting Impact Zone*, the southeastern portion of the City is within Zone B, or within a 45-mile radius of the observatory (45-mile Radius Lighting Impact Zone) (City of Riverside 2007). No Opportunity Sites are within this buffer area.

The City requires all residential and mixed-used development that introduces light sources, or modifications to existing light sources, to incorporate shielding devices or other light pollution-limiting design features (e.g., hoods or lumen restrictions); refer to GP FPEIR Mitigation Measure AES-1. Pursuant to RMC standards and the *Riverside Citywide Design Guidelines and Sign Guidelines* (City of Riverside 2019b), the City would assess all future development proposals on a project-by-project basis, as part of the design review process, to regulate site lighting with the potential to result in light and glare impacts. RMC Section 19.556, Lighting, and Section 19.590.070, Light and Glare, include standards intended to prevent adverse light and glare impacts. Compliance with Riverside County Ordinance No. 655 requirements, existing GP FPEIR Mitigation Measure AES-1, and RMC Sections 19.556 and 19.590.070, would ensure that future development facilitated pursuant to the Project would not introduce new sources of substantial light or glare. The impact would be less than significant.

3.15.2 Agricultural and Forestry Resources

Threshold: Would the Project 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?

No Impact. In 2005, Riverside County had a total of 223,848 acres of harvested crops. In 2018, the number had dropped to 194,346 harvested acres (Riverside County Agricultural Commissioner 2018). This represents a loss of 29,502 acres in 15 years, or approximately 13 percent. The Riverside County Agricultural Commissioner's office also reports statistics for regions of Riverside County, including the Riverside/Corona District, which is where the Project is located. For the 2005 to 2016 timeframe, the latest reported, the Riverside/Corona District went from 14,340 harvested acres to 7,020 harvested acres, a reduction of approximately 51 percent (Riverside County Agricultural Commissioner 2018). This shows that the development pressure faced in the western end of the county, where the City is located, is more rapid than in the overall county.

The citrus industry was influential in the establishment of the City in the late nineteenth century, and its influence continues today. The largest area of agriculture within City limits is the Arlington Heights Greenbelt. The City's Sphere of Influence (SOI) still contains large citrus groves, especially in the Highgrove, Woodcrest, and Rancho El Sobrante areas; however, over time, many of the large agricultural and citriculture areas of the City have been converted to suburban uses.

The California Department of Conservation Farmland Mapping and Monitoring Program designates the majority of the City as Urban and Built-Up Land (CDOC 2020). Several small areas of the City are designated as Important Farmland, Farmland of Statewide Importance, Unique Farmland, and Other Land (CDOC 2020). The areas designated as such occur primarily near the southern boundary of the City, south of Victoria Avenue and west of Washington Street within the Arlington Heights Neighborhood. The northeastern area of the City also contains land designated as Important Farmland, Farmland of Statewide Importance, Unique Farmland, and Other Land (CDOC 2020). The areas designated as such occur primarily within the University of California, Riverside West Campus, consisting primarily of agricultural research fields. The Project would not propose any new development in areas designated as Important Farmland, Farmland of Statewide Importance, Unique Farmland, or Other Land. As such, the Project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, and no impacts would occur.

Threshold: Would the Project conflict with existing zoning for agricultural use or conflict with a Williamson Act contract?

No Impact. In 1979, City voters passed Proposition R: "Taxpayer's Initiative to Reduce Costly Urban Sprawl by Preserving the City of Riverside's Citrus and Agricultural Lands, Its Unique Hills, Arroyos and Victoria Avenue." The two main features of Proposition R relate to: 1) preservation of agriculture through application of the RA-5 - Residential Agricultural Zone to two specific areas of the City, and 2) protection of hillside areas through application of the RC - Residential Conservation Zone to areas of the City based on slopes over 15 percent. The two areas of the City that were zoned to RA-5 are: (1) the Arlington Heights Greenbelt and (2) an area commonly known as the Arlanza-La Sierra Lands, a blufftop area above the Santa Ana River bordered by Tyler Street on the east and Arlington Avenue and the City limit on the west. Eight years later, City voters approved Measure C as

an amendment to Proposition R, titled “Citizens’ Rights Initiative to Reduce Costly Urban Sprawl, to Reduce Traffic Congestion, to Minimize Utility Rate Increases and to Facilitate Preservation of the City of Riverside’s Citrus and Agricultural Lands, its Scenic Hills, Ridgelines, Arroyos and Wildlife Areas.” Measure C amended Proposition R by adding policies to promote agriculture. Measure C relates to the Arlington Heights Greenbelt, the Arlanza-La Sierra Lands, and any areas designated for agricultural use in the existing GP 2025 or Zoning Code.

There are ten Williamson Act contract parcels within the City. Four parcels are in the Prenda neighborhood, and six are in the southeastern portion of the City in the Woodcrest area. Review of the GP 2025 Open Space and Conservation Element indicates none of the Opportunity Sites are within Williamson Act preserves or contracted land (City of Riverside 2012). As such, the Project would have no impact related to agricultural zoning or Williamson Act contract lands, and no conflicts with existing zoning for agricultural uses would occur.

Threshold: Would the Project 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))?

No Impact. The Project does not identify Opportunity Sites zoned for forest land. In addition, there are no lands zoned as forest land, timberland, or timberland zoned Timberland Production areas (as defined in Public Resources Code [PRC] 12220(g) and PRC 4526 or Government Code 51104(g)) within the City. The Project would not affect forest land or timberland or conflict with existing zoning for forest land.

Threshold: Would the Project result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. As described above, the Project and Zoning Code and Specific Plan amendments do not identify Opportunity Sites zoned for forest land. As such, no impacts related to the loss of forest land or conversion of forest land to non-forest use would occur.

Threshold: Would the Project involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?

No Impact. As mentioned above, no agricultural farmland or forest land resources are on the identified Opportunity Sites. The Opportunity Sites are within a developed urban area and are concentrated in major transit corridors. None of the Opportunity Sites are on agricultural land. The Project would not result in the conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use. As such, no impacts related to the conversion of agricultural or forest land to other land uses would occur.

3.15.3 Air Quality

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

Less-than-Significant Impact. According to the California Air Resources Board's (CARB's) CEQA Air Quality and Land Use Handbook, land uses associated with odor complaints typically include sewage treatment plants, landfills, recycling facilities, waste transfer stations, petroleum refineries, biomass operations, auto body shops, coating operations, fiberglass manufacturing facilities, foundries, rendering plants, and livestock operations (CARB 2005). The Project would not include any of the odor-related uses identified by the South Coast Air Quality Management District.

The Project would not directly result in any construction activities. However, future residential and mixed-use development in the City facilitated by the Project could result in construction activities, which could generate detectable odors from heavy-duty equipment exhaust. These construction-related odors would be short term in nature and would cease once construction was completed. In addition, South Coast Air Quality Management District Rule 402, Nuisance, prohibits the discharge of air contaminants that cause a nuisance or annoyance for the public, including odors. All future development facilitated by the Project would be required to comply with this rule. As such, the impact of other emissions, including those leading to odors, would be less than significant.

3.15.4 Biological Resources

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

Less-than-Significant Impact. The City does not have an adopted Tree Protection Ordinance. Construction and/or operational activities associated with the Project could require pruning or tree removal during vegetation clearing and grading and other construction activities. Operational activities designed to keep housing and public safety areas landscaped, clear, and accessible would require vegetation management, which could involve tree-trimming and/or tree removal. The trimming or removal of street trees would be subject to local tree policies and ordinances, regardless of whether the work was being performed as a part of construction or operational activities.

Any future residential and mixed-use development facilitated by the Project within the City's boundaries that proposes planting, pruning, or removing a street tree within a City right-of-way must follow the requirements of the *Urban Forestry Policy Manual*. The manual documents guidelines for the planting, pruning, preservation, and removal of all trees in City rights-of-way. The specifications in the manual are based on national standards for tree care established by the International Society of Arboriculture, the National Arborists Association, and the American National Standards Institute.

In addition, any future development facilitated by the Project within the City would be required to comply with the RMC and Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) mitigation fees, and the Stephens' Kangaroo Rat Habitat Conservation Plan (HCP) Fee Assessment Area and mitigation fees. Any future applicant of any proposed development within

MSHCP/HCP plan boundaries would be required to pay a fee, also, Title 16 of the RMC provides for payment of development fees to protect biological resources where applicable.

The City is in the plan area for the Upper Santa Ana River HCP, the May 2021 draft of which is available for public review (www.uppersarhcp.com/Additional.aspx). Species like least Bell's vireo, Santa Ana sucker, Santa Ana River woolly-star, burrowing owl, and 18 others are covered in this HCP (Upper Santa Ana River Sustainable Resources Alliance 2021). Also, GP 2025 includes policies¹ to ensure that future development would not conflict with any local policies or ordinances that protect biological resources.

With Project compliance with City policies and ordinances, it is anticipated that any construction- and/or operations-related activities associated with the Project would have a less-than-significant impact, either directly or through habitat modifications, on any local policies or ordinances that protect biological resources.

3.15.5 Cultural Resources

Threshold: Would the Project disturb any human remains, including those interred outside of dedicated cemeteries?

Less-than-Significant Impact. State law, including Health and Safety Code Section 7050.5 and PRC Section 5097.98, provides guidance regarding how sites containing human remains must be treated. PRC Section 5097 specifies the procedures to be followed in the event of the unexpected discovery of human remains on nonfederal public lands. PRC Section 5097.5 considers it a misdemeanor to knowingly and willfully excavate, remove, destroy, injure, or deface any historic or prehistoric ruins; burial grounds; archaeological or vertebrate paleontological site, including fossilized footprints; inscriptions made by human agency; rock art; or any other archaeological, paleontological, or historical feature situated on public lands, except with the express permission of the public agency having jurisdiction over the lands. The disposition of Native American burials falls within the jurisdiction of the Native American Heritage Commission (NAHC), which prohibits willfully damaging any historic, archaeological, or vertebrate paleontological site or feature on public lands (PRC Section 5097.9). PRC Section 5097.98 stipulates that whenever the NAHC receives notification of a discovery of Native American human remains from a county corner, it must immediately notify those people it believes to be the most likely descendants of the deceased Native American. The descendants may inspect the site of discovery and make recommendations on the removal or reburial of the remains.

Health and Safety Code Section 7050.5 addresses the protection of human remains discovered in any location other than a dedicated cemetery and makes it a misdemeanor for any person to knowingly mutilate or disinter, wantonly disturb, or willfully remove any human remains in or from any location other than a dedicated cemetery without authority of law, except as provided in PRC Section 5097.99. The code further states that in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the

¹ Open Space Element, Policies OS-1.1–O.S-1.5, OS-1.8–OS-1.15, OS-2.2, OS-2.4, OS-4.2, OS-4.3, OS-5.1–OS-5.4, OS-6.1–OS-6.4, and OS-7.3; Air Quality Element, Policy AQ-1.9; Land Use Element, Policies LU-2.2, LU-3.1, LU-3.2, LU-4.1–LU-4.5, LU-5.1–LU-5.6, LU-7.1–LU-7.4, and LU-13.2; and Circulation and Community Mobility Element, Policies CCM-4.1–CCM-4.4).

coroner of the county in which the human remains are discovered has determined that the remains are not subject to the provisions 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 for the excavation, or to his or her authorized representative, in the manner provided in PRC Section 5097.98. If the coroner determines that the remains are not subject to his or her authority and if the coroner recognizes the human remains to be those of a Native American, or has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the NAHC.

Because previous archaeological studies have identified the presence of Native American human remains within the City and adjacent areas, development projects proposed on vacant lands or on other Opportunity Sites have the potential to discover previously unknown Native American human remains. As such, development facilitated by the Project has the potential to disturb human remains, including those outside dedicated cemeteries. However, if human remains should be discovered on vacant lands or other Opportunity Sites, however unlikely, their treatment would be subject to applicable codes and regulations, notably PRC Section 5097 and Health and Safety Code Section 7050.5, which would ensure that impacts would be less than significant.

3.15.6 Energy

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

Less-than-Significant Impact. Within the City is a broad array of land uses, ranging from high-density residential and commercial to semi-rural and agricultural. The Project, through facilitation of potential development projects, may result in a commitment of energy resources such as diesel fuel, gasoline, and electricity during construction and operation. Energy refers to the power supply required for implementation of the Project within the City. Power is supplied primarily by non-renewable sources, such as coal and natural gas, as well as nuclear power (City of Riverside 2012). This discussion focuses on electricity and natural gas as energy sources. For a comprehensive context of existing energy services and regulations, please refer to the Project's Initial Study (Appendix A).

The Project would not directly result in an impact on energy resources. In particular, the Housing Element Update is strictly a policy document that contains guiding principles, policies, and actions aimed at accommodating up to 24,000 new housing units by 2029 to meet the Regional Housing Needs Assessment (RHNA); however, the Housing Element itself does not provide any entitlements for the construction of these units. The Project would allow up to 31,654 total units to be built, including the 18,458 units required by the RHNA plus an additional buffer as described in Chapter 2, *Project Description*. The Housing Element Update encourages development in areas where the density can be supported by existing infrastructure. Opportunity Sites have been identified for accommodation of future residential and mixed-use development to meet the housing demand. These Opportunity Sites are described in Chapter 2. In addition, although residential dwellings would be the largest type of development in the City resulting from the Housing Element Update, implementation of proposed Zoning Code and Specific Plan amendments to allow fulfillment of the City's RHNA would also facilitate the development of mixed-uses as well, including some commercial/retail, office, and potentially live/work uses. It is anticipated that approximately

3,181,930 square feet of new nonresidential development could be accommodated in the proposed mixed-use zones under the Project. The Public Safety Element is a policy-level document only and does not identify specific projects that could occur in the future in accordance with its policies.

Although the Housing Element Update and Zoning Code and Specific Plan amendments themselves would not directly result in increased energy use, future developments in the City facilitated by the Project could result in an increased consumption of energy resources. However, construction and operation of new residential and mixed-use development in the City would be required to comply with all applicable state, regional, and local plans, ordinances, and regulations related to energy efficiency.

Construction Energy Use

Future development throughout the City facilitated through Project implementation is intended to meet existing and future residents' varied housing needs. This future development would occur on parcels that are currently vacant or under-utilized as well as fully improved. Such development would result in construction-related energy demand and consumption related to the use of transportation fuels such as gasoline and diesel for construction workers' vehicle trips, hauling and material delivery, and operation of off-road construction equipment. In addition, diesel-fueled portable generators may be necessary to meet additional electricity demands from temporary onsite lighting and welding, and from supplying energy to areas of the construction site where electricity cannot be obtained through a hookup to the existing grid.

Unlike an individual development project for which project-specific construction information is available, it is impractical to quantify construction-related energy consumption for all future development that could contribute incrementally to construction emissions throughout the City. The amount of fuel consumed by these construction activities for each development would vary substantially, depending on the level of activity, length of the construction period, specific construction operations, types of equipment, and number of personnel. However, the construction of future housing, public infrastructure, and mixed-use developments would involve construction activities typical of most land use developments within the City. None of these future developments would be expected to require an extraordinary amount of energy consumption during construction, as may occur with large industrial facilities such as new power plants or large infrastructure facilities such as dams. Because construction activities are considered to be relatively short term and would cease once construction of an individual development is complete, they would represent a relatively short demand on local and regional fuel supplies that would be easily accommodated. The operation of construction equipment for future residential and mixed-use development would also be required to comply with the latest U.S. Environmental Protection Agency and CARB engine emissions standards. These emissions standards require highly efficient combustion systems that maximize fuel efficiency and reduce unnecessary fuel consumption. Because of increasing transportation costs and fuel prices, contractors and owners have a strong financial incentive to avoid wasteful, inefficient, and unnecessary consumption of energy during construction. Overall, construction fuel consumption associated with future development in the City would not be any more inefficient, wasteful, or unnecessary than other similar land use development projects of this nature. Impacts would be less than significant.

Operational Energy Use

Energy use associated with operation of future development in the City facilitated by the Project would include electricity for interior and exterior building lighting; heating, ventilating, and air conditioning (HVAC); stoves and other kitchen appliances; cleaning equipment; electronic systems; security systems; and more. Maintenance activities during operations, such as landscape maintenance, could involve the use of electric or gas-powered equipment. However, future developments would be required to comply with the applicable Title 24 Building Energy Efficiency Standards, which have been established for both residential and nonresidential uses to provide minimum efficiency standards related to various building features, including appliances, water and space heating and cooling, building insulation and roofing, and lighting. Implementation of the Title 24 standards significantly reduces energy usage. The electricity provider, which for a majority of the City is Riverside Public Utilities (RPU), is subject to California's Renewables Portfolio Standard (RPS). The RPS requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources to 33 percent of total procurement by 2020 and to 60 percent of total procurement by 2030. Renewable energy is generally defined as energy that comes from resources that are naturally replenished within a human timescale, such as sunlight, wind, tides, waves, and geothermal heat. The increase in reliance of such energy resources in addition to compliance with applicable standards including Title 24 ensure future residential and mixed-use development facilitated by the Project would not result in the waste of the finite energy resources.

In addition to onsite energy uses, future development facilitated by the Project would also result in transportation energy use associated with vehicle trips generated by the future residential and mixed-use developments. Pursuant to the Federal Energy Policy and Conservation Act of 1975, the National Highway Traffic and Safety Administration is responsible for establishing additional vehicle fuel standards and revising existing standards. Vehicles associated with future residential and mixed-use development facilitated by the Project would be subject to future compliance with federal fuel economy standards. In addition, Project implementation would accommodate future housing development throughout the City to meet the residents' varied housing needs. Future housing and mixed-use development in the City facilitated by the Project would not result in any unusual characteristics that would result in excessive operational fuel consumption. Some of these future developments would occur on parcels that are currently vacant or under-utilized in the City, which could reduce vehicle miles traveled by future residents where housing is located within walking distance to commercial and other community-serving uses. The new mixed-use developments, by their nature, would also reduce dependency on automobiles and the number of vehicle miles traveled. Fuel consumption associated with individual development-related vehicle trips would not be considered inefficient, wasteful, or unnecessary in comparison to other similar development in the region.

Overall, future development activities would adhere to all federal, state, and local requirements for energy efficiency, including Title 24 standards, and would not result in a substantial increase in demand or transmission service or the need for new or expanded sources of energy supply, new or expanded energy delivery systems, or infrastructure. Residential and mixed-use development facilitated by the Project would not result in a significant environmental impact due to a wasteful, inefficient, or unnecessary consumption of energy resources during Project construction or operation. A less-than-significant impact would occur.

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

Less-than-Significant Impact. As discussed above, energy consumption would result from construction and operation of future residential and some nonresidential uses in the City that would be facilitated by the Project. All future residential and mixed-use development facilitated by the Project would be required to comply with the latest requirements of the California Building Code (CBC), which contains the mandatory California Green Building Standards (CALGreen) Code, along with the Building Energy-Efficiency Standards. As proposed, all future development projects would be required to obtain appropriate building permits and meet all current building standards, including, but not limited to, the CBC, California Electrical Code, and California Energy Code (Title 24).

California Green Building Standards Code

The California Building Standards Code (CBSC) (California Code of Regulations, Title 24) is the minimum standard established in law for the design and construction of buildings and structures in California. Within the CBSC, the CBC contains the mandatory CALGreen standards for residential and nonresidential structures, including the 2019 Building Energy Efficiency Standards.

The requirements of CALGreen include, but are not limited to, the following measures:

- Compliance with relevant regulations related to future installation of electric vehicle charging infrastructure in residential and nonresidential structures
- Mandatory periodic inspections of energy systems (i.e., furnace, air conditioner, mechanical equipment) for nonresidential buildings of more than 10,000 square feet to ensure that all are working at their maximum capacity according to their design efficiencies
- Mandatory use of low-pollutant-emitting interior finish materials such as paints, carpet, vinyl flooring, and particle board
- For some single-family and low-rise residential development developed after January 1, 2020, mandatory onsite solar energy systems capable of producing 100 percent of the electricity demand created by the residence(s). Certain residential developments, including those developments that are subject to substantial shading, rendering the use of onsite solar photovoltaic systems infeasible, are exempted from the foregoing requirement.

Building Energy Efficiency Standards

The 2019 Building Energy-Efficiency Standards represent a portion of the CBSC, which expand upon energy-efficiency measures from the 2016 Building Energy-Efficiency Standards. The 2019 Building Energy Efficiency Standards are in effect for building permit applications submitted after January 1, 2020.

The 2019 standards provide for additional efficiency improvements beyond the 2016 standards. Nonresidential buildings built in compliance with the 2019 standards are anticipated to use approximately 30 percent less energy compared with buildings built in compliance with the 2016 standards, primarily due to lighting upgrades (California Energy Commission 2019).

For residences, compliance with the 2019 standards will result in homes using approximately 7 percent less energy because of energy efficiency measures compared with homes built under the

2016 standards. Once rooftop solar electricity generation is factored in, homes built under the 2019 standards will use approximately 53 percent less energy than those built under the 2016 standards (California Energy Commission 2019).

Future development facilitated by the Project would be subject to all relevant provisions of the most recent update to the CBSC, including the Building Energy-Efficiency Standards. Adherence to the most recent CALGreen Code and Building Energy-Efficiency Standards would ensure that future residential and mixed-use development on identified Opportunity Sites would consume energy efficiently. Required compliance with the CBSC would ensure that the building energy use associated with such future development would not be wasteful, inefficient, or unnecessary. In addition, electricity supplied to future residential and mixed-use development by RPU would comply with the state's RPS, which requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources to 33 percent of total procurement by 2020 and 60 percent by 2030. As such, a portion of the energy consumed during operations would originate from renewable sources.

Given that future development facilitated by the Project would comply with all federal, state, and local requirements for energy efficiency, the Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency, and a less-than-significant impact would result.

3.15.7 Geology, Soils, and Paleontological Resources

Threshold: Would the Project be affected by the 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.

Less-than-Significant Impact. The City lies in a seismically active area of the United States; however, no Alquist-Priolo Fault Zones or active faults have been mapped within the City (City of Riverside 2018). As shown on Figure 7-1 of GP 2025, the active faults include the San Andreas fault, the San Jacinto fault, and the Elsinore fault. In a seismically active area, the potential of future faulting occurring in areas where faults have not been mapped exists; however, the risk of surface fault rupture in the City is considered low.

The Project could facilitate the development and construction of new residential and mixed-use development. Although the Project would provide the framework for future development, no specific development projects are proposed as part of these changes. Policy PS-1.1 of GP 2025 ensures that all new residential and mixed-use development in the City abides by the most recently adopted City and state seismic and geotechnical requirements. As such, any future development facilitated by the Project would require a geotechnical investigation and/or compliance with the CBC, which would address the risk of fault rupture. The Project would not exacerbate the risk of surface fault rupture. Development facilitated by the Project would be required to prepare a geotechnical investigation prior to issuance of permits pursuant to Riverside Municipal Code Section 16.08.185 for any property identified as being subject to the potential of liquefaction or within a seismic hazard zone disclosing the site-specific risk of fault rupture at a future development site. Because the Project would not exacerbate the risk of surface fault rupture, this impact would be less than significant.

Threshold: Would the Project be affected by strong seismic ground shaking?

Less-than-Significant Impact. Ground shaking is the most widespread hazardous phenomenon associated with seismic activity, and the City is within a seismically active area. Several known faults in the region have the potential to generate significant seismic ground shaking. The San Andreas fault is within 11 miles of Downtown and capable of producing an 8.3 magnitude (M) earthquake, the San Jacinto fault is approximately 7 miles from Downtown and capable of producing a 7.0 M earthquake, and the Elsinore fault is within 13 miles of Downtown and capable of producing a 6.0 M earthquake (City of Riverside 2018). The risk of seismic ground shaking in the City is considered high.

Because the City is in a seismically active area near several active faults that can produce earthquakes of 6.0 M or greater, seismic ground shaking could be felt throughout the City. The Project could result in the development and construction of new residential and mixed-use development. As such, future development facilitated by the Project could experience seismically related ground shaking during an earthquake. However, future development resulting from the Project would be required to comply with GP 2025 policies, RMC standards and CBSC requirements, which would require preparation of a geotechnical investigation, thereby reducing risks to life from damage to newly constructed buildings and structures as the result of seismic ground shaking. As the Project would not exacerbate the risk of ground shaking, and future developments facilitated by the Project would be required to comply with GP 2025 policies, RMC standards, and building code requirements, this impact would be less than significant.

Threshold: Would the Project be affected by seismically related ground failure, including liquefaction?

Less-than-Significant Impact. Liquefaction occurs when saturated soils lose cohesion, strength, and stiffness with applied shaking, such as that from an earthquake. The lack of cohesion causes solid soil to behave like a liquid, resulting in ground failure. When a load such as a structure is placed on ground that is subject to liquefaction, ground failure can result in the structure sinking and soil being displaced. Ground failure can take on many forms, including flow failures, lateral spreading, lowering of the ground surface, ground settlement, loss of bearing strength, ground fissures, and sand boils. Liquefaction within subsurface layers, which can occur during ground shaking associated with an earthquake, can also result in ground settlement.

The majority of the City has not been evaluated for liquefaction by the California Geological Survey (California Geological Survey 2021). However, soils prone to liquefaction are located throughout the City, particularly along watercourses, arroyos, and the Santa Ana River. The highest liquefaction risk is concentrated in four areas: the area along the Santa Ana River, the area south and west of Riverside Municipal Airport, an area in western Riverside spanning La Sierra Avenue, and a smaller area along the City's southern boundary primarily between Polk Street and Tyler Street, extending south from just north of California Avenue and to Dufferin Avenue. Although the Project would not include any individual development, development could be proposed on parcels that are underlain by liquefiable soils. However, future development facilitated by the Project would be required to comply with GP 2025 policies, such as Policy PS-1.6, which requires the City building official to explore and implement, where feasible, best practices and latest technologies to minimize damage to structures in areas determined to have a high liquefaction potential during seismic activities. In addition, future residential and mixed-use development facilitated by the Project would comply with CBSC requirements (e.g., submission of a preliminary soils report and a soils engineering analysis).

The report would identify any liquefiable soils at the development site and provide recommendations to reduce the risk associated with liquefaction. Because any future development facilitated by the Project on potentially liquefiable soils would comply with GP 2025 policies and CBSC requirements and may require a soils report and engineering analysis that would provide recommendations to reduce the risk of liquefaction during a seismic event, the Project would result in a less-than-significant impact related to liquefaction. In rare cases where the risk of liquefaction could not be avoided or minimized through site-specific analysis, subsequent CEQA analysis and a finding of significant and unavoidable impacts would be required.

Threshold: Would the Project be affected by expansive soils and weak soils?

Less-than-Significant Impact. Expansive soils are characterized by their ability to undergo significant volume changes (i.e., shrink and swell) due to variations in moisture content. Expansive soils are typically very fine grained and have a high to very high percentage of clay. They can damage structures and buried utilities and increase maintenance requirements. The presence of expansive soils is typically associated with high clay content. Generally, future development in areas with expansive soils may require special building foundations or grade preparation, such as the removal of problematic soils and replacement with engineered soils. However, the relative strength or weakness of alluvial soils also depends on the combination of clay and sand.

Soils considered to have a high shrink-swell potential occur primarily west of Riverside Municipal Airport and within the Lake Mathews drainage area but can be found throughout the City (City of Riverside 2018). The highest risk of impacts resulting from expansive soils are expected to be near the airport and the Lake Mathews drainage area, though other areas may be affected as well.

Weak soils can compress or collapse under the weight of buildings and fill, causing settlement relative to the thickness of the weak soil. Usually the thickness of weak soil varies, and differential settlement does occur. Some weak soils, specifically unconsolidated settlements, can amplify shaking during an earthquake and, when saturated, can be susceptible to liquefaction. Soil associations in the City are generally well-drained sandy loams that are moderately deep; however, weak soils have been found in the northwestern portion of the City, in the area surrounding State Route 91 (Albert A. Webb Associates 2007). The highest risk of impact resulting from weak soils is expected to be in the northeastern part of the City, though other areas may be affected as well.

Weak soils are present in different areas of the City, and although the Project would not include any individual development, future development of Opportunity Sites could be proposed on these soils. However, as discussed above regarding liquefaction, future development resulting from the Project would comply with CBSC requirements, which could require the submission of a preliminary soils report and a soils engineering analysis, depending on the site. The report would identify any weak soils at development sites and provide recommendations to reduce the risks associated with construction on these parcels. Because any future residential and mixed-use development facilitated by the Project would comply with the recommendations in the applicable soils report, as well as standard regulations required by the CBSC, the Project would result in a less-than-significant impact related to weak soils.

