Draft Environmental Impact Report
SCH No. 2021080570

Keller Crossing Specific Plan No. 380, Amendment No. 1

Riverside County, California



Lead Agency
Riverside County
Planning Department
4080 Lemon Street, 12th Floor
Riverside, CA 92501

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Lead Agency Discretionary Permits
Specific Plan Amendment (SP00380A01)
General Plan Amendment (GPA 210004)
Change of Zone (CZ 2100012)
Tentative Tract Map (TTM 38163)

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Appendix A.	Notice of Preparation and Written Comments on the NOP
Appendix B1.	Air Quality Impact Analysis
Appendix B2.	Supplemental Air Quality and Greenhouse Gas Assessment Evaluation
Appendix C1.	Biological Technical Report
Appendix C2.	Determination of Biologically Equivalent or Superior Preservation (DBESP)
Appendix C3.	Jurisdictional Delineation
Appendix D.	Phase I Cultural Resources Assessment
Appendix E.	Energy Analysis
Appendix F1.	Updated Geotechnical and Infiltration Evaluation
Appendix F2.	Preliminary Geotechnical Investigation
Appendix G.	Greenhouse Gas Analysis
Appendix H.	Phase I ESA
Appendix I1.	Preliminary Drainage Report
Appendix I2.	County Project Specific Water Quality Management Plan (WQMP)
Appendix J.	Noise Impact Analysis
Appendix K.	Paleontological Resource Impact Monitoring Program (PRIMP)
Appendix L1.	Vehicle Miles Travelled (VMT) Analysis
Appendix L2.	Traffic Study
Appendix M.	Water Supply Assessment
Appendix N.	Fuel Modification Plan
Appendix O.	Draft Specific Plan No. 380, Amendment No. 1
Appendix P.	General Plan Consistency Analysis for Amendment No. 1 to the Keller Crossing Specific Plan No. 380
Appendix Q.	Hydraulic Analysis Report
Appendix R.	Sewer Capacity Study

ACRONYMS AND ABBREVIATIONS

Acronym	Definition
§	Section
°F	Fahrenheit
µg/m^3	Micrograms per Cubic Meter
A-D	"Agriculture-Dairy" Riverside County zoning designation
A-P Act	Alquist-Priolo Earthquake Fault Zoning Act
AB	Assembly Bill
AB 16	Assembly Bill 16
AB 32	California Global Warming Solutions Act of (2006)
AB 52	Native Americans: California Environmental Quality Act
AB 341	Mandatory Commercial Recycling Program
AB 939	California Solid Waste Integrated Waste Management Act
AB 1327	Waste Reuse and Recycling Act
AB 1358	Complete Streets Act
AB 1493	Pavely Fuel Efficiency Standards
AB 2185	Assembly Bill 2185
AB 3030	Assembly Bill 3030
ABAU	Adjusted Business As Usual
ACM	Alternative Calculation Method
ACOE	Army Corps of Engineers
ACS	American Community Survey
ADOE	Archaeological Determinations of Eligibility
ADT	Average Daily Traffic
ADT	Average Daily Trips
af	Acre-feet
af/yr	Acre Feet per Year
AG	Agriculture
AIA	Airport Influence Area
AICP	American Institute of Certified Planners
AIRFA	American Indian Religious Freedom Act
ALUC	Airport Land Use Commission
ALUCP	Airport Land Use Compatibility Plan
AMSL	Above Mean Sea Level
APS	Alternative Planning Strategy
APN	Assessor Parcel Number
AQA	Air Quality & Greenhouse Gas Assessment
AQIA	Air Quality Impact Analysis
AQMP	Air Quality Management Plan
ARB	Air Resources Board
ASTM	American Society of Testing and Materials

ACRONYMS AND ABBREVIATIONS (CONT'D)

Acronym	Definition
BAAQMD	Bay Area Air Quality Management District
BACM	Best Available Control Measure
BMPs	Best Management Practices
BERD	Built Environment Resources Directory
BLM	Bureau of Land Management
BP	Before Present
BSC	Building Standards Code
BTU	British Thermal Unit
CA MUTCD	California Manual on Uniform Traffic Control Devices
CAA	Federal Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAB	California Architects Board
CAL FIRE	California Department of Forestry and Fire Protection
CalEEMod™	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CalEnviroScreen	California Communities Environmental Health Screening Tool Version 3.0
CALGAPS	California LBNL GHG Analysis of Policies Spreadsheet
CALGreen	California Green Building Standards Code
CalSTA	California State Transportation Agency
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CASSA	Criteria Area Species Survey Area
CBSC	California Building Standards Code
CBSC	California Building Standards Commission
CC	Community Center
CCR	California Code of Regulations
CCAA	California Clear Air Act
C&D	Construction and Demolition
CDC	California Department of Conservation
CDE	California Department of Education
CDFW	California Department of Fish and Wildlife
CDPR	California Department of Pesticide Regulation
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CETAP	Community Environmental Transportation Acceptability Process
CFCs	Chlorofluorocarbons
CFR	Code of Federal Regulations

ACRONYMS AND ABBREVIATIONS (CONT'D)

Acronym	Definition
CFS	Cubic Feet per Second
CGC	California Government Code
CH_4	Methane
CDFW	California Department of Fish and Wildlife
CHL	California Historic Landmarks
CIWMB	California Integrated Waste Management Board
CIWMP	Riverside Countywide Integrated Waste Management Plan
CLCA	California Land Conservation Act
CMP	Congestion Management Program
CMUTD	California Manual on Uniform Traffic Control Devices
CNEL	Community Noise Equivalent Level
CO	Carbon Monoxide
COA	Conditions of Approval
COG	Council of Governments
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent
COP	Conference of the Parties
COP	Community Oriented Policing
COPPS	Community Oriented and Policing Problem Solving
CPEP	Clean Power and Electrification Pathway
CPHI	California Points of Historical Interest
CPUC	California Public Utilities Commission
CR	Commercial Retail
CRA	Cultural Resources Assessment
CRA	Colorado River Aqueduct
CRHR	California Register of Historic Places
CSA	Community Service Area
CTC	California Transportation Commission
CTR	California Toxic Rule
CUP	Conditional Use Permit
CWA	Clean Water Act
CWC	California Water Code
c.y.	cubic yards
CZ	Change of Zone
CZ 2100012	Change of Zone 2100012
dB	Decibel
dBA	A-weighted Decibels
DBESP	Determination of Biological Equivalent or Superior Preservation
DBF	deposit-based fee
DC/TP	discovery clause/treatment plan

ACRONYMS AND ABBREVIATIONS (CONT'D)

Acronym	Definition
DEH	Department of Environmental Health
DIF	Development Impact Fee
DMA	Drainage Management Areas
DMV	Department of Motor Vehicles
DOE	Determination of Eligibility
DOF	California Department of Finance
DOSH	Division of Occupational Safety and Health
DPM	Diesel Particulate Matter
DTSC	Department of Toxic Substances Control
du/ac	Dwelling Units per Acre
DWR	Riverside County Department of Waste Resources
DWR	Riverside County Department of Water Resources
EA	Environmental Assessment
EAP	Existing Plus Ambient Plus Project
EAP	Elsinore Area Plan
EAPC	Existing Plus Ambient Plus Cumulative Plus Project
e.g.	for example
EDR	Environmental Data Resources, Inc.
EIC	Eastern Information Center
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EMFAC	EMission FACtor model
EMWD	Eastern Municipal Water District
EO	Executive Order
EPA	Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-To-Know Act
EPS	Emission Performance Standard
ESA	Environmental Site Assessment
ETW	Equivalent Test Weight
EV	Electric Vehicle
FAA	Federal Aviation Administration
FAR	floor area ratio
FEMA	Federal Emergency Management Agency
FERC	Federal Energy Regulatory Commission
FHWA	Federal Highway Administration
FIMA	Federal Insurance and Mitigation Administration
FIRM	Flood Insurance Rate Map
FMMP	Farmland Mapping and Monitoring Program
FMZ	Fuel Modification Zone

ACRONYMS AND ABBREVIATIONS (CONT'D)

Acronym	Definition
FPP	Fire Protection Plan
FPEIR	Final Program Environmental Impact Report
FRAP	Resource Assessment Program
FTA	Federal Transit Administration
FYI	for your information
GBN	Ground-Based Noise
GBV	Ground-Based Vibration
GHG	Greenhouse Gas
GLO	General Land Office
GMP	Groundwater Basin
GMZ	Groundwater Management Zone
GOBiz	Governor's Office of Business and Economic Development
gpd	Gallons per Day
GPA	General Plan Amendment
GPA 200004	General Plan Amendment No. 21004
GPCD	Gallons per Capita per Day
GSA	Groundwater Sustainability Agencies
GSP	Groundwater Sustainability Plans
GVWR	Gross Vehicle Weight Rating
GWH	Gigawatt Hours
Ha	High Sensitivity A
Hb	High Sensitivity B
HAPs	Hazardous Air Pollutants
HBW	Home Based Work
HCM	Highway Capacity Manual
HCP	Habitat Conservation Plan
HD	heavy-duty
HHD	Heavy-Heavy Duty Trucks
HI	Hazard Index
HMBEP	Hazardous Materials Business Emergency Plan
HMTA	Hazardous Materials Transportation Act
HMTAUSA	Hazardous Materials Transportation Uniform Safety Act
HOV	High-Occupancy Vehicle
HPDF	Historic Property Data File
HPS	High Pressure Sodium
HRA	Health Risk Assessment
HSC	Health and Safety Code
HSWA	Federal Hazardous and Solid Waste Amendments
HUD	Department of Housing and Urban Development

ACRONYMS AND ABBREVIATIONS (CONT'D)

Acronym	Definition
HWCL	Hazardous Waste Control Law
I	Interstate
I-215	Interstate 215
I-15	Interstate 15
i.e.	that is
IA	Implementing Agreement
ICAO	International Civil Aviation Organization
IEPR	Integrative Energy Policy Report
In/sec	Inches Per Second
IRP	Integrated Resource Planning
ISO	Independent Service Operator
ISTEA	Intermodal Surface Transportation Efficiency Act of 1991
ITE	Institute of Transportation Engineers
ITIP	Interregional Transportation Improvement Plan
IWMA	Integrated Waste Management Act
IWMP	Integrated Waste Management Plan
JPA	Joint Powers Authority
LACM	Museum of Los Angeles County
LBNL	Lawrence Berkeley National Laboratory
LDA	light-duty auto
LCFS	low carbon fuel standard
LEA	Lead Enforcement Agency
Leq	equivalent continuous sound level
Lmax	maximum noise level
LOS	Level of Service
LRA	Local Responsibility Areas
LSEs	Load-Serving Entities
LSTs	Localized Significance Thresholds
LTF	Local Transportation Fund
LTOs	Licensed Timber Operators
LUST	Leaking Underground Storage Tank
MARB	March Air Reserve Base
MCY	Motorcycles
MCP	Mid-County Parkway
MD	medium-duty
MDP	Master Drainage Plan
MDR	"Medium Density Residential" SP380 land use designation

ACRONYMS AND ABBREVIATIONS (CONT'D)