Threshold: Would the Project be affected by lateral spreading?

Less-than-Significant Impact. Lateral spreading is a phenomenon in which a surficial soil displaces along a shear zone that formed within an underlying liquefied layer. The surficial blocks are

transported downslope or in the direction of a free face, such as a bay or creek, by earthquake and gravitational forces. Lateral spreading is generally the most pervasive and damaging type of liquefaction-induced ground failure generated by earthquakes. In general, for lateral spreading to occur, soils must consist of saturated, cohesionless sandy sediments in an area where there is a high groundwater table and an open face such as a cliff or streambank. The risk of lateral spreading in the City is highest near the Santa Ana River and along arroyos and watercourses; none of the Opportunity Sites are in these areas. While the Project would not include any individual development, the Project could provide for future development of residential and mixed-use development at Opportunity Sites, which could place development in areas that are at risk of lateral spreading. However, any development resulting from the Project would be required to comply with standard regulatory requirements of the CBSC, which would require construction, including foundations, to be designed to minimize risk resulting from lateral spreading. Future development would also be subject to GP 2025 Policy PS-1.1, which would ensure that all new development in the City would abide by the most recently adopted City and state seismic and geotechnical requirements. The Project would result in a less-than-significant impact related to lateral spreading.

Threshold: Would the Project be affected by landslides?

Less-than-Significant Impact. Landslides occur when the stability of a slope changes from a stable to an unstable condition. The stability of a slope is affected by the following primary factors: inclination, material type, moisture content, orientation of layering, and vegetative cover. In general, steeper slopes are less stable than more gently inclined ones. Although most of the City is relatively flat, the western and northeastern portions of the City are susceptible to landslides and rockfalls (City of Riverside 2018). The Project would not include any individual development project, but it could facilitate the development and construction of new residential and mixed-use development on Opportunity Sites. However, GP 2025 includes policies that limit development on steep or unstable slopes, and none of the Opportunity Sites are in these areas, which have been specifically identified to avoid hillsides, arroyos, and canyons as well as areas within the RC – Residential Conservation Zone. Policy PS-1.4 recommends the use of open space easements and other regulatory techniques to prohibit development and avoid creating public safety hazards where geologic instability is identified and cannot be mitigated. Because future development projects facilitated by the Project would comply with policies in GP 2025 and RMC standards, the Project would result in a less-than-significant impact related to landslides.

Threshold: Would the Project result in substantial soil erosion or the loss of topsoil?

Less-than-Significant Impact. Soil erosion is a natural process by which soil particles are removed by wind, water, or gravity. Different soils will have different susceptibilities to erosion, depending on particle size, gradation, organic structure, and permeability. In addition, topography, including the length and steepness of a slope, and the presence of vegetative cover influence a soil's susceptibility to erosion. Soils containing a high percentage of silt or very fine clay are generally the most erodible. Although the Project would not include any individual projects, it could result in the development and construction of new residential and mixed-use development at Opportunity Sites. As a result, new development facilitated by the Project could occur on a variety of slopes, grades, and soil types where erosion could occur. Soils with a high susceptibility to erosion are located throughout the City but are especially prevalent in the northwest portion near Arlington Avenue and in the southeastern portion near Gentry Avenue. Development facilitated by the Project could require excavation,

stockpiling of spoil materials, and grading, which could expose soils to erosion or lead to the loss of topsoil. However, as discussed in Section 3.15.9, *Hydrology and Water Quality*, development of sites one acre or larger facilitated by the Project would require a Stormwater Pollution Prevention Plan (SWPPP) in compliance with the Construction General Permit, local stormwater ordinances, and other related requirements. The SWPPP would require best management practices (BMPs) for earthmoving and clearing activities to minimize any mobilization of sediment, stabilize disturbed areas, and control sediment. Because the Project itself would not include any construction that could lead to erosion, and future developments facilitated by the Project would be required to implement a SWPPP that would include erosion control BMPs, this impact would be less than significant.

Threshold: 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 an onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?

Less-than-Significant Impact. The City is situated north of the Peninsular Ranges and south of the Transverse Range, with the San Bernardino Mountains to the north and the San Jacinto Mountains to the east. Elevations in the City range from approximately 700 feet above mean sea level near the Santa Ana River to almost 1,400 feet above mean sea level west of La Sierra Avenue. Land within the City is mostly flat, with natural slopes of less than 15 percent, although some slopes of 25 percent are found in the southeastern and western portions of the City. Steeper slopes exist outside the City but within its SOI. The City is generally underlain with subsurface deposits dating from the Mesozoic period, consisting of granite, adamellite, Mesozoic granitic rock, granodiorite, and Mesozoic basic intrusive rocks. Alluvium deposits date from the Quaternary (Albert A. Webb Associates 2007).

Although the Project would not include any specific projects, the Project could result in the development and construction of new residential and mixed-use development, which could be located on parcels that are underlain by liquefiable soils.

Soil type and groundwater depth vary across the City, but it is assumed that the risk of lateral spreading is highest near the Santa Ana River and along arroyos and watercourses, areas where the risk for liquefaction is higher than it is in the rest of the City.

Although the Project would not include any specific projects, future developments that could result from the Project could be placed on a geologic unit or soil that is unstable or that would become unstable because of the Project. However, any development facilitated by the Project would be required to comply with CBSC requirements, which require submission of a preliminary soils report and a soils engineering analysis to identify unstable geologic units and/or soils. The report would provide recommendations to reduce the risk associated any potential instability at a future development site. Future developments would also be subject to GP 2025 Policy PS-1.1, which would ensure that all new development in the City would abide by the most recently adopted state seismic and geotechnical requirements. Because the Project would not directly construct any new development, and future development facilitated by the Project would be required to comply with CBSC requirements and City policies, the Project would result in a less-than-significant impact related to the placement of structures on an unstable geologic unit or soil.

Threshold: 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?

Less-than-Significant Impact. The City is underlain by soils with a high shrink-swell potential, particularly in the area west of Riverside Municipal Airport. Although the Project would not include any specific developments, future developments that could result from the Project could be placed on expansive soils. However, future development facilitated by the Project would comply with CBSC requirements, which require the submission of a preliminary soils report and a soils engineering analysis. The report would identify any expansive soils at development sites and provide recommendations to reduce the risks associated with construction on these parcels. Because any future development facilitated by the Project would comply with the recommendations in the applicable soils report, as well as standard regulations required by the CBSC, the Project would result in a less-than-significant impact related to expansive soils.

Threshold: Would the Project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater?

Less-than-Significant Impact. Although the Project would not include any individual development projects, the Project could result in the development and construction of new residential and mixed-use development. The Opportunity Sites are located near existing wastewater infrastructure. Development facilitated by the Project would connect predominantly to existing water and wastewater disposal lines maintained by the City of Riverside Public Works Department and would not rely on septic tanks or alternative wastewater disposal systems. However, it is possible that some dwelling units, such as accessory dwelling units, could be constructed on sites that are served by septic systems. This residential development is expected to be minimal and a negligible percentage of overall housing development. For those areas currently accommodated by septic tanks, development would be required to meet minimum standards for any additional septic systems, including those that might be located on soils incapable of adequately supporting the use of alternative wastewater disposal systems. As such, the impact would be less than significant.

3.15.8 Hazards and Hazardous Materials

Threshold: Would the Project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less-than-Significant Impact. Implementation of the Project would facilitate additional development as well as other land use activities that would require the routine transport, use, or disposal of hazardous materials and hazardous wastes within the City. If accidentally released, these materials could result in exposure risks for construction personnel and nearby residents. Such transport, use, and disposal must comply with applicable federal and state regulations, such as the Resource Conservation and Recovery Act and Department of Transportation Hazardous Materials Regulations. Although fuel, paint products, lubricants, solvents, cleaning products, and fertilizers would be transported, used, and disposed of, these materials are typically used in construction projects and would not represent the transport, use, and disposal of acutely hazardous materials.

For facilities that handle hazardous materials during operations, California Health and Safety Code Section 25507 requires businesses to establish and implement a Hazardous Materials Business Plan for emergency response to a release or threatened release of a hazardous material. This requirement applies to businesses that handle a hazardous material or a mixture above the thresholds described in Section 25507.

Because of the nature of residential and some commercial development, especially mixed-use development, only common hazardous materials, such as solvents, paints, and fuels, would be used—infrequently and in small amounts. Releases involving these materials would be localized and cleaned up as they occur. The routine transport, use, or disposal of hazardous materials facilitated by the Project would be a less-than-significant impact.

Threshold: Would the Project be located within an airport land use plan area or, where such a plan has not been adopted, be within two miles of a public airport or public use airport, and result in a safety hazard or excessive noise for people residing or working in the City?

Less-than-Significant Impact. Airport Influence Areas (AIAs) are used in land use planning to identify areas that are commonly overflowed by aircraft as they approach and depart an airport or as they fly within established airport traffic patterns. Riverside Municipal Airport is within the western portion of the City limits (and is the only airport within the City). The airport includes two intersecting runways and occupies some 441 acres. March Air Reserve Base and Flabob Airport are adjacent to the City, in Riverside County and Jurupa Valley, respectively. Because of the citywide nature of the Project, the potential exists for development to occur within Riverside Municipal Airport's AIA and to be subject to noise level restrictions, along with intensity and height limitations within aircraft hazard zones (County of Riverside 2005a). According to the 2005 Riverside County Airport Land Use Compatibility Plan Policy Document (County of Riverside 2005b), the AIA for Riverside Municipal Airport is characterized as follows: The instrument approach route and typical extent of the airport traffic pattern define the AIA boundary for Riverside Municipal Airport. To the east and west, this boundary coincides mostly with the outer edge of the airport's Federal Aviation Regulations Part 77 conical surface. A westward extension encompasses locations where aircraft on a precision instrument approach are lower than 1,000 feet above the airport elevation.

As mentioned, construction facilitated as a result the Project would be required to adhere to intensity and height limitations within aircraft hazard zones. Flabob Airport is a small public-use airport north of the Sana Ana River in the city of Jurupa Valley. March Air Reserve Base is also outside the City; however, it is not a public use airport. The Project would not propose future residential and/or mixed-use development on Opportunity Sites within a restricted AIA for any of the airports within or adjacent to the City, and the Opportunity Sites were identified based on compatible land use criteria and established Land Use Compatibility Zones of the Riverside County Airport Land Use Compatibility Plan Policy Document. The Project would not result in a change in air traffic patterns or result in a safety hazard for people residing or working in the City, and there would be a less-than-significant impact.

Although development occurring within an AIA would be subject to noise-level restrictions, the potential exists for noise impacts to result in potentially significant effects due to proximity to an airport. This could require further consideration to identify mitigation to reduce potential impacts. Additional details are provided in this Draft EIR under Section 3.8, *Noise*.

Threshold: Would the Project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less-than-Significant Impact. Disaster preparedness and emergency response are important for establishing the most effective and efficient ways to address issues regarding hazards and minimize their effects on life and property, reduce the potential for disasters, and recover from the effects of disasters as quickly as possible. The City's Office of Emergency Management, also known as the Riverside Fire Department (RFD) Emergency Services Division, administers an all-hazards community-based emergency management program. RFD ensures multi-jurisdictional cooperation and communication for emergency planning and response management through activation of the Standardized Emergency Management System (SEMS). Also, pursuant to requirements of the Disaster Mitigation Act of 2000, the City, along with the County of Riverside, prepared the Riverside County Operational Area Multi-Jurisdictional Local Hazard Mitigation Plan (most recent iteration was prepared in July 2018). The purpose of the plan is to identify Riverside County's hazards (including within the City), review and assess past disaster occurrences, estimate the probability of future occurrences, and set goals to mitigate potential risks and reduce or eliminate long-term risks to people and property from natural and human-made hazards (County of Riverside 2018).

GP 2025 includes several policies related to emergency plan implementation. Policies PS-9.1 and PS-9.3 require the City to maintain and test the City's Emergency Operations Plan. Policy PS-9.5 ensures that the City will provide information to the public regarding disaster preparedness. Policies PS-9.7 and PS-9.8 require the City to identify actions to reduce the severity and risk to the community from hazards. Policy PS-10.3 ensures that public safety infrastructure and staff resources will keep pace with new development. Policy PS-10.4 ensures that development will have adequate ingress and egress. Policy PS-10.5 requires coordination to educate the community about hazard safety. Policy PS-10.6 ensures coordination between the City and public safety departments. Policy PS-10.7 and Policy PS-10.8 encourage funding for emergency response programs. Policy PS-10.9 requires the City to maintain the Emergency Operations Center and allow for expansion (City of Riverside 2018). The updates to the Public Safety Element, as part of the Project, would also address emergency response and preparedness in the City, including the provision of high-quality and responsive emergency management services to all residents and businesses in Riverside (refer to Appendix B for proposed Public Safety Element policies).

With continued use of SEMS and the Riverside County Operational Area Multi-Jurisdictional Local Hazard Mitigation Plan, as well as implementation of GP 2025 policies and Public Safety Element principles, policies, and actions developed for the Project, the Project would result in less-than-significant impacts.

3.15.9 Hydrology and Water Quality

Threshold: Would the Project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

Less-than-Significant Impact. The City is predominantly within the Regional Water Quality Control Board Middle Santa Ana River Watershed Management Area and the Santa Ana Hydrologic Unit/Watershed. A small area in the southeastern section of the City is in the Perris Valley drainage area of the San Jacinto Watershed. The major surface water feature in the City is the Santa Ana River

on the northern boundary of the City, along with several arroyos and canals that cross the City, including Riverside Canal, Sycamore Canyon, Gage Canal, and Spring Brook River/Wash. There are 11 primary drainage areas, 10 of which eventually flow into the Santa Ana River. Surface drainage generally flows in a northerly direction. Approximately 80 percent of the City is covered with impervious surfaces (City of Riverside 2016). Local drainage facilities generally consist of underground closed conduits and storm drains, primarily in developed portions of the City. These collect and convey stormwater to regional facilities, including the Santa Ana River.

Water quality in a typical surface water body is influenced by processes and activities that take place within the watershed. The quality of the stormwater runoff from within the City is typical of urban watersheds where water quality is affected primarily by discharges from both point and nonpoint sources, including winter storms, overland flows, exposed soils, roofs, parking lots, and streets. Water quality in the vicinity is affected directly by stormwater runoff from streets and properties, which deliver fertilizers; pesticides; automobile/traffic-related pollutants (e.g., oil, grease, metals); sediment, with associated attached pollutants from soil erosion; trash; and other pollutants.

Constituents or pollutants in stormwater runoff vary with surrounding land uses, impervious surface area, and topography as well as with the intensity and frequency of rainfall or irrigation. The City is generally developed. The ground surface is covered by pavement (roads and parking lots) or structures (homes, offices, and commercial buildings); however, there are also open space areas. Street surfaces are the primary sources of pollutants in stormwater runoff in urban areas. Common sources of stormwater pollution in urban areas include construction sites; parking lots; large landscaped areas, with associated fertilizers and pesticides; and household and industrial sites. Grading and earthmoving activities associated with new construction can accelerate soil erosion. Grease, oil, hydrocarbons, and metals deposited by vehicles and heavy equipment accumulate on streets and paved parking lots and are eventually carried into storm drains by runoff. The Santa Ana River (Reach 3) is 303(d) listed as impaired for copper, indicator bacteria, and lead. The Middle Santa Ana River Waterbodies – Nitrogen Compounds TMDLs (total maximum daily load) was approved on May 16, 2007 (State Water Resources Control Board 2018).

Construction and development facilitated by the Project would have the potential to temporarily increase sediment loads and affect surface water quality. The Project could result in the need for ground disturbance, such as landscaping or maintenance, during operations of individual development projects as well. Individual development projects facilitated by the Project involving land disturbance of 1 acre or more would be subject to National Pollutant Discharge Elimination System (NPDES) requirements, and a project-specific SWPPP would be developed and implemented in compliance with the Construction General Permit, local stormwater ordinances, and other related requirements. Also, individual development projects would generally require grading permits and interim erosion control plans to be submitted prior to construction. Construction BMPs would control or prevent the discharge of pollutants, including concrete, waste from pavement cutting, petroleum products, chemicals, wastewater, sediments, and non-stormwater discharges, to storm drains and watercourses. In addition, construction materials and wastes would be stored, handled, and disposed of in compliance with applicable regulations to prevent contact with stormwater. Earthmoving and clearing activities would be performed during dry weather only to minimize any mobilization of sediment. Temporary erosion controls, as applicable, would be implemented to stabilize disturbed areas until permanent erosion controls can be established.

Future residential and mixed-use development, consistent with and facilitated by the Project, would increase the impervious surface area in the City. Operation could increase the levels of pollutants

(e.g., trash, oil, grease, pesticides) and introduce pollutants into storm drains that would have the potential to degrade water quality. However, the City requires individual development projects to comply with existing State Water Resources Control Board and City stormwater regulations, including compliance with NPDES requirements related to preventing the transport of pollutants. The Santa Ana Drainage Area Management Plan (DAMP) provides a selection of BMPs, as required by NPDES. Project-specific Water Quality Management Plans (WQMPs) would be prepared that would outline the low-impact development (LID) BMPs required to meet water quality standards and reduce stormwater runoff. This is a standard requirement for all projects creating or replacing more than 5,000 square feet of pervious area.² LID project design features may include infiltration beds, swales, or basins; stormwater retention in detention ponds or constructed wetlands; rain harvesting; catchment technologies, such as rain gardens and cisterns; and permeable paving elements (City of Riverside 2019b). Implementation of the City's Municipal Separate Storm Sewer System (MS4) permit, DAMP, and WQMP would provide the most comprehensive and effective approach to reducing water quality impacts from urbanization.

The Northside Specific Plan EIR also analyzed water quality concerns and includes measures addressing water quality, including the creation of regional water quality basins. An updated hydrology and water quality study is currently underway. In addition, onsite detention, stormwater infiltration measures such as swales, rain gardens, permeable paving, and other stormwater management BMPs encouraged by the City's Water Efficient Landscaping and Irrigation ordinance (RMC chapter 19.570) and the Citywide Water Efficient Landscaping and Irrigation Design Guidelines would be implemented by future development facilitated by the Project, where feasible (City of Riverside 2019b). The WQMP also identifies the appropriate BMPs to be implemented on a project-specific basis. These stormwater management BMPs are required to meet minimum water quality standards. Design recommendations included in the ordinance and guidelines are not requirements but can be implemented to meet WQMP guidelines as required for a given project. The Citywide Green Action Plan also includes goals related to protecting water quality, including maintaining high water quality through appropriate recharge, conservation, management of sources, source water protection, and contaminated source remediation. The Project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface water or groundwater quality. Impacts would be less than significant.

Threshold: Would the Project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin?

Less-than-Significant Impact. The City is predominantly within the Riverside-Arlington subbasin, within the larger Upper Santa Ana Valley Groundwater Basin (Department of Water Resources Basin Number 8-002.03). A small area in the eastern portion of the City is within the San Jacinto Groundwater Basin (Department of Water Resources Basin Number 8-005). Because of topography and underlying geology, some areas of the City are not within a recognized groundwater basin. Because the Upper Santa Ana Valley – Riverside-Arlington subbasin is designated as a very low-priority basin, a groundwater sustainability plan under the Sustainable Groundwater Management Act is not required. The San Jacinto Groundwater Basin is designated as a high-priority basin. The Eastern Municipal Water District's Board of Directors became the exclusive groundwater sustainability agency for the western portion of the San Jacinto Groundwater Basin on April 24,

² [City of Riverside Public Works Department Water Quality Management Plans Applicability Checklist](#)

2017. Because the basin is not critically overdrafted, a groundwater sustainability plan will be submitted to the Department of Water Resources by January 31, 2022.

Groundwater basins are recharged from natural runoff/infiltration from precipitation, treated wastewater, and imported water as well as infiltration from Santa Ana River flows, underflows from the neighboring Chino Subbasin, and return irrigation flows (California Department of Water Resources 2004). Inorganic constituents were present at high concentrations in about 33 percent of the primary aquifers and at moderate concentrations in about 29 percent of the primary aquifers. Nutrients (nitrate plus nitrite) were present at high concentrations in approximately 25 percent of the primary aquifers and at moderate concentrations in about 25 percent of the primary aquifers (Kent and Belitz 2012).

Drinking water supplies in the City, primarily from groundwater supplies, are provided by RPU. Additional water is also provided by the Western Municipal Water District, the Eastern Municipal Water District, and the Riverside Highland Water Company from both groundwater and importation. Development facilitated by the Project would increase the population, which would increase the demand for water supplies. The water code requires that a water supply assessment be prepared for any project that would consist of one or more of the following:

- A proposed residential development of more than 500 dwelling units
- A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space
- A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space
- A proposed hotel or motel, or both, having more than 500 rooms
- A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area
- A mixed-use project that includes one or more of the projects specified above
- A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500-dwelling-unit project

For all subsequent development projects that meet any of these thresholds, the potential to increase groundwater supplies would be analyzed in individual project-specific assessments through a Water Supply Assessment prior to project approvals. The City extracts domestic water from the Bunker Hill, Riverside North, and Riverside South basins through wells operated by RPU and the Gage Canal Company. Water for domestic use is not extracted from the Arlington and Rialto-Colton basins because of poor water quality and the lack of transmission lines. RPU's water supplies are supplied predominantly by local groundwater originating from the Bunker Hill Basin, also known as the San Bernardino subbasin, within the larger Upper Santa Ana Valley Groundwater Basin. RPU's water supply from the Bunker Hill Basin is considered reliable during single- and multi-year dry periods. The Bunker Hill Basin is adjudicated, and its safe-yield and export rights are well defined and managed. Other groundwater supply basins for the City (i.e., the Colton, Riverside North, and Riverside South basins) are subject to groundwater management under a 1969 judgment (Langridge

et al. 2016).³ None of these basins is currently in a critical overdraft condition (City of Riverside 2016; California Department of Water Resources 2020). Adverse environmental impacts are not expected from the use of groundwater sources because groundwater extraction would be within the safe yield of the groundwater basin. To increase water supply reliability, RPU intends to augment natural recharge in the Bunker Hill and Riverside basins through conjunctive use projects and develop other forms of conservation (e.g., recycled water) (City of Riverside 2016).

Future residential and mixed-use development may either increase or decrease the impervious area on the individual project site. For instance, an increase in impervious surfaces associated with development of a vacant unpaved site would result in an increase in impervious area, whereas redevelopment of a mostly paved site with additional landscaping and open space areas could result in an overall decrease in impervious area. In any case, any change in impervious cover would impact potential groundwater recharge. Implementation of some of the individual development projects facilitated by the Project would increase the impervious surface area and potentially decrease groundwater recharge. However, some of the individual development facilitated by the Project could decrease the impervious surface area through the addition of pervious surfaces and landscaping compared to existing conditions and potentially increase groundwater recharge. Also, the Riverside Citywide Water Efficient Landscaping and Irrigation Design Guidelines (City of Riverside 2019b) encourage the use of stormwater infiltration measures such as infiltration beds, swales, basins, and permeable paving. These features would be implemented for future development facilitated by the Project, where feasible, and would allow runoff to infiltrate the soil media and percolate into the ground. Landscape features would allow groundwater recharge and increase recharge potential within individual project areas. In addition, a Western Municipal Water District recharge basin is located at Victoria Avenue and Jackson Street, but there are no Opportunity Sites in the immediate vicinity. Given the above, the Project would not substantially decrease groundwater supplies or interfere with groundwater recharge such that the Project would impede sustainable management of the basin. Impacts are considered less than significant.

Threshold: 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 that would result in substantial erosion or siltation on- or off-site?

Less-than-Significant Impact. Construction activities facilitated by the Project would temporarily alter existing drainage patterns and could result in temporary onsite erosion and siltation. Generally, the City is largely built out and urbanized. As a result, impacts related to erosion or siltation would not be significant for future development occurring on partially or fully developed sites. Where development would occur on undeveloped properties, the potential exists to alter the existing drainage pattern of the site or area. However, new development would be subject to NPDES requirements. Projects with 1 acre or more of disturbance would prepare and implement a SWPPP. The SWPPP would reduce the potential for erosion, siltation, or other contamination and prevent runoff from construction sites during storm events. Erosion, siltation, and other possible pollutants

³ The 1969 Western Judgment adjudicated three basins: the Colton Basin Area (Rialto-Colton Basin), the Riverside Basin Area, and the San Bernardino Basin Area (with Lytle and Bunker Hill basins). Each of these three basin areas was thought to have surface and groundwater connections that could affect the minimum flows at Riverside Narrows required by the Orange County Judgment. In addition, exporters in downstream Riverside County were concerned about the sustainability of groundwater withdrawals over time.

associated with the implementation of development would be addressed during the WQMP and grading permit process. Project-specific WQMPs would outline the LID BMPs required to adequately reduce stormwater runoff and erosion.

GP 2025 includes numerous policies related to stormwater control and the protection of drainage courses in the City. The updates to the Public Safety Element as part of the Project would also address flood hazards in the City, including minimizing the risks and consequences associated with natural hazards, including floods. Also, development-related runoff would be evaluated individually prior to approvals and construction and would be required to be attenuated on site. As a result, offsite discharges would be the same as the undeveloped or baseline condition, and alterations in existing drainage patterns would be minimized. Citywide landscaping, irrigation, and mixed-use design guidelines provided in the *Riverside Citywide Design Guidelines and Sign Guidelines* (City of Riverside 2019b) include design features such as planters, permeable pavers, and other LIDs that allow drainage. Runoff from impervious areas would be directed to permeable surfaces, landscaping, or other LID areas. In addition, storm drain infrastructure would be designed and maintained in compliance with the City's MS4 permit and applicable GP 2025 policies and ordinances. The Project would not alter the existing drainage pattern of future development sites in a manner that would result in substantial erosion or siltation. Impacts would be less than significant.

Threshold: 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 that would substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?

Less-than-Significant Impact. Flooding in the City could result from intense storms or dam failure. The City is predominantly outside the Federal Emergency Management Agency (FEMA) 100-year floodplain in Zone X, an area with minimal flood hazard above the 500-year flood level. However, some areas of the City are within the FEMA 100-year floodplain (Zones A and AE). This includes about one-third of the Northside Specific Plan area. Flood hazards are greatest within and adjacent to channels, creeks, streams, and arroyos, including the Santa Ana River and several dams. Some portions of the Santa Ana River are also within the 100-year floodway (Zone AE). Moderate flood hazards, between the limits of the 100-year and 500-year floods (Zone X [shaded]), and areas with reduced flood risks because of levees are also present in the City. A portion of the southeastern section of the City is in FEMA Zone D (i.e., areas with possible but undermined flood hazards where no flood hazard analysis has been conducted) (FEMA 2008).

Some of the future development facilitated by the Project could increase the amount of impervious surface area compared with existing conditions, likely resulting in a net increase in the volume of runoff and floodwater leaving some of the individual Opportunity Sites. However, the City is predominantly outside the FEMA 100-year floodplain. Because the City participates in the National Flood Insurance Program, it must ensure that individual development projects meet federal standards for flood protection. To avoid flooding and/or placing new development within flood areas, the City requires building pads to be elevated above flood levels. Also, underground storm drains and streets must be designed to accommodate the 10-year storm from curb to curb, while 100-year storms are accommodated within street rights-of-way. In addition, the Riverside County Flood Control and Water Conservation District (RCFCWCD) requires improvements to comply with its standards for flood control. Project runoff for new development facilitated by the Project would

be evaluated prior to approvals and construction and would be attenuated on site. As a result, offsite discharges would be the same as the undeveloped or baseline condition. Project-specific WQMPs, as applicable, would be prepared, outlining the LID BMPs required to reduce stormwater runoff. Future development must implement the BMPs identified in the project-specific SWPPP prior to the commencement of construction to reduce on- or offsite flooding. Onsite stormwater runoff and flooding would be minimized through site development using citywide landscape and irrigation and mixed-use design guidelines provided in the *Riverside Citywide Design Guidelines and Sign Guidelines* (City of Riverside 2019b). In addition, GP 2025 includes numerous policies related to stormwater control and reduced flood risks. An engineering review of drainage calculations and development plans by the City of Riverside Department of Public Works would further ensure that no significant increases in peak-flow rates or runoff volumes would occur. The grading and drainage plans for individual development projects would be reviewed by the City to ensure that onsite drainage and LID features would be adequate with respect to preventing on- or offsite flooding. Updates to the Public Safety Element would reduce the risks associated with flooding, with policies and actions incorporated. The Public Safety Element Update indicates where existing flood hazard areas are located and where building in flood hazard areas should be avoided. It also provides guidance regarding where development and flood control infrastructure should be located to avoid contributing to flood hazards. The Project would not alter the existing drainage pattern of the site in a manner that would result in a substantial increase in runoff or flooding, and impacts would be less than significant.

Threshold: 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 that would create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Less-than-Significant Impact. All future individual construction projects more than 1 acre in size facilitated by the Project would be required to have coverage under the state's General Permit for Construction, including implementation of a SWPPP. BMPs would be implemented to reduce adverse water quality impacts resulting from development. Development would also be required to comply with water quality measures pursuant to the City's MS4 permit.

Future development facilitated by the Project would increase the amount of impervious surface area and associated runoff in the City. Runoff may carry pollutants and potentially degrade water quality. As discussed previously, new development of a certain size facilitated by the Project would be required to prepare and implement a project-specific WQMP. The WQMP would outline the BMPs required to adequately reduce stormwater runoff; these would be approved prior to development approvals and issuance of grading permits.

Each new development or redevelopment project within the City that is subject to CEQA would be required, as part of the CEQA process or entitlement process, to demonstrate that stormwater runoff from the individual development site would not result in an exceedance of the capacity of the existing or future storm drain system, meaning that other developments in the area could not negatively affect storm system capacity. RCFCWCD and the City have identified facilities that are currently undersized. Facilities would be expanded and/or new facilities would be constructed to accommodate both existing and planned development, as needed.

The City has developed a 5-year Capital Improvement Program (CIP), which includes a Storm Drain Program. The City would continue to fund and undertake storm drain improvement projects identified in the CIP. Storm drain improvements are prioritized to ensure that drainage improvements are installed concurrently with street improvement projects, in coordination with RCFCWCD projects. This program would include improvement projects that eliminate flooding during major storm events. Although the CIP addresses issues regarding existing undersized drainage facilities, not runoff increases anticipated due to general plan implementation, the City is required to routinely monitor and evaluate the effectiveness of the storm drain system and adjust as needed. In addition, the City requires development pads to be elevated above flood levels. Underground storm drains and streets are designed to accommodate the 10-year storm, and 100-year storms are accommodated within street rights-of-way. The Northside Specific Plan EIR also analyzed hydrology infrastructure concerns. The undeveloped areas within Northside require improvements to storm drain infrastructure to support additional development. The creation of regional water quality basins could be used for hydromodification management flow control for development projects (City of Riverside 2020a). The Project would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Impacts would be less than significant.

Threshold: 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 that would impede or redirect floodflows?

Less-than-Significant Impact. Some areas of the City are within the FEMA 100-year floodplain, including areas within and adjacent to creeks, arroyos, and rivers, such as the Santa Ana River. GP 2025 includes numerous policies related to preventing flood risks, deterring development near flood-prone areas, and requiring feasible mitigation of flood risk impacts on applicable development projects. Portions of the Northside Specific Plan area lie within or partially within the 100-year flood zone of the Santa Ana River and there are other areas of the City subject to dam inundation (refer to Figure PS-4, *Flood Hazard Areas*, of GP 2025). Goal 4 of the Local Hazard Mitigation Plan is designed to protect the community from flood and storm-related losses (City of Riverside 2018) and sets forth several mitigation strategies to minimize impacts from flooding. The updates to the Public Safety Element as part of the Project would further address flood hazards, augmenting existing policies and minimizing the risks and consequences of natural hazards, like flood hazards, within the City. The Public Safety Element Update indicates where flood zone areas are located and the policies the City requires to protect these areas from flood hazards. In general, flood-prone areas are designated for open space and recreational uses rather than sensitive facilities and development. Because of the proximity of the Santa Ana River, potential flood risks are associated with dams and reservoirs in and close to the City, canals and arroyos, and low-lying areas that are routinely subject to flooding during heavy rains. Flood mitigation projects in the City include the Challen and Ryan Bonaminio Park Storm Preparation Projects and the Mount Rubidoux Roadway Drainage Improvements (City of Riverside 2018).

The City would review all development proposals to determine if an individual development project is proposed in a flood hazard area. New construction within a 100-year flood zone would be required to mitigate flood hazards by providing onsite drainage, using anchoring to prevent floating structures, elevating buildings above flood levels, and including flood proofing. Buildings would be inspected and certified by a professional engineer, surveyor, or building inspector. As discussed

previously, building pads would be elevated above flood levels. Underground storm drains and streets would be designed to accommodate the 10-year storm, and 100-year storms would be accommodated within street rights-of-way. Runoff from new development facilitated by the Project would be evaluated and attenuated on site if located within a 100-year flood zone. Various areas within Northside do not have sufficient drainage capacity, and flooding occurs in developed areas located directly adjacent to the existing channel alignment. Floodplain areas designated on FEMA maps would require a detailed hydraulic analysis, which would need to be processed through FEMA (City of Riverside 2020b). All of these impacts were evaluated in the Northside Neighborhood and Pellissier Ranch Specific Plan (City of Riverside 2020a). Stormwater infiltration measures such as infiltration beds, swales, basins, and other landscape features encouraged by the Citywide Water Efficient Landscaping and Irrigation Design Guidelines would be implemented on future development under the Project where feasible. These features would increase onsite infiltration and minimize the potential for overland floodflows.

Updates to the Public Safety Element would reduce risks associated with flooding. The Public Safety Element Update indicates where existing flood hazard areas are located to avoid building in flood hazard areas; it also provides policies regarding flood control infrastructure. The Project would not impede or redirect floodflows, and impacts would be less than significant.

Threshold: Would the Project be located in flood hazard, tsunami, or seiche zones, and risk release of pollutants due to Project inundation?

Less-than-Significant Impact. The City is not in a coastal area and is not prone to inundation due to tsunamis. Seiche occurs in an enclosed or partially enclosed body of water, such as a lake or reservoir. Lake Evans in Fairmont Park may be subject to seiche. However, Lake Evans, which is surrounded by a park area, outlets directly to the Santa Ana River; the risk of inundation related to a seiche in Lake Evans is considered minimal. In the event of a flood hazard, to reduce the risk of a pollutant release, individual projects facilitated by the Project would comply with the requirements of local water quality programs and associated municipal stormwater-related NPDES permits (e.g., MS4 permit, DAMP, project-specific WQMP) as well as GP 2025 policies and the Public Safety Element Update to manage flood risk and water quality. Compliance with these requirements would minimize risks related to a release of pollutants due to any potential inundation in a flood hazard, tsunami, or seiche zone.

Updates to the Public Safety Element would reduce flood risks and any associated release of pollutants. The Public Safety Element Update indicates where existing flood hazard areas are located and where building construction, including associated storage areas for pollutants, should be avoided. Public Safety Element policies require measures to minimize risks associated with the storage, transport, and disposal of hazardous materials as well as associated impacts on surface and groundwater. The Project would not release pollutants because of inundation by flood, tsunami, or seiche. Impacts would be less than significant.

Threshold: Would the Project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less-than-Significant Impact. Implementation of the Project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Some of the potential future development or redevelopment facilitated by the Project would result in an increase in impervious area, which could decrease groundwater recharge capacity and increase the

volume of runoff and associated pollutants. Future development facilitated by the Project would be required to comply with the appropriate water quality objectives for the region. Commonly practiced BMPs would be implemented to control construction site runoff and reduce discharges of pollutants (i.e., stormwater and other nonpoint-source runoff) to storm drain systems. As part of compliance with permit requirements during ground-disturbing or construction activities, implementation of water quality control measures and BMPs would ensure that water quality standards would be achieved, including water quality objectives that protect designated beneficial uses of surface water and groundwater, as defined in the Water Quality Control Plan for the Santa Ana River Basin (Region 8). The NPDES Construction General Permit also requires stormwater discharges not to contain pollutants that cause or contribute to an exceedance of any applicable water quality objectives or water quality standards, including designated beneficial uses. The Regional Water Quality Control Board has determined that implementation of the DAMP and MS4 permit would also protect the beneficial uses of all receiving waters. In addition, GP 2025 policies would require a sustainable groundwater management plan to protect groundwater recharge areas and groundwater resources. Citywide Water Efficient Landscaping and Irrigation Design Guidelines provided in the *Riverside Citywide Design Guidelines and Sign Guidelines* (City of Riverside 2019b) include the use of stormwater infiltration measures such as infiltration beds, swales, basins, permeable paving, and other landscape features. These features would allow water to percolate into the ground and groundwater to recharge. A groundwater sustainability plan is not required for the Upper Santa Ana Valley – Riverside-Arlington subbasin because it is designated as a very low-priority basin. A groundwater sustainability plan for the San Jacinto Groundwater Basin will be submitted to the Department of Water Resources by January 31, 2022. Therefore, the Project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan, and the impact would be less than significant.

3.15.10 Mineral Resources

Threshold: 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?

No Impact. Historically, the quarrying of granitic rock was a significant industry in the City. However, such operations have not been active for decades, and most extraction sites are now beyond the urban periphery (City of Riverside 2012). Although mineral extraction no longer plays a major role in Riverside's economy, the area south of State Route 60 that traverses the southern tip of Fairmount Park and is bounded to the northwest by the Santa Ana River, to the south by Mission Inn Avenue, and to the east by Market Street is a state-classified mineral resource zone (MRZ) (i.e., MRZ-2) (City of Riverside 2012). Areas in the SOI and areas located generally within the eastern half of the City are designated MRZ-3, indicating that they contain known or inferred mineral occurrences of undetermined mineral resource significance (City of Riverside 2012).

The State Mining and Geology Board establishes MRZs to designate lands that contain mineral deposits (State Mining and Geology Board 2000). The classifications used by the state to define MRZs are as follows:

- MRZ-1: Areas where the available geologic information indicates no significant 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 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
- MRZ-4: Areas where there is not enough information available to determine the presence or absence of mineral deposits

The proposed Opportunity Sites are in areas classified MRZ-2 and MRZ-3, described in the Open Space and Conservation Element of GP 2025; however, mineral extraction does not play a major role in the City's economy and there are no known substantial mineral deposits. Development facilitated by the Project over MRZ-2 and MRZ-3 designated areas would not result in a loss of known mineral resources that would be of value to the region and residents of the state. There would be no impact related to the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.

Threshold: 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?

No Impact. Because of existing conditions within the City, implementation of the Project would not result in the loss of availability of a locally important mineral resource recovery site delineated in GP 2025, a Specific Plan, or any other land use plan. Also, the area south of State Route 60 that traverses the southern tip of Fairmount Park and is bounded to the northwest by the Santa Ana River, to the south by Mission Inn Avenue, and to the east by Market Street, which is a state-classified MRZ (MRZ-2), would not be affected by the Project because there are no Opportunity Sites in this area. There would be no impact.

3.15.11 Population and Housing

Threshold: Would the Project displace a substantial number of existing people or housing, necessitating the construction of replacement housing elsewhere?

Less-than-Significant Impact. The Project is a policy-level planning effort that encourages and facilitates the development and redevelopment of a range of housing types and affordability levels as well as mixed-use development. The Project would not include individual development proposals. Because the sites to be rezoned are located throughout the City, the potential exists for an increase in the number of new dwelling units, up to approximately 31,564. Some redevelopment could result in the removal of existing housing (up to approximately 389 dwelling units), but this is anticipated to be minimal and would not displace a substantial number of people or existing housing units relative to the overall scale of the Project. Any existing units removed through redevelopment would be replaced with new units per the requirements of Senate Bill 166 (No Net Loss). The impact would be less than significant.

3.15.12 Transportation

Threshold: Would the Project substantially increase hazards because of a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less-than-Significant Impact. The Project would not directly result in any activities that would substantially increase hazards because of a geometric design feature through implementation of policy changes and updates, rezoning, and Specific Plan amendments. Because the Project is policy based, construction of an additional 31,564 housing units as well as other nonresidential development in the City facilitated by the Project would not necessarily result in direct traffic hazards (i.e., vehicle, bicyclist, pedestrian accidents). However, future development projects facilitated by the Project may not yet be designed that could lead to traffic hazards. Furthermore, future roadways would be designed in compliance with City codes and standards (Chapter 19.102), which would be verified in design review and plan check on a project-by-project basis. Additionally, the GP 2025 policies would help reduce potential hazards due to design features. This impact would be less than significant.

Threshold: Would the Project result in inadequate emergency access?

Less-than-Significant Impact. The Project would not directly result in any activities that would result in inadequate emergency access through implementation of the Project. The Project would not be expected to impair emergency access because Opportunity Sites are proposed near essential services and transportation routes. GP 2025 contains policies to encourage development of safe transportation systems and ensure that development does not conflict with emergency response or access during Project operations. The City continues to implement adopted road standards and, as a result, new roadways would be designed to avoid unsafe design and provide adequate emergency access. The City has an Emergency Operations Plan and RFD provides response management through activation of SEMS. GP 2025 also provides policies to identify methods of implementing the emergency plan. Additionally, the updates to the Public Safety Element as part of the Project would also address emergency preparedness and response, including through provision of high-quality and responsive emergency management services to all residents and businesses in the City (refer to Appendix B for proposed Public Safety Element policies). Therefore, impacts on emergency access would be less than significant.

3.15.13 Utilities and Service Systems

Threshold: Would the Project conflict with federal, state, and local management and reduction statutes and regulations related to solid waste?

Less-than-Significant Impact. The California Integrated Waste Management Act, under the PRC, required local jurisdictions to divert at least 25 percent of all solid waste by January 1, 2000, and at least 50 percent on and after January 1, 2004. The City has historically met the state requirements until July 2020, when the City was required to pay for recycling rather than it being free. The City is currently achieving a 31-percent diversion rate, which is below the state diversion requirements. To comply with the state requirements, the City has implemented numerous waste reduction and recycling programs including the Assembly Bill 341 Mandatory Commercial Recycling and Assembly

Bill 1826 Mandatory Commercial Organic Recycling programs to oversee the implementation of waste management plans and recycling/reuse programs. Additionally, the City has partnered with the haulers to send out non-compliance notifications to businesses and multi-family residences to encourage them to subscribe to the services. The City has also made continuous efforts to provide recycling education to the community via Zoom, its webpage, and flyers. In addition, CALGreen required all developments to divert 50 percent of nonhazardous construction and demolition debris and 100 percent of excavated soil and debris from land clearing associated with all nonresidential projects beginning January 1, 2011 (California Legislative Information 2021). Development and redevelopment facilitated by the Project would comply with City waste disposal requirements as well as CALGreen requirements; as such, the Project would not conflict with any federal, state, or local regulations related to solid waste. The impact would be less than significant.

3.15.14 Wildfire

Threshold: Would the Project substantially impair an adopted emergency response plan or emergency evacuation plan?

Less-than-Significant Impact. No part of the City is immune to fire danger. Structural and automobile fires represent the most common types of fire in urban areas and can be caused by a variety of human, mechanical, and natural factors. Urban fires have the potential to spread to other structures or areas, particularly if not quickly extinguished. Proactive efforts, such as fire sprinkler systems, fire alarms, fire-resistant roofing, and construction methods, can collectively lessen the likelihood and reduce the severity of urban fires. Areas of dense, dry vegetation, particularly in canyon areas and on hillsides, pose the greatest potential for wildfire risks. Development in and near these natural landscapes would increase potential risks related to fire for people and personal property. In case of fire, the City would be served by RFD. According to the California Fire Hazard Severity Zone Viewer, portions of the City are in areas classified as Very High Fire Hazard Severity Zones (California Department of Forestry and Fire Protection 2020).

According to the GP 2025 Public Safety Element (City of Riverside 2018), the major urban/rural interface areas with a high-fire risk are Mount Rubidoux, the Santa Ana River Basin, Lake Hills, Mockingbird Canyon/Monroe Hills, Sycamore Canyon, Box Springs Mountain, and La Sierra/Norco Hills. The introduction of residential and mixed-use development into these natural landscapes would increase potential risks related to fire for people and property.

As discussed in Section 3.6, *Hazards and Hazardous Materials*, RFD ensures multi-jurisdictional cooperation and communication for emergency planning and response management through activation of the SEMS. Also, the City and County of Riverside prepared the Riverside County Operational Area Multi-Jurisdictional Local Hazard Mitigation Plan (the most recent iteration was prepared in July 2018). The purpose of the Local Hazard Mitigation Plan is to identify Riverside County's hazards (including those within the City), review and assess past disaster occurrences, estimate the probability of future occurrences, and set goals to mitigate potential risks and reduce or eliminate long-term risks for people and property from natural and human-made hazards (County of Riverside 2018).

GP 2025 includes several policies related to emergency plan implementation. Policies PS-9.1 and PS 9.3 require the City to maintain and test the City's Emergency Operations Plan. Policy PS-9.5 ensures that the City will provide information to the public regarding disaster preparedness. Policies PS-9.7 and PS-9.8 require the City to identify actions to reduce the severity and risk to the community from

hazards. Policy PS-10.3 ensures that public safety infrastructure and staff resources will keep pace with new development. Policy PS-10.4 ensures that development will have adequate ingress and egress. Policy PS-10.5 requires coordination to educate people about hazard safety. Policy PS-10.6 ensures coordination between the City and public safety departments. Policies PS-10.7 and PS-10.8 encourage funding for emergency response programs. Policy PS-10.9 requires the City to maintain the Emergency Operations Center and allow for expansion (City of Riverside 2018).

The updates to the Public Safety Element, as part of the Project, would also proactively address wildfire hazards by minimizing the risks and consequences associated with natural and human-caused hazards within the City through the development of principles, policies, and actions (refer to Chapter 2 and Appendix B). In addition, the Project would not directly involve any activities that would result in inadequate emergency access. Construction of an additional 31,564 housing units plus other mixed-use development, per the Housing Element Update, could require additional public services for future residents. However, the Project is not expected to impair emergency access because Opportunity Sites are proposed near existing essential services.

The Project represents a policy-level planning effort that facilitates but would not directly implement development proposals. Future development within the City would be required to comply with local regulations, including GP 2025 and the City's development code. Also, the Opportunity Sites identified for rezoning are in developed areas of the City or on vacant lots and not designated as open space. Impacts related to impairing an adopted emergency response or evacuation plan would be less than significant.

Threshold: Would the Project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks of, and thereby expose Project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

Less-than-Significant Impact. Three primary factors are used in assessing wildfire hazards: topography, weather, and fuel. Future development facilitated by the Project could be affected by weather conditions. The Project would not include housing and mixed-use development within wildfire hazard areas. The Project is a policy-level planning effort that would not include individual development proposals. Future development would be required to comply with local regulations, including GP 2025 and the RMC. Also, the Opportunity Sites identified for rezoning are largely in developed areas of the City. Impacts related to exacerbating wildfire risks would be less than significant.

Threshold: 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 on the environment?

Less-than-Significant Impact. Future development facilitated by the Project may require new public infrastructure and utilities, which would be installed to meet fire service requirements. However, the Project is a policy-level planning effort that would not provide site-specific development or design proposals. All improvements would be subject to City development standards and verified as part of either a building permit or construction approval process. During the standard development review process, the City's Development Review Committee, which includes the Fire Department and Building & Safety Division, evaluates developments in high fire-

risk areas to ensure that improvements meet their requirements. This coordination is independent of the CEQA process; it would be unaffected by the Project. Because future development within the City, including installation or maintenance of associated infrastructure, would be required to comply with local regulations, including the City's development review process, implementation of GP 2025 policies, and compliance with the City's development code, impacts related to fire risk due to the installation or maintenance of associated infrastructure would be less than significant.

Threshold: 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?

Less-than-Significant Impact. The creation of additional impermeable surfaces in association with the Project could exacerbate an existing flooding issue. However, the Project is a policy-level planning effort that would not provide site-specific development or design proposals. All future development would be subject to City development standards and verified as part of either a building permit or construction approval process. Impacts related to downstream flooding and drainage changes would be less than significant.

Development associated with the Project would not be susceptible to landslides (refer to Section 3.15.7 of this chapter). Grading and construction would be completed in compliance with 2019 CBSC regulations, County of Riverside ordinances, and the RMC related to grading, thereby reducing the potential for slope instability to occur. Also, Opportunity Sites are not proposed on the steepest slopes.⁴ In addition, implementation of the Project would not directly or indirectly result in substantial adverse effects, including the risk of loss, injury, or death involving landslides. Some of the Opportunity Sites would be in flood hazard areas, such as near the Santa Ana River or in areas susceptible to dam inundation (see Figure PS-4, *Flood Hazard Areas*, of GP 2025). Flood hazards in the Northside Specific Plan area were analyzed in the EIR for that plan (City of Riverside 2020a). Various areas within Northside do not have sufficient drainage capacity, and flooding occurs in developed areas directly adjacent to the existing channel alignment. Floodplain areas designated on FEMA maps would require a detailed hydraulic analysis, which would need to be processed through FEMA (City of Riverside 2020b). The potential for downstream flooding, as well as changes in drainage patterns, would be lessened through regulations such as the Local Hazard Mitigation Plan (City of Riverside 2018), which sets forth several mitigation strategies to minimize impacts from flooding. Furthermore, compliance with Public Safety Element policies that address flood hazards and conditions placed on individual development projects during development review, including requirements to mitigate flood hazards by providing onsite drainage, using anchoring to prevent floating structures, elevating buildings above flood levels, and including flood proofing, and the like, would attenuate runoff on site and minimize flood hazards. Given the lack of landslide evidence, compliance with CBSC regulations and applicable local codes and ordinances including the RMC would ensure that potential impacts associated with post-fire flooding, runoff, or slope instability would be less than significant.

⁴ During the development of the Opportunity Sites Inventory, slopes greater than 10 percent were generally precluded from further consideration, with some exceptions for sites that exhibit exceptional development potential and are not otherwise environmentally constrained.

3.16 Cumulative Impacts

Cumulative impacts may be analyzed by considering a list of past, present, and possible future projects producing related or cumulative impacts (State CEQA Guidelines Section 15130(b)(1)(A)) or through a summary of projections adopted in a local, regional, or statewide plan (State CEQA Guidelines Section 15130(b)). An EIR is to focus the discussion on the cumulative impacts of a project when the project's incremental effect is cumulatively considerable (State CEQA Guidelines Section 15130).

As set forth in the State CEQA Guidelines (Section 15130(b)), the discussion of cumulative impacts must reflect the severity of the impacts, as well as the likelihood of their occurrence; however, the discussion need not be as detailed as the discussion of environmental impacts attributable to the project alone. The analysis should be guided by the standards of practicality and reasonableness, and it should focus on the cumulative impacts to which the other identified projects contribute to the cumulative impact. "The mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the project's incremental effects are cumulatively considerable" (State CEQA Guidelines Section 15064(h)(4)).

A cumulative impact is not considered significant if the impact can be reduced to below the level of significance through mitigation, including providing improvements and/or contributing funds through fee-payment programs. The EIR must examine "reasonable options for mitigating or avoiding any significant cumulative effects of a proposed project" (14 California Code of Regulations 15130(a)(3) and 15130(b)(5)).

Based on the direction provided by the State CEQA Guidelines, the analysis in this section provides:

- Long-range demographic forecasts based on adopted local and regional plans
- A determination of whether the long-term impacts of all related past, present, and future plans and projects would cause a cumulatively significant impact

This section includes a determination as to whether implementation of the Project would have a "cumulatively considerable" contribution to any significant cumulative impact (see State CEQA Guidelines Sections 15130(a) and 15130(b), 15355(b), 15064(h), and 15065(c)).

The cumulative impact analysis considers the long-term effects of the Project (i.e., over the 8-year implementation period of the Housing Element Update, in accordance with the City of Riverside's [City's] obligations under the Regional Housing Needs Assessment [RHNA]). These impacts may not be apparent in the near term but may evolve into beneficial or adverse impacts in the long term. In the case of the Project, beneficial impacts also include those associated with addition of policies and actions to reduce public safety impacts or greater outreach to and engagement with environmental justice communities in the City.

The cumulative impact analysis utilizes the summary-of-projections method as allowed under CEQA and reviews build-out of the general plans and Capital Improvement Programs (CIPs) of the County of Riverside, as well as the adjacent cities of Norco, Jurupa Valley, Moreno Valley, Colton, Corona, and Grand Terrace, an area encompassing part of the Inland Empire. For population and housing, the analysis considers the Southern California Association of Governments' (SCAG's) 2020–2045 Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS) for build-out of the

six-county SCAG region. The following impact analysis considers whether the Project would have impacts that are individually limited but cumulatively considerable (*cumulatively considerable* means that the incremental effects of a project are considerable [i.e., notably large in size, amount, or extent] when viewed in connection with the effects of past projects, other current projects, and probable future projects).

The geographic area affected by cumulative projects (i.e., other proposed projects within the geographic extent of this cumulative impact analysis) varies depending on the environmental topic. For example, construction noise impacts would be limited to areas directly affected by construction noise; Project air emissions would generally affect the entire air basin; and population and housing impacts would relate to the area covered by SCAG, the metropolitan planning organization responsible for demographic growth projections. The geographic scope for utilities and service systems covers the service areas for the various service providers. This section considers the potential cumulative effects of the Project in combination with other local and infrastructure development generally occurring within the City and nearby areas of Riverside County in the adjacent cities of Norco, Jurupa Valley, Moreno Valley, Colton, Corona, and Grand Terrace. For public services, recreation, and utilities, projects funded under CIPs are also considered for the analysis.

3.16.1 Air Quality

Potential cumulative air quality impacts would result when other projects' pollutant emissions combine to degrade air quality conditions below acceptable levels. This could occur on a local level (e.g., increased vehicle emissions at congested intersections or concurrent construction activities at sensitive receptor locations) or a regional level (e.g., potential ozone [O₃] impacts from multiple past, present, and reasonably foreseeable projects within the South Coast Air Basin [Basin]). Given that both localized and regional pollution is regulated at the air basin level, the Basin is the resource study area for the purposes of air quality.

The Basin experiences chronic exceedances of the National Ambient Air Quality Standards and California Ambient Air Quality Standards and is currently in nonattainment status for O₃ (federal and state standards), particulate matter 10 microns or smaller in diameter (PM₁₀) (state standards only), and particulate matter 2.5 microns or smaller in diameter (PM_{2.5}) (federal and state standards). Consequently, cumulative development in the Basin as a whole could violate an air quality standard or contribute to an existing or projected air quality violation, resulting in a significant cumulative impact. Based on the South Coast Air Quality Management District's (SCAQMD's) cumulative air quality impact methodology, SCAQMD recommends that if an individual project results in air emissions of criteria pollutants that exceed SCAQMD's recommended daily thresholds for project-specific impacts, then it would also result in a cumulatively considerable net increase of these criteria pollutants for which the Project region is in nonattainment under an applicable federal or state ambient air quality standard. Conversely, if a project's emissions do not exceed the recommended daily thresholds for project-specific impacts, its impacts would not be cumulatively considerable and would not contribute to nonattainment of applicable air quality standards in the Basin.

As previously discussed under Threshold AQ-1 in Section 3.1, *Air Quality*, the Project would not be consistent with the Air Quality Management Plan (AQMP), which is intended to bring the Basin into attainment for all criteria pollutants. Daily construction emissions generated by the Project could exceed SCAQMD's daily significance thresholds and operation could result in long-term regional emissions of criteria air pollutants and O₃ precursors that could exceed SCAQMD's applicable

thresholds. Exceedance of these thresholds could obstruct SCAQMD's efforts to achieve attainment of ambient air quality standards for criteria pollutants for which it is currently not in attainment (i.e., O₃, PM₁₀, and PM_{2.5}), or jeopardize the current attainment status of the Basin for other criteria pollutants. Implementation of Mitigation Measures **MM-AQ-2** and **MM-AQ-3** would ensure the Project is reducing emissions during construction and operation; however, the impact would still be considered significant and unavoidable. Additionally, the changes that would occur with implementation of the Project would result in additional growth above what is assumed in the *Riverside General Plan 2025* (GP 2025) and in SCAG's growth assumptions in the 2016 RTP/SCS, which were used to develop the emissions inventory in the 2016 AQMP. Therefore, future development under the Project would exceed SCAG's projections in the 2016 RTP/SCS upon which the regional emissions inventory for the Basin in the AQMP was based, and the Project could interfere with attainment in the Basin, resulting in a potentially significant cumulative impact. Incorporation of Mitigation Measure **MM-AQ-1** requires coordination with SCAQMD and SCAG to update the AQMP and State Implementation Plan with growth projections reflective of the Project. However, even with incorporation of mitigation, impacts from the Project would be considered cumulatively significant.