Acronym	Definition
MDV	Medium-Duty Trucks
MGD	million gallons per day
MHDR	"Medium High Density Residential" SP 380 land use designation
MHDT	Medium-Heavy Duty Trucks
MICR	Maximum Individual Cancer Risk
MLD	Most Likely Descendent
MMTs	million metric tons
$MMTCO_2e$	million metric tons of carbon dioxide equivalent
$MMTCO_2e/yr$	million metric tons of carbon dioxide equivalent per year
Mph	Miles Per Hour
MPO	Metropolitan Planning Organization
MRZ-3	Mineral Resource Zone 3
MS4	Municipal Separate Storm Sewer System
MSHCP	Multiple Species Habitat Conservation Plan
MSR	million solar roofs
MUSD	Menifee Union School District
$MTCO_2e$	Metric Tons of Carbon Dioxide Equivalent
MWD	Metropolitan Water District
NAHC	Native American Heritage Commission
NAGPRA	National American Graves Protection and Reparation Act
NAAQS	National Ambient Air Quality Standards
NDA	No Development Alternative
NDC	nationally determined contributions
NEPSSA	Narrow Endemic Plant Species Survey Area
NESHAP	National Emission Standards for Hazardous Air Pollutants
NFIP	National Flood Insurance Program
NHLs	National Historic Landmarks
NHPA	National Historic Preservation Act
NIOSH	National Institute for Occupational Safety and Health
NO_2	Nitrogen Dioxide
NO_X	Nitrogen Oxides
N_2O	Nitrous Oxide
NOAA	National Oceanic and Atmospheric Administration
NOP	Notice of Preparation
NPA	No Project Alternative
NPDES	National Pollutant Discharge Elimination System
NPRM	Notice of Proposed Rule Making
NPS	National Park Service
NPS	non-point source
NRHP	National Register of Historic Places

ACRONYMS AND ABBREVIATIONS (CONT'D)

Acronym	Definition
NTR	National Toxic Rule
NVIA	Noise and Vibration Impact Assessment
O_3	Ozone
OAG	Office of Attorney General
OAL	Office of Administrative Law
OBUS	Other Buses
OEHHA	Office of Environmental Health Hazard Assessment
Off-Site CRA	Off-site impact areas
OHP	Office of Historic Preservation
OIH	Office of Industrial Hygiene
OPR	Office of Planning and Research
OS-CH	"Open Space – Conservation Habitat" SP-380 land use designation
OS-MS	"Open Space – Manufactured Slopes" SP-380 land use designation
OS-R	"Open-Space Recreation" SP 380 land use designation
OS-W	"Open-Space Water" SP 380 land use designation
OSHA	Occupational Safety and Health Assessment
PA	Public Address
PCBs	Polychlorinated biphenyls
PCEs	Passenger Car Equivalents
PeMS	Caltrans' Performance System Website
PG&E	Pacific Gas and Electric
PHF	peak hour factor
p.m.	Post Meridiem (between the hours of noon and midnight)
PM	Particulate Matter
$PM_{2.5}$	Fine Particulate Matter (2.5 microns or smaller)
PM_{10}	Fine Particulate Matter (10 microns or smaller)
POUs	Publicly-Owned Electric Utilities
ppm	parts per million
PPV	peak particle velocity
PRC	Public Resources Code
PRIMP	Paleontological Resources Impact Mitigation Program
PRPA	Paleontological Resources Preservation Act
PUC	Public Utilities Code
PUHSD	Perris Union High School District
PVRWRF	Perris Valley Regional Water Reclamation Facility
PWQMP	Preliminary Water Quality Management Plan
Qvof	Quaternary Very Old Fan Deposits

ACRONYMS AND ABBREVIATIONS (CONT'D)

Acronym	Definition
R-A-5	Residential Agricultural, 5-acre Minimum Lot Size
R-R	"Rural Residential" Riverside County Zoning Designation
RC-LDR	Rural Community – Low Density Residential
RCA	Western Riverside County Regional Conservation Authority
RCALUC	Riverside County Airport Land Use Commission
RCCDR	Riverside County Center for Demographic Research
RCDWR	Riverside County Department of Waste Resources
RCFCWCD	Riverside County Flood Control and Water Conservation District
RCFD	Riverside County Fire Department
RCHCA	Riverside County Habitat Conservation Agency
RCSD	Riverside County Sheriff's Department
RCIT	Riverside County Information Technology
RCP	Reinforced concrete pipe
RCPG	Regional Comprehensive Plan and Guide
RCPLS	Riverside County Public Library System
RCRA	Resource Conservation and Recovery Act
RCTC	Riverside County Transportation Commission
RCWD	Rancho California Water District
REC	Recognized environmental Concerns
REL	Reference Exposure Level
RHNA	Regional Housing Needs Assessment
RivTAM	Riverside Transportation Analysis Model
RMM	Riverside Municipal Museum
RMS	root mean square
ROGs	Reactive Organic Gasses
ROW	Right-of-Way
RPFs	Registered Professional Foresters
RPS	Renewable Portfolio Standards
RSHA	Regional System of Highways and Arterials
RTA	Riverside Transit Agency
RTIP	Regional Transportation Improvement Plan
RTP	Regional Transportation Plan
RTPA	Regional Transportation Planning Agency
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
RWQCB	Regional Water Quality Control Board
RWRF	Regional Water Reclamation Facility
SF/s.f.	square foot or square feet
SARA	Superfund Amendments and Reauthorization Act
SB	Senate Bill

ACRONYMS AND ABBREVIATIONS (CONT'D)

Acronym	Definition
SB 18	Senate Bill 18
SB 1	Road Repair and Accountability Act of 2017
SB 32	Statewide for California to reduce GHG emissions
SB 50	Senate Bill 50
SB 221	Senate Bill 221
SB 325	Transportation Development Act (Mills-Alquist-Deddeh Act)
SB 375	Senate Bill 375
SB 350	Clean Energy and Pollution Reduction Act of 2015
SB 610	Senate Bill 610
SB 743	Senate Bill 743, Transportation Impacts
SB 1000	Senate Bill 1000
SB 1368	CPUC adopt a GHG emission performance standard
SB 1078	California Renewables Portfolio Standard Program
SBCM	San Bernardino County Museum
SCAB	South Coast Air Basin
SCAG	Sothern California Association of Governments
SCAQMD	Southern Coast Air Quality Management District
SCE	Southern California Edison
SCH	California State Clearinghouse (Office of Planning and Research)
SCS	Sustainable Communities Strategy
SDG&E	San Diego Gas and Electric
SDNHM	San Diego Natural History Museum
SDWA	Safe Drinking Water Act
SED	Socio-Economic Data
SFP	School Facilities Program
SGC	Strategic Growth Council
SGMA	Sustainable groundwater management act
SHMA	Seismic Hazards Mapping Act
SHPO	State Historic Preservation Officers
SHRC	State Historical Resources Commission
SHS	State Highway System
SHWS	State Hazardous Waste Sites
SIPs	State Implementation Plans
SJVAPCD	San Joaquin Valley Air Pollution Control District
SKR HCP	Stephens' Kangaroo Rat Habitat Conservation Plan
SLPS	short-lived climate pollutant strategy
SMARA	Surface Mining and Reclamation Act of 1975
SNUR	Significant New Use Rule
SoCalGas	Southern California Gas
SOC	Statement of Overriding Conditions
SO_2	Sulfur Dioxide

ACRONYMS AND ABBREVIATIONS (CONT'D)

Acronym	Definition
SO_X	Sulfur Oxide
SP	Specific Plan
SP Zone	Specific Plan Zone
SP 380	Keller Crossing Specific Plan No. 380
SP 380A1	Keller Crossing Specific Plan No. 380 Amendment No. 1
SR	State Route
SR-74	State Route 74
SR-79	State Route 79
SRA	Source Receptor Area
SRA	State Responsibility Areas
SRRE	Source Reduction and Recycling Elements
STA	State Transit Assistance
STC	Sound Transmission Class
STIP	Statewide Transportation Improvement Program
SWP	State Water Project
SWAP	Southwest Area Plan
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Regional Control Board
TAC	Toxic Air Contaminants
TAZ	traffic analysis zones
TCL	Traditional Cultural Landscape
TDA	Transportation Development Act
TDM	Transportation Demand Management
THP	Timber Harvesting Plan
TIA	Traffic Impact Analysis
TPA	Transit Priority Area
TPD	Tons per Day
TPY	Tons per Year
TTM	Tentative Tract Map
TUMF	Transportation Uniform Mitigation Fee
UCR	University of California, Riverside
UNFCCC	United Nations Framework Convention on Climate Change
U.S.	United States
USDA	United States Department of Agriculture
USEPA	United States of Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geologic Survey
UWMP	Urban Water Management Plan
UWMP Act	Urban Water Management Planning Act

ACRONYMS AND ABBREVIATIONS (CONT'D)

Acronym	Definition
UWMP-MWD	MWD's 2015 Urban Water Management Plan
VHDR	"Very High Density Residential" SP 380 land use designation
VHFHSZ	Very High Fire Hazard Severity Zone
VMT	Vehicle Miles Traveled
VOCs	Volatile Organic Compounds
W-1	Watercourse, Watershed & Conservation Areas
W-2	Controlled Development Areas
WDR	Water discharge report/ requirements
WMI	Watershed Management Initiative
WMIE	Waste Management Inc. of the Inland Empire
WQMP	Water Quality Management Plan
WRP	Waste Recycling Plan
WRRA	Waste Reuse and Recycling Act
WRCOG	Western Riverside Council of Governments
WSA	Water Supply Assessment
WSC	Western Science Center
WSCP	Water Shortage Contingency Plan
WUI	Wildland-Urban Interface
ZE/NZE	zero- and near-zero emission
ZORI	Zones of Required Investigation

S.0 EXECUTIVE SUMMARY

S.1 INTRODUCTION

The California Environmental Quality Act (CEQA), Public Resources Code Section 21000, *et seq.* requires that before a public agency makes a decision to approve a project that could have one or more adverse effects on the physical environment, the agency must inform itself about the project's potential environmental impacts, give the public an opportunity to comment on the environmental issues, and take feasible measures to avoid or reduce potential harm to the physical environment.

This Draft Environmental Impact Report (EIR), having California State Clearinghouse (SCH) No. 2021080570, was prepared in accordance with CEQA Guidelines Article 9, Sections 15120-15132 to evaluate the potential environmental impacts associated with planning, constructing, and operating the proposed Project, which consists of General Plan Amendment No. 210004 (GPA210004), Amendment No. 1 to Specific Plan No. 380 (SP00380A01), Change of Zone No. 2100012 (CZ2100012), and Tentative Tract Map No. 38163 (TTM38163), which are collectively referred to herein as the "Project" or "proposed Project." This EIR does not recommend approval or denial of the proposed 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 minimum period of 45 days. After consideration of public comment, the County of Riverside will consider certifying the Final EIR and adopting required findings.