The other local and infrastructure development occurring within the City and nearby areas of Riverside and San Bernardino Counties and the adjacent cities of Norco, Jurupa Valley, Moreno Valley, Colton, Corona, and Grand Terrace would also be required to undergo environmental review under CEQA, which would include analyzing the potential environmental impacts associated with air quality and identification of mitigation measures in the event significant environmental impacts are identified.

3.16.2 Biological Resources

The geographic extent for considering Project-related cumulative impacts on biological resources includes the City limits and the extent of similar habitat within the region because this distance encompasses a reasonable representative range for populations of sensitive species, such as special-status species and nesting birds, identified in the impact analysis for the Project. The scope for considering cumulative impacts on biological resources includes cumulative projects in the region that could potentially have an adverse effect on special-status plant and wildlife species, sensitive natural communities, protected wetlands or non-wetland waters of the U.S., local policies or ordinances protecting biological resources, and/or adopted habitat conservation plans (HCPs)/multiple-species habitat conservation plans (MSHCPs).

Future development facilitated by the Project along with other cumulative projects could include ground disturbance and vegetation removal (including mature trees and shrubs), resulting in potential direct and indirect impacts on special-status plant and wildlife species, nesting birds, sensitive natural communities, wetlands and potentially jurisdictional aquatic resources, wildlife movement corridors and nursery sites, and adopted HCPs/MSHCPs. Impacts from the Project would be less than significant for all of these biological resources with implementation of Mitigation Measure **MM-BIO-1** and individual project-specific consistency with the Western Riverside County MSHCP (WRC MSHCP), as described under Impact BIO-1 in Section 3.2, *Biological Resources*. Similar measures would be applied for other cumulative projects in the region as needed to comply with the MSHCP and minimize individual project impacts.

Construction of development facilitated by the Project could potentially affect special-status plant and/or wildlife species, including WRC MSHCP covered species, through the permanent removal and

temporary disturbance of suitable habitat, as well as introduction of temporary indirect disturbance from construction-related activities. Development under the Project would be required to comply with all applicable laws and regulations related to special-status species. Moreover, the Project would implement Mitigation Measure **MM-BIO-1** (Impact BIO-1) and would ensure that individual development projects are consistent with the WRC MSHCP so that impacts on special-status plant and wildlife species, including WRC MSHCP covered species, would be less than significant. Other similar projects in the geographic area considered for the cumulative impact analysis would also be required to comply with all applicable laws and regulations related to special-status species, including obtaining all required regulatory permits and achieving consistency with the WRC MSHCP, and would implement similar mitigation measures for any impacts incurred with development of sites in the City and the larger region for the Project and other cumulative projects. Therefore, the Project, in combination with other projects within the cumulative context, would not result in a cumulative significant impact on special-status species.

Project implementation also could have direct and indirect impacts on sensitive natural communities as a result of construction of future development under the Housing Element Update. However, impacts are expected to be minor given the placement of the Opportunity Sites within urban, developed areas. In addition, the Project would implement Mitigation Measure **MM-BIO-1** and would ensure that individual development projects are consistent with the WRC MSHCP so that impacts on biological resources would be less than significant. Similar measures would be applied for other cumulative projects in the region to reduce impacts, and other cumulative projects would be required to comply with all applicable regulatory permitting requirements and to be consistent with the WRC MSHCP prior to construction. Therefore, no significant cumulative impacts on sensitive natural communities would occur with implementation of the Project and other cumulative projects within the geographic context.

Project implementation could have direct and indirect impacts on potential federal and state jurisdictional aquatic features and/or WRC MSHCP-designated Riparian/Riverine habitats as a result of construction of future development under the Housing Element Update and brush clearing under the Public Safety Element. However, should these features be determined to be jurisdictional, then future development facilitated by the Project would be required to comply with all applicable sections of the Clean Water Act, as well as with state and local streambed and stormwater regulations and applicable permit conditions. In addition, the Project would implement Mitigation Measure **MM-BIO-1** and would ensure that individual development projects are consistent with the WRC MSHCP so that impacts on aquatic resources would be less than significant. Similar measures would be applied for other cumulative projects in the region to reduce impacts in compliance with permit requirements from resource agencies like the U.S. Army Corps of Engineers and California Department of Fish and Wildlife, as well as consistency with the WRC MSHCP. Therefore, the Project, in combination with other projects within the cumulative context, would not result in significant cumulative impacts on wetlands and/or potentially jurisdictional aquatic resources.

Construction of development facilitated by the Project may result in temporary changes to wildlife nursery sites (i.e., native resident and/or migratory nesting birds) due to tree and shrub removal and indirect disturbance from construction and brush clearing-related activities (e.g., noise, increased human presence). Impacts on wildlife nursery sites would be localized and indirect disturbance would be temporary in nature. Nesting habitat for birds would also not be substantially reduced. The Project would implement Mitigation Measure **MM-BIO-1** and would ensure that individual development projects are consistent with the WRC MSHCP so that any potential impacts on nesting birds from construction or brush-clearing activities that could result from the Project

would be avoided or minimized. As such, Project impacts on wildlife nursery sites would be less than significant. Wildlife movement corridors, including WRC MSHCP cores and linkages, would not be directly or indirectly affected under either the Housing Element Update or Public Safety Element Update, because construction is not proposed as this is a programmatic document and as the Opportunity Sites are proposed within previously urbanized areas of the City. Therefore, the Project, in combination with other projects within the cumulative context, would not result significant cumulative impacts on wetlands and/or potentially jurisdictional aquatic resources.

After implementation of Mitigation Measure **MM-BIO-1** and individual development project compliance and consistency with the WRC MSHCP, construction of the development facilitated by the Project would not conflict with the provisions of an adopted HCP, natural community conservation plan, or other approved local, regional, or state HCP. Like the Project, cumulative projects in the region would be expected to comply with provisions, goals, and objectives of any HCPs within the Project region and pay any necessary fees associated with those HCPs. Therefore, the Project would not result in a cumulatively significant impact on the goals of any adopted HCPs, including the Western Riverside County MSHCP and Stephens' Kangaroo Rat HCP.

For the reasons discussed previously, the Project, in combination with other projects within the geographic context, would not substantially reduce the number or restrict the range of any special-status plant or wildlife species, damage or destroy any sensitive natural communities, harm protected wetlands or non-wetland waters of the U.S., threaten to reduce or eliminate a wildlife nursery site, or conflict with the provisions of an adopted HCP, and no significant cumulative impact would occur.

3.16.3 Cultural Resources

The geographic scope of analysis for the cumulative cultural resource impacts varies for archaeological and built historical resources. For archaeological resources, the geographic scope includes the City, the larger region encompassing the City, and several surrounding cities and communities that compose the settled area of the various Native American tribes that inhabited this region. Archaeological resources are within the City limits and throughout the surrounding region, and can be affected both directly and indirectly as a result of increased development related to the Project. The geographic context for analysis of built historical resources depends on the type of resource but generally includes the City because built historical resources are present all throughout the City, including on and adjacent to Opportunity Sites. In addition, the Innovation District contains several clusters of historic buildings.

A significant cumulative impact on cultural resources would result if the Project, in combination with the effects of past, present, and reasonably foreseeable future projects in the City and the larger region, would contribute to cumulative impacts on significant built historical resources, archaeological resources, and/or inadvertently discovered human remains. The Opportunity Sites are scattered throughout the City and future development related to the Project could affect built historical and archaeological resources.

Construction at Opportunity Sites could involve impacts on archaeological resources whether previously known or newly discovered during construction. Indirect impacts on archaeological sites can include increased pedestrian traffic on known archaeological sites due to increased population density. Additionally, increases in population density can require infrastructure that might affect archaeological resources both within the City and regionally. Such impacts on archaeological sites

could occur at the locations of Opportunity Sites specifically and at other locations within the City or larger region. Future development projects occurring on Opportunity Sites such as in historic districts or the Innovation District could also include demolition or material alteration of known built historical resources; structural reuse requiring rehabilitation, restoration, reconstruction, and/or additions; or new construction or infill that has the potential to change the local landscape by modifying the setting of nearby built historical resources. Such construction could similarly occur on newly identified, or potential and previously unstudied, built historical resources.

The cumulative effects of multiple planned projects in the City and the larger region in combination with development at Opportunity Sites could mean cumulative adverse effects on archaeological resources. Such effects could include increases in vehicular and pedestrian traffic, increased population and more robust use of roadways and open space, and increased access to archaeological sites, resulting in the potential for looting or defacement of the physical components of archaeological resources. These direct and indirect impacts could cause adverse effects on the characteristics of known and unknown archaeological resources. Direct impacts could include complete removal of features and cultural constituents on portions of sites and removal of yet-undocumented potential subsurface components relating to construction activities. Indirect impacts include loss of setting, loss of traditional viewsheds, and increases in noise and vehicular and pedestrian traffic. As such, the Project, in combination with other planned projects in the City and in the larger region, could result in adverse cumulative effects on known and unknown archaeological resources eligible for the California Register of Historical Resources that might be identified within the proposed development locations. Therefore, the incremental impacts of the Project—when considered with past, present, and future projects in the Project vicinity—would result in a significant cumulative impact on archaeological resources.

As discussed in Section 3.3, *Cultural Resources*, ground-disturbing activities associated with construction at Opportunity Sites could result in the discovery of previously unidentified archaeological resources and destruction of known archaeological resources. This impact would remain significant and unavoidable after implementation of Mitigation Measures **MM-CUL-2** through **MM-CUL-9**. Therefore, the contribution of the Project to the cumulative impact on archaeological resources and human remains would be cumulatively considerable.

Cumulative impacts on historic resources could occur if the Project in combination with other development within the City results in adverse effects on previously identified CEQA historical resources as well as buildings that have not yet been surveyed or evaluated as potential historical resources and are over 50 years old at the time of development. Adverse effects could include a reduction in the number, intensity, concentration, and integrity of a certain historical property type or architectural style within the geographic context. However, all development is subject to the City's Cultural Resources Ordinance and Historic Preservation Element, which provide a process and policies for the protection and preservation of eligible and designated built historical resources. These would continue to apply to present and reasonably foreseeable future projects within the City.

Furthermore, the Project would be subject to implementation of Mitigation Measure **MM-CUL-1**, which would require historical resource assessments to identify buildings that meet applicable criteria as historical resources, and compliance with Title 20 (Cultural Resources) of the Riverside Municipal Code to minimize potential impacts on historic resources. Similar measures would be applied to other projects within the City that occur outside of the Opportunity Sites. Because development under the Project and throughout the City would be subject to these requirements to

avoid or minimize impacts on historic resources, a cumulative impact on built historical resources from past, present, and future projects would not occur.

3.16.4 Paleontological Resources

All significant paleontological resources are unique and nonrenewable resources. Unlike archaeological resources, which are site specific, paleontological resources can occur throughout a sensitive geologic unit, regardless of location. Therefore, the geographic context for paleontological resources encompasses the complete extent of geologic units with high or undetermined paleontological sensitivity that underlie the Project. It is likely that significant paleontological resources in these geologic units have been and could in future be destroyed by development. Therefore, a cumulative impact on paleontological resources in the geographic context exists.

Development in the geographic context has removed the upper layers of geologic units in many areas and replaced it with artificial fill. However, this fill is underlain in many areas by geologic units of high or undetermined paleontological sensitivity at varying depths below ground surface. Therefore, the Project, in combination with other foreseeable development in the identified geographic context, has the potential to encounter and damage or destroy previously unknown paleontological resources during both construction and operation. However, Mitigation Measures **MM-PAL-1**, **MM-PAL-2**, and **MM-PAL-3**—which would require individual projects to conduct paleontological resource investigations, avoid paleontological resources or conduct monitoring, and avoid/minimize impacts on paleontological resources during operations—would avoid or minimize the Project’s impacts on paleontological resources to the extent that the contribution of the Project to the cumulative impact on paleontological resources would not be considerable.

3.16.5 Greenhouse Gas Emissions

Greenhouse gas (GHG) emissions and climate change are exclusively cumulative impacts; as climate change is the result of cumulative global emissions, there are no non-cumulative GHG emissions impacts from a climate change perspective. No single project, when considered in isolation, can cause climate change because a single project’s emissions are not enough to change the radiative balance of the atmosphere. Because climate change is the result of GHG emissions and GHGs are emitted by innumerable sources worldwide, global climate change will have a significant cumulative impact on the natural environment as well as human development and activity. As such, GHGs and climate change are cumulatively considerable, even though the contribution may be individually limited.

As discussed in Section 3.5, *Greenhouse Gas Emissions*, the Project would contribute GHG emissions to the cumulative condition. Equipment and vehicles used during construction (e.g., on-road motor vehicles and heavy equipment) and operations (e.g., vehicle trips, electricity consumption, and waste generation) would result in a net increase in GHG emissions over existing conditions and over what is currently proposed in GP 2025. As discussed under Impact GHG-1 and shown in Table 3.5-8 in Section 3.5, implementation of the Project would result in emissions that would be below the numerical efficiency target for horizon year 2029. This target was developed with best available data and represents the emissions level the Project would need to achieve to align with the statewide GHG reduction goals established by Senate Bill (SB) 32 for 2030. However, because the City has not adopted a qualified GHG reduction plan (per State CEQA Guidelines Section 15183.5) that meets the statewide GHG goal established by SB 32 for 2030, it cannot be stated with certainty

that the Project would result in emissions that would represent a fair share of the requisite reductions toward the statewide 2030 target.

Additionally, the Project would not fully comply with local and statewide plans, policies, and regulatory programs outlined in GP 2025 the adopted Scoping Plan, and plans adopted or recommended by the California Air Resources Board or other California agencies for the purpose of reducing the emissions of GHGs. Notably, the Project would result in increased vehicle miles traveled (VMT) that exceed the California Air Resources Board's regional VMT target necessary to achieve the state's long-term GHG emissions-reduction trajectory. Implementation of Mitigation Measures **MM-TRA-1**, and **MM-GHG-1** through **MM-GHG-3** would be required to reduce GHG emissions from the Project during construction and operation, and ensure compliance with local and statewide plans, policies, and regulatory programs designed to reduce GHG emissions. Similar measures would be applied for other cumulative projects in the region to reduce impacts. However, even after incorporation of mitigation, the Project could result in a cumulatively considerable impact related to GHG emissions because it may impede achievement of state reduction targets.

3.16.6 Hazards and Hazardous Materials

The geographic context for an analysis of cumulative impacts with regard to hazards and hazardous materials is the City, including contaminated sites throughout the City. Development as an indirect result of the Project would have the potential to contribute to cumulative impacts related to hazards and hazardous materials, if, in combination with other projects within the City, it creates a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions; involves emissions/handling of hazardous materials or acutely hazardous materials and/or waste within 0.25 mile of an existing or proposed school; or is on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.

In general, cumulative impacts related to hazards and hazardous materials are most often associated with commercial or industrial land uses rather than residential and mixed-use development. Past, present, and reasonably foreseeable projects could result in significant hazardous material impacts if they are on a hazardous material site or include industrial activities that could result in soil or ground contamination. Hazardous materials in California are highly regulated, primarily by the Department of Toxic Substances Control but also by the California Environmental Protection Agency. Numerous federal, state, and local regulations govern the use, generation, transport, and disposal of hazardous materials. The State of California also has several programs to prevent accidental releases of toxic contaminants and require the preparation of Hazardous Materials Release Response Plans.

Furthermore, projects and plans that do not substantially increase the potential for industrial activity are not considered to generate cumulatively significant impacts. Therefore, direct and indirect development as a result of the Project would result in a low potential for hazardous material risk. Any future development (as a direct or indirect result of the Project or other development projects within the City) would be required to comply with applicable federal, state, and local regulations related to the handling, disposal, and remediation of hazardous materials. For the Project, this would include implementation of Mitigation Measure **MM-HAZ-1** and compliance with applicable regulations and programs. Therefore, the Project, in combination with other projects within the geographic context, would not result in a significant cumulative impact related to hazards and hazardous materials.

3.16.7 Land Use

The geographic context for an analysis of cumulative land use impacts includes the cities adjacent to Riverside—Norco, Corona, Grand Terrace, Jurupa Valley, Moreno Valley, and Colton—as well as adjacent portions of unincorporated western Riverside County. The general plans of these jurisdictions were reviewed to provide a foundation for planned cumulative growth in this geographic context.

The Project has the potential to result in a cumulatively considerable impact on land use and planning, if, in combination with other projects within the Inland Empire, it would cause a conflict with adopted land use goals, objectives, or policies of applicable land use plans adopted for the purpose of avoiding or mitigating an environmental impact. The cumulative growth and development in the Inland Empire are expected to be largely consistent with the land use plans that have been established to guide and regulate growth patterns and infrastructure improvements and are not expected to conflict with those plans. Regional planning documents, such as SCAG's Regional Comprehensive Plan and the 2020–2045 RTP/SCS, are used for planning within the Inland Empire. However, some strategies may not be consistent with the general plans of city and county areas when it comes to land use patterns and development intensities. On a local level, goals and policies in the local jurisdictions' general plans supersede strategies in the 2020–2045 RTP/SCS. Therefore, past, present, and reasonably foreseeable development is not anticipated to conflict with land use plans and policies and no significant cumulative impact would occur.

Cumulative development would be evaluated at the project level when individual projects are proposed, including undergoing the plan review process for consistency with adopted land use plans and policies in accordance with the requirements of CEQA, California Zoning and Planning Law, and the California Subdivision Map Act, all of which require findings of plan and policy consistency prior to approval of entitlements for development. Each cumulative project would be analyzed independently and within the context of its respective land use and regulatory settings. Therefore, past, present, and reasonably foreseeable development is anticipated to be consistent with land use plans and policies and no significant cumulative condition exists.

The Project would assist the City in meeting its state-required RHNA obligations and would update the existing Housing Element so that it is fully compliant with current state housing law. The Project would not physically divide an established community, as the Project would focus development in already urbanized parts of the City, near existing infrastructure, rather than spreading growth to the urban fringes, and no major roadway (e.g., expressway or freeway) that would traverse an existing community or neighborhood is proposed under the Project. All development facilitated by the Project would be processed in accordance with GP 2025 and the Riverside Municipal Code. The proposed rezoning identifies Opportunity Sites, which would permit multi-family residential and mixed-use development by right pursuant to California Government Code Section 65583.2(h) (e.g., without a Conditional Use Permit, Planned Unit Development Permit, or other discretionary action). Therefore, the impact of the Project on land use along with other cumulative development in adjacent cities and the county would be less than cumulatively considerable.

3.16.8 Noise

The geographic context for the cumulative noise analysis is the City. Development of new residential or mixed-used development could increase both stationary and mobile sources of noise from

heating, ventilating, and air conditioning (HVAC) and other equipment, as well as vehicles. Construction activities could also generate significant cumulative noise and vibration effects if in proximity to one another or in combination with operational or vehicular noise.

Vibration generated by construction equipment has the potential to be substantial and exceed the Federal Transit Administration criteria for human annoyance and structural damage, if construction occurred in close proximity to other construction. Therefore, both construction and operation activities could expose sensitive receptors to excessive noise or groundborne vibration, constituting a significant impact. Consequently, implementation of the Project in combination with other projects within the City would result in a cumulative impact related to noise and vibration.

Any future development facilitated by the Project would be required to comply with City requirements for both construction and operational noise and vibration, including those within the Riverside Municipal Code, GP 2025, and City standard conditions of approval. Individual projects also would likely prescribe project-specific mitigation measures that would reduce individual project-related impacts. Construction-related vibration impacts generally would be localized to the area where construction activities would take place, and would occur within the times prescribed by the Riverside Municipal Code, which would exempt construction noise. Therefore, there would be no significant cumulative noise and vibration impact related to construction.

Build-out of the Opportunity Sites facilitated by the Project, along with other projects throughout the City, would result in noise level increases throughout the local roadway networks (Table 3.8-16).

Impacts from stationary operational noise sources also would occur with build-out associated with the Project in combination with other development throughout the City. As noise generated by a stationary noise source, or “point source,” decreases by approximately 6 A-weighted decibels (dBA) over hard surfaces (e.g., reflective surfaces, such as parking lots or smooth bodies of water) and 7.5 dBA over soft surfaces (e.g., absorptive surfaces, such as soft dirt, grass, or scattered bushes and trees) for each doubling of the distance, it is reasonable to assume that new stationary noise sources associated with new projects would have to be located next to each other. Together with impacts associated with increased roadway noise, this increase in noise from stationary sources would result in a cumulative noise impact.

While roadway noise increases associated with the Project would be on the order of 0.5 decibel or less, the Project contribution would be considered cumulatively considerable. Furthermore, if future development within the Opportunity Sites were to occur in close proximity to other new development projects, the Project’s contribution to noise from stationary noise sources could also be considered cumulatively considerable. Implementation of Mitigation Measures **MM-NOI-1** through **MM-NOI-3** would reduce potential Project impacts. However, even with the inclusion of mitigation measures, impacts from the Project could make a cumulatively considerable contribution to cumulative noise and vibration impacts.

3.16.9 Population and Housing

The geographic context for an analysis of cumulative population and housing impacts is the area covered by SCAG, the metropolitan planning organization responsible for demographic growth projections for the region including the City. The basis for this cumulative analysis is the 2020–2045 SCAG RTP/SCS. The individual general plans for the adjacent cities of Norco, Corona, Grand Terrace, Colton, Jurupa Valley, and Moreno Valley and adjacent areas of unincorporated Riverside County were also considered.

The Project has the potential to result in a cumulatively considerable impact on population and housing if, in combination with other projects within the SCAG region, it would induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure) or displace a substantial number of existing people or housing, necessitating the construction of replacement housing elsewhere.

Past projects in the SCAG region have converted undeveloped and agricultural land to urban uses, resulting in residential and employment population increases. Currently, there is no question that there is an ongoing housing crisis throughout California. A variety of measures indicate the extent of the crisis, including overcrowding and cost-burdened households, but the underlying cause is insufficient housing supply together with continuing population growth over recent decades. Planning documents, such as general plans prepared by cities, generally reflect the growth projections in SCAG's 2020–2045 RTP/SCS. Build-out under the RTP/SCS would consist of a variety of land uses, including roadway improvements, residential development, habitat reconstruction, water treatment and infrastructure, commercial development, and recreation, which could reasonably be expected to contribute to population increases in the region. While general plans in the cumulative geographic context aim to be consistent with regional growth projections, given the current housing shortage and the high RHNA obligations for the 6th cycle, it is reasonably foreseeable that future cumulative development could exceed growth projections of the 2020–2045 RTP/SCS. For example, Colton would exceed growth projections of the 2020–2045 RTP/SCS based on its RHNA obligation and it is anticipated that at least some other cities within the SCAG region would similarly result in exceedances of growth projections. Table 3.16-1 compares the projections of the general plans of the cities adjacent to the City and Riverside County with the SCAG growth projections in the 2020–2045 RTP/SCS.

Development pursuant to the Project would result in a further increase in the population and available housing stock within the City. The population increase from the Project would exceed growth forecasts within SCAG's 2020–2045 RTP/SCS. There is no feasible mitigation available to reduce this impact. Consequently, the Project would make a considerable contribution to cumulative impacts on population and housing. Therefore, impacts of the Project on population and housing would be cumulatively considerable and the impact would be cumulatively significant.

Table 3.16-1. Comparison of General Plan and SCAG Growth Projections (Cities Adjacent to the City of Riverside and Riverside County)

Jurisdiction	GP Housing Projections	GP Population Projections	SCAG 2020–2045 RTP/SCS Housing (2016)	SCAG 2020–2045 RTP/SCS Housing (2045)	SCAG 2020–2045 RTP/SCS Housing Growth	SCAG 2020–2045 RTP/SCS Population (2016)	SCAG 2020–2045 RTP/SCS Population (2045)	SCAG 2020–2045 RTP/SCS Population Growth	6 th Cycle RHNA Housing Obligation	6 th Cycle RHNA Population Projections (2.90 PPH)
County of Riverside	724,506	2,347,828	716,000	1,086,000	370,00	2,364,000	3,252,000	888,000	167,351	485,318
Colton	14,971	52,690	15,000	21,700	6,700	53,700	70,700	17,000	5,434	15,759
Corona	45,165	152,374	46,900	52,400	5,500	165,800	185,100	19,300	6,088	17,655
Grand Terrace	4,458	12,025	4,400	5,600	1,200	12,400	14,500	2,100	630	1,827
Jurupa Valley	26,874	93,817	25,300	31,800	6,500	100,100	117,800	17,700	4,497	13,041
Moreno Valley	39,155	247,780	52,700	76,200	23,500	205,700	266,800	61,100	13,627	39,518
Norco	7,090	22,632	7,100	7,100	-	27,100	27,300	200	454	1,317

GP = general plan; PPH = persons per household, as used by SCAG for forecasting purposes

3.16.10 Public Services

The geographic context for an analysis of cumulative impacts with regard to public services is the local service areas within the City for police and fire services, schools, and libraries. Riverside Fire Department provides fire protection for the City. Riverside Fire Department's major facilities include 14 fire stations throughout the City, administration and prevention offices, an Emergency Operations Center, and a training center. Riverside County Fire Department provides service to the unincorporated territory within the City's Sphere of Influence. Four Riverside Police Department stations serve the City. The City is served by two public school districts: Riverside Unified School District, which has 47 schools, and Alvord Unified School District, which has 23 schools. Riverside Public Libraries maintains eight existing libraries that serve the City, with an additional library (Main Library) to be opened in 2021. Four university and college libraries also serve the City.

Past and present development has resulted in increased population, which in turn has resulted in an increase in demand for all public services. Growth in the City to date has been consistent with the growth projections in the City's GP 2025. Furthermore, each of the public service providers conducts an annual budgeting process where future facility/staffing needs are identified. Because past and present development is consistent with growth identified in GP 2025 and there are mechanisms in place to ensure provision of adequate service, there would be no significant cumulative condition with respect to public services within the defined geographic area.

The Opportunity Sites are located throughout the City and future development pursuant to the Project would increase demand and affect the provision of public services and facilities. Compliance with state and local regulations as well as established budgeting processes would ensure that there would be sufficient facilities and service to accommodate additional public services resulting from development and associated population growth facilitated by the Project. While there are no development impact fees that would fund the Riverside Public Library system, compliance with GP 2025 would help ensure that future development would not affect the City's ability to provide adequate library services. Should population growth associated with the Project, and more broadly within the cumulative context, necessitate the expansion of existing libraries or construction of new facilities, the impacts of such development would be analyzed at a project-specific level.

As additional development occurs in the geographic context, there would be an overall increase in the demand for public services, which could cause physical deterioration of existing facilities. Future development facilitated by the Project would be consistent with GP 2025 and new policies from the Public Safety Element Update. However, increases in demand are routinely assessed by fire and law enforcement agencies as part of the budgeting processes, as noted, and law enforcement and fire protection services are anticipated to be adequate to accommodate future growth in the City. This is partially accomplished through collection of development impact fees. Similarly, school districts routinely assess increases in growth and would ensure that there would be sufficient school facilities to accommodate associated population growth through collection of development impact fees. Other cumulative projects in the Inland Empire would also require collection of development impact fees to accommodate increases in demand for public services. Such fees would be utilized to help fund construction of required new or expanded facilities, and the impacts of such development would be analyzed at a project-specific level.

Cumulative related projects pursuant to build-out of general plans and CIPs in the Inland Empire consist of a variety of developments, including roadway improvements, residential development,

habitat reconstruction, water treatment and infrastructure, electrical infrastructure, airport improvements, commercial development, and recreation, among others. All cumulative projects would be consistent with the applicable land use plans and CIPs. Public service providers in the cumulative context have similar annual budgeting processes to assess the adequacy of facilities and staffing. Furthermore, as development of new and expanded library, school, fire, and police facilities would be required to go through the applicable local entitlement and approval processes, including CEQA review, such development is expected to occur in a manner that would avoid cumulative impacts. Any significant impacts would be disclosed and mitigated, as feasible, at a project-specific level. Therefore, the cumulative public services impact would be less than significant. Consequently, the Project, in combination with cumulative projects in the defined geographic context, would not result in a significant cumulative impact on public services.

3.16.11 Recreation

The geographic context for an analysis of cumulative impacts on recreation is the City, as this geographic area contains the regional, community, and neighborhood recreational resources most used by local residents and visitors.

Population growth from past and present development in the City has led to an increased demand for neighborhood, community, and regional parks and recreational facilities. The City has a goal of 2 acres of community, 1 acre of neighborhood park, and 5 acres overall per 1,000 residents. City parkland ratio goals versus parkland ratios with implementation of the Project would decrease the parkland-to-resident ratio. The existing parkland-to-resident ratio is 7.91 acres per 1,000 residents citywide, and implementation of the Housing Element Update would result in 6.07 acres per 1,000 residents citywide.