This Executive Summary complies with CEQA Guidelines Section 15123, "Summary." This EIR includes a description of the proposed Project and evaluates the physical environmental effects that could result from Project implementation. The County of Riverside determined that the scope of this EIR should cover 21 subject areas. The scope includes all of the subject areas listed in Appendix G to the CEQA Guidelines and in consideration of public comment received by the County in response to this EIR's Notice of Preparation (NOP) and during a publicly-noticed Scoping Session, which occurred on September 27th, 2021. The NOP, and written comments received by the County in response to the NOP, are attached to this EIR as *Technical Appendix A*. In consideration of public comment on the NOP, the 21 environmental subject areas that could be reasonably and significantly affected by planning, constructing, and/or operating the proposed Project are analyzed herein, including:

1. Aesthetics
2. Agriculture and Forestry Resources
3. Air Quality
4. Biological Resources
5. Cultural Resources
6. Energy
7. Geology and Soils
8. Greenhouse Gas Emissions
9. Hazards and Hazardous Materials
10. Hydrology and Water Quality
11. Land Use and Planning
12. Mineral Resources
13. Noise
14. Paleontological Resources
15. Population and Housing
16. Public Services
17. Recreation
18. Transportation
19. Tribal Cultural Resources
20. Utilities and Service Systems
21. Wildfire

Refer to EIR Section 4.0, *Environmental Analysis*, for a full account and analysis of the subject matters listed above. For each of the aforementioned subject areas, this EIR describes: 1) the physical conditions that existed at the approximate time this EIR's NOP was filed with the California State Clearinghouse (August 31, 2021); 2) discloses the type and magnitude of potential environmental impacts resulting from Project planning, construction, and operation; and 3) if warranted, recommends feasible mitigation measures that would reduce or avoid significant adverse environmental impacts that the proposed Project may cause. A summary of the proposed Project's significant environmental impacts and the mitigation measures imposed by the County of Riverside on the Project to lessen or avoid those impacts is included in this Executive Summary as Table S-1, *Summary of Impacts, Mitigation Measures, and Conclusions*. The County of Riverside applies mitigation measures that it determines: 1) are feasible and practical for project applicants to implement; 2) are feasible and practical for the County of Riverside to monitor and enforce; 3) are legal for the County to impose; 4) have an essential nexus to the Project's impacts; and 5) would result in a benefit to the physical environment. CEQA does not require the Lead Agency to impose mitigation measures that are duplicative of mandatory regulatory requirements.

This EIR also discusses alternatives to the proposed Project. Alternatives are described that would attain most of the Project's objectives while avoiding or substantially lessening the proposed Project's significant adverse environmental effects. A full discussion of Project alternatives is found in Section 6.0, *Alternatives*.

S.2 PROJECT SYNOPSIS

S.2.1 LOCATION AND REGIONAL SETTING

The 196.0-acre Project site is located within the western portion of unincorporated Riverside County, California. EIR Figure 2-1, *Regional Map*, depicts the Project site's location within the regional vicinity. As shown, Riverside County abuts San Bernardino County to the north; Orange County to the west; and San Diego and Imperial Counties to the south. The Project site is located within the western region of unincorporated Riverside County, California. As depicted on EIR Figure 2-2, *Vicinity Map*, the Project site is located within the French Valley Community of the Southwest Area Plan (SWAP) of unincorporated Riverside County. More specifically, the 196.0-acre Project site is bound to the south by Keller Road, to the west by the future alignment of Pourroy Road, and to the east by Winchester Road (SR-79). The Project site encompasses Assessor Parcel Numbers (APNs) 472-110-(001, 002, 003, 004, 007, 008, 009, 032, 033, and 034.). The 196.0-acre Project site is located in Section 21, Township 6 South, Range 2 West, San Bernardino Baseline and Meridian. (RCIT, 2021)

S.2.2 PROJECT OBJECTIVES

The underlying purposes of the proposed Project are to develop a mixed-use community that incorporates single-family and multi-family land uses along with commercial areas, recreational areas, and open space areas, and to comply to the greatest feasible extent with applicable Riverside County standards, codes, and policies. The following is a list of specific objectives that the proposed Project intends to achieve.

A. To efficiently develop an underutilized property with a complementary mix of land uses, including residential, commercial, recreational, and open space land uses.

B. To establish a master-planned community in a manner that is sensitive to the environment as well as visually and functionally compatible with surrounding existing and proposed land uses.

C. To develop a mixed-use community with a design that takes topographic, geologic, hydrologic, and environmental opportunities and constraints into consideration.

D. To increase the available housing supply within the region by providing detached single-family homes and age-qualified multi-family homes that will be marketable within the evolving economic profile of Riverside County and surrounding communities.

E. To construct commercial uses within proximity to regional transportation facilities that will provide for employment opportunity and that can attract tenants at competitive lease rates to help ensure that the uses are occupied and positively contribute to the local economy.

F. To provide a system of public and community facilities, including recreational facilities, in an efficient and timely manner and meet the needs of Project residents and residents of surrounding communities.

G. To require project design elements such as architecture, landscaping, color, paving, walls, fencing, signage, entry treatments, and other similar design features that would ensure the community is developed in a manner that is aesthetically pleasing.

H. To establish development phasing that results in logical coordinated growth.

S.2.3 Project Summary Description

The County of Riverside is the Lead Agency for the proposed Project, under whose authority this EIR has been prepared. For purposes of this EIR, the term "Project" refers to the Project's discretionary applications for the first amendment to the Keller Crossing Specific Plan No. 380 (SP00380A01), a General Plan Amendment (GPA210004), a Change of Zone (CZ2100012), and a Tentative Tract Map (TM38163); future implementing discretionary actions required to implement the Project and all of the activities associated with Project implementation including planning, construction, and long-term operations.

The Project as evaluated herein consists of a proposal to amend the General Plan and specific plan land use designations, to change the site's zoning classification, and to subdivide the property to allow for the future development of the 196.0-acre Project site with 433 residential dwelling units on 82.6 acres (including 277 "Medium-Density Residential (MDR)" dwelling units on 61.2 acres, 76 "Medium-High-Density Residential (MHDR)" dwelling units on 14.1 acres, and 80 "High-Density Residential (HDR)" dwelling units that would be age qualified on 7.3 acres), up to 176,000 square feet (s.f.) of "Commercial Retail" land uses on 13.3 acres, 1.0 acre of Community Development-Very Low Density Residential (CD-VLDR) land uses (with no dwelling units assigned to the proposed CD-VLDR areas), 10.5 acres of "Open Space-Recreation (OS-R)" land uses, 11.2 acres of "Open Space-Water (OS-W)" land uses, 61.4 acres of "Open Space-Conservation Habitat (OS-CH)" land uses, and 16.0 acres of major circulation facilities.

Specifically, the Project Applicant is requesting the following governmental approvals from Riverside County to implement the Project (refer to Chapter 3.0, *Project Description*, for a complete description of the Project's construction and operational characteristics):

- **General Plan Amendment No. 210004 (GPA210004).** A General Plan Amendment (GPA No. 210004) is proposed as part of the Project, which would modify and reconfigure the adopted General Plan and Southwest Area Plan (SWAP) land use designations for the 196.0-acre Project site to reflect the land uses proposed as part of SP 380A1 (discussed below). Under existing conditions, the Project site is designated for 9.9 acres of "Very Low Density Residential (VLDR)" land uses, 18.3 acres of "Low Density Residential (LDR)" land uses, 13.9 acres of MDR land uses, 39.5 acres of "Mixed Use," 37.8 acres of CR land uses, and 61.1 acres of "Open Space-Conservation (OS-C)." As part of GPA No. 210004, the 196.0-acre Project site would be redesignated to include 13.3 acres of "Commercial Retail" land uses, 61.2 acres of "Medium-Density Residential (MDR)," 14.1 acres of "Medium-High-Density Residential (MHDR)" uses, 7.3 acres of "High-Density Residential (HDR)" uses, 1.0 acre of Community Development-Very Low Density Residential (CD-VLDR) uses, 10.5 acres of "Open Space-Recreation (OS-R)" land uses, 11.2 acres of "Open Space-Water (OS-W)" land uses, 61.4 acres of "Open Space-Conservation Habitat (OS-CH)" land uses, and 16.0 acres of major circulation facilities.

- **Change of Zone No. 2100012 (CZ2100012).** Under existing conditions, the Project site is zoned for "Specific Plan Zone (SP Zone)," indicating that the property is within the boundaries of an adopted specific plan. As such, the 196.0-acre Project site is subject to the zoning classifications established by the adopted Specific Plan No. 380, which generally reflect the land use designations applied to the site as part of the adopted Specific Plan No. 380. A Change of Zone (CZ No. 2100012) is proposed as part of the Project, which would modify and establish the Planning Area boundaries, permitted uses, and development standards throughout the 196.0-acre Project site in order to reflect the land uses proposed as part of SP 380A1 (as described below).

- **Amendment No. 1 to Specific Plan No. 380 (SP00380A1).** The Project entails the first amendment to the Keller Crossing Specific Plan No. 380 (SP 380A1). The proposed SP 380A1 would allow for up to 176,000 s.f. of "Commercial Retail" land uses on 13.3 acres, 277 MDR dwelling units on 61.2 acres, 76 MHDR dwelling units on 14.1 acres, 80 HDR dwelling units that would be age qualified on 7.3 acres, 1.0 acre of CD-VLDR uses (with no dwelling units allocated), 10.5 acres of OS-R land uses, 11.2 acres of OS-W land uses, 61.4 acres of OS-CH land uses, and 16.0 acres of major circulation facilities. SP 380A1 would achieve this by modifying the allocation, distribution, lot sizes, and development standards for the land uses proposed as part of SP 380A1. SP 380A1 also includes modified development standards related to circulation, pedestrian circulation, drainage/water quality, water/sewer facilities, grading, and fuel modification, and also includes modified design guidelines for the proposed land uses.

- **Tentative Tract Map No. 38163 (TTM38163).** Tentative Tract Map No. 38163 (TTM 38163) would subdivide the approximately ±196.0 acre Project site to implement the land uses proposed as part of SP 380A1. TTM 38163 would subdivide the 196.0-acre Project site into 353 single-family residential lots on 52.5 acres, one lot for the development of 80 multi-family residential units on 5.5 acres, one lot

for community-development VLDR land uses on 1.0 acre (with no dwelling units proposed), one lot for commercial retail land uses on 13.3 acres, two lots for a recreational park and recreational trail uses on 10.5 acres, 24 lots for landscape purposes (including manufactured slopes) on 9.9 acres, two lots for detention basins on 11.2 acres, one lot for conservation habitat land uses on 61.4 acres, with remaining areas consisting of proposed roadway improvements.

S.3 AREAS OF CONTROVERSY AND ISSUES TO BE RESOLVED

CEQA Guidelines § 15123(b)(2) requires that areas of controversy known to the Lead Agency (Riverside County) be identified in the Executive Summary. Substantive issues raised in response to the NOP are summarized in Table 1-1 in EIR Section 1.0. The purpose of this table is to present the primary environmental issues of concern raised by public agencies and the general public during the NOP review period. The table is not intended to list every comment received by the County during the NOP review period. Regardless of whether or not a comment is listed in the table, all applicable comments received in responses to the NOP are addressed in this EIR. Based on comments received during the NOP review period, Project impacts to the environment under the issues of aesthetics, air quality, biological resources, cultural resources, energy, geology/soils, greenhouse gas emissions, hazards/hazardous materials, hydrology/water quality, land use/planning, noise, transportation, tribal cultural resources, and utilities/service systems were identified as potential areas of concern.

S.4 PROJECT ALTERNATIVES

S.4.1 NO DEVELOPMENT ALTERNATIVE (NDA)

The No Development Alternative (NDA) considers no development/disturbance on the Project site beyond that which occurs under existing conditions. As such, the Project site would continue to consist of 196.0 acres of vacant and undeveloped land, portions of which would continue to be used for dryland farming. Under the NDA, no improvements would be made to the Project site and none of the Project's roadway, utility, or other infrastructure improvements would occur. This alternative was selected by the Lead Agency to compare the environmental effects of the proposed Project with an alternative that would leave the Project site in its existing condition.