Implementation of the Project in the City has the potential to increase population to the point where parkland-to-resident ratios are exceeded, and overuse and deterioration of existing parks and recreational facilities could occur. As noted in Section 3.11, *Recreation*, the deterioration that would occur to neighborhood parks and recreational facilities from population growth in the City may be offset with funding from new development such as in-lieu fees for parks or donation of parkland pursuant to the Quimby Act. The Quimby Act is a funding mechanism for parkland acquisition for jurisdictions. As allowed by this act, the City has park dedication ordinances as part of its municipal code, which require most residential subdivisions to dedicate parkland or pay in-lieu fees to enable the City to acquire parkland. To accommodate future demand for park and recreational facilities from implementation of the Project in the City, additional park and recreational facilities would be developed and constructed throughout the City, including those future projects listed in Section 3.11.

Cumulative development throughout the City would incrementally increase the need for new or expanded facilities, which would have the potential to result in adverse environmental effects. Such effects would be assessed on a project-specific basis, with individual projects undergoing separate CEQA analysis and proposing mitigation, as needed to address potential impacts. As such, the Project, in combination with cumulative projects defined in the geographic context, would not result in a significant cumulative impact with respect to parks and recreation in the City.

3.16.12 Transportation

The geographic context for an analysis of cumulative transportation impacts considers total development within the City plus regional growth consistent with the SCAG RTP/SCS as represented in the Riverside County Traffic Analysis Model forecasting model. The cumulative condition considers full build-out of GP 2025 and the City's CIP as it relates to roadway improvements in addition to the RTP/SCS financially constrained transportation improvements.

The Project, in combination with other projects in the City, would result in an increase in VMT. The Project would result in an increase in the total origin-destination VMT compared to the base year, which exceeds the City's VMT threshold of significance. The Project would also result in an increase in VMT within the City boundary with the addition of the Project in the base and future years. These are both attributable to the fact that the Project would increase population and employment within the City, which would increase VMT. However, the VMT per service population would decrease within the City, showing that travel on a per-person basis would be more efficient with the addition of the Project. Given the uncertainty in some components that influence VMT (such as the cost of fuel) combined with the City's inability to influence other measures that would have the largest effect on VMT (such as implementation of a VMT tax or an increase in the fuel tax), the effectiveness of Transportation Demand Management measures to mitigate VMT cannot be guaranteed to reduce impacts and the impact is considered significant and unavoidable. Together with other projects within the cumulative context, this would result in a significant cumulative impact.

Project implementation is not expected to substantially increase the number of individuals using the airport facilities at Riverside Municipal Airport, Flabob Airport, or March Air Reserve Base. The Project would not result in a change in air traffic patterns or in a safety hazard for people residing or working in the City. Other future projects would be required to also analyze and minimize impacts related to airport facilities.

Project implementation could result in inadequate emergency access. The City continues to implement adopted road standards and, as a result, new roadways would be designed to avoid unsafe design and provide adequate emergency access. The City has an Emergency Operations Plan, and the Riverside Fire Department provides response management through activation of the Standardized Emergency Management System. GP 2025 also provides policies to identify methods of implementing the emergency plan. Additionally, the Public Safety Element Update as part of the Project would address emergency preparedness and response, including through provision of high-quality and responsive emergency management services to all residents and businesses in the City (refer to Appendix B for proposed Public Safety Element policies). All projects within the City would be required to comply with these plans and policies, which would minimize any impacts related to emergency access.

Implementation of the Project as well as other cumulative projects in the City would not conflict with adopted policies, plans, or programs supporting alternative transportation. Major principles for the Project include focusing future development near existing transportation corridors, ensuring land uses are supported by an efficient local roadway network, and supporting alternative modes of transportation such as walking, biking, and transit. GP 2025 and the Project and their relevant policies would support, rather than conflict with, policies, plans, and programs concerning alternative transportation, thereby limiting impact of the Project and other projects within the City.

Implementation of the Project, in conjunction with other cumulative projects, would result in less-than-significant impacts following compliance with the specified GP 2025 policies and applicable regulations for hazards due to a design feature, emergency access, and policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, as concluded above. All future development in the City would be reviewed on a case-by-case basis for consistency with applicable regulatory requirements, including GP 2025 goals and policies and Riverside Municipal Code standards, intended to reduce and/or avoid potential impacts involving transportation and traffic. Cumulative impacts on transportation and traffic would be mitigated on a project-by-project level, and in accordance with the established regulatory framework, through the established regulatory review process.

Mitigation Measure **MM TRA-1** could reduce VMT, but the effectiveness would vary by type and location of future specific projects, and outside influences on travel such as the price of fuel cannot be fully controlled. Consequently, the Project would make a considerable contribution to cumulative impacts on transportation. Therefore, impacts of the Project on transportation would be cumulatively considerable and the impact would be cumulatively significant.

3.16.13 Tribal Cultural Resources

The geographic scope for an analysis of cumulative impacts on tribal cultural resources (TCRs) includes the City, the larger region encompassing the City, and several surrounding cities and communities that compose the settled area of the various Native American tribes that inhabited this region. A cumulatively considerable impact on TCRs would result if, in combination with build-out of the past, present, and reasonably foreseeable future plans, the Project's incremental contribution to significant cumulative TCR impacts would be considerable.

Opportunity Sites and surrounding areas consist of urban land that has been almost entirely developed with buildings, roadways, or park landscape. Therefore, due to the nature of the Project, it is unlikely that significant TCRs would be encountered during implementation at Opportunity Sites. Any potential TCRs inadvertently discovered during construction activities would be evaluated and protected in compliance with Assembly Bill 52. However, past projects within the geographic scope have resulted in the urban development seen today, which most likely also affected TCRs that were previously within those projects' footprints. Because the past and present projects have drastically changed the cultural setting of the immediate region, cumulative impacts from past, present, and probable future projects could be cumulatively significant.

The impacts from past development projects on TCRs is unknown; however, they are assumed to have occurred, as cultural resource laws and regulations were not in place when much of the City was developed. TCRs can be sites, features, places, cultural landscapes, or sacred places, and it is assumed that such features existed within the boundaries of the City. Given the known existence of TCRs through oral histories and statements from Native American tribes that occupied and continue to occupy this region, it is assumed that some TCRs may have been affected by past development. While individual present and future projects may not affect known TCRs, it is possible that currently unknown TCRs such as buried archaeological sites, sacred features, or as-yet-undefined cultural landscapes could be affected. The possibility that the Project and subsequent development within the geographic context could affect currently unknown TCRs, in combination with the impacts of past projects which are assumed to have occurred, would result in a potential cumulative impact on TCRs.

A search of the Native American Heritage Commission's Sacred Lands File was positive for cultural resources. While it is unknown where these resources are located, as this information is kept confidential by the Native American Heritage Commission, it is likely that they would be considered TCRs. Additionally, the Pechanga Band of Luiseño Indians has indicated that the area is culturally sensitive and identified types of resources that exist in the City that could be considered TCRs. The Soboba Band of Luiseño Indians also indicated that the Project is in proximity to known sites, is within a shared use area involved in intertribal trade, and is considered culturally sensitive by the people of Soboba. As discussed in Section 3.13, *Tribal Cultural Resources*, significant TCRs are potentially present within portions of the City, though it is unknown whether such TCRs are located at specific Opportunity Sites and whether such TCRs are listed or eligible for listing in the California Register of Historical Resources or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k). It is likely, however, that resources such as those described by Pechanga (rock art, pictographs, and petroglyphs) would be considered eligible TCRs and are likely to be identified as such.

Demolition and construction of new structures associated with development of Opportunity Sites could include varying depths of excavation and ground disturbance, and similar activities would likely occur with other development within the geographic context. If ground-disturbing activities were to occur in areas identified as sensitive by Native American tribes, these activities could damage or destroy TCRs, which would be a significant impact. In addition, ground-disturbing activities associated with each of these categories could damage or destroy currently undiscovered TCRs, which would also be a significant impact.

While a significant cumulative impact on TCRs would occur within the geographic context, the Project's contribution to this impact would not be cumulatively considerable with implementation of Mitigation Measures **MM-CUL-2** through **MM-CUL-9**, **MM-TCR-1**, and **MM-TCR-2**. As described in Section 3.13, *Tribal Cultural Resources*, these measures would reduce the impacts of the Project to a less-than-significant level by requiring consultation with the City (by the applicant) and tribal representatives prior to issuance of a grading permit; implementation of TCR protocols and measures determined through consultation with tribes; preparation of archaeological studies, treatment plans, and monitoring; and implementation of data recovery procedures. These measures would help avoid or minimize Project effects on TCRs to the extent that the Project's contribution to the cumulative impact would be minimal.

3.16.14 Utilities and Service Systems

The geographic context for cumulative impacts from the Project on utilities and service systems is the local utility service areas for the individual providers. For the cumulative impact analysis for water sources and supplies, stormwater, and solid waste, this consists of the City and areas within the City's Sphere of Influence. The geographic context for cumulative impact analysis of electricity is the Southern California Edison service area, which provides electricity for the City's Sphere of Influence and provides the interconnection to the state's transmission grid to Riverside Public Utilities (RPU), the City's main electric power provider. The geographic context for the cumulative impact analysis of natural gas is the Southern California Gas Company service area.

Water

A majority of the City is within the RPU service area, while the southeasterly portion is within the Western Municipal Water District (WMWD) service area. Water for the City is mainly supplied by

RPU. According to the RPU Urban Water Management Plan, the City's conservation and long-range planning efforts have made it such that identified supplies exceed demands through planning year 2040. According to the WMWD Urban Water Management Plan, WMWD's supplies exceed demands for normal year and multiple dry-year conditions through 2040. Past, present, and reasonably foreseeable future development would result in increased demand for water. While there is a statewide drought condition, the supply for the WMWD service area is adequate to accommodate growth through 2040. There would be no significant cumulative condition with respect to water supply.

Implementation of the Project would facilitate the development of the Opportunity Sites, thereby resulting in more demand for water resources over existing conditions. The increased demand would not be accommodated in accordance with the 2015 RPU Urban Water Management Plan. However, none of the groundwater basins from which RPU extracts water from are currently in a critical overdraft condition (RPU 2016). Adverse environmental impacts are not expected from the use of groundwater sources because groundwater extraction would be within the safe yield of the groundwater basin. However, construction activities associated with future development would be subject to compliance with local, state, and federal laws, ordinances, and regulations necessary to ensure construction-related impacts are not significant. Therefore, the future increase in demand for water supply from implementation of the Project would not result in the extension, relocation, and expansion of new water facilities and the impact would be less than significant.

Cumulative projects would also be required to coordinate demands with the capacity of the water system and work with RPU and WMWD to coordinate water services. While full build-out of the Project could result in an increase in demand in exceedance of the 2015 RPU Urban Water Management Plan projections, groundwater use augments supply for future projects that is provided by RPU and WMWD. Additionally, in compliance with SB 221 and SB 610 requirements, future development that meets certain size thresholds would require preparation of a water supply assessment in order to verify sufficient water supply is available to meet future development's water demand. Future development would also be required to fund fair-share costs associated with the provision of water, and to ensure that the provision of water is consistent with the growth planned for the City including the Sphere of Influence, working with other providers (GP 2025 Policies PF-1.3 and PF 1.4). In addition, existing GP 2025 Final Programmatic EIR Mitigation Measure UTL-1 requires the City to periodically review population and development trends with respect to water sources and supply to ensure that growth facilitated by the Project can be accommodated with present and expected water sources. This would further reduce impacts related to the provision of water services for the Project and other cumulative projects within the geographic context. Therefore, there would be no significant cumulative impact on water supply.

Wastewater Treatment

Riverside's wastewater treatment is provided by the City of Riverside Public Works Department's Riverside Regional Water Quality Control Plant (RWQCP) and WMWD. Public Works operates and maintains the treatment facility and a wastewater collection system including over 800 miles of public sewer mains and 400 miles of City-owned laterals throughout the City. The RWQCP provides preliminary, primary, secondary, and tertiary treatment with a hydraulic rated capacity of 46 million gallons per day (mgd) average dry-weather flow. As of 2020, the average daily influent flows are 25.3 mgd (0.54 percent capacity). Western Riverside County Regional Wastewater Authority has a design capacity of 14 mgd and currently treats an average of approximately 8 mgd (or 0.57 percent capacity). The Western Water Recycling Facility has a capacity of 3 mgd and currently processes an

average flow of 0.8 mgd (or 0.25 percent capacity). Past, present, and reasonably foreseeable development have not resulted in inadequate capacity of the wastewater treatment system. As described in Section 3.14, there is remaining capacity for RPU to meet the future increase in wastewater treatment demand within its service area.

Development facilitated by the Project could result in additional housing units that would cause increased demand for wastewater treatment services. At maximum build-out, the Project would generate an estimated 9.5 mgd within the City's wastewater service area, which would be adequately treated by the RWQCP because it would not exceed its treatment capacity of 46 mgd. It is anticipated that RWQCP treatment facilities would be able to meet increased demand for wastewater. To serve future population growth facilitated by the Project, sewer lines would have to be expanded within the City; this could occur with other cumulative projects as well. While development of the Project and other projects within the geographic context would require extension, relocation, and expansion of new sewer lines within the City, construction activities associated with future development would be subject to compliance with local, state, and federal laws, ordinances, and regulations, as well as any Project-specific mitigation measures necessary to ensure construction-related impacts are not significant. Additionally, cumulative projects would undergo separate CEQA analyses and implement mitigation measures as necessary to reduce impacts on wastewater demand and ensure consistency with applicable wastewater management plans. For these reasons, the Project's impact, in combination with cumulative projects, would not result in a significant cumulative impact for wastewater treatment.

Stormwater

Regional stormwater drainage facilities within the City are managed by the Riverside County Flood Control and Water Conservation District. The City's smaller drainage facilities are maintained by the City. The City has 11 principal drainage areas, 10 of which flow into the Santa Ana River. A small portion of the Orangecrest area drains to the Perris Valley drainage area, which eventually discharges to Canyon Lake and Lake Elsinore.

Past development has resulted in increases in impervious surfaces in the geographic context, causing an increase in stormwater runoff into storm drain systems. Past and present development has not resulted in inadequate capacity of the wastewater treatment system. Future development will comply with all applicable regulations related to stormwater, and therefore is not anticipated to change the cumulative condition.

While development facilitated by the Project would require extension, relocation, and construction of new storm drain facilities within the City, construction activities associated with future development would be subject to compliance with local, state, and federal laws, ordinances, and regulations, as well as any Project-specific mitigation measures necessary to ensure construction-related impacts are not significant. Additionally, the cumulative projects would be required to conduct separate CEQA analyses and implement mitigation measures as necessary to reduce impacts on stormwater drainage facilities. All projects would comply with applicable regulations related to stormwater discharge. Therefore, the Project's impact, combined with the cumulative projects, would not result in a significant stormwater impact.

Electricity, Natural Gas, and Telecommunications Facilities

Electric services within the City limits are provided almost solely by RPU. The City's Sphere of Influence and a handful of residential units in the City are provided electricity by Southern California Edison. Natural gas services are provided by the Southern California Gas Company. According to the California Public Utilities Commission, the majority of the City's telecommunication and fiber optics services are provided by AT&T.

Electricity, natural gas, and telecommunications services are intended to support existing and future growth; that is, as demands grow, the related infrastructure grows. Service providers undertake extensive short- and long-term planning efforts coordinated throughout the state and with state agencies to ensure that there is adequate energy and telecommunications infrastructure in place to accommodate projected growth, including growth associated with expanding housing supply and jobs. Each of the utility providers routinely assesses demands and prepares comprehensive infrastructure plans and reports outlining the state of the resource and future needs. Because of the growth considered in these plans, reasonably foreseeable future development would similarly be accommodated by the utility providers. Therefore, there would be no significant cumulative condition related to these utilities.

While development of the Project would require extension, relocation, and construction of above-ground and underground electric power, natural gas, or telecommunications facility improvements within the City, construction activities associated with future development would be subject to compliance with local, state, and federal laws, ordinances, and regulations, as well as any Project-specific mitigation measures necessary to ensure construction-related impacts are not significant. In addition, even though growth under the Project would exceed SCAG growth projections, electrical, natural gas, and telecommunication service providers consider growth in their service areas in their infrastructure plans and through other projections and project-specific requests for service and do not simply rely on SCAG projections. Therefore, the impact of the Project on these dry utilities would be less than significant. Cumulative projects would be required to conduct separate CEQA analyses and implement mitigation measures as necessary to reduce impacts on dry utilities. The Project's impact would not be cumulatively considerable for electric power, natural gas, or telecommunications.

Solid Waste

The City of Riverside Public Works Department is responsible for the collection and disposal of approximately 70 percent of the City's residential and commercial solid waste. The remainder of the City's solid waste disposal needs are met by private contractors, including Burrtec Waste Industries for residential development and Burrtec Waste Industries, Athens Services, and CR&R Waste Services for commercial development. The City has a comprehensive waste management program that ensures projects comply with waste-reduction ordinances and programs. While there is a shortage of landfills statewide, recycling programs and regulations continue to evolve to help ensure adequate disposal capacity. Reasonably foreseeable future development would similarly comply with waste-reduction regulations.

Development of the Project in conjunction with other cumulative projects within the geographic context for cumulative impacts would generate additional demand for solid waste services, depending on net increases in population, square footage, and intensification of uses. These projects would contribute to the overall regional demand for solid waste. Concurrent with the increased

demand generated by past and present development, recycling programs are being improved and developed to reduce the amount of solid waste disposed of in landfills. Such programs help offset the demand associated with waste-generating development. Additionally, cumulative projects would comply with all waste-reduction requirements and be required to conduct separate CEQA analyses and implement mitigation measures as necessary to reduce impacts on solid waste disposal capacity.

Future development associated with the Project would result in increased housing units and mixed-use development and new residents in the City, which would result in an increase in solid waste generation over existing conditions. Future development associated with the Project would result in an increase of up to 31,564 housing units and 103,530 new residents, which would result in an increase in solid waste generation over existing conditions. The Project would not generate solid waste in excess of state or local standards or impair the attainment of solid waste reduction goals. Among the four landfills that would serve the Project, there is a remaining capacity of approximately 100 million cubic yards.

Cumulative related projects pursuant to build-out of general plans and CIPs in the Inland Empire consist of a variety of land uses, including roadway improvements, residential development, habitat reconstruction, water treatment and infrastructure, commercial development, and recreation, among others. As discussed in Section 3.14, *Utilities and Service Systems*, implementation of the Project would result in less-than-significant impacts on utilities and service systems throughout the City. Because the Project, along with other cumulative projects developed within the geographic context, would be compliant with all applicable regulatory and environmental review requirements to ensure that there is adequate capacity to meet the demand they generate, there would be no significant cumulative impact related to solid waste services.

CEQA requires that an EIR examine a reasonable range of feasible alternatives to a project or project location that could substantially reduce one or more of the project’s significant environmental impacts while meeting most or all of its objectives. The EIR is required to analyze the potential environmental impacts of each alternative, though not at the same level of detail as the project. However, there must be sufficient detail to enable comparison of the merits of the respective alternatives.

The key provisions of State CEQA Guidelines Section 15126.6 that relate to alternatives analyses are summarized below.

- The discussion of alternatives shall focus on alternatives to the project or project location that are feasible, would meet most or all of the project objectives, and would substantially reduce one or more of its significant impacts.
- The range of alternatives must include the No Project Alternative. The no project analysis will discuss the existing conditions at the time the Notice of Preparation was published, as well as conditions that would reasonably be expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services. The No Project Alternative is not required to be feasible, meet any of the project objectives, or reduce the project’s expected impacts to any degree.
- The range of alternatives required is governed by a “rule of reason.” The EIR must evaluate only those alternatives necessary to permit a reasoned choice. An EIR is not required to analyze every conceivable alternative to a project.
- An EIR does not need to consider an alternative that would not achieve the basic project objectives, for which effects cannot be reasonably ascertained, or for which implementation is remote and speculative.

4.1 Objectives and Impacts

4.1.1 Project Objectives

Project objectives include the following:

- Plan for a maximum allowable development under the Project (31,564 units) to meet the City of Riverside’s (City’s) minimum Regional Housing Needs Assessment (RHNA) obligation (18,458 units with a 30 percent No Net Loss buffer for approximately 24,000 units) across all wards.
- Affirmatively further fair housing and identify potential environmental justice and social equity issues to support positive economic, educational, and health outcomes for low-income families—particularly long-term outcomes for children.
- Ensure affordable housing is added across the City and not concentrated in areas with lower access to amenities or near sources of pollution.

- Add a variety of housing opportunities that will make Riverside a more accessible and resilient community.
- Locate new housing in areas readily accessible to services, parks and other amenities, transit, jobs, and activity centers.
- Identify vacant or under-developed sites, meaning sites with substantial unused land or development potential.
- Limit or prevent housing development in areas with development constraints, such as agricultural and conservation lands, airport influence areas, and, to the extent feasible, fire and flood hazard zones.
- Address the public safety and public health needs and concerns of residents, businesses, institutions, and visitors, and set forth a proactive and coordinated program of protection for all foreseeable natural and human-caused hazards.
- Reduce the potential adverse impacts of housing near inconsistent land uses, along major corridors, or near similar uses.

4.1.2 Significant Impacts

Alternatives are to provide a means of substantially reducing the level of one or more significant impacts that would otherwise result from implementation of the Project. Absent mitigation, the Project would result in significant and unavoidable impacts on the following resources.

- Air quality
- Greenhouse gas emissions
- Noise
- Population and Housing
- Transportation

4.2 Methodology and Screening Criteria

A range of potential alternatives was developed and subjected to the screening criteria. The EIR preparers considered several representative alternatives. There was no attempt to include every conceivable alternative. The following criteria were used to screen potential alternatives.

- Does the alternative meet most or all of the Project objectives?
- Is the alternative potentially feasible?
- Would the alternative substantially reduce one or more of the significant impacts associated with the Project?

According to State CEQA Guidelines Section 15364, *feasible* is defined as “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.” CEQA does not require that an EIR determine the ultimate feasibility of a selected alternative, but rather that an alternative be

potentially feasible. Accordingly, no economic studies have been prepared regarding the economic feasibility of the selected alternatives.

The significant effects of the Project may include those that are significant and unavoidable as well as those that are less than significant with mitigation. The alternatives should provide a means of reducing the level of impact that would otherwise result from implementation of the Project. Those alternatives that meet the Project objectives, that are potentially feasible, and that would reduce one or more Project impacts are discussed in greater detail in Section 4.4. Alternatives that were considered but rejected are also briefly described below, along with the reasons for their rejection.

4.3 Alternatives Considered but Rejected During the Scoping and Project Development Process

According to CEQA, “among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are: (i) failure to meet most of the basic project objectives, (ii) infeasibility, or (iii) inability to avoid significant environmental impacts” (State CEQA Guidelines § 15126.6(c)).

Alternative Locations. State law requires the City to adopt a long-range, comprehensive general plan. The City is authorized to adopt Specific Plans that are consistent with the general plan. The Project consists of an update of the City’s Housing Element and Public Safety Element of the *Riverside General Plan 2025 (GP 2025)* and the addition of Environmental Justice Policies. Consideration of an alternative location for the general plan is not feasible because the general plan must address the lands within the City limits and any adjoining land (sphere of influence) that is of planning interest to the City. As such, this alternative was considered but rejected from further consideration.

Early Versions of the Opportunity Sites Alternative. Throughout development of the Project, multiple iterations of Opportunity Site configurations resulted in different totals of housing units and nonresidential development with the same intent of meeting the City’s obligation to provide housing opportunities for all income levels pursuant to Housing Element law and the City’s regional housing share. These early drafts were instrumental in the development of what ultimately became the Project evaluated in this Draft EIR, but these early versions were not selected as the Project. Some of these RHNA scenarios included numbers that exceeded the RHNA obligation (including up to 50,000 units). Other RHNA scenarios placed some housing Opportunity Sites in less densely populated areas, farther away from existing infrastructure, services, and transit, which could lead to increased costs for housing and result in greater impacts on air quality, greenhouse gases (GHG), transportation, and other factors supporting sustainable development. As the Project would meet the RHNA obligation and the Project objectives, all other early drafts were considered but rejected for further consideration.

Historical Development Pattern Alternative. This alternative would allow for housing units based on the historical development pattern of the City. The City approved 2,970 housing units between 2010 and 2020. This averages to 297 dwelling units per year during this period. If the City were to proceed with development of housing as in the past decade, its RHNA obligation would not be met and would not be in compliance with state law. Therefore, this alternative would not achieve the Project objectives and was rejected for further consideration.

No Rezoning Alternative. Including Opportunity Sites that do not require rezoning would not meet the RHNA obligation, as adequate sites for only 7,333 units have been identified that would not require rezoning. As this number is less than the RHNA obligation of 18,458 units and would not meet the City's objectives to meet its RHNA obligation and provide a variety of new housing opportunities throughout the City, this alternative was considered but rejected from further consideration.

4.4 Alternatives Analyzed in this EIR

CEQA generally requires analysis of a No Project Alternative (i.e., the environmental impacts of continuing existing conditions). As such, the No Project Alternative would include what would be reasonably expected to occur in the foreseeable future if the Project were not approved, based on current plans and consistent with available infrastructure and community services. Additional alternatives also considered include Alternative 2—Dispersed Growth Alternative, Alternative 3—Focused Growth Alternative, and Alternative 4—Limited Opportunity Sites Alternative, which vary by density proposed or housing types or a combination of these factors. These alternatives are considered in the EIR along with the Project and are described in detail below.

4.4.1 Alternative 1—No Project Alternative

Like the analysis of the Project throughout this EIR, the analysis of the No Project Alternative compares the alternative to existing conditions in Riverside. The impacts of the No Project Alternative are examined qualitatively to allow comparison with the Project.

According to State CEQA Guidelines Section 15126.6(e), the No Project Alternative must include the assumption that conditions at the time of the Notice of Preparation (i.e., baseline environmental conditions) would not be changed, because the Project would not be implemented. As GP 2025 and applicable Specific Plans already allow for additional development to occur and to continue to occur according to historical development trends in the City, it is not reasonable to assume that additional development would not occur without the Project. As such, the analysis of the No Project Alternative focuses on development in accordance with GP 2025 and applicable Specific Plans already adopted for the City.

Alternative 1, the No Project Alternative, consists of retaining the current GP 2025, including the 2014–2021 Housing Element, the previous Public Safety Element, and the various subsidiary plans (e.g., seven Specific Plans and Zoning Code) unchanged and not including additional Environmental Justice Policies. No changes to existing zoning or allowed development on identified Opportunity Sites would occur. The No Project Alternative would not meet the City's RHNA goal of 18,458 units. The No Project Alternative would also not meet the various objectives set forth by the City, namely to support a variety of new housing throughout the City to meet the City's RHNA obligation, further fair housing and environmental justice and social equity issues, and set forth a proactive and coordinated public safety and public health program. The No Project Alternative would not update the Housing Element and Public Safety Element as required by state law and, furthermore, would not provide the benefit of inclusion of Environmental Justice Policies, also mandated by recent legislation. Future development would be consistent with the population density and land use intensity set out in the current GP 2025 and its subsidiary land use plans.

Air Quality

The South Coast Air Basin is currently classified as a nonattainment area for the federal and state ozone (O₃) standards and particulate matter less than or equal to 2.5 microns (PM_{2.5}) standards, and a nonattainment area for state particulate matter less than or equal to 10 microns (PM₁₀) standards (U.S. Environmental Protection Agency 2021; SCAQMD 2017). The South Coast Air Quality Management District (SCAQMD) has developed air quality management plans (AQMPs) to control these pollutants and reach attainment levels. SCAQMD's most recent plan to achieve air quality standards is the 2016 AQMP, adopted by the SCAQMD Governing Board on March 3, 2017. A project is deemed inconsistent with an AQMP if it would result in population and/or employment growth that exceeds estimates used to develop the applicable AQMP, which, in turn, would generate emissions not accounted for in the regional emissions budgets. The 2014–2021 Housing Element, which contains the development planned for the No Project Alternative, was adopted in June 2018 and proposed a net new development of 11,649 dwelling units and as much as 5.9 million square feet of nonresidential development in the City. Given that the most recent AQMP for SCAQMD was adopted in 2017, the proposed development contained in the 2014–2021 Housing Element was not accounted for when developing the plan for the region to attain the state and federal standards. Therefore, while development under the No Project Alternative would be less than that of the Project, it would still increase emissions of criteria pollutants that would contribute to the South Coast Air Basin's failure to meet its O₃ and particulate matter compliance targets. The impact would be less than that of the Project but would still be significant and unavoidable.

Similar to under the Project, construction and operation of new development projects in the City under the No Project Alternative would generate criteria pollutant emissions that could exceed SCAQMD's significance thresholds. Although the No Project Alternative would result in less growth than the Project, construction of a single development project or the concurrent construction of a multitude of individual development projects at any one time in the City could generate criteria pollutant emissions on a daily basis that would exceed SCAQMD's criteria pollutant thresholds. The No Project Alternative would be required to comply with all state and local rules and regulations to control criteria pollutant emissions. Additionally, construction emissions from future development projects in the City would be reduced through best available control technologies identified in mitigation measures in the Final EIR prepared for the 2014–2021 Housing Element Update Housing Implementation Plan or project-specific environmental documents, as applicable. However, there may be instances where implementation of best available control technologies and mitigation would not be sufficient to reduce emissions to below SCAQMD's pollutant thresholds. As such, while air quality impacts related to construction emissions under the No Project Alternative would be less than those anticipated for the Project, they could potentially be significant and unavoidable.

Given that development under the No Project Alternative would be less than under the Project, operation would result in lower emissions at build-out than the Project. However, compared to existing conditions, the No Project Alternative would still result in a net new development of 11,649 dwelling units and as much as 5.9 million square feet of nonresidential development in the City. Given this amount of net new development, it is likely that the net increase in O₃ precursors and PM₁₀ and PM_{2.5} emissions generated under this alternative would remain in exceedance of SCAQMD's project-level thresholds for these criteria pollutants, similar to that of the Project, although to a lesser degree. This impact would remain significant and unavoidable.

Similar to under the Project, new development associated with the No Project Alternative would expose new and existing sensitive receptors within the City to significant health risks from exposure

to ambient toxic air contaminants (TACs), including construction- and operations-related diesel particulate matter emissions. However, the degree to which new and existing sensitive receptors would be exposed to health risks from TACs would be less than under the Project, as the No Project Alternative would result in less overall development in the City, thereby reducing the total number of these exposure incidences. Emissions would be reduced through best available control technologies identified in mitigation measures in project-specific environmental documents or the 2014–2021 Housing Element Update Housing Implementation Plan Final EIR but would nonetheless remain significant and unavoidable.

Biological Resources

The No Project Alternative would result in new development pursuant to the current GP 2025. Open Space and Conservation Element Policy OS-1-1 (protect and preserve open space and natural habitat), Policy OS-2.2 (limit extent and intensity of uses and development in areas of arroyos and other critical environmental areas), and other related policies require the consideration and protection of biological resources to regulate the impacts of development through federal and state laws (e.g., the federal Clean Water Act, the federal and California Endangered Species Acts). Furthermore, implementation of other policies and mitigation measures (MM Bio 1) adopted in the GP 2025 EIR would ensure that impacts would be reduced to a less-than-significant level. New development projects would be subject to project-specific CEQA review, Western Riverside County Multiple Species Habitat Conservation Plan (WRC MSHCP) compliance, and mitigation and/or biological equivalency and would be required to obtain any necessary federal and state permits prior to proceeding, as applicable. The impact for the No Project Alternative would be less than significant and less than that of the Project, as less development would occur.

Cultural Resources/Tribal Cultural Resources

The No Project Alternative would result in new development pursuant to the current GP 2025. Although new development would be subject to Historic Preservation Element Policy HP-1.3 (protect sites of archaeological and paleontological significance and ensure compliance with applicable state and federal cultural resources protection and management laws in its planning and project review process), Policy HP-4.3 (work with appropriate tribes to identify and address cultural resources and tribal sacred sites through the development review process), Policy HP-5.1 (use the design and plot plan review processes to encourage new construction to be compatible with cultural resources and historic districts), and other policies, there are currently potential unknown cultural and tribal cultural resources within the City that could be adversely affected by new development. Tribal cultural resources include spiritual values that are not always amenable to standard mitigation measures. It is assumed, however, that mitigation measures would be developed as a consequence of implementation of the aforementioned Historic Preservation Element Policies and associated project-specific studies. For the No Project Alternative, implementation of mitigation measures (MM Cultural 1 through MM Cultural 6) adopted in the GP 2025 EIR would reduce cultural resource impacts but potentially not to a level below significance. Mitigation developed as a result of the implementation of Historic Preservation Element Policies and associated additional studies would be required to ensure that impacts would be reduced to a level below significance. Accordingly, the impact for the No Project Alternative would be less than significant with compliance with GP 2025 and associated project-specific mitigation and less than under the Project, as less development would occur.

Paleontological Resources

New development under the No Project Alternative pursuant to the current GP 2025 would result in ground disturbance. Although new development would be subject to Historic Preservation Element Policy HP-1.3 (protect sites of archaeological and paleontological significance and ensure compliance with applicable state and federal cultural resources protection and management laws in its planning and project review process), impacts could be significant, and implementation of similar measures to those of the Project (conducting paleontological resources investigations, avoiding paleontological resources or conducting monitoring, avoiding/minimizing impacts on paleontological resources) would require project applicants and/or private developers to identify whether future development sites are in areas of high or undetermined paleontological sensitivity and to mitigate any substantial adverse effect on the significance of paleontological resources. With implementation of measures to reduce impacts on paleontological resources on a project-by-project basis in compliance with GP 2025, impacts for the No Project Alternative would be less than significant and less than those of the Project, as less development would occur.

Greenhouse Gas Emissions

The No Project Alternative would contribute to GHG emissions from construction and operation of new development pursuant to the current GP 2025. Although the No Project Alternative would result in less growth than under the Project, the No Project Alternative could result in emissions that exceed SCAQMD numerical thresholds. Additionally, the City's *Economic Prosperity Action Plan and Climate Action Plan* (CAP) does not account for growth associated with the 2014–2021 Housing Element; therefore, growth under the No Project Alternative would exceed the projections in the CAP. As such, the No Project Alternative would conflict with the City's CAP.¹ Because the No Project Alternative would result in less development than under the Project and thus would result in fewer GHG-emitting sources, the impacts would be reduced as compared to those from the Project. However, because growth could exceed thresholds and would exceed growth assumption in the CAP, impacts for the No Project Alternative would likely still be significant and unavoidable.

Hazards and Hazardous Materials

The City supports several industrial operations that handle hazardous materials and, like for most cities, several sites may be contaminated by hazardous materials. Like the Project, development under the No Project Alternative consistent with the current GP 2025 has the potential to introduce new sensitive receptors, such as new housing, into proximity with existing operations that handle hazardous materials or on sites containing them. However, this would constitute an impact of the environment on the Project, and it therefore is not an environmental impact under CEQA (*California Building Industry Assoc. v. Bay Area Air Quality Management District* (2015) 62 Cal.4th 369). This alternative would result in a similar impact as the Project, as hazardous materials impacts are largely mitigated and standard mitigation measures avoid development on or adjacent to highly

¹ The City adopted its CAP in January 2016. The CAP includes an inventory of existing (2007) emissions from community-wide operations, which includes residents and businesses within the City, as well as emissions from governmental operations. The CAP also provides community-wide and government operations emissions forecasts for 2020 and 2035 based on growth associated with build-out of GP 2025. The CAP establishes a reduction goal of approximately 26 percent below 2007 baseline emission levels (3,024,066 metric tons of carbon dioxide equivalent [MTCO_{2e}] community-wide, and 122,525 MTCO_{2e} for government operations) by 2020 to reach the goals set forth in Assembly Bill 32 (1990 levels by 2020). The CAP proposes measures and policies on community-wide and government levels that will support the City's reduction goals.

contaminated sites. GP 2025 policies such as Policy PS 3-1 (hazardous materials used in business and industry are handled properly) and Policy PS 3-3 (work with responsible federal, state, and county agencies to identify and regulate the disposal of toxic materials) would reduce impacts related to hazards and hazardous materials.

In some cases, new development may exacerbate an existing environmental hazard—for example, where new development is being undertaken on a contaminated site with the potential to release contamination into the environment. However, such an occurrence is unlikely given the existing regulatory structure that requires preconstruction testing and remediation of hazardous conditions (refer to Section 3.6, *Hazards and Hazardous Materials*, for a discussion of the regulatory environment). Similar to under the Project, the impact for the No Project Alternative would be less than significant with preparation of site-specific hazardous material site assessments for projects consistent with GP 2025 involving soil disturbance. Impacts would be less than those of the Project, as less development would occur.

Land Use and Planning

The No Project Alternative would retain the current GP 2025 and its policies, including the 2014–2021 Housing Element, the previous Public Safety Element, and the various subsidiary plans (e.g., seven Specific Plans and Zoning Code) unchanged and not include additional Environmental Justice Policies. No changes to existing zoning or allowed development on identified Opportunity Sites would occur. Due to the urbanized character of the City, development pursuant to the No Project Alternative would not physically divide established communities, as new development would be consistent with GP 2025 and would be reviewed on a project-specific basis to ensure compliance with design standards and guidelines such that division of communities would not occur. As stated in Section 3.7, *Land Use and Planning*, the Project is generally consistent with the GP 2025 and 2020–2045 Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS) goals and relevant planning documents and a less-than-significant impact would occur. Implementation of the No Project Alternative would result in a substantial reduction in opportunities for housing development and would not as effectively meet the City’s land use objectives or the regional 2020–2045 RTP/SCS goals.

Furthermore, the No Project Alternative lacks policies (and related land use changes) that would promote the goals of the Southern California Association of Governments’ (SCAG’s) 2020–2045 RTP/SCS to the same extent as the Project, such as:

- Encouraging the development of diverse housing types in areas that are supported by multiple transportation options
- Supporting healthy and equitable communities
- Increasing person and goods movement and travel choices within the transportation system
- Reducing GHG emissions and improving air quality as there would be a higher reliance on vehicle travel and vehicle travel would be less efficient under the No Project Alternative compared to the Project
- Adapting to a changing climate and supporting an integrated regional development pattern and transportation network

Therefore, the No Project Alternative likely would have a greater impact on land use and planning compared to the Project with respect to conflicts with land use plans adopted for the purpose of

avoiding or mitigating environmental effects. In particular, reductions in environmental effects associated with compliance with the RTP/SCS would not be achieved as readily under the No Project Alternative. Beneficial policies included in the Project related to land use, infill development, and affordable housing would not be implemented, and future land use approvals would continue based on the City's existing policy framework, such that the reduction in environmental effects intended to be achieved through the Project's policy updates and Zoning Code amendments would not be realized. Furthermore, under the No Project Alternative, GP 2025 would not be updated to include new Public Safety Element policies related to a review of updated hazards in the City, including climate resilience and adaptation, or include new policies and implementing actions regarding Environmental Justice Policies; as such, the No Project Alternative would result in greater impacts than the Project.

Noise

Under the No Project Alternative, development would occur in association with the current GP 2025.

Construction activities associated with new development pursuant to the current GP 2025 would generate elevated noise and vibration from construction and have the potential to affect noise-sensitive land uses. Development under the current GP 2025 would increase development and traffic levels along high-volume roadways. Because there would still be an increase in new housing units and nonresidential development with the No Project Alternative, impacts related to stationary noise sources, traffic noise, and vibration would occur but would be less for the No Project Alternative compared to the Project. Because the No Project Alternative would result in increases in similar new noise sources, implementation of the No Project Alternative would not reduce any significant noise impacts of the Project below a level of significance and impacts would be significant.

Population and Housing

Development under the No Project Alternative would result in an increase in the City's population and its housing supply. However, future development would be consistent with the population density and land use intensity set out in the current GP 2025 and its subsidiary land use plans as well as the projections in the 2020–2045 RTP/SCS. Build-out of GP 2025 under the No Project Alternative would potentially displace existing housing units where GP 2025 anticipates different land uses than that which currently exist; however, this displacement would be less than that which could occur under the Project. The No Project Alternative would result in less growth pursuant to the current GP 2025 in comparison to the Project and no changes to the Zoning Code and Specific Plan amendments would be required to accommodate as much future housing and other development.

The No Project Alternative would be consistent with GP 2025 and SCAG's population projections in that growth projections would not be exceeded, whereas implementation of the Project would exceed the SCAG's population projections. However, implementation of the No Project Alternative would not meet or be consistent with the City's RHNA goal of 18,458 units and would not be as effective meeting the goals and policies of the 2020–2045 RTP/SCS that aim to provide a variety of new housing and various income levels near transit. Overall, this would be a less-than-significant impact, as this alternative would not induce substantial unplanned population growth in the City either directly or indirectly because the No Project Alternative would be consistent with population

projections and would not displace existing people or housing. Impacts would be less than those of the Project and the No Project Alternative would reduce a significant impact of the Project.

Public Services

The No Project Alternative would result in less population growth and less nonresidential development than the Project, and less of a demand on public services like police and fire protection, schools, parks, libraries, and other services to the City. As less development would occur with the No Project Alternative compared to the Project, the impact would also have a less-than-significant demand on public service and the impact would be less than that of the Project.

Furthermore, under the No Project Alternative, GP 2025 would not be updated to include new Public Safety Element policies related to a review of updated hazards and fire protection in the City, including climate resilience and adaptation, or include new implementing actions regarding Environmental Justice Policies; as such, the No Project Alternative would have fewer beneficial impacts than under the Project. Nevertheless, impacts would be less than those of the Project.

Recreation

Implementation of the No Project Alternative would result in an increase in the City's population, which would result in greater demand on recreational facilities. However, the City requires that private developers proposing residential projects in the City include open space within their projects and pay Park Development Impact Fees to fund future recreational facilities, as described in Section 3.11, *Recreation*. Because the No Project Alternative would include fewer new housing units than the Project, the No Project Alternative would be expected to result in less of a demand for parks and recreational facilities; therefore, substantial physical deterioration of parks facilities would be less than significant. While impacts would be somewhat reduced under the No Project Alternative as compared to the Project, the conclusion would remain the same. Consequently, similar to under the Project, substantial physical deterioration of parks facilities would be less than significant.

With regard to the construction or expansion of recreational facilities that might have an adverse physical effect on the environment, typical impacts of new recreational facilities include short-term noise, air quality, and traffic impacts during construction; and noise, light (if night lighting is installed), and traffic during operations. Such impacts related to construction of park and recreational facilities would still occur under the No Project Alternative; however, given the reduced number of new residential units, construction or expansion of recreational facilities would likely occur to a lesser degree than under the Project. Because such construction would be required to comply with City ordinances and with mitigation imposed on specific projects to reduce short-term impacts, construction impacts likely would be less than significant. Operational impacts may be significant; however, typical neighborhood park design includes limited use during nighttime hours and provisions to confine lighting on site through the selection and location of fixtures. Neighborhood parks do not typically generate substantial automobile trips and are served by the City's road network; traffic impacts are typically less than significant. Therefore, similar to under the Project, the impact for the No Project Alternative would be less than significant. Because less population is proposed under the No Project Alternative, the impact would be less than that of the Project.

Transportation

The No Project Alternative would retain the current GP 2025. The No Project condition was evaluated from a transportation assessment based on RTP/SCS projections, which are consistent with GP 2025 and summarized in Section 3.12, *Transportation*, and Table 3.12-4. As shown, while the Project would add to overall vehicle miles traveled (VMT), the No Project Alternative (under cumulative conditions) would generate greater home-based VMT per capita and greater total VMT per service population than the Project under cumulative conditions. However, the No Project Alternative would result in lower net total VMT as compared to the Project. This indicates that while overall the increase in VMT would be greater under the Project than under the No Project Alternative, given the increase in overall development, travel on a per-person basis (using home-based trips as an indicator) would be less efficient under the No Project Alternative as compared to the Project (equating to lower home-based VMT), given that new housing under the Project would be closer to transit and other destinations. As such, while the No Project Alternative would not result in as high a level of overall VMT as the Project, it would still result in a significant impact and potentially greater transportation impact than the Project.

Utilities and Service Systems

The No Project Alternative proposes maintenance of the status quo and increases in planned development would happen independent of the Project and as individual development projects pursuant to GP 2025 are proposed. The No Project Alternative would also have sufficient water supplies available and adequate capacity for projected wastewater treatment and solid waste demand. Because the No Project Alternative would include fewer new housing units and nonresidential development than the Project, this alternative would be expected to result in less of a demand for utilities and service systems. As less development would occur with the No Project Alternative, the impact would be less than significant and less than that of the Project.

4.4.2 Alternative 2—Dispersed Growth Alternative

The Dispersed Growth Alternative would be similar to the Project, with the same population growth and nonresidential development proposed at Opportunity Sites (31,564 dwelling units and 103,530 residents). However, housing development would be spread more widely across almost all Opportunity Sites, generally at lower densities, resulting in less intensive but more widespread land use changes. This alternative would exceed the City's goal of 18,458 RHNA units and meet the Project objectives.

This alternative was introduced on January 27, 2021, during the second public informational meeting as an RHNA scenario for consideration as the project that would meet the RHNA target through less-intense growth over a larger area. During that public meeting, the Dispersed Growth Alternative was summarized as including:

- Less-intense development
- More land affected by zoning changes
- Less likelihood to provide densities needed for affordable housing
- Fewer homes to be located near transit and other destinations
- Less-efficient use of existing infrastructure

- Preservation of less industrial and commercial land

Air Quality

As stated previously, a project is deemed inconsistent with an AQMP if it would result in population and/or employment growth that exceeds estimates used to develop the applicable AQMP, which, in turn, would generate emissions not accounted for in the regional emissions budgets. Similar to the Project, the Dispersed Growth Alternative would result in growth not previously considered in the SCAG growth assumptions used for development of the 2017 AQMP. Therefore, the Dispersed Growth Alternative would result in growth that would be inconsistent with the applicable air quality plan. The current GP 2025 contains policies, including those in the Air Quality Element, that would encourage sustainable development that reduces air pollutants and VMT within the City. However, the Dispersed Growth Alternative would result in new residential and nonresidential development that would likely exceed SCAQMD's AQMP regional significance thresholds, resulting in a significant and unavoidable impact. The impact would be significant and greater than that of the Project, as development is dispersed throughout the City and farther from transit and other key destinations in the City.

Similar to under the Project, construction and operation of new development projects in the City under the Dispersed Growth Alternative would generate criteria pollutant emissions that could exceed SCAQMD's significance thresholds. Construction of a single development project or the concurrent construction of a multitude of individual development projects at any one time with the Dispersed Growth Alternative could generate criteria pollutant emissions on a daily basis that would exceed SCAQMD's criteria pollutant thresholds. The Dispersed Growth Alternative would be required to comply with all state and local rules and regulations to control criteria pollutant emissions. Additionally, construction emissions from future development projects in the City would be reduced through best available control technologies identified in mitigation measures in project-specific environmental documents. However, there may be instances where implementation of best available control technologies and mitigation would not be sufficient to reduce emissions to below SCAQMD's pollutant thresholds. As such, similar to under the Project, air quality impacts related to construction emissions under the Dispersed Growth Alternative would be significant and unavoidable.

Compared to the Project, the Dispersed Growth Alternative would be more dispersed throughout the City with fewer homes near transit and other destinations. As a result, there would be a greater reliance on vehicle travel with the Dispersed Growth Alternative, thereby resulting in more vehicle trips than under the Project, resulting in an increase in vehicle emissions. Similar to under the Project, the net increase in O₃ precursors and PM₁₀ and PM_{2.5} emissions generated under the Dispersed Growth Alternative would exceed SCAQMD's project-level thresholds for these criteria pollutants. This impact would remain significant and unavoidable.

Similar to under the Project, new development associated with the Dispersed Growth Alternative would expose new and existing sensitive receptors within the City to significant health risks from exposure to ambient TACs, including construction- and operations-related diesel particulate matter emissions. The development proposed for the Dispersed Growth Alternative would be more dispersed throughout City as compared to the Project. Given that there would be less intensive development on the individual sites, it is possible that the health risk to sensitive receptors could be less. However, the dispersed nature of development would lead to a higher number of potential health risk exposure incidences throughout the City. Emissions would be reduced through best

available control technologies identified in mitigation measures in project-specific environmental documents, but impacts would nonetheless remain significant and unavoidable.

Biological Resources

The Dispersed Growth Alternative would result in new development similar to that of the Project, although on more sites than under the Project, affecting a greater area of the City. Open Space and Conservation Element Policy OS-1-1 (protect and preserve open space and natural habitat), Policy OS-2.2 (limit extent and intensity of uses and development in areas of arroyos and other critical environmental areas), and other related policies require the consideration and protection of biological resources to regulate the impacts of development through federal and state laws (e.g., the federal Clean Water Act, the federal and California Endangered Species Acts). Furthermore, implementation of other policies and mitigation measures (MM Bio 1) adopted in the GP 2025 EIR would ensure that impacts would be reduced to a less-than-significant level. New development projects would be subject to project-specific CEQA review and mitigation and would be required to obtain any necessary federal and state permits prior to proceeding, as applicable. With the Dispersed Growth Alternative, more sites would need to be evaluated for potential impacts on biological and aquatic resources, resulting in potentially more impacts because a larger area of land would be affected. With implementation of policies and mitigation, the impact would be less than significant but greater than that of the Project, as development on more sites could occur.

Cultural Resources/Tribal Cultural Resources

The Dispersed Growth Alternative would result in new development on a greater number of sites than the Project, as development is more dispersed throughout the City. Although new development would be subject to Historic Preservation Element Policy HP-1.3 (protect sites of archaeological and paleontological significance and ensure compliance with applicable state and federal cultural resources protection and management laws in its planning and project review process), Policy HP-4.3 (work with appropriate tribes to identify and address cultural resources and tribal sacred sites through the development review process), Policy HP-5.1 (use its design and plot plan review processes to encourage new construction to be compatible with cultural resources and historic districts), and other policies, there are currently unknown cultural and tribal cultural resources within the City that could be adversely affected by new development. Similar to under the Project, implementation of Mitigation Measure **MM-CUL-1** would reduce impacts for historical, archaeological, and tribal cultural resources to less-than-significant levels with mitigation. If archaeological resources are discovered during an archaeological study (Mitigation Measure **MM-CUL-2**), or if archaeological resources are identified as inadvertent discoveries during ground-disturbing activities, then Mitigation Measures **MM-CUL-3** through **MM-CUL-8** would reduce this impact to less-than-significant levels. Accordingly, the impact would be greater than that of the Project, as development of the Opportunity Sites would be spread out on a larger number of sites with a proportionally increased potential for disturbing cultural and tribal cultural resources.

Paleontological Resources

New development under the Dispersed Growth Alternative would result in ground disturbance on a greater number of sites than under the Project, as development would be more dispersed throughout the City. Although new development would be subject to Historic Preservation Element Policy HP-1.3 (protect sites of archaeological and paleontological significance and ensure compliance with applicable state and federal cultural resources protection and management laws in

its planning and project review process), impacts could be significant, and implementation of similar measures to those under the Project (Mitigation Measure **MM-PAL-1**, conducting paleontological resources investigations; Mitigation Measure **MM-PAL-2**, avoiding paleontological resources, and Mitigation Measure **MM-PAL-3**, or avoiding/minimizing impacts during operations) would require project applicants and/or private developers to identify whether future development sites are in areas of high or undetermined paleontological sensitivity and to mitigate any substantial adverse effect on the significance of paleontological resources. With implementation of similar measures as under the Project to reduce impacts on paleontological resources on a project-by-project basis, impacts would be less than significant but greater than those of the Project, as development of the Opportunity Sites would be spread out on a larger number of sites with the potential for more ground disturbance that could disturb paleontological resources.

Greenhouse Gas Emissions

The Dispersed Growth Alternative would contribute to GHG emissions from construction and operation of new development. The Dispersed Growth Alternative would result in fewer homes near transit and other destinations, which would result in increased VMT in the City. This increase in VMT could result in emissions that exceed SCAQMD numerical thresholds. Additionally, the City's CAP does not account for growth associated with the Dispersed Growth Alternative. Therefore, growth under the Dispersed Growth Alternative would conflict with the City's CAP, as it would exceed the projections therein. Given that the Dispersed Growth Alternative would result in greater VMT when compared to the Project and thus greater GHG emissions, the impacts would be more than those expected from the Project and would be significant and unavoidable.

Hazards and Hazardous Materials

The Dispersed Growth Alternative would result in new development on a greater number of sites than the Project, as development is more dispersed throughout the City. For development proposed pursuant to the Dispersed Growth Alternative, compliance with and oversight by appropriate and applicable federal, state, and local agencies related to the handling and storage of hazardous materials and implementation of policies and mitigation measures similar to those under the Project (Mitigation Measure **MM-HAZ-1**, conduct project-level hazardous material site assessment) would ensure that impacts would be reduced to a less-than-significant level. As with the Project, development under the Dispersed Growth Alternative would be required to evaluate the site for potential contamination prior to approval of site disturbance, as well as comply with all applicable federal, state, and local regulations regarding hazardous materials. Therefore, similar to under the Project, impacts on public health and safety related to hazardous materials under the Dispersed Growth Alternative would be less than significant and similar to those of the Project.

Land Use and Planning

The Dispersed Growth Alternative would involve a greater number of Opportunity Sites to locate the same amount of future housing and nonresidential development as the Project, as development would be more dispersed throughout the City. Similar to the Project, the Dispersed Growth Alternative would require Zoning Code changes and amendments to various subsidiary plans (e.g., seven Specific Plans and Zoning Code) although to a larger degree than the Project, as more sites would be rezoned. As with the Project, future development under the Dispersed Growth Alternative would be required to comply with City requirements that address environmental effects from development, including relevant GP 2025 Land Use and Urban Design Element policies that establish

the overall policy direction for land use planning decisions in the City. This element also addresses housing/jobs balance objectives through the provision of housing for all income levels while providing a diverse collection of housing types, employment-generating land uses, and opportunities for mixed-use development. Due to the urbanized character of the City, development pursuant to the Dispersed Growth Alternative would not physically divide established communities, as new development would be consistent with GP 2025 and would be reviewed on a project-specific basis to ensure compliance with design standards and guidelines such that division of communities would not occur. Even though the increase in Opportunity Sites would allow the City to meet the land use objectives of the regional 2020–2045 RTP/SCS goals, similar to under the Project, the goals would be met in a less efficient way, as future development would occur on more sites. Overall, this alternative would result in less-than-significant land use and planning impacts. This impact would be similar to that of the Project, although more sites in the City would require rezoning, amendments to various subsidiary plans, or other land use changes.

Noise

The Dispersed Growth Alternative would result in new housing and nonresidential development, although on more Opportunity Sites than the Project as development would be more dispersed throughout the City, affecting a greater number of sites and sensitive receptors. Additional residents would be exposed to elevated traffic-related noise levels under the growth anticipated in this alternative because development would occur on more sites than under the Project and more sensitive land uses would be affected adjacent to the Opportunity Sites. As discussed in Section 3.8, *Noise*, the Project would result in potentially significant impacts related to noise and vibration during construction and operation, including traffic and stationary noise. Future development under the Dispersed Growth Alternative, like all development in the City, would be required to adhere to the Riverside Municipal Code noise requirements regarding allowable times and hours of work and noise-control measures. As development under the Dispersed Growth Alternative would be of lower density than under the Project, it is expected that new development would result in lower local traffic volumes (and, as such, lower traffic noise levels in the immediate vicinity of Opportunity Sites) spread throughout the City when compared to the Project's proposed Opportunity Sites. Development under this alternative would result in an increase in construction-related vibration impacts, similar to under the Project. Operational vibration would not increase, similar to under the Project, as residential and mixed-use land uses generally are not substantial sources of vibration. Noise increases could exceed noise significance thresholds and have the potential to affect noise-sensitive receptors. Because the Dispersed Growth Alternative would result in increases in similar new noise sources, implementation of this alternative would not reduce any significant noise impacts of the Project below a level of significance and would require mitigation. However, impacts for the Dispersed Growth Alternative would be similar to those of the Project and may affect a greater number of sensitive receptors adjacent to proposed Opportunity Sites, as new noise sources would be dispersed to more areas than under the Project with less dense development. Similar to those of the Project, impacts from this alternative would be significant and unavoidable.