S.4.2 NO PROJECT (ADOPTED SPECIFIC PLAN) ALTERNATIVE (NPA)

The No Project (Existing Specific Plan) Alternative (herein, "NPA"), assumes development of the Project site in accordance with the site's existing General Plan and Specific Plan land uses. Figure 2-5 in EIR Subsection 2.0 depicts the site's existing Specific Plan land use designations. Thus, under this alternative, and consistent with the adopted Keller Crossing Specific Plan No. 380 (SP 380), the Project site would be developed with 3 Very Low Density Residential dwelling units on 9.9 acres (minimum 2-acre lot sizes); 25 Low Density Residential dwelling units on 18.3 acres (minimum 20,000 s.f. lot sizes); 42 Medium Density Residential dwelling units on 13.9 acres (minimum 5,000 s.f. lot sizes); Mixed Use on 39.5 acres, which would include up to 250 dwelling units (including up to 225 "Continuing Care Retirement Community [CCRC]" dwelling units) and up to 250,000 s.f. of commercial/office land uses; Commercial Retail uses on 37.8 acres, which would include up to 400,000 s.f. of building area; Open Space/Conservation land uses on 61.1 acres; and major circulation facilities on 20.6 acres. This alternative was selected by the Lead Agency to compare the

environmental effects of the proposed Project with an alternative that would allow for buildout of the Project site in accordance with the site's existing General Plan and SP 380 land use designations.

S.4.3 Reduced Project Alternative (RPA)

The Reduced Project Alternative (RPA) was selected to evaluate an alternative that is less intensive than the proposed Project and that would reduce the Project's significant and unavoidable impacts to transportation by reducing the total amount of Vehicle Miles Traveled (VMT) that would be generated by the Project site. Specifically, the RPA assumes the Project site would be developed with approximately 33% fewer residential dwelling units and 33% less commercial retail building area. As summarized in EIR Table 6-1, the RPA would allow for development of the Project site with 185 "Medium Density Residential" dwelling units on 61.2 acres; 104 "Medium High Density Residential (MHDR)" dwelling units on 21.4 acres; 1.0-acre of "Community Development – Very Low Density Residential (CD-VLDR), with no dwelling units allocated or proposed within the CD-VLDR areas; and 117,339 s.f. of "Commercial Retail (CR)" land uses on 13.3 acres. All remaining land uses would be the same as the proposed Project, including 10.5 acres of "Open Space – Recreation (OS-R)," 61.4 acres of "Open Space – Conservation Habitat (OS-CH)," 11.2 acres of "Open Space – Water (OS-W)," and major circulation facilities on 16.0 acres. All other components of the RPA would be identical to the proposed Project.

S.5 EIR Process

As a first step in the CEQA compliance process, Riverside County determined that the proposed Project likely would result in significant environmental effects, and distributed a Notice of Preparation (NOP) for public review on August 31, 2021. An Initial Study was not prepared for the Project, and thus this EIR evaluates all of the environmental subjects listed in Appendix G to the CEQA Guidelines, as set forth in the County's standard Environmental Assessment Checklist form. This EIR has been prepared as a Project EIR pursuant to CEQA Guidelines § 15161. As described by CEQA Guidelines § 15161, a Project EIR is the most common type of EIR that: 1) examines the environmental impacts of a specific development project; 2) should focus primarily on the changes in the environment that would result from the development of the project; and 3) shall examine all phases of the project, including planning, construction, and operation.

This EIR represents the independent judgment of Riverside County (as the Lead Agency) and evaluates the physical environmental effects that could result from constructing and operating the proposed Project. Acting as Lead Agency, the County of Riverside will consider the following issues regarding the proposed Project: a) evaluation of this EIR to determine if the physical environmental impacts are adequately disclosed; b) assessment of the adequacy and feasibility of identified mitigation measures and the potential addition, modification to, or deletion of mitigation measures, standard conditions of approval, or Project design features; c) consideration of alternatives to the Project that would reduce or eliminate significant environmental effects of the Project; and, if necessary, d) consideration of Project benefits that override the Project's unavoidable and unmitigable significant effects on the environment.

Before taking action to approve the Project, the County of Riverside (serving as the Lead Agency) has the obligation to: (1) ensure this EIR has been completed in accordance with CEQA; (2) review and consider the information contained in this EIR as part of its decision making process; (3) make a statement that this EIR reflects Riverside County's independent judgment; (4) ensure that all significant effects on the environment

are avoided or substantially lessened where feasible; and, if necessary (5) make written findings for each unavoidable significant environmental effect stating the reasons why mitigation measures or project alternatives identified in this EIR are infeasible and citing the specific benefits of the proposed Project that outweigh its unavoidable adverse effects (CEQA Guidelines §§ 15090-15093).

S.6 SUMMARY OF IMPACTS, MITIGATION MEASURES AND CONCLUSIONS

S.6.1 EFFECTS FOUND NOT TO BE SIGNIFICANT

An Initial Study was not prepared for the proposed Project, and thus this EIR evaluates all of the environmental subjects listed in Appendix G to the CEQA Guidelines, as set forth in the County's standard Environmental Assessment Checklist form. There were no issues found to be not significant as a result of the Project's NOP process.

S.6.2 IMPACTS OF THE PROPOSED PROJECT

Table S-1, *Summary of Impacts, Mitigation Measures, and Conclusions*, provides a summary of the proposed Project's environmental impacts, as required by CEQA Guidelines § 15123(a). Also presented are the mitigation measures recommended by Riverside County to further avoid adverse environmental impacts or to reduce their level of significance. After the application of all feasible mitigation measures, the Project would result in significant and unavoidable environmental effects, as summarized below.

- Air Quality: Significant and Unavoidable Direct and Cumulatively-Considerable Impact. Project operational emissions would exceed the SCAQMD Regional Threshold for VOCs. Mitigation measures are not available to reduce the Project's operational-related VOC emissions, as the majority of the Project's operational emissions (i.e., more than 72.9%) are associated with vehicular-related traffic. Mobile source emissions are regulated by standards imposed by federal and State agencies, not local governments. No other mitigation measures related to vehicle tailpipe emissions are available that are within Riverside County's jurisdictional authority and that are feasible for Riverside County to enforce and have a proportional nexus to the Project's level of impact. Additionally, the remaining Project-related operational emissions of VOCs are due to area source emissions (i.e., consumer products, such as solvents used in cleaning supplies, kitchen aerosols, cosmetics, and toiletries). As with mobile sources, consumer products cannot be regulated by the County of Riverside. CARB is primarily responsible for controlling pollution from consumer products. As such, it is concluded that operation of the Project would generate VOC emissions that would exceed the applicable SCAQMD Regional Threshold for this pollutant on a daily basis. The Project's operational-related VOC emissions would cumulatively contribute to an existing air quality violation in the SoCAB (i.e., ozone concentrations), as well as cumulatively contribute to the net increase of a criteria pollutant for which the SCAB is non-attainment (i.e., federal and State ozone concentrations). Accordingly, the Project's long-term operational-related emissions of VOCs are concluded to result in a significant and unavoidable impact on both a direct and cumulatively-considerable basis.

- Air Quality: Significant and Unavoidable Direct and Cumulatively-Considerable Impact. Project operational emissions would exceed the SCAQMD Regional Threshold for VOCs. Mitigation measures are not available to reduce the Project's operational-related VOC emissions, as discussed

above. Accordingly, the proposed Project would conflict with the 2016 SCAQMD AQMP, and impacts would be significant and unavoidable on both a direct and cumulatively-considerable basis.

- Transportation: Significant and Unavoidable Direct and Cumulatively-Considerable Impact. Buildout of the residential uses proposed as part of the Project would result in a Vehicle Miles Traveled (VMT) per capita that is 53.9% above the County's VMT per capita threshold of significance, while buildout of the commercial retail component has the potential to result in VMT impact in the event any individual commercial retail building exceeds 50,000 s.f. in size. The proposed Project has been designed to provide for residential land uses in close proximity to the proposed on-site commercial retail uses within Planning Area 7 of proposed SP 380A1. Additionally, the Project would be required to comply with the development standards and design guidelines pursuant to SP 380A1, which includes requirements to provide trails, sidewalks, and bike lanes within the proposed development. Additionally, the Project would be subject to compliance with Mitigation Measure MM 4.18-2, which requires the identification of site-specific TDM measures to reduce VMT prior to approval of implementing multi-family or commercial retail developments associated with the Project. Notwithstanding, even with the implementation of all feasible VMT reduction measures, Project-generated VMT cannot be reduced to a level of less than significant.

Table S-1 Summary of Impacts, Mitigation Measures, and Conclusions

Potential Environmental Impact	Significance Determination	Mitigation Measures (MM) and County Regulations & Design Requirements (CRDR)	Responsible/ Monitoring Parties	Implementation Stage
4.1 Aesthetics				
Threshold a.: The Project site is not located within the viewshed of any officially designated scenic highways, and would not be visually prominent from any State- or County-eligible scenic highways. No impacts would occur to scenic highway corridors.	No Impact	**CRDR 4.1-1** The Project is required to comply with Riverside County Ordinance No. 655, which is intended to restrict the permitted use of certain light fixtures emitting light into the night sky which could have a detrimental effect on astronomical observation and research. Ordinance No. 655 sets forth requirements for lamp source and shielding of light emissions for outdoor fixtures to reduce "skyglow" or light pollution that affects day or nighttime views from the Mount Palomar Observatory (located approximately 22.9 miles southeast of the Project site in northern San Diego County). Pursuant to the requirements of Ordinance No. 655, all lighting shall consist of low-pressure sodium lighting, or other lamp types that emit 4050 lumens or less. If light fixtures are proposed above 4050 lumens, then the lighting shall be fully shielded in conformance with the requirements of Ordinance No. 655.	Project Applicant/ Building and Safety Department	Prior to issuance of building permits
Thresholds b. and c.: The Project would not substantially damage scenic resources; obstruct any prominent scenic vista or view open to the public; result in the creation of an aesthetically offensive site open to public view; substantially degrade the existing visual quality or character of the site or its surroundings; or conflict with applicable zoning and other regulations governing scenic quality. Impacts would be less than significant.	Less than Significant			
Threshold d.: Project compliance with the provisions of County Ordnance No. 655 would be assured through future County review of building permits. Impacts due to a conflict with Ordinance No. 655 would be less than significant.	Less than Significant	**CRDR 4.1-2** The Project is required to comply with Riverside County Ordinance No. 915, which is intended to provide minimum requirements for outdoor lighting in order to reduce light trespass. Ordinance No. 915 provides regulations on adequate lighting shielding, glare, and light trespass in order to ensure all development in Riverside County installs lighting in a way that does not jeopardize the health, safety, or general welfare of Riverside County residents and degrade their quality of life.	Project Applicant/ Building and Safety Department	Prior to issuance of building permits
Thresholds e. and f.: Mandatory compliance with the SP 380A1 design guidelines related to lighting, along with compliance with Riverside County Ordinance Nos. 348, 655, and 915, would ensure that Project-related lighting and glare would not adversely affect day or nighttime views in the area, and also would ensure the Project does not expose residential property to unacceptable light levels. Impacts would be less than significant.	Less than Significant	**CRDR 4.1-3** The Project is required to comply with the Design Guidelines of SP 380A1. Compliance with these Design Guidelines would be assured by the County's future review of implementing building permit applications for compliance with the Specific Plan's design features that would serve to reduce and/or avoid impacts relating to aesthetics.	Project Applicant/ Planning Department	Prior to approval of implementing developments (i.e., plot plans, conditional use permits, etc.) and prior to issuance of building permits

Potential Environmental Impact	Significance Determination	Mitigation Measures (MM) and County Regulations & Design Requirements (CRDR)	Responsible/ Monitoring Parties	Implementation Stage
4.2 Agriculture and Forest Resources				
Threshold a.: The Project would result in direct and indirect permanent impacts to 162.6 acres of "Farmland of Local Importance," and 33.4 acres of "Other Lands." Accordingly, the Project would not convert any land designated Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a non-agricultural use as defined by the FMMP, and no impact would occur. **Threshold b.:** The Project site is not zoned for agricultural production. As such, the Project would not conflict with existing agricultural zoning, and no impact would occur. Under existing conditions, agricultural activities occur across the flatter areas within the southern portions of the Project site. With implementation of the Project, agricultural uses on site would be precluded. Although the Project would conflict with existing agricultural uses on site, the Project site is designated for urban development by the Riverside County General Plan, SWAP, and SP 380. Thus, while the Project would preclude future agricultural uses on site, such conversion was anticipated by the General Plan, SWAP, and SP 380. Accordingly, Project impacts due to the elimination of existing agricultural uses on site would be less than significant. Additionally, the Project site is not subject to a Williamson Act contract and is not located within any County Agricultural Preserves, and there are no components of the proposed Project that have the potential to adversely affect agricultural operations at the nearest agricultural preserve/Williamson Act-contracted lands. As such, Project impacts to agricultural preserves and Williamson Act-contracted lands would be less than significant. **Threshold c.:** The Project would result in the introduction of non-agricultural uses within 300 feet of agriculturally zoned property. However, the Project would be subject to the provisions of Riverside County Ordinance No. 625, which protects agricultural operations from nuisance complaints and encourages the development, improvement, and long-term viability of agricultural land. Mandatory	No Impact Less than Significant Less than Significant	**CRDR 4.2-1** The Project is required to comply with Riverside County Ordinance No. 625, which requires that when residential uses are developed adjacent to properties zoned primarily for agricultural purposes (that support agricultural operations that have been in place for at least three years and not considered a nuisance operation at the time the operation began), future homebuyers must be notified of any agricultural operations that are on-going in the area, and mandate that such agricultural uses shall not be the subject of nuisance complaints.	Project Applicant/ Planning Department	Prior to final map recordation

Potential Environmental Impact	Significance Determination	Mitigation Measures (MM) and County Regulations & Design Requirements (CRDR)	Responsible/ Monitoring Parties	Implementation Stage
compliance with Ordinance No. 625 would ensure that Project-related construction and operational activities would not indirectly cause or contribute to the conversion of off-site farmland to non-agricultural use.				
Threshold d.: The Project would be subject to Riverside County Ordinance No. 625, which would ensure that the urban land uses proposed by the Project would not conflict with existing agricultural operations in the surrounding area, and also would ensure the Project does not result in the conversion of the surrounding agricultural lands to non-agricultural use. There are no components of the Project that would involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use. Accordingly, impacts would be less than significant.	Less than Significant			
Thresholds e., f., and g.: The Project site and surrounding areas are not zoned for 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 Govt. Code section 51104(g)). The Project would not result in the conversion of forest land to non-forest use. No impact would occur.	No Impact			
4.3 Air Quality				
Threshold a.: Although the proposed Project would be consistent with the growth forecasts used as inputs for the SCAQMD AQMP, the Project would result in operational-related localized emissions of VOCs that exceed the SCAQMD Regional Threshold for this pollutant. Mitigait6on is not available to address the Project's operational-related VOC impacts. As such, the proposed Project would result in a conflict with the SCAQMD AQMP, and impacts would be significant and unavoidable on both a direct and cumulatively-considerable basis.	Significant and Unavoidable	**CRDR 4.3-1** The Project is required to comply with the provisions of South Coast Air Quality Management District Rule 1113, *Architectural Coatings*, by requiring that all architectural coatings must consist of low VOCs (i.e., VOCs of less than 50 grams per liter [g/L]) unless otherwise specified in the SCAQMD Table of Standards.	Project Applicant, Construction Contractors/ Building and Safety Department, SCAQMD	During construction activities
Threshold b.: Project construction-related regional emissions would not exceed any of the SCAQMD Regional Thresholds for criteria pollutants. However, the Project's	Significant and Unavoidable	**CRDR 4.3-2** The Project is required to comply with applicable SCAQMD rules for construction activities on the Project site. In addition to the SCAQMD requirements listed above, additional SCAQMD rules that are currently applicable during construction activity for this Project include Rule 431.2 (Low	Project Applicant, Construction Contractors/ Building and	During construction activities

Potential Environmental Impact	Significance Determination	Mitigation Measures (MM) and County Regulations & Design Requirements (CRDR)	Responsible/ Monitoring Parties	Implementation Stage
long-term operational emissions of VOCs would exceed the SCAQMD Regional Thresholds for this pollutant. Mitigation measures are not available to reduce the Project's operational VOC emissions. As such, Project regional operational-related emissions would result in a cumulatively-considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or State ambient air quality standard (i.e., ozone), and impacts would be significant and unavoidable.		Sulfur Fuel) and Rule 1186/1186.1 (Street Sweepers). **CRDR 4.3-3** The Project is required to comply with the provisions of SCAQMD Rule 402, "Nuisance" which requires that a person shall not discharge air contaminants or other materials that would cause health or safety hazards to any considerable number of persons or the public.	Safety Department, SCAQMD Project Applicant, Construction Contractors, Future Occupants/ SCAQMD	 During construction activities and long-term operations
Threshold c.: Project operational emissions would not exceed any of the SCAQMD LSTs. However, localized PM_{10} and $PM_{2.5}$ emissions from construction-source emissions would exceed the applicable LSTs at the nearest receptor location in the vicinity of the Project. Implementation of Mitigation Measure MM 4.3-1 would ensure that the proposed Project would be constructed in a manner that daily pollutants from construction would be generated at levels below the LST thresholds for PM_{10} and $PM_{2.5}$. As such, with implementation of the required mitigation, Project-related air quality impacts to sensitive receptors during construction would be reduced to less-than-significant levels.	Less than Significant	**CRDR 4.3-4** In accordance with SCAQMD Rule 445, no wood burning devices shall be installed in any dwelling units. **CRDR 4.3-5** The Project is required to comply with the provisions of South Coast Air Quality Management District Rule 403, "Fugitive Dust" by implementing the following dust control measures during construction activities, such as earth-moving activities, grading, and equipment travel on unpaved roads. Prior to grading permit issuance, Riverside County shall verify that the following notes are included on the grading plan. Project contractors shall be required to ensure compliance with the notes and permit periodic inspection of the construction site by Riverside County staff or its designee to confirm compliance. These notes also shall be specified in bid documents issued to prospective construction contractors:	Project Applicant, Future Occupants/ Planning Department Project Applicant, Construction Contractors/ Building and Safety Department	During construction activities and long-term operations During construction activities
Threshold d.: The Project does not involve land uses typically associated with emitting objectionable odors. Standard construction requirements would minimize odor impacts from construction. The construction odor emissions would be temporary, short-term, and intermittent in nature and would cease upon completion of the respective phase of construction and is thus considered less than significant. Additionally, it is expected that Project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with Riverside County's solid waste regulations. The proposed Project also would be required to comply with SCAQMD Rule 402 to prevent occurrences of public nuisances. Therefore, odors associated with the proposed Project construction and operations would be less than significant and no	Less than Significant	▪ All clearing, grading, earth-moving, or excavation activities shall cease when winds exceed 25 miles per hour (mph) per SCAQMD guidelines in order to limit fugitive dust emissions. ▪ The contractor shall ensure that all disturbed unpaved roads and disturbed areas within the Project are watered at an interval of 2.1 hours (i.e., 4 times		

Potential Environmental Impact	Significance Determination	Mitigation Measures (MM) and County Regulations & Design Requirements (CRDR)	Responsible/ Monitoring Parties	Implementation Stage
mitigation is required.		per day) or a movable sprinkler system shall be in place to ensure minimum soil moisture of 12% is maintained for actively graded or disturbed areas. Moisture content shall be verified with use of a moisture probe by the grading contractor. ▪ All access points to the Project site shall have track-out devices installed. ▪ The contractor shall ensure that traffic speeds on unpaved roads and Project site areas are reduced to 15 mph or less.		
4.4 Biological Resources				
Threshold a.: The Project would not conflict with the SKR HCP, and impacts would be less than significant. The Project would not result in a conflict with the MSHCP Reserve Assembly requirements; however, a significant impact is identified because the Project's off-site improvements would be required to go through the JPR process. Project impacts to 0.48 acre of MSCHP riparian/riverine habitat (0.42-acre non-riparian streambed and 0.06-acre riparian) would represent a potential conflict with Section 6.1.2 of the MSHCP, and impacts would therefore be significant. The Project would not result in impacts to narrow endemic plants, and thus would be consistent with Volume I, Section 6.1.3 of the MSHCP. The Project also would be consistent with the MSHCP UWIG requirements related to drainage, toxics, lighting, noise, invasive species, barriers, and grading/land development. Although the Project would not result in impacts to CAPSSA or NEPSSA plant species, and the Study Area does not occur within invertebrate, amphibian, and/or mammal survey areas, there is nonetheless a potential for the site to become occupied with burrowing owls prior to construction activities. Implementation of Mitigation Measure MM 4.4-5 would ensure that Project-related off-site improvements are subject to the JPR process, if required. Implementation of Mitigation Measure MM 4.4-1 would require compensatory mitigation for Project impacts to 0.48 acres of MSHCP Riparian/Riverine	Less than Significant with Mitigation	**MM 4.4-1** Prior to issuance of grading permits or other permits authorizing ground disturbance (e.g., vegetation clearing, clearing and grubbing, tree removal, site watering, equipment staging), the Project Applicant shall provide evidence to Riverside County that impacts to 0.38-acre of Regional Board Waters of the State and 0.47-acre of CDFW jurisdiction and MSHCP Riparian/Riverine areas (inclusive of impacts to 0.05 acre of Disturbed Mulefat Scrub), have been mitigated in accordance with the Project's Determination of Biologically Equivalent or Superior Mitigation (DBESP), dated March 22, 2022 and included as Technical Appendix C2 to this EIR. The Project's DBESP requires mitigation for impacts to 0.38-acre of Regional Board jurisdiction and 0.47-acre of CDFW jurisdiction and MSHCP Riparian/Riverine areas at a minimum 3:1 ratio (mitigation: impact) as follows: ▪ The purchase of 0.76-acre of re-establishment credits at the San Luis Rey Mitigation Bank (for Regional Board impacts only); ▪ The purchase of 0.48-acre of preservation credits at the Barry Jones Mitigation Bank (for both Regional Board and CDFW impacts);	Project Applicant/ Planning Department, Environmental Programs Department, CDFW, RWQCB	Prior to issuance of grading permits