Population and Housing

Development under the Dispersed Growth Alternative would result in the same population growth and nonresidential development as under the Project (31,564 dwelling units and 103,530 residents). As discussed in Section 3.9, *Population and Housing*, the Project would result in a significant population and housing impact because development under the Housing Element would

substantially exceed the population and housing projections in the 2020–2045 RTP/SCS. The Dispersed Growth Alternative would involve a similar development-intensive project alternative with the same population growth as under the Project but would require more Opportunity Sites than the Project to achieve the same development potential. The Dispersed Growth Alternative would have the same impact as the Project, as this alternative would induce the same amount of unplanned population growth in the City and would not be consistent with population projections. However, the Dispersed Growth Alternative would not be as effective in meeting the goals and policies of the 2020–2045 RTP/SCS that aim to provide a variety of new housing at various income levels near transit. Similar to the Project, the Dispersed Growth Alternative would not displace a substantial number of existing people or housing; however, given the greater number of sites, it could displace more residents than the Project. Impacts from displacement of residents and housing would be less than significant, the same as for the Project. Impacts would be substantially similar to those of the Project and the Dispersed Growth Alternative would not reduce the Project’s significant impact with respect to population growth.

Public Services

The Dispersed Growth Alternative would involve a greater number of Opportunity Sites to locate the same amount of future housing and nonresidential development as the Project, as development would be more dispersed throughout the City. Furthermore, this alternative would result in the same population growth and nonresidential development as the Project, and the demand on public services such as police and fire protection, schools, parks, libraries, and other services would be the same as that of the Project but more spread out throughout the City. As the same level of development would occur with the Dispersed Growth Alternative, the impact would be less than significant and similar to that of the Project.

Recreation

The Dispersed Growth Alternative would involve a greater number of Opportunity Sites to locate the same amount of future housing and nonresidential development as the Project. Furthermore, implementation of the Dispersed Growth Alternative would result in the same increase in the City’s population as under the Project, which would result in the same demand on recreational facilities as under the Project. Because the Dispersed Growth Alternative would involve more sites for new housing units than the Project, the demand for parks and recreational facilities would be more spread out throughout the City but the demand for each existing facility would be smaller, as less intense development would occur for the Dispersed Growth Alternative.

With regard to the construction or expansion of recreational facilities that might have an adverse physical effect on the environment, typical impacts of new recreational facilities include short-term noise, air quality, and traffic impacts during construction; and noise, light (if night lighting is installed), and traffic during operations, as discussed previously. Similar to under the Project, construction and operational impacts for the Dispersed Growth Alternative would be less than significant. The impact would be substantially similar to that of the Project but the demand for parks and recreational facilities would be dispersed throughout the City rather than concentrated in fewer areas.

Transportation

The Dispersed Growth Alternative would involve more Opportunity Sites to locate the same amount of future housing and nonresidential development as the Project, as development would be more dispersed throughout the City.

The Urban Land Institute's *Growing Cooler: The Evidence on Urban Development and Climate Change* indicates that compact, high-density development has lower traffic generation rates (resulting in substantially fewer VMT) than conventional development densities (Ewing et al. 2008), translating to fewer VMT generated. This research also discusses how the variables of smart growth (density of land use, diversity of land use, destination accessibility [e.g., location near urban centers], distance to transit, demographics, design [e.g., block density and connectivity for bicyclists and pedestrians]) reduce either the number of trips made or the length of those trips, both of which are beneficial from a VMT-generation perspective. Because the dispersed land use pattern decreases these variables, VMT per person would be expected to increase.

The Dispersed Growth Alternative would have a significant impact and a greater impact on transportation given the increase in VMT generated per person compared to the Project.

Utilities and Service Systems

The Dispersed Growth Alternative would involve more Opportunity Sites to locate the same amount of future housing and nonresidential development as the Project, as development would be more dispersed throughout the City. Furthermore, this alternative would result in the same population growth and nonresidential development as the Project, and the demand on utilities and service systems like water, wastewater, dry utilities, solid waste, and other services would be the same as under the Project but more spread out throughout the City. The Project would not result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electrical power, natural gas, or telecommunications facilities. The Project would also have sufficient water supplies available to serve the Project and adequate capacity to serve projected wastewater treatment and solid waste demand. Because the Dispersed Growth Alternative would include the same amount of housing units and nonresidential development as the Project, this alternative would be expected to result in the same demand for utilities and service systems. As the same level of development would occur with the Dispersed Growth Alternative, the impact would be less than significant and similar to that of the Project, although the demand would be more spread out throughout the City.

4.4.3 Alternative 3—Focused Growth Alternative

The Focused Growth Alternative would be similar to the Project, with the same population growth and nonresidential development proposed at Opportunity Sites (31,564 dwelling units and 103,530 residents). However, housing development would be limited to strategic locations with superior access to transportation, employment, services, and amenities, generally at higher densities and more intensive land use changes. This alternative would exceed the City's goal of 18,458 RHNA units and meet the Project objectives.

This alternative was introduced on January 27, 2021, during the second public informational meeting as an RHNA scenario for consideration as the project that would meet the RHNA target

through higher-intensity growth over a more focused area. During that public meeting, the Focused Growth Alternative was summarized as including:

- Higher-intensity development
- Less land affected by zoning changes
- More likelihood to provide densities needed for affordable housing
- More homes to be located near transit and other destinations
- More efficient use of existing infrastructure
- Preservation of more industrial and commercial land

Air Quality

As stated previously, a project is deemed inconsistent with an AQMP if it would result in population and/or employment growth that exceeds estimates used to develop the applicable AQMP, which, in turn, would generate emissions not accounted for in the regional emissions budgets. Similar to the Project, the Focused Growth Alternative would result in growth not previously considered in the SCAG growth assumptions used for development of the 2017 AQMP. Therefore, the Focused Growth would result in growth that would be inconsistent with the applicable air quality plan. The current GP 2025 contains policies, including those in the Air Quality Element, that would encourage sustainable development that reduces air pollutants and VMT within the City. However, Focused Growth Alternative would result in new residential and nonresidential development that would likely exceed SCAQMD's AQMP regional significance thresholds, resulting in a significant and unavoidable impact. The impact would be significant but less than under the Project, as development would be focused near transit and other key destinations in the City, reducing the reliance on vehicle travel.

Similar to under the Project, construction and operation of new development projects in the City under the Focused Growth Alternative would generate criteria pollutant emissions that could exceed SCAQMD's significance thresholds. Construction of a single development project or the concurrent construction of a multitude of individual development projects at any one time with the Focused Growth Alternative could generate criteria pollutant emissions on a daily basis that would exceed SCAQMD's criteria pollutant thresholds. The Focused Growth Alternative would be required to comply with all state and local rules and regulations to control criteria pollutant emissions. Additionally, construction emissions from future development projects in the City would be reduced through best available control technologies identified in mitigation measures in project-specific environmental documents. However, there may be instances where implementation of best available control technologies and mitigation would not be sufficient to reduce emissions to below SCAQMD's pollutant thresholds. As such, similar to those of the Project, air quality impacts related to construction emissions under the Focused Growth Alternative would be significant and unavoidable.

Compared to under the Project, development under the Focused Growth Alternative would occur closer to transit facilities and other key destinations. As a result, there would be less of a reliance on vehicle travel with the Focused Growth Alternative, resulting in fewer vehicle trips than under the Project and a decrease in vehicle emissions. However, similar to under the Project, the net increase in O₃ precursors and PM₁₀ and PM_{2.5} emissions generated under the Focused Growth Alternative would exceed SCAQMD's project-level thresholds for these criteria pollutants due to the overall increase in residential and nonresidential development. While air quality impacts related to

operation would be less than those anticipated for the Project, they would remain significant and unavoidable.

Similar to under the Project, new development associated with the Focused Growth Alternative would expose new and existing sensitive receptors within the City to significant health risks from exposure to ambient TACs, including construction- and operations-related diesel particulate matter emissions. The development proposed for the Focused Growth Alternative would be less dispersed throughout City as compared to the Project, which would result in more intense development on the individual Opportunity Sites. As such, it is possible that the health risk to sensitive receptors could be greater at these sites or lesser. Emissions would be reduced through best available control technologies identified in mitigation measures in project-specific environmental documents, but impacts would nonetheless remain significant and unavoidable, and therefore would be similar to those of the Project.

Biological Resources

The Focused Growth Alternative would result in new development similar to that of the Project, although on fewer sites than under the Project, thus affecting a smaller area of the City. Open Space and Conservation Element Policy OS-1-1 (protect and preserve open space and natural habitat), Policy OS-2.2 (limit extent and intensity of uses and development in areas of arroyos and other critical environmental areas), and other related policies require the consideration and protection of biological resources to regulate the impacts of development through federal and state laws (e.g., the federal Clean Water Act, the federal and California Endangered Species Acts). Furthermore, implementation of other policies and mitigation measures (MM Bio 1) adopted in the GP 2025 EIR would ensure that impacts would be reduced to a less-than-significant level. New development projects would be subject to project-specific CEQA review, compliance with the WRC MSHCP, and mitigation and/or biological equivalency would be required to obtain any necessary federal and state permits prior to proceeding, as applicable. With the Focused Growth Alternative, fewer sites would need to be evaluated for potential impacts on biological and aquatic resources, resulting in fewer impacts because a smaller area of land would be affected in comparison to the Project. With implementation of applicable regulations, policies, and mitigation, the impact would be less than significant and smaller than that of the Project, as development on fewer sites is proposed.

Cultural Resources/Tribal Cultural Resources

The Focused Growth Alternative would result in new development on fewer sites than the Project, as development would be focused in more urbanized areas of the City. Although new development would be subject to Historic Preservation Element Policy HP-1.3 (protect sites of archaeological and paleontological significance and ensure compliance with applicable state and federal cultural resources protection and management laws in its planning and project review process), Policy HP-4.3 (work with appropriate tribes to identify and address cultural resources and tribal sacred sites through the development review process), Policy HP-5.1 (use its design and plot plan review processes to encourage new construction to be compatible with cultural resources and historic districts), and other policies, there are currently unknown cultural and tribal cultural resources within the City that could be adversely affected by new development. Similar to under the Project, implementation of Mitigation Measure **MM-CUL-1** would reduce historic resource impacts to less-than-significant levels. If archaeological resources are discovered during an archaeological study (Mitigation Measure **MM-CUL-2**), or if archaeological resources are identified as inadvertent discoveries during ground-disturbing activities, then Mitigation Measures **MM-CUL-3** through **MM-**

CUL-8 would reduce this impact to less-than-significant levels. Accordingly, the impact would be less than significant, the same as the Project, although impacts would be less than under the Project, as development of the Opportunity Sites would be focused on fewer sites.

Paleontological Resources

New development under the Focused Growth Alternative would result in ground disturbance on fewer sites than under the Project. Although new development would be subject to Historic Preservation Element Policy HP-1.3 (protect sites of archaeological and paleontological significance and ensure compliance with applicable state and federal cultural resources protection and management laws in its planning and project review process), impacts could be significant, and implementation of similar measures to those under the Project (Mitigation Measures **MM-PAL-1** through **MM-PAL-3**) would require project applicants and/or private developers to identify whether future development sites are in areas of high or undetermined paleontological sensitivity and to mitigate any substantial adverse effect on the significance of paleontological resources. With implementation of similar mitigation measures as under the Project to reduce impacts on paleontological resources on a project-by-project basis, impacts would be less than significant and less than those of the Project, as development of the Opportunity Sites would be focused on fewer sites.

Greenhouse Gas Emissions

The Focused Growth Alternative would contribute to GHG emissions from construction and operation of new development. The Focused Growth Alternative would result in more homes near transit and other destinations, which would result in decreased VMT in the City. While the Focused Growth Alternative would result in fewer VMT than the Project, this alternative could still result in emissions that exceed SCAQMD numerical thresholds. Additionally, the City's CAP does not account for growth associated with the Focused Growth Alternative. Therefore, growth under the Focused Growth Alternative would conflict with the City's CAP, as it would exceed the projections therein. As the Focused Growth Alternative would result in fewer VMT than the Project and thus fewer GHG emissions, the impacts would be less than those from the Project. However, because growth could exceed thresholds and would exceed the growth assumption in the CAP, impacts for the Focused Growth Alternative would still be significant and unavoidable.

Hazards and Hazardous Materials

The Focused Growth Alternative would result in new development on fewer sites than the Project, as development is focused in more urbanized areas of the City. For development proposed pursuant to the Focused Growth Alternative, compliance with and oversight by appropriate and applicable federal, state, and local agencies related to the handling and storage of hazardous materials and implementation of policies and mitigation measures similar to those under the Project (Mitigation Measure **MM-HAZ-1**, conduct project-level hazardous material site assessment) would ensure that impacts would be reduced to a less-than-significant level. As with the Project, development under the Focused Growth Alternative would be required to evaluate the site for potential contamination prior to approval of site disturbance, as well as comply with all applicable federal, state, and local regulations regarding hazardous materials. Therefore, similar to under the Project, impacts on public health and safety related to hazardous materials under the Focused Growth Alternative would be less than significant and similar to those of the Project.

Land Use and Planning

The Focused Growth Alternative would involve a reduced number of Opportunity Sites to locate the same amount of future housing and nonresidential development as the Project. Similar to the Project, the Focused Growth Alternative would require Zoning Code changes and amendments to various subsidiary plans (e.g., seven Specific Plans and Zoning Code), although to a lesser extent but more intensively than the Project, as fewer sites would be rezoned to accommodate the same amount of development. As with the Project, future development under the Focused Growth Alternative would be required to comply with City requirements that address environmental effects from development, including relevant GP 2025 Land Use and Urban Design Element policies that establish the overall policy direction for land use planning decisions in the City. This element also addresses housing/jobs balance objectives through the provision of housing for all income levels while providing a diverse collection of housing types, employment-generating land uses, and opportunities for mixed-use development. Due to the urbanized character of the City, development pursuant to the Focused Growth Alternative would not physically divide established communities, as new development would be consistent with GP 2025 and would be reviewed on a project-specific basis to ensure compliance with design standards and guidelines such that division of communities would not occur. The reduction in Opportunity Sites would allow the City to effectively meet the land use objectives of the 2020–2045 RTP/SCS goals, similar to under the Project; however, goals would be met in a more efficient way, as future development would occur on fewer sites with superior access to transportation, employment, services, and amenities. Overall, this alternative would result in less-than-significant land use and planning impacts that would be similar to those of the Project. Although fewer sites in the City would require rezoning, amendments to various subsidiary plans, or other land use changes, this alternative would be similarly consistent, as compared to the Project, with policies and plans such as the RTP/SCS that are intended to avoid or minimize environmental effects.

Noise

The Focused Growth Alternative would result in new housing and nonresidential development similar to that of the Project, but development would be limited to strategic locations with superior access to transportation, employment, services, and amenities, generally at higher densities and more intensive land uses throughout the City. Development would be proposed on fewer Opportunity Sites than under the Project and fewer sensitive land uses would be affected adjacent to the Opportunity Sites. As discussed in Section 3.8, *Noise*, the Project would result in potentially significant impacts related to noise and vibration during construction and operation, including traffic and stationary noise. Future development under the Focused Growth Alternative, like all development in the City, would be required to adhere to the Riverside Municipal Code noise requirements regarding allowable times and hours of work and noise-control measures. As development under the Focused Growth Alternative would be more focused than under the Project, it is expected that new development would result in lower traffic generation rates (resulting in less VMT) than conventional development densities, translating to fewer daily automobile trips and lower VMT and, consequently, lower noise levels in the City when compared to the Project's proposed Opportunity Sites. Development under this alternative could result in an increase in construction-related vibration impacts, similar to under the Project, though because fewer locations would be developed, there is the potential that fewer sensitive receptors would be affected by construction noise. Operational vibration would not increase, similar to under the Project, as residential and mixed-use land uses generally are not substantial sources of vibration. Noise

increases could exceed noise significance thresholds and have the potential to affect noise-sensitive receptors. Because the Focused Growth Alternative would result in increases in similar new noise sources, implementation of this alternative would not reduce any significant noise impacts of the Project below a level of significance. However, impacts for the Focused Growth Alternative would be similar to those of the Project but may be reduced at sensitive receptors adjacent to proposed Opportunity Sites, as construction would occur at fewer sites in the City.

Population and Housing

Development under the Focused Growth Alternative would result in the same population growth and nonresidential development as under the Project (31,564 dwelling units and 103,530 residents). As discussed in Section 3.9, *Population and Housing*, the Project would result in a significant population and housing impact because development under the Housing Element would substantially exceed the population and housing projections used in the 2020–2045 RTP/SCS. The Focused Growth Alternative would involve a similar development-intensive project alternative with the same population growth as under the Project but would require fewer Opportunity Sites than the Project to achieve the same development potential. The Focused Growth Alternative would have the same impact as the Project, as this alternative would induce the same amount of unplanned population growth in the City and would not be consistent with population projections. However, the Focused Growth Alternative would be more effective in meeting the goals and policies of the 2020–2045 RTP/SCS that aim to provide a variety of new housing at various income levels near transit. Similar to the Project, the Focused Growth Alternative would not displace a substantial number of existing people or housing; in fact, it would likely result in a slightly smaller displacement compared to the Project. Impacts from displacement of residents and housing would be less than significant, the same as for the Project, and the Focused Growth Alternative would not reduce the Project's significant impact.

Public Services

The Focused Growth Alternative would involve fewer Opportunity Sites to accommodate the same amount of future housing and nonresidential development as the Project, as development would be focused in more urbanized areas of the City. Furthermore, this alternative would result in the same population growth and nonresidential development as the Project, and the demand on public services such as police and fire protection, schools, parks, libraries, and other services would be the same as under the Project but would occur in smaller areas of the City. Therefore, greater burden for services could be placed on individual facilities. However, similar to under the Project, public services can accommodate additional growth. Similar to the Project, the Focused Growth Alternative would comply with state and local regulations to ensure that there would be sufficient fire protection, police, school, and library services and facilities to accommodate additional population resulting from residential and mixed-use development and impacts would be less than significant. The impact would remain similar to that of the Project and would be less than significant.

Recreation

The Focused Growth Alternative would involve fewer Opportunity Sites to locate the same amount of future housing and nonresidential development as the Project, as development would be focused in more urbanized areas of the City. Furthermore, implementation of the Focused Growth Alternative would result in the same increase in the City's population as under the Project, which would result in the same demand on recreational facilities as the Project. The City requires that

private developers proposing residential projects in the City include open space within their projects and pay Park Development Impact Fees to fund future recreational facilities, as described in Section 3.11, *Recreation*. Because the Focused Growth Alternative would involve fewer sites for new housing units than the Project, the demand for parks and recreational facilities would be more focused and concentrated in key areas of the City and the demand for each existing facility in these key areas would be greater on individual facilities, as more intense development would occur for the Focused Growth Alternative.

With regard to the construction or expansion of recreational facilities that might have an adverse physical effect on the environment, typical impacts of new recreational facilities include short-term noise, air quality, and traffic impacts during construction; and noise, light (if night lighting is installed), and traffic during operations, as discussed previously. Similar to under the Project, construction and operational impacts for the Focused Growth Alternative would be less than significant, as construction related to new or expanded facilities would be required to comply with City requirements to avoid or minimize construction impacts. The impact would be substantially similar to that of the Project, but because the demand for parks and recreational facilities under this alternative would be more focused in certain areas in the City, new or expanded parks and recreational facilities would more likely be constructed in already highly developed, urbanized areas of the City. Therefore, under the Focused Growth Alternative, demands on existing recreational facilities would be more concentrated in certain areas of the City and impacts related to the construction of new or expanded facilities could result in somewhat greater construction effects. The difference in the severity of impacts between this alternative and the Project would not be substantial, however, and would remain less than significant with the same mechanisms in place for providing recreational facilities.

Transportation

The Focused Growth Alternative would involve a reduced number of Opportunity Sites to locate the same amount of future housing and nonresidential development as the Project. The Focused Growth Alternative would accommodate the same population growth through residential development and nonresidential development as the Project, and would incorporate the Project's higher residential densities and building intensities in selected areas. However, the higher residential density/building intensity projects, in light of future improvements including bicycle and pedestrian connections, are expected to generate less traffic than conventional development under this alternative. This expectation is based on empirical research, such as the Urban Land Institute's *Growing Cooler: The Evidence on Urban Development and Climate Change*, which indicates that compact, high-density development has lower traffic generation rates (resulting in substantially fewer VMT) than conventional development densities (Ewing et al. 2008), translating to fewer daily automobile trips and lower VMT.

The Focused Growth Alternative would have a reduced impact on transportation compared to that of the Project, although impacts could still be significant.

Utilities and Service Systems

The Focused Growth Alternative would involve fewer Opportunity Sites to locate the same amount of future housing and nonresidential development as the Project, as development would be focused in more urbanized areas of the City. Furthermore, this alternative would result in the same population growth and nonresidential development as the Project, and the demand on utilities and

service systems like water, wastewater, dry utilities, solid waste, and other services would be the same as under the Project but the demand would be more focused and concentrated in key areas of the City. The Project would not result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electrical power, natural gas, or telecommunications facilities. The Project would also have sufficient water supplies available to serve the Project and adequate capacity to serve projected wastewater treatment and solid waste demand. Because the Focused Growth Alternative would include the same amount of housing units and nonresidential development as the Project, this alternative would be expected to result in the same demand for utilities and service systems. As the same level of development would occur with the Focused Growth Alternative, the impact would be less than significant and similar to that of the Project, although the demand would be more focused in concentrated areas in the City.

4.4.4 Alternative 4—Limited Opportunity Sites Alternative (2020–2045 RTP/SCS Consistency Alternative)

The Limited Opportunity Sites Alternative would involve selection of a reduced number of the identified Opportunity Sites on which to locate future housing development, focused on meeting but not exceeding the RHNA obligation of 18,458 RHNA units. This alternative assumes that identified Opportunity Sites are entitled or built by 2029 at a density that equals or exceeds 18,458 RHNA units and a population increase of 60,542 based on a household size of 3.28 per dwelling unit. This alternative would be consistent with the growth projections in the 2020–2045 RTP/SCS and would meet some, but not all, of the Project objectives.

The 2020–2045 RTP/SCS represents a collective vision for the Southern California region’s future, developed with input from local governments (including the City and County of Riverside), county transportation commissions, tribal governments, nonprofit organizations, businesses, and local stakeholders.

As discussed in Section 3.9, *Population and Housing*, the Project would result in a significant population and housing impact because development under the Project would substantially exceed the population and housing projections used in the 2020–2045 RTP/SCS. For the City of Riverside, the population and housing estimates for 2045 include a population of 395,860, housing units numbering 115,100, and employment of 188,700 jobs (see Table 3.9-1). Projections for the 2020–2045 RTP/SCS utilize land use designations as approved in the adopted GP 2025. As stated in Section 3.9, the increase in population that would potentially result by adding 31,564 new housing units (103,530 residents) would result in a population increase that would be greater than the SCAG 2045 population projection of 67,645 new residents. As such, implementation of the Housing Element Update would result in additional housing beyond what is currently allowed under the existing GP 2025 and SCAG projections. This could result in an additional net increase of 35,885 in City population beyond what is currently anticipated at build-out under the 2020–2045 RTP/SCS. This reduced Opportunity Sites (2020–2045 RTP/SCS Consistency) alternative represents a less development-intensive project alternative to the Project, with fewer impacts related to population increase, which would be consistent with the growth projections in the 2020–2045 RTP/SCS.

Air Quality

As stated previously, a project is deemed inconsistent with an AQMP if it would result in population and/or employment growth that exceeds estimates used to develop the applicable AQMP, which, in

turn, would generate emissions not accounted for in the regional emissions budgets. Similar to the Project, the Limited Opportunity Sites Alternative would result in growth not previously considered in the SCAG growth assumptions used for development of the 2017 AQMP. The current GP 2025 contains policies, including those in the Air Quality Element, that would encourage sustainable development that reduces air pollutants and VMT within the City. However, the Limited Opportunity Sites Alternative would result in new residential and nonresidential development that would likely exceed SCAQMD's AQMP regional significance thresholds, resulting in a significant and unavoidable impact, although less than that expected with the Project because development under the Limited Opportunity Sites Alternative would be less intensive.

Similar to under the Project, construction and operation of new development projects in the City under the Limited Opportunity Sites Alternative would generate criteria pollutant emissions that could exceed SCAQMD's significance thresholds. Although the Limited Opportunity Sites Alternative would result in less growth than that of the Project, construction of a single development project or the concurrent construction of a multitude of individual development projects at any one time in the City could generate criteria pollutant emissions on a daily basis that would exceed SCAQMD's criteria pollutant thresholds. The Limited Opportunity Sites Alternative would be required to comply with all state and local rules and regulations to control criteria pollutant emissions. Additionally, construction emissions from future development projects in the City would be reduced through best available control technologies identified in mitigation measures in project-specific environmental documents, as applicable. However, there may be instances where implementation of best available control technologies and mitigation would not be sufficient to reduce emissions to below SCAQMD's pollutant thresholds. As such, while air quality impacts related to construction emissions under the Limited Opportunity Sites Alternative would be less than those anticipated for the Project, they could potentially be significant and unavoidable.

Given that development under the Limited Opportunity Sites Alternative would be less than under the Project, operation would result in lower emissions at build-out than under the Project. However, compared to existing conditions, the Limited Opportunity Sites Alternative would still result in a net increase of emissions related to increased population.

Given the increase in new development, it is likely that the net increase in O₃ precursors and PM₁₀ and PM_{2.5} emissions generated under this alternative would remain in exceedance of SCAQMD's project-level thresholds for these criteria pollutants, similar to that of the Project, although to a lesser degree. This impact would remain significant and unavoidable.

Similar to under the Project, new development associated with the Limited Opportunity Sites Alternative would expose new and existing sensitive receptors within the City to significant health risks from exposure to ambient TACs, including construction- and operations-related diesel particulate matter emissions. However, the degree to which new and existing sensitive receptors would be exposed to health risks from TACs would be less than under the Project, as the Limited Opportunity Sites Alternative would result in less overall development in the City, thereby reducing the total number of these exposure incidences. Emissions would be reduced through best available control technologies identified in mitigation measures in project-specific environmental documents, as applicable, but would nonetheless remain significant and unavoidable.

Biological Resources

The Limited Opportunity Sites Alternative would result in new development although on fewer sites than under the Project. Open Space and Conservation Element Policy OS-1-1 (protect and preserve open space and natural habitat), Policy OS-2.2 (limit extent and intensity of uses and development in areas of arroyos and other critical environmental areas), and other related policies require the consideration and protection of biological resources to regulate the impacts of development through federal and state laws (e.g., the federal Clean Water Act, the federal and California Endangered Species Acts). Furthermore, implementation of other policies and mitigation measures (MM Bio 1) adopted in the GP 2025 EIR would ensure that impacts would be reduced to a less-than-significant level. New development projects would be subject to project-specific CEQA review, WRC MSHCP compliance, and mitigation and/or biological equivalency would be required to obtain any necessary federal and state permits prior to proceeding, as applicable. The impact would be less than significant and less than that of the Project, as less development would occur.

Cultural Resources/Tribal Cultural Resources

The Limited Opportunity Sites Alternative would result in new development on fewer sites than the Project. Although new development would be subject to Historic Preservation Element Policy HP-1.3 (protect sites of archaeological and paleontological significance and ensure compliance with applicable state and federal cultural resources protection and management laws in its planning and project review process), Policy HP-4.3 (work with appropriate tribes to identify and address cultural resources and tribal sacred sites through the development review process), Policy HP-5.1 (use its design and plot plan review processes to encourage new construction to be compatible with cultural resources and historic districts), and other policies, there are currently unknown cultural and tribal cultural resources within the City that could be adversely affected by new development. Similar to under the Project, implementation of Mitigation Measure **MM-CUL-1** would reduce historic resource impacts to less-than-significant levels. If archaeological resources are discovered during an archaeological study (Mitigation Measure **MM-CUL-2**), or if archaeological resources are identified as inadvertent discoveries during ground-disturbing activities, then Mitigation Measures **MM-CUL-3** through **MM-CUL-8** would reduce this impact to less-than-significant levels. Accordingly, the impact would be less than significant and less than that of the Project, as less development would occur.

Paleontological Resources

New development under the Limited Opportunity Sites Alternative would result in ground disturbance on fewer sites than under the Project. Although new development would be subject to Historic Preservation Element Policy HP-1.3 (protect sites of archaeological and paleontological significance and ensure compliance with applicable state and federal cultural resources protection and management laws in its planning and project review process), impacts could be significant, and implementation of similar measures to those under the Project (Mitigation Measures **MM-PAL-1** through **MM-PAL-3**) would require project applicants and/or private developers to identify whether future development sites are in areas of high or undetermined paleontological sensitivity and to mitigate any substantial adverse effect on the significance of paleontological resources. With implementation of similar measures to those of the Project to reduce impacts on paleontological resources on a project-by-project basis, impacts would be less than significant and less than those of the Project, as less development would occur.