Potential Environmental Impact	Significance Determination	Mitigation Measures (MM) and County Regulations & Design Requirements (CRDR)	Responsible/ Monitoring Parties	Implementation Stage
habitat at a minimum 3:1 ratio, which would ensure Project consistency with Section 6.1.2 of the MSHCP. In addition, implementation of Mitigation Measure MM 4.4-2 would ensure that appropriate pre-construction surveys are conducted prior to ground disturbing activities, in accordance with MSHCP Objective 6 for the burrowing owl. With implementation of the required mitigation, the Project would be fully consistent with all applicable MSHCP requirements, and impacts would be reduced to below a level of significance. **Thresholds b. and c.:** Although the proposed Project would result in impacts to paniculate tarplant, impacts would be less than significant due to the low sensitivity of this species (CNPS 4.2) and because the portions of the Project site proposed for development are heavily disturbed and the onsite population of paniculate tarplant is relatively small. With implementation and coverage of the Project under the MSHCP conservation goals, the Project would not have a significant impact on special-status animal species and impacts would be less than significant. However, the Study Area contains vegetation with the potential to support native nesting birds. In the event that Project construction activities occur during the nesting season for birds (February 1 to August 31), Mitigation Measure MM 4.4-3 would ensure pre-construction nesting surveys are conducted prior to commencement of construction activities, and further requires appropriate avoidance of any active nests that may be identified. Implementation of the required mitigation would reduce Project impacts to nesting birds to below a level of significance. In addition, implementation of Mitigation Measure MM 4.4-2 would ensure that appropriate pre-construction surveys are conducted prior to ground disturbing activities, in accordance with MSHCP Objective 6 for the burrowing owl. With implementation of the required mitigation, Project impacts to the burrowing owl would be reduced to below a level of significance. **Threshold d.:** The Project would not interfere substantially	Less than Significant with Mitigation Less than	▪ The purchase of 0.48-acre of rehabilitation credits at the Riverpark Mitigation Bank; and ▪ The purchase of 0.48 acre of re-establishment credits at the Riverpark Mitigation Bank (for CDFW impacts only). Should compensatory mitigation credits be unavailable at the Riverpark Mitigation Bank, San Luis Rey Mitigation Bank, and/or Barry Jones/Skunk Hollow Mitigation Bank, the Project Applicant shall coordinate with the regulatory agencies, Riverside County, and MSHCP Wildlife Agencies to secure alternate mitigation totaling a minimum of 2.2 acres at another approved mitigation bank or in-lieu fee program. **MM 4.4-2** In accordance with MSHCP Objective 6, prior to issuance of grading permits or other permits authorizing ground disturbance (e.g., vegetation clearing, clearing and grubbing, tree removal, site watering, equipment staging), the Project Applicant shall retain a qualified biologist to perform a burrowing owl survey at all potentially suitable habitat sites within the Project's limits of disturbance within 30 days of the commencement of any ground-disturbing activities at the Project site, as discussed below. ▪ Pre-Construction Survey: The pre-construction survey shall be performed by a qualified biologist that will survey the site for the presence/absence of burrowing owls within 30 days prior to commencement of ground-disturbing activities at the Project site. If burrowing owls are detected on-site during the pre-construction survey, the owls shall be relocated/excluded from the site outside of the breeding season following accepted protocols, and subject to the approval of the RCA and Wildlife Agencies (i.e., CDFW and/or USFWS).	Project Applicant, Project Biologist/ Planning Department	Prior to issuance of grading permits or other permits authorizing ground disturbance or discing and prior to ground disturbance and discing

Potential Environmental Impact	Significance Determination	Mitigation Measures (MM) and County Regulations & Design Requirements (CRDR)	Responsible/ Monitoring Parties	Implementation Stage
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, and impacts would be less than significant.	Significant	▪ Burrowing Owl Management Plan: In the event that burrowing owl is determined to be present, or in the event that an assumption is made that the burrowing owl occurs on-site, a burrowing owl management plan shall be prepared and implemented in coordination with the Western Riverside County Regional Conservation Authority (RCA) and CDFW that shall detail the relocation of owls from the Project site, passively and/or actively. If additional site visits determine the species is absent, then the pre-construction survey (as discussed above) shall instead be implemented. A copy of the results of the pre-construction survey (and all additional surveys), as well as copies of the Burrowing Owl Management Plan, if required, shall be provided to the County of Riverside Planning Department for review and approval (in the case of the Burrowing Owl Management Plan) prior to any vegetation clearing and ground disturbance activities.		
Threshold e.: Implementation of the Project would result in impacts to 0.05-acre of Disturbed Mulefat Scrub, which has components similar to the Southern Riparian Scrub plant community, which is the only sensitive natural community that occurs within the Project site. Implementation of Mitigation Measure MM 4.4-1 would require compensatory mitigation for Project impacts to 0.05 acre of Disturbed Mulefat Scrub at a minimum 3:1 ratio, and would reduce Project impacts to below a level of significance.	Less than Significant with Mitigation			
Threshold f.: The Project would impact 0.38-acre of Waters of the State under Regional Board jurisdiction, 0.48-acre of CDFW jurisdiction, and a total of 0.48-acre of MSHCP Riparian/Riverine areas. Implementation of Mitigation Measure MM 4.4-1 would require compensatory mitigation at a minimum 3:1 ratio for Project impacts to 0.48 acre of CDFW jurisdiction, 0.48 acre of MSHCP Riparian/Riverine areas, and 0.38 acre of Waters of the State under Regional Board jurisdiction. Implementation of the required mitigation would reduce Project impacts to below a level of significance.	Less than Significant with Mitigation	**MM 4.4-3** Prior to the issuance of grading permits, Riverside County shall ensure that the following note is included on the Project's grading plans. Project contractors shall be required to ensure compliance with this note and permit periodic inspection of the construction site by Riverside County staff or its designee to confirm compliance. This note also shall be specified in bid documents issued to prospective construction contractors.	Project Applicant, Construction Contractors/ Building and Safety Department	Prior to issuance of grading permits and during vegetation clearing activities
Threshold g.: Aside from the MSHCP, which is addressed under the analysis of Threshold a., the only other local policies or ordinances protecting biological resources are the Riverside County Oak Tree Management Guidelines and Riverside County Ordinance No. 559 (Regulating the Removal of Trees). However, the Project site does not contain any oak trees subject to the Riverside County Oak Tree Management Guidelines. Additionally, the Project site does not occur at an elevation exceeding 5,000 feet amsl; thus, Riverside County Ordinance No. 559 is not applicable to the proposed Project. Therefore, and aside	No Impact	▪ *"Vegetation clearing shall be conducted outside of the bird nesting season (February 1 to August 31) to the extent feasible. If avoidance of the nesting season is not feasible, a nesting bird survey shall be conducted by a qualified biologist within no more than 72 hours of such scheduled disturbance, to determine the presence of nests or nesting birds. If active nests are identified, the biologist shall*		

Potential Environmental Impact	Significance Determination	Mitigation Measures (MM) and County Regulations & Design Requirements (CRDR)	Responsible/ Monitoring Parties	Implementation Stage
from potential impacts due to a conflict with the MSHCP (as addressed under the analysis of Threshold a.), the Project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, and no impact would occur.		*establish appropriate buffers around the vegetation (typically 500 feet for raptors and sensitive species, 300 feet for non-raptors/non-sensitive species). All work within these buffers shall be halted until the nesting effort is finished (i.e., the juveniles are surviving independent from the nest). The biologist shall review and verify compliance with these nesting boundaries and shall verify the nesting effort has finished. Work may resume within the buffer area when no other active nests are found. Alternatively, a qualified biologist may determine that construction can be permitted within the buffer areas and would develop a monitoring plan to prevent any impacts while the nest continues to be active (eggs, chicks, etc.). Upon completion of the survey and any follow-up construction avoidance management, a report shall be prepared and submitted to Riverside County for mitigation monitoring compliance record keeping. If vegetation removal is not completed within 72 hours of a negative survey during nesting season, the nesting survey must be repeated to confirm the absence of nesting birds."* **MM 4.4-4** Prior to approval of improvement plans for Project-related off-site improvements, the Project Applicant shall provide a copy of the approved MSHCP-required Joint Project Review (JPR). If it is determined that a JPR is not required for Project-related off-site improvements, the Project Applicant shall provide proof that the Regional Conservation Authority has determined that a JPR is not required. **CRDR 4.4-1** Prior to issuance of grading permits, the Project Applicant shall make payment of Western Riverside County MSHCP fees pursuant to Riverside County Ordinance No. 810, *Establishing an Interim Open Space Mitigation Fee*.	Project Applicant/ Planning Department Project Applicant/ Planning Department	Prior to approval of improvement plans for Project-related off-site improvements Prior to issuance of grading permits

Potential Environmental Impact	Significance Determination	Mitigation Measures (MM) and County Regulations & Design Requirements (CRDR)	Responsible/ Monitoring Parties	Implementation Stage
		CRDR 4.4-2 Prior to issuance of grading permits, the Project Applicant shall make payment of fees pursuant to the Stephen's Kangaroo Rat Habitat Conservation Plan and Riverside County Ordinance No. 663, *Establishing the Riverside County Stephens' Kangaroo Rat Habitat Conservation Plan and Setting Mitigation Fees*.	Project Applicant/ Planning Department	Prior to issuance of grading permits
		CRDR 4.4-3 Pursuant to JPR 09-12-14-01 and HANS determination letter HANS 1995, prior to final building inspection the Project Applicant shall provide the Western Riverside County Regional Conservation Authority (RCA) with fee title/ownership and management responsibilities for 61.1 acres of proposed Conservation Area located within Planning Area 10 of proposed Specific Plan No. 380, Amendment No. 1.	Project Applicant/ Planning Department	Prior to final building inspection
4.5 Cultural Resources				
Thresholds a. and b.: Although no significant historical resources, as defined by the CRHR and CEQA, were identified as part of the Project's CRA on site or within the Project's off-site improvement areas, there is a potential for previously-undiscovered historical resources to occur beneath the surface of areas planned for physical impact (i.e., grading) as part of the Project. Implementation of Mitigation Measures MM 4.5-1 through MM 4.5-8 would ensure that any historical resources identified on site or within the Project's off-site improvement areas during ground-disturbing activities are appropriately treated, including if necessary curation of the historical artifact(s) at the Western Science Center in Hemet or as directed by the County Archaeologist. Implementation of the required mitigation would ensure that any potential impacts to subsurface historical sites or resources would be reduced to less-than-significant levels.	Less than Significant with Mitigation	**MM 4.5-1 Retain a Qualified Archaeologist:** Prior the issuance of a grading permit, the Developer/Permit Applicant shall retain and enter into a monitoring and mitigation service contract with a qualified Archaeologist ("Archaeological Monitor") for mitigation monitoring services, and to implement a Cultural Resource Monitoring Program (CRMP). At least 30 days prior to issuance of grading permits, copy of the agreement between the developer/permit applicant and the Archaeological Monitor shall be submitted to the County Planning Department.	Project Applicant, Project Archaeologist/ County Archaeologist, Planning Department, Native American Monitor	Prior to issuance of grading permits and during grading activities
		MM 4.5-2 Native American Monitor: Prior to the issuance of grading permits, the Developer/Permit Applicant shall enter into an agreement with the consulting tribe(s) for a Native American Monitor. In conjunction with the Archaeological Monitor(s), the Native American Monitor(s) shall attend a pre-grading meeting with the contractors to provide Cultural Sensitivity Training for all construction personnel. In addition, the Native American Monitor(s) shall be on-site during all initial ground disturbing activities and excavation of each portion of the Project site including clearing, grubbing, tree	Project Applicant, Project Archaeologist/ County Archaeologist, Planning Department, Native American Monitor	Prior to issuance of grading permits and during grading activities
Thresholds c. and d.: Based on the results of the Project's CRA, the Project site and off-site improvement areas do not contain any known archaeological sites or resources. In addition, although no archaeological sites or resources are anticipated to be discovered during site grading	Less than Significant			

Potential Environmental Impact	Significance Determination	Mitigation Measures (MM) and County Regulations & Design Requirements (CRDR)	Responsible/ Monitoring Parties	Implementation Stage
activities and no impacts are expected to occur, the Project would be subject to the mitigation measures identified in subsection 4.5.7 to address potential impacts to historical resources, which includes provisions for archaeological monitoring during grading activities and the appropriate treatment of any resources that may be uncovered. Accordingly, Project impacts to archaeological sites and resources would be less than significant. **Threshold e.:** The Project site and off-site improvement areas do not contain a cemetery and no known cemeteries are located within the immediate site vicinity. Additionally, the Project Applicant would be required to comply with the applicable provisions of California Health and Safety Code § 7050.5 and California Public Resources Code § 5097 et. seq., which would ensure that any human remains discovered on site are appropriately treated. Mandatory compliance with State law would ensure that Project impacts to human remains would be less than significant.	Less than Significant	removals, grading and trenching. In conjunction with the Archaeological Monitor(s), the Native American Monitor(s) have the authority to temporarily divert, redirect, or halt the ground disturbance activities to allow identification, evaluation, and potential recovery of cultural resources. The Developer/Permit Applicant shall submit a fully executed copy of the agreement to the County Archaeologist to ensure compliance with this requirement. Upon verification, the Archaeologist shall clear this condition. This agreement shall not modify any condition of approval or mitigation measure. **MM 4.5-3 Preparation of a CRMP:** The Archaeological Monitor required pursuant to Mitigation Measure MM 4.5-1 shall prepare a Cultural Resources Monitoring Plan (CRMP) to guide the procedures and protocols of an archaeological mitigation monitoring program that shall be implemented during all onsite and offsite ground-disturbing activities. The CRMP shall include, but not be limited to, the Project grading and development schedule; approved Project cultural resources mitigation measures and conditions of approval; monitoring procedures; protocols for the identification, assessment, collection, and analysis of any resource(s) observed during grading; curation guidelines; and coordination with project personnel, County staff, and any participating Native American tribe(s). The final CRMP shall be submitted to the County Project planner and/or inspector, the appropriate Project supervisor/engineer/etc., and monitoring Native American tribe(s), if any. **MM 4.5-4 Preconstruction Meeting:** The Archaeological Monitor shall be invited to a preconstruction meeting with construction personnel and County and tribal representatives. The attending archaeologist shall review the provisions of the CRMP and answer any applicable questions.	Project Applicant, Project Archaeologist/ County Archaeologist, Planning Department, Native American Monitor Project Applicant, Project Archaeologist/ County Archaeologist, Planning Department,	Prior to issuance of grading permits and during grading activities Prior to construction activities

Potential Environmental Impact	Significance Determination	Mitigation Measures (MM) and County Regulations & Design Requirements (CRDR)	Responsible/ Monitoring Parties	Implementation Stage
			Native American Monitor	
		MM 4.5-5 Construction Monitoring: Full-time monitoring shall occur throughout the entire Project area, including all off-site improvement areas, during ground-disturbing activities. Full-time monitoring shall continue until the Archaeological Monitor required pursuant to Mitigation Measure MM 4.5-1 determines that the overall sensitivity of the Project area has been reduced from high to low as a result of mitigation monitoring. Should the monitor(s) determine that there are no cultural resources within the Project site or off-site improvement areas, or should the sensitivity be reduced to low during monitoring, all monitoring shall cease.	Project Applicant, Project Archaeologist/ County Archaeologist, Planning Department, Native American Monitor	During ground-disturbing activities
		MM 4.5-6 Unanticipated Discoveries: If subsurface cultural resources are encountered during construction, if evidence of an archaeological/historical site is observed, or if other suspected historic resources are encountered, all ground-disturbing activity shall cease within 100 feet of the resource and no further grading shall occur in the area of the discovery. In such a case, the County Archaeologist shall be immediately notified. A meeting shall be convened between the developer, the Archaeological Monitor (as required by Mitigation Measure MM 4.5-1), the Native American tribal representative (or other appropriate ethnic/cultural group representative) required pursuant to Mitigation Measure MM 4.5-2, and the County Archaeologist to discuss the significance of the find. Potentially significant cultural resources could consist of, but are not limited to: stone, bone, fossils, wood, or shell artifacts or features, including structural remains, historic dumpsites, hearths, and middens. Midden features are characterized by darkened soil and could conceal material remains, including worked stone, fired clay vessels, faunal bone, hearths, storage pits, or burials and special attention should always be paid to uncharacteristic soil color changes. Any previously undiscovered resources found during construction shall be	Project Applicant, Project Archaeologist/ County Archaeologist, Planning Department, Native American Monitor	In the event that cultural resources are encountered during construction activities

Potential Environmental Impact	Significance Determination	Mitigation Measures (MM) and County Regulations & Design Requirements (CRDR)	Responsible/ Monitoring Parties	Implementation Stage
		recorded on appropriate Department of Parks and Recreation (DPR) forms and evaluated for significance under all applicable regulatory criteria. At the meeting with the aforementioned parties, a decision is to be made, with the concurrence of the County Archaeologist, as to whether the identified resource comprises a unique historic resource as defined under § 15064.5 of the State CEQA Guidelines, and as to the appropriate treatment (documentation, recovery, avoidance, etc.) for the identified cultural resource. Resource evaluations shall be limited to nondestructive analysis. Further ground disturbance shall not resume within the area of the discovery until the appropriate treatment has been accomplished.		
		MM 4.5-7 Curation: Any archaeological artifacts recovered as a result of mitigation, excluding items covered by the provisions of applicable Treatment Plans or Agreements, shall be donated to the Western Science Center in Hemet or as directed by the County Archaeologist, where they would be afforded long-term preservation. The Developer/Applicant is responsible for all costs and fees associated with curation of the artifacts.	Project Applicant, Project Archaeologist/ County Archaeologist, Planning Department, Native American Monitor	In the event that historical or archaeological artifacts are recovered
		MM 4.5-8 Final Phase IV Report: The results of the mitigation monitoring program shall be incorporated into a final report and submitted to the Riverside County Planning Department for review and approval. Upon approval by the Lead Agency, the final report, including any associated DPR 523 Forms, shall be submitted to the Developer/land Owner, the EIC, and the monitoring tribe(s), if any.	Project Applicant, Project Archaeologist/ County Archaeologist, Planning Department, Native American Monitor	Prior to final grading inspection
		CRDR 4.5-1 Unless otherwise required by law, the site of any	Project	In the event

Potential Environmental Impact	Significance Determination	Mitigation Measures (MM) and County Regulations & Design Requirements (CRDR)	Responsible/ Monitoring Parties	Implementation Stage
		reburial of Native American human remains or associated grave goods shall not be disclosed and shall not be governed by public disclosure requirements of the California Public Records Act. The Coroner, pursuant to the specific exemption set forth in California Government Code Section 6254 (r), parties, and Lead Agencies, will be asked to withhold public disclosure information related to such reburial, pursuant to the specific exemption set forth in California Government Code 6254 (r).	Applicant, Project Archaeologist/ County Archaeologist, Planning Department	Native American human remains or associated grave goods are discovered on site
		CRDR 4.5-2 In the event that human remains are encountered during ground-disturbing construction activities on site or within the Project's off-site improvement areas, compliance with California Health and Safety Code § 7050.5 and Public Resources Code § 5097 et. seq. shall be required. State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the Riverside County Coroner has made the necessary findings as to origin. Further, pursuant to Public Resource Code Section 5097.98(b) remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. The County Coroner shall determine that no investigation of the cause of death is required, and determine if the remains are of Native American origin. In the event that the remains are determined to be of Native American origin, the Native American Heritage Commission (NAHC) shall be contacted within the period specified by law (24 hours). Subsequently, the Native American Heritage Commission shall identify the "Most Likely Descendant." The Most Likely Descendant shall then make recommendations and engage in consultation concerning the treatment of the remains as provided in Public Resources Code Section 5097.98. If the NAHC is unable to identify a Most Likely Descendant, or if the Most Likely Descendant failed to make a recommendation within 48 hours after being notified by the NAHC, or the Project Applicant rejects the recommendation of the Most Likely Descendent, the Project Applicant shall rebury the Native American human remains	Project Applicant, Project Archaeologist/ County Archaeologist, Planning Department, NAHC, County Coroner	In the event that human remains are discovered during grading activities

Potential Environmental Impact	Significance Determination	Mitigation Measures (MM) and County Regulations & Design Requirements (CRDR)	Responsible/ Monitoring Parties	Implementation Stage
		and associated grave goods on the property in a location not subject to further ground disturbance. Evidence of compliance with this mitigation measure, if human remains are found, shall be provided to Riverside County upon the completion of a treatment plan and final report detailing the significance and treatment finding.		
4.6 Energy				
Threshold a.: Project construction and operations would not result in the inefficient, wasteful, or unnecessary consumption of energy. Further, the energy demands of the Project can be accommodated within the context of available resources and energy delivery systems. The Project would therefore not cause or result in the need for additional energy producing or transmission facilities. The Project would not engage in wasteful or inefficient uses of energy and aims to achieve energy conservation goals within the State of California. As such, Project impacts due to wasteful, inefficient, or unnecessary consumption of energy resources would be less than significant requiring no mitigation. **Threshold b.:** Energy consumed by the Project's operation is calculated to be comparable to, or less than, energy consumed by other mixed use (residential/commercial retail) projects of similar scale and intensity that are operating in California, as the Project would be subject to current regulatory requirements, such as the 2019 version of Title 24, which was not in effect when most existing developments were constructed. Specifically, the CEC anticipates that non-residential buildings will use approximately 30% less energy due to lighting upgrades compared to the 2016 version of the Title 24 requirements, and that residential buildings will use approximately 53% less energy compared to the 2016 Energy Code. Moreover, the Project would be subject to compliance with the Riverside County CAP and would be required to achieve a minimum of 100 points per the CAP screening tables, which would further reduce the Project's energy demand. Based on the analysis presented herein, the Project would not conflict with or obstruct a State or	Less than Significant Less than Significant	**CRDR 4.6-1** The following are applicable regulations and design requirements within the County of Riverside. Although these requirements technically do not meet CEQA's definition for mitigation, they are imposed herein to ensure Project compliance with applicable City regulations and design requirements. ▪ Pavley Fuel Efficiency Standards (AB1493). Establishes fuel efficiency ratings for new vehicles. ▪ Renewable Portfolio Standards (SB 100). Increases California's RPS requirement to 50% renewable resources target by December 31, 2026, and to achieve a 60% target by December 31, 2030. SB 100 also requires that retail sellers and local publicly owned electric utilities procure a minimum quantity of electricity products from eligible renewable energy resources so that the total kilowatt hours (kWh) of those products sold to their retail end-use customers achieve 44% of retail sales by December 31, 2024, 52% by December 31, 2027, and 60% by December 31, 2030. In addition to targets under AB 32 and SB 32, Executive Order B-55-18 establishes a carbon neutrality goal for the state of California by 2045; and sets a goal to maintain net negative emissions thereafter. The Executive Order directs the California Natural Resources Agency (CNRA), California Environmental Protection Agency (CalEPA), the Department of Food and Agriculture (CDFA), and CARB to include sequestration targets in the Natural and Working Lands Climate Change	N/A	N/A