Greenhouse Gas Emissions

The Limited Opportunity Sites Alternative would contribute to GHG emissions from construction and operation of new development. The Limited Opportunity Sites Alternative would contribute to GHG emissions from construction and operation of new development. Although the Limited Opportunity Sites Alternative would result in less growth than the Project, the Limited Opportunity Sites Alternative could result in emissions that exceed SCAQMD numerical thresholds. Additionally, the City's CAP does not account for growth associated with the Limited Opportunity Sites Alternative. Therefore, growth under the Limited Opportunity Sites Alternative would conflict with the City's CAP, as it would exceed the projections therein. Because the Limited Opportunity Sites Alternative would result in less development than the Project and thus fewer GHG-emitting sources, the impacts would be less than those from the Project. However, because growth could exceed thresholds and would exceed the growth assumption in the CAP, impacts for the Limited Opportunity Sites Alternative would still be significant and unavoidable.

Hazards and Hazardous Materials

The Limited Opportunity Sites Alternative would involve a reduced amount of future housing and nonresidential development compared to the Project. For development proposed pursuant to the Limited Opportunity Sites Alternative, compliance with and oversight by appropriate and applicable federal, state, and local agencies related to the handling and storage of hazardous materials and implementation of policies and mitigation measures similar to those of the Project (Mitigation Measure **MM-HAZ-1**, conduct project-level hazardous material site assessment) would ensure that impacts would be reduced to a less-than-significant level. As with the Project, development under the Limited Opportunity Sites Alternative would be required to evaluate the site for potential contamination prior to approval of site disturbance, as well as comply with all applicable federal, state, and local regulations regarding hazardous materials. Therefore, similar to under the Project, impacts on public health and safety related to hazardous materials under the Limited Opportunity Sites Alternative would be less than significant and similar to those of the Project.

Land Use and Planning

The Limited Opportunity Sites Alternative would involve a reduced number of Opportunity Sites to locate future housing and nonresidential development. Similar to the Project, the Limited Opportunity Sites Alternative would require Zoning Code changes and amendments to various subsidiary plans (e.g., seven Specific Plans and Zoning Code) although to a lesser degree than the Project. As with the Project, future development under the Limited Opportunity Sites Alternative with fewer Opportunity Sites would be required to comply with City requirements that address environmental effects from development, including relevant GP 2025 Land Use and Urban Design Element policies that establish the overall policy direction for land use planning decisions in the City. This element also addresses housing/jobs balance objectives through the provision of housing for all income levels while providing a diverse collection of housing types, employment-generating land uses, and opportunities for mixed-use development. Due to the urbanized character of the City, development pursuant to the Limited Opportunity Sites Alternative would not physically divide established communities, as new development would be consistent with the goals and policies of GP 2025 and would be reviewed on a project-specific basis to ensure compliance with design standards and guidelines such that division of communities would not occur. However, the reduction in Opportunity Sites would not as effectively meet the land use objectives of the regional 2020–2045

RTP/SCS goals, including creation of affordable housing, encouragement of land development near transit, and facilitation of infill development. While impacts for this alternative would be similar to those of the Project and would be less than significant, this alternative would not as effectively meet the goals of the SCAG 2020–2045 RTP/SCS, which are intended to avoid or minimize environmental effects. Therefore, impacts related to conflicts with plans adopted for the purpose of avoiding or mitigating an environmental effect would be greater than those of the Project.

Noise

The Limited Opportunity Sites Alternative would involve a reduced number of Opportunity Sites to locate future housing and nonresidential development; however, additional residents would be exposed to elevated traffic-related noise levels under the growth anticipated in this alternative. As discussed in Section 3.8, *Noise*, the Project would result in potentially significant impacts related to noise and vibration during construction and operation, including traffic and stationary noise. Future development under the Limited Opportunity Sites Alternative, like all development in the City, would be required to adhere to the Riverside Municipal Code noise requirements regarding allowable times and hours of work and noise-control measures. As development under the Limited Opportunity Sites Alternative would be less intense than under the Project, it is expected that the reduction in new development would result in lower traffic noise impacts as compared to the Project. Development under this alternative would result in an increase in construction-related vibration impacts, similar to but to a lesser degree than under the Project. Operational vibration would not increase, similar to under the Project, as residential and mixed-use land uses generally are not substantial sources of vibration. Noise increases could exceed noise significance thresholds and have the potential to affect noise-sensitive receptors. Because the Limited Opportunity Sites Alternative would result in increases in similar new noise sources, implementation of this alternative would not reduce any significant noise impacts of the Project below a level of significance. However, impacts for the Limited Opportunity Sites Alternative would be less than those of the Project, as impacts may affect a fewer number of sensitive receptors adjacent to proposed Opportunity Sites because less development would occur than under the Project. Similar to those of the Project, impacts from this alternative would be significant and unavoidable.

Population and Housing

Development under the Limited Opportunity Sites Alternative (18,458 dwelling units and 60,542 residents) would result in less population growth and less nonresidential development than under the Project (31,564 dwelling units and 103,530 residents), a difference of 13,106 dwelling units and 42,988 residents. As discussed in Section 3.9, the Project would result in a significant population and housing impact because development under the Project would substantially exceed the population and housing projections used in the SCAG 2020–2045 RTP/SCS. The Limited Opportunity Sites Alternative would involve a less development-intensive alternative to the Project with fewer impacts involving a population increase associated with 18,458 additional dwelling units, which would be consistent with the SCAG projections and 2020–2045 RTP/SCS. The Limited Opportunity Sites Alternative would have a less-than-significant impact, as this alternative would not induce substantial unplanned population growth in the City either directly or indirectly because the Limited Opportunity Sites Alternative would be consistent with population projections. However, the Limited Opportunity Sites Alternative would not be as effective in meeting the goals and policies of the 2020–2045 RTP/SCS that aim to provide a variety of new housing and various income levels near transit. Similar to the Project, the Limited Opportunity Sites Alternative would not displace a

substantial number of existing people or housing. Impacts would be less than those of the Project and the Limited Opportunity Sites Alternative would reduce the Project's significant impact related to population growth.

Public Services

The Limited Opportunity Sites Alternative would involve a reduced number of Opportunity Sites to locate future housing and nonresidential development compared to the Project. As such, this alternative would result in less population growth and less nonresidential development than under the Project. Similar to the Project, this alternative would comply with state and local regulations to ensure that there would be sufficient fire protection, police, school, and library services and facilities to accommodate additional population resulting from residential and mixed-use development and impacts would be less than significant. As less development would occur with the Limited Opportunity Sites Alternative, the impact would be less than that of the Project.

Recreation

The Limited Opportunity Sites Alternative would involve a reduced number of Opportunity Sites to accommodate future housing and nonresidential development. Implementation of the Limited Opportunity Sites Alternative would result in an increase in the City's population, which would result in more demand on recreational facilities. However, the City requires that private developers proposing residential projects in the City include open space within their projects and pay Park Development Impact Fees to fund future recreational facilities, as described in Section 3.11, *Recreation*. Because the Limited Opportunity Sites Alternative would include fewer new housing units than the Project, the Limited Opportunity Sites Alternative would be expected to result in less demand for parks and recreational facilities compared to the Project.

With regard to the construction or expansion of recreational facilities that might have an adverse physical effect on the environment, typical impacts of new recreational facilities include short-term noise, air quality, and traffic impacts during construction; and noise, light (if night lighting is installed), and traffic during operations, as discussed previously. Similar to under the Project, construction and operational impacts for the Limited Opportunity Sites Alternative would be less than significant and less than those of the Project, as less development would occur.

Transportation

The Limited Opportunity Sites Alternative would involve a reduced number of Opportunity Sites to locate future housing and nonresidential development focused on meeting but not exceeding the RHNA obligation of 18,458 units. The Limited Opportunity Sites Alternative would require land use changes to meet the RHNA obligation, but transportation impacts would be similar to those of the Project. Therefore, the Limited Opportunity Sites Alternative would have a similar impact on transportation compared to that of the Project, and impacts could still be significant.

Utilities and Service Systems

The Limited Opportunity Sites Alternative would involve a reduced number of Opportunity Sites to accommodate future housing and nonresidential development, focused on meeting but not exceeding the RHNA obligation of 18,458 units. Similar to the Project, the Limited Opportunity Sites Alternative would not result in the relocation or construction of new or expanded water,

wastewater treatment, stormwater drainage, electrical power, natural gas, or telecommunications facilities. The Limited Opportunity Sites Alternative would also have sufficient water supplies and adequate capacity to serve projected wastewater treatment and solid waste demand. Because the Limited Opportunity Sites Alternative would include fewer new housing units and nonresidential development than under the Project, this alternative would be expected to result in less of a demand for utilities and service systems. As less development would occur with the Limited Opportunity Sites Alternative, the impact would be less than significant, the same as but less than that of the Project.

4.5 Environmentally Superior Alternative

CEQA requires the identification of an environmentally superior alternative (State CEQA Guidelines §15126.6(a) and (e)(2)). The environmentally superior alternative is the alternative that results in the fewest significant environmental impacts from among the other alternatives evaluated if the Project has significant impacts that cannot be mitigated to a less-than-significant level. Based on the analysis presented in Chapter 3, *Impact Analysis*, the Project would result in significant impacts.

Based on the analysis presented in Chapter 3 and in this chapter, both the Project and Alternative 3 (Focused Growth Alternative) are environmentally superior. The Focused Growth Alternative would result in more focused growth in the City and would meet the Project objectives including meeting the RHNA goal. Even though the No Project Alternative would result in less development and facilitate less growth pursuant to GP 2025 than the Project, it would increase significant environmental impacts for land use and planning and transportation, whereas the Focused Growth Alternative would reduce those impacts. Similar to the No Project Alternative, Alternative 4 (Limited Opportunity Sites Alternative) would reduce some of the Project's impacts but would also result in somewhat greater impacts on land use and planning. Alternative 2 (Dispersed Growth Alternative) would result in more impacts than the Project, as more sites would be affected.

Table 4-1 includes a summary comparison of the Project and its alternatives representing the highest level of impact (for example, historic resources for cultural and tribal cultural resources).

Table 4-1. Summary of Comparison of Impacts for the Project and Its Alternatives

Environmental Issue Area	Project	Alternative 1 No Project	Alternative 2 Dispersed Growth Alternative	Alternative 3 Focused Growth Alternative	Alternative 4 Limited Opportunity Sites Alternative
Air Quality	Significant	Significant, Reduced Impact Compared to Project	Significant, Similar Impact Compared to Project	Significant, Reduced Impact Compared to Project	Significant, Reduced Impact Compared to Project
Biological Resources	Less than Significant with Mitigation	Less than Significant, Reduced Impact Compared to Project	Less than Significant, Greater Impact Compared to Project	Less than Significant, Reduced Impact Compared to Project	Less than Significant, Reduced Impact Compared to Project
Cultural and Tribal Cultural Resources	Less than Significant with Mitigation	Less than Significant, Reduced Impact Compared to Project	Less than Significant, Greater Impact Compared to Project	Less than Significant, Reduced Impact Compared to Project	Less than Significant, Reduced Impact Compared to Project
Paleontological Resources	Less than Significant with Mitigation	Less than Significant with Mitigation, Reduced Impact Compared to Project	Less than Significant with Mitigation, Greater Impact Compared to Project	Less than Significant with Mitigation, Reduced Impact Compared to Project	Less than Significant with Mitigation, Reduced Impact Compared to Project
Greenhouse Gas Emissions	Significant	Significant, Reduced Impact Compared to Project	Significant, Greater Impact Compared to Project	Significant, Reduced Impact Compared to Project	Significant, Reduced Impact Compared to Project
Hazards and Hazardous Materials	Less than Significant with Mitigation	Less than Significant with Mitigation, Reduced Impact Compared to Project	Less than Significant with Mitigation, Similar Impact Compared to Project	Less than Significant with Mitigation, Similar Impact Compared to Project	Less than Significant with Mitigation, Similar Impact Compared to Project
Land Use and Planning	Less than Significant	Less than Significant, Greater Impact Compared to Project with No Beneficial Effects	Less than Significant, Similar Impact Compared to Project	Less than Significant, Similar Impact Compared to Project	Less than Significant, Greater Impact Compared to Project
Noise	Significant	Significant, Reduced Impact Compared to Project	Significant, Similar Impact Compared to Project	Significant, Similar Impact Compared to Project	Significant, Reduced Impact Compared to Project

Environmental Issue Area	Project	Alternative 1 No Project	Alternative 2 Dispersed Growth Alternative	Alternative 3 Focused Growth Alternative	Alternative 4 Limited Opportunity Sites Alternative
Population and Housing	Significant	Less than Significant, Reduced Impact Compared to Project with No Beneficial Effects	Significant, Similar Impact Compared to Project	Significant, Similar Impact Compared to Project	Less than Significant, Reduced Compared to Project
Public Services	Less than Significant	Less than Significant, Reduced Impact Compared to Project with No Beneficial Effects	Less than Significant, Similar Impact Compared to Project	Less than Significant, Similar Impact Compared to Project	Less than Significant, Reduced Impact Compared to Project
Parks and Recreation	Less than Significant	Reduced Impacts Compared to Project but No Beneficial Effects	Less than Significant, Similar Impact Compared to Project	Less than Significant, Greater Impact Compared to Project	Less than Significant, Similar Impact Compared to Project
Transportation	Significant	Significant, Greater Impact Compared to Project	Significant, Greater Impact Compared to Project	Significant, Reduced Impact Compared to Project	Significant, Similar Impact Compared to Project
Utilities and Service Systems	Less than Significant	Less than Significant, Reduced Impact Compared to Project	Less than Significant, Similar Impact Compared to Project	Less than Significant, Similar Impact Compared to Project	Less than Significant, Reduced Impact Compared to Project
Meets Project Objectives?	Yes	No	Yes	Yes	Yes

5.1 Overview

Section 15126 of the State CEQA Guidelines requires that all phases of a project must be considered when evaluating its impact on the environment, including planning, acquisition, development, and operation. As part of this analysis, the EIR must also identify (a) significant environmental effects of the proposed project, (b) significant environmental effects that cannot be avoided if the proposed project is implemented, (c) significant irreversible environmental changes that would be involved in the proposed project should it be implemented, (d) growth-inducing impacts of the proposed project, (e) mitigation measures proposed to minimize significant effects, and (f) alternatives to the proposed project.

A discussion of growth-inducing impacts, significant and unavoidable impacts, and significant irreversible environmental changes is provided in the following sections. All potentially significant environmental effects and proposed mitigation measures are found in Chapter 3, *Impact Analysis*, Sections 3.1–3.15, and alternatives to the Project are found in Chapter 4, *Alternatives*. In addition, cumulative impacts are found in Section 3.16, *Cumulative Impacts*.

5.2 Growth-Inducing Impacts

According to Section 15126.2 (d) of the State CEQA Guidelines, growth-inducing impacts of a proposed project must be discussed in the EIR. Growth-inducing impacts are those effects of a proposed project that might foster economic or population growth or the construction of new housing, either directly or indirectly, in the surrounding environment. According to CEQA, increases in the population may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects.

Induced growth is any growth that exceeds planned growth and results from new development that would not have taken place without implementation of a proposed project. Typically, the growth-inducing potential of a project would be considered significant if it results in growth or population concentration that exceeds those assumptions included in pertinent master plans, land use plans, or projections made by regional planning authorities. Growth may be induced through the provision of infrastructure or service capacity that would accommodate new development. Based on the definition of growth inducement, a general plan is inherently growth-inducing because it must, by law, accommodate at least projected housing demand. The *Riverside General Plan 2025 (GP 2025)* update would provide the framework by which public officials (i.e., Riverside City Council) will be guided in making decisions relative to future development in the City of Riverside (City). However, the creation of growth-inducing potential does not automatically lead to growth, whether it would be below or in exceedance of the projected level. Under CEQA, growth in any area is not necessarily assumed to be either beneficial, detrimental, or of little significance to the environment.

The Project would not include individual development proposals. However, as discussed below, because a part of the Project would include rezoning to allow for additional housing opportunities, it

is anticipated that the Project would lead to additional growth. This EIR, by evaluating the impacts of implementation of the GP 2025 update for the Housing and Public Safety Elements, discloses its growth-inducing impacts. Future development facilitated by the Project would occur as market conditions allow and at the discretion of individual property owners. Development of the Project would encourage a mix of market-rate, affordable rental, and affordable ownership housing and mixed-used development in both new construction and preserved or adaptively reused buildings, which is intended to increase housing of all types in the City, rather than create new housing for people outside of the City in order to meet the City's Regional Housing Needs Assessment (RHNA) obligation. To do this, the Project identifies Opportunity Sites that could be suitable locations for future housing development and proposes rezoning of certain Opportunity Sites to allow higher-density residential and mixed-use development. The rezoning of Opportunity Sites has the potential to increase the City's population if all sites that are rezoned to accommodate the RHNA are developed to their highest zoned capacity and all residents are new to the City. It is also possible that existing residents that are currently sharing homes may relocate to new units. The increase in mixed-use development could increase employment-generating land uses within the City, thereby inducing direct and indirect population growth in the City.

According to the Southern California Association of Governments (SCAG), the population of the City is projected to increase to 395,800 by 2045, which represents an increase of 20.61 percent from the 2020 population of 328,155 (SCAG 2020). The potential increase in population by adding 31,564 new housing units (103,530 persons) would result in a population increase that would be greater than the SCAG 2045 population projection of 67,645 additional residents. Implementation of the Project could also result in additional housing and population beyond what is currently planned for in the existing GP 2025, which anticipates a maximum build-out of 128,170 dwelling units and maximum population of 384,510 persons over existing conditions. As stated in Section 3.9, *Population and Housing*, no mitigation is available to reduce this impact to a less-than significant level and impacts would be significant and unavoidable.

By law, the City is required to adopt "a comprehensive, long-term general plan for the physical development of the county" (California Government Code Section 65300). On a regular basis (now every 8 years), SCAG prepares the RHNA and adopts the associated Regional Housing Needs Plan that establishes the share of projected future housing growth that each jurisdiction is expected to accommodate in its general plan. The Housing Element cycle covering the 2013–2021 period included an RHNA obligation of 8,283 units, of which only a portion were built during the last 8 years. The City's current Housing Element was adopted in 2017 and runs through 2021. This update cycle comes when California faces a major statewide housing shortage that is affecting all Californians by raising the price of housing and the cost of construction, and by increasing homelessness. In the 2021–2029 Housing Element cycle (6th cycle), the City's RHNA obligation is a minimum of 18,458 new housing units. Given that 100 percent of potential housing sites will likely not be developed to full potential, the City has provided a buffer of approximately 5,500 dwelling units (approximately 30 percent over and above the RHNA obligation). Altogether, the City has identified Opportunity Sites with existing and proposed capacity for approximately 24,000 new homes for the 2021–2029 RHNA cycle. It should be noted that, for the purposes of RHNA, Opportunity Sites are conservatively anticipated to develop up to 75 percent of the maximum capacity established by the Zoning Code, whereas for the analysis presented in this EIR, development up to 100 percent of the maximum is analyzed, thereby accounting for the difference between 24,000 and 31,564 new dwelling units.

5.3 Significant and Unavoidable Impacts

Section 15126.2(b) of the State CEQA Guidelines requires that an EIR describe any significant impacts that cannot be avoided even with implementation of feasible mitigation measures. Based on the environmental analysis in Chapter 3, the Project would result in significant and unavoidable impacts after the implementation of mitigation measures.

- **Impact AQ-1:** The Project would conflict with or obstruct implementation of the applicable air quality plan. This impact would be significant and unavoidable with implementation of mitigation.
- **Impact AQ-2:** The Project could result in a cumulatively considerable net increase of criteria pollutants for which the Project region is a nonattainment area for an applicable federal or state ambient air quality standard. This impact would be significant and unavoidable with implementation of mitigation.
- **Impact AQ-3:** The Project could result in the exposure of sensitive receptors to substantial pollutant concentrations. The impact would be significant and unavoidable with implementation of mitigation.
- **Impact GHG-1:** The Project would generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment. This impact would be significant and unavoidable with implementation of mitigation.
- **Impact GHG-2:** The Project would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. This impact would be significant and unavoidable with implementation of mitigation.
- **Impact NOI-1:** The Project would generate temporary or permanent increases in ambient noise levels in the vicinity of the Project in excess of standards established in a local general plan or noise ordinance or applicable standards for the City. Implementation of Mitigation Measures **MM-NOI-1** and **MM-NOI-2** would reduce this impact, but not to less-than-significant levels. The impact would be significant and unavoidable.
- **Impact NOI-2:** The Project could generate excessive groundborne vibration or groundborne noise levels. Implementation of Mitigation Measure **MM-NOI-3** would reduce this impact, but not to less-than-significant levels. The impact would be significant and unavoidable.
- **Impact POP-1:** The Project would result in substantial unplanned population growth either directly or indirectly. This impact would be significant and unavoidable.
- **Impact TRA-2:** The Project would conflict or be inconsistent with State CEQA Guidelines Section 15064.3, subdivision (b), as the Project would affect the vehicle miles traveled in the City of Riverside. This impact would be significant and unavoidable.

5.4 Significant Irreversible Environmental Changes

Pursuant to Section 15126.2(d) of the State CEQA Guidelines, an EIR must consider any significant irreversible environmental changes that would be caused by a proposed project, should it be implemented. Section 15126.2(d) reads as follows:

Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

A project would result in significant irreversible environmental changes if:

- The primary and secondary impacts would generally commit future generations to similar uses.
- The project would involve a large commitment of nonrenewable resources.
- The project would involve uses in which irreversible damage could result from any potential environmental accidents associated with the project.
- The proposed consumption of resources is not justified (e.g., the project involves the wasteful use of energy).

Nonrenewable resources used during construction of future development facilitated by the Project would include construction materials and fuels to power construction equipment. However, as discussed in Section 3.15, *Effects Not Found to Be Significant*, the Project would not result in wasteful, inefficient, or unnecessary consumption of energy resources during Project construction or operation. Nonetheless, the resources used during implementation of the Project would be permanently committed to the Project and, therefore, their use would be irreversible.

The State CEQA Guidelines also require a discussion of the potential for irreversible environmental damage caused by an accident associated with a proposed project or an accidental release of hazardous materials. The Project would not involve the transport or storage of hazardous materials on site. Construction activities may include the temporary use of some hazardous agents, such as paints, oils, solvents, and cleansers, as well as temporary storage of these materials and fuel on site. However, the amounts of chemical agents typically used during construction would be limited. In addition, the residential and mixed-use development that would be facilitated by the Project is not anticipated to create hazards related to the release of hazardous materials. Implementation of Mitigation Measure **MM-HAZ-1** would minimize impacts related to hazards and hazardous materials by requiring a project-level hazardous materials site assessment for construction of an individual project, which would verify the presence or absence of hazardous materials on any Opportunity Site and require subsequent measures if necessary.

5.5 Future Use of this EIR

CEQA has a number of provisions for streamlining the environmental review of later projects that are consistent with the Housing and Public Safety Element Updates. The City will use this EIR as the basis for streamlining CEQA reviews of future residential and mixed-use development on Opportunity Sites consistent with the Housing and Public Safety Element Updates. As the lead agency for future development projects, the City will be responsible for determining which, if any, of CEQA's streamlining methods may apply to a given project. In any case, the City will determine whether the impacts of such projects were adequately analyzed in the GP 2025 EIR or this EIR and, if it finds any project was not, will prepare subsequent CEQA documents to disclose the project-specific impacts and identify feasible mitigation. SCAG has prepared a guide for local governments to use when determining whether a project is consistent with the Sustainable Communities Strategy.

The City will use that guide, to the extent that it is applicable, as one consideration in determining consistency with the Sustainable Communities Strategy. The City prepared an initial study checklist in April 2021 to simplify the process of using this EIR as the basis for environmental analyses, focusing on key environmental issues (refer to Chapter 3). Future development projects associated with the Opportunity Sites that are consistent with the Housing and Public Safety Element Updates and this EIR will be able to use the analysis in this Draft EIR to streamline the environmental review process. This EIR will assist the City in processing future development projects that qualify for CEQA streamlining and identifying any new or more severe significant effects that would require the preparation of additional studies and/or subsequent environmental documents (i.e., addenda, mitigated negative declarations, EIRs). As noted in Chapter 2, *Project Description*, a predevelopment checklist (environmental development checklist) will be developed as part of the Project to support the development review process for applicants proposing to develop Opportunity Sites consistent with the Project.

6.1 City of Riverside

Matthew Taylor	Senior Planner/Project Manager
Mary Kopaskie-Brown	City Planner
Kristi J. Smith	Interim City Attorney
Anthony Beaumon	Senior Deputy City Attorney
Lauren Sanchez	Deputy City Attorney
David Murray	Principal Planner
Scott K. Watson	Historic Preservation Officer
Nathan Mustafa	Deputy Director, Public Works
Tracy Sato	Principal Resource Analyst, Power Resources/Planning & Analytics
Gema Ramirez	Project Manager, Arts & Cultural Affairs
Randy McDaniel	Principal Parks Planner, Parks Planning & Design
Alisa Sramala	Trails Coordinator, Parks Planning & Design
Jennifer McDowell	Fire Marshal, Fire Prevention
Charles Payne	Captain, Police Support Services
George Guzman	Administrative Services Manager, Library Administration
Chris Scully	Acting Engineering Manager, Land Development
Archie Washington	Field Operations Manager, Solid Waste
Christina Navaratnam	Senior Administrative Analyst, Solid Waste
Chris Gross	Senior Water Engineer, Water Contracts & Development
Blake Yamamoto	Principal Engineer, Water Planning & Resources
Anthony Manzano	Engineer, Water Planning & Resources
Kevin Street	Field Operations Manager, Wastewater
Michael D. Roberts	Environmental Services Coordinator, Wastewater
Robert Eland	Wastewater Resource Analyst, Regulatory Compliance
Ernest Marquez	Principal Engineer, Sewer System
Robert Rivers	Principal Management Analyst, Street Services

6.2 ICF (Lead Environmental Consultant)

Jessie Barkley	Project Director
Debra Einstein Leight	Environmental Project Manager
Alison Rondone	Principal Environmental Planner
Matthew McFalls	Air Quality/Greenhouse Gas Emissions Specialist
Terrance Wong	Air Quality/Greenhouse Gas Emissions Specialist
Sarah Halterman	Air Quality/Greenhouse Gas Emissions Specialist
Blake Barroso	Air Quality/Greenhouse Gas Emissions Specialist
Peter Hardie	Noise and Vibration Specialist
Benjamin Vargas	Archaeological Resources
Rachel Droessler	Archaeologist
Colleen Martin	Biologist
Mario Barrera	Hazards and Hazardous Materials Specialist
Katrina Castaneda	Historic Preservation and Environmental Justice Specialist
Katrina Sukola	Hydrology and Water Quality Specialist
Merin Swenson	Public Services and Utilities Author
Andrew Belcourt	CEQA Author
Patrick Maley	CEQA Author
Marissa Mathias	CEQA Author
Misbah Rashid	CEQA Author
Diana Roberts	CEQA Author
Kidada Malloy	CEQA Author
Emily Seklecki	CEQA Author
Charlotte Stadelmann	CEQA Author
Nader Khalil	CEQA Author
Robert Lanza	Public Safety Element Author
Greta Brownlow	Environmental Justice Author
Tong Vincent	Environmental Justice Author
Elizabeth Irvin	Lead Editor
Saadia Byram	Technical Editor
Kenneth Cherry	Technical Editor

Jenelle Mountain-Castro	Publications Specialist
Johnnie Garcia	GIS and Graphics
Brittany Buscombe	GIS and Graphics

6.3 Houseal Lavigne Associates (HLA) (Project Manager & Land Use Planning/Housing Consultant)

Devin Lavigne	Principal and Co-Founder
Robert Kain	Project Manager
Brian Sims	Principal
Jackie Wells	Planner/Manager

6.4 Fehr & Peers (Transportation Consultant)

Jason Pack, PE	Principal
Delia Votsch	Transportation Planner
Biling Liu	Transportation Planner
Saima Musharrat	Transportation Planner

6.5 Veronica Tam Associates (VTA) (Housing Consultant)

Veronica Tam, AICP	Principal
Amber Gregg	Planner

6.6 Arellano Associates (Outreach Consultant)

JC Lacey	Project Manager
Chester Britt	Outreach Support
Nancy Verduzco	Outreach Support
Celeste Milam	Outreach Support
Jennifer Velazquez	Outreach Support

7.1 Executive Summary

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7.4 Chapter 3, Impact Analysis

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