Potential Environmental Impact	Significance Determination	Mitigation Measures (MM) and County Regulations & Design Requirements (CRDR)	Responsible/ Monitoring Parties	Implementation Stage
local plan for renewable energy or energy efficiency, and impacts would be less than significant.		Implementation Plan consistent with the carbon neutrality goal. ▪ CCR Title 13, Motor Vehicles, Section 2449(d)(3), Idling. Grading plans shall reference the requirement that a sign shall be posted on-site stating that construction workers need to shut off engines at or before five minutes of idling.		
4.7 Geology and Soils				
Thresholds a. and c.: Impacts due to rupture of a known earthquake would therefore be less than significant. However, the Project site is located in a seismically active area of southern California and is expected to experience moderate to severe ground shaking during the lifetime of the Project. A significant impact could occur if the Project did not comply with the site-specific recommendations of the Project's Geotechnical Update (Technical Appendix F1). Implementation of Mitigation Measure MM 4.7-1 would ensure that appropriate measures are incorporated into future grading and/or building permit applications to address seismic-related hazards in conformance with the CBSC and the Riverside County Building Code. With implementation of the required mitigation, impacts due to strong seismic ground shaking would be reduced to less-than-significant levels. **Threshold b.:** The Project site is situated in an area of generalized low/very low liquefaction potential. Based on site observations and subsurface investigations conducted by GeoTek, the Project site is not susceptible to soil liquefaction based on the depth to groundwater being in excess of 50 feet below grade and due to the presence of shallow dense soil/bedrock materials across most of the Project site. Also, the potential for seismically induced settlement at the property is considered to be nil because of the minimal thickness of soil atop bedrock. Accordingly, the Project would not be subject to seismic-related ground failure, including liquefaction, and impacts would therefore be less than significant.	Less than Significant with Mitigation Less than Significant	**MM 4.7-1** Prior to issuance of grading or building permits, the Riverside County Building and Safety Department shall verify that all of the recommendations given in the Project's May 25, 2021 "Updated Geotechnical and Infiltration Evaluation, Proposed Single-Family Residential Development, Keller Crossing Project, Northwest Corner of Winchester Road and Keller Road, Winchester Area of Riverside County, California," prepared by GeoTek, Inc. and included as *Technical Appendix F1* to the Project's EIR, are incorporated into the construction and grading plans. Alternatively, the Project shall comply with the findings and recommendations of any geotechnical studies that may be required in association with future grading and/or building permits. **CRDR 4.7-1** The Project is required to comply with the provisions of County Ordinance Nos. 457 and 460. Ordinance No. 457 requires that all projects comply with California Building Codes and the International Building Codes. These codes establish site-specific investigation requirements, construction standards, and inspection procedures to ensure that development does not pose a threat to the health, safety, and welfare of the public, and includes requirements related to erosion. Ordinance No. 460 sets forth soil erosion control requirements and requires preparation and implementation of a wind erosion control plan. **CRDR 4.7-2** The Project is required to comply with the provisions of SCAQMD Rule 403, by addressing blowing dust	Project Applicant/ Building and Safety Department Project Applicant/ Building and Safety Department Project Applicant,	Prior to issuance of grading or building permits Prior to approval of building or grading permits During construction

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		from the Project's construction activities.	Construction Contractors/ Building and Safety Department, SCAQMD	activities
Threshold d.: The Project site is not susceptible to landslide or rockfall hazards, and impacts would be less than significant. Impacts due to lateral spreading and collapse hazards could occur if proposed grading and development is not conducted in accordance with the site-specific recommendations of the Project's Geotechnical Update (Technical Appendix F1). Implementation of Mitigation Measure MM 4.7-1 would ensure that appropriate measures are incorporated into future grading and/or building permit applications to address the potential for lateral spreading and collapse hazards. With implementation of the required mitigation, impacts due to lateral spreading and collapse would be reduced to less-than-significant levels.	Less than Significant with Mitigation	**CRDR 4.7-3** The Project is required to comply with the provisions of the Project's National Pollution Discharge Elimination System (NPDES) permit, and the Project's Storm Water Pollution Prevention Plan (SWPPP). Compliance with the NPDES permit and the SWPPP would identify and implement an effective combination of erosion control and sediment control measures (i.e., Best Management Practices) to reduce or eliminate discharge to surface water from stormwater and non-stormwater discharges.	Project Applicant, Construction Contractors/ Building and Safety Department, San Diego RWQCB	During construction activities and long-term operations
Threshold e.: The County of Riverside indicates that the Project site is "susceptible" to subsidence. However, the potential for seismically induced settlement at the property is considered to be nil because of the minimal thickness of soil atop bedrock. As such, the Project would not 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 ground subsidence, and impacts would therefore be less than significant.	Less than Significant			
Threshold f.: The Project site is not subject to volcanic hazards or hazards associated with seiches. Although several existing hill forms occur in the northern portion of the Project site and would be preserved as open space, due to the relatively shallow depth to bedrock that occurs across the Project site, the risk of mudflow associated with these hill forms would be low. As such, impacts due to mudflow hazards would be less than significant.	Less than Significant			
Thresholds g.: The Project site would be graded in a manner that largely approximates the site's existing topographic conditions. The Project would require a total of approximately 1.2 million cubic yards (cy) of cut and fill	Less than Significant			

Potential Environmental Impact	Significance Determination	Mitigation Measures (MM) and County Regulations & Design Requirements (CRDR)	Responsible/ Monitoring Parties	Implementation Stage
quantities. Earthwork activities are expected to balance on site and no import or export of soils would be required. Thus, the Project would not result in a substantial change in topography or ground surface relief features, and impacts would be less than significant.				
Thresholds h.: All proposed slopes on site would be constructed at a gradient of 2:1. Although the slopes adjacent to proposed SP 380A1 Planning Area 10 would exceed a height of 10 feet, site-specific recommendations are provided in the Project's Geotechnical Update (Technical Appendix F1) which would minimize impacts. However, a significant impact could occur if the Project did not comply with the site-specific recommendations of the Project's Geotechnical Update. Implementation of Mitigation Measure MM 4.7-1 would ensure that appropriate measures are incorporated into future grading and/or building permit applications to ensure that any slopes higher than 10 feet would be grossly stable. With implementation of the required mitigation, impacts associated with unstable slopes would be reduced to less-than-significant levels.	Less than Significant with Mitigation			
Thresholds i..: According to the Project's Phase I Environmental Site Assessment (*EIR Technical Appendix H*), and based upon the historic and present property use, there are no known septic tanks (systems) or other subsurface sewage disposal systems that exist on the Project site. As such, no impact associated with subsurface sewage disposal would occur.	No Impact			
Threshold l..: Sewer service to the proposed Project would be provided by the EMWD, and no septic tanks or alternative wastewater disposal systems are proposed as part of the Project. Accordingly, no impact would occur.	No Impact			
Thresholds j. and m.: The Project would not result in substantial soil erosion or loss of topsoil. The Project Applicant would be required to obtain a NPDES permit for construction activities and adhere to a Stormwater	Less than Significant			

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Pollution Prevention Plan (SWPPP) as well as SCAQMD Rule 403 and Riverside County Ordinance Nos. 457 and 460. With mandatory compliance to these regulatory requirements, the potential for water and wind erosion impacts during construction would be less than significant. Following development, wind and water erosion on the Project site would be minimized, as the areas disturbed during construction would be landscaped or covered with impervious surfaces and drainage would be controlled through a storm drain system. Furthermore, the Project is required by law to implement a WQMP during operation, which would preclude substantial erosion impacts in the long-term. Accordingly, impacts would be less-than-significant. **Threshold k.:** Implementation of Mitigation Measure MM 4.7-1 would ensure that appropriate measures are incorporated into future grading and/or building permit applications to address expansive soils on site. With implementation of the required mitigation, impacts associated with expansive soils would be reduced to less-than-significant levels.	Less than Significant with Mitigation			
4.8 Greenhouse Gas Emissions				
Threshold a.: The CAP Update identifies a three-step approach in evaluating GHG emissions at a project level. For purposes of analysis herein, consistency with the County of Riverside CAP is determine through the evaluation of Project efficiency as compared to a 2020 project scenario. As shown in Table 4.8-5, the Project as proposed would result in 9,000.17 $MTCO_2e$ per year. As shown in Table 4.8-6, under a 2020 scenario the Project would result in 13,307.47 $MTCO_2e$/yr. Thus, the Project as proposed would be approximately 25.6% ([13,307.47 - 9,900.17]/13,307.47 = 25.6%) more efficient than the County of Riverside's CAP projected reductions through 2030. According to the CAP Update, if a project can demonstrate an efficiency equal to or greater than the 25% GHG efficiency identified in the CAP Update when comparing the emissions estimate of the project to a 2020 scenario, the project is considered to be consistent with the	Less than Significant	**CRDR 4.8-1** The Project would be required to comply with all mandates imposed by the State of California and SCAQMD aimed at the reduction of air quality emissions. Those that are applicable to the Project and that would assist in the reduction of greenhouse gas emissions are listed below: ▪ Global Warming Solutions Act of 2006 (AB32) ▪ Pavley Fuel Efficiency Standards (AB1493). Establishes fuel efficiency ratings for new vehicles. ▪ Title 17 California Code of Regulations (Low Carbon Fuel Standard). Requires carbon content of fuel sold in California to be 10% less by 2020. ▪ Statewide Retail Provider Emissions Performance Standards (SB 1368). Requires energy generators to achieve performance standards for GHG emissions.	Project Applicant/ Planning Department	During construction activities and long-term operations

Potential Environmental Impact	Significance Determination	Mitigation Measures (MM) and County Regulations & Design Requirements (CRDR)	Responsible/ Monitoring Parties	Implementation Stage
reduction quantities anticipated in the County of Riverside CAP Update for the land use located at the site. Since the project would be 25.6% more efficient than the 2020 scenario, the Project is consistent with the County of Riverside CAP emissions estimates and projected reductions. Therefore, the Project would be consistent with the County of Riverside CAP emissions estimates and projected reductions and impacts on the environment from GHGs would be less-than-significant. **Threshold b.:** The Project would be approximately 25.6% more efficient than a 2020 nscenario. Based on the project level analysis guidance included with the CAP, the Project would achieve the required reduction in emissions to be consistent with the County of Riverside CAP reductions, which are consistent with the State goals contained in the 2017 Scoping Plan and enumerated by SB 32. Therefore, the Project would have a less-than-significant impact on GHG reduction plans at the local or State level.	Less than Significant	▪ Renewable Portfolio Standards (SB 1078). Requires electric corporations to increase the amount of energy obtained from eligible renewable energy resources to 20 percent by 2010 and 33 percent by 2020. ▪ Senate Bill 32 (SB 32). Requires the state to reduce statewide greenhouse gas emissions to 40% below 1990 levels by 2030, a reduction target that was first introduced in Executive Order B-30-15. **CRDR 4.8-2** The Project also would be subject to compliance with Riverside County CAP Update Measure R2-CE1, as follows: ▪ Prior to issuance of building permits, and in accordance with measure R2-CE1 of the County's Climate Action Plan (CAP) Update, future implementing building permits that involve more than 75 new dwelling units of residential development or one or more new buildings totaling more than 100,000 gross square feet of commercial, office, industrial, or manufacturing development shall be required to offset the energy demand through renewable energy production. Renewable energy production shall be onsite generation of at least 20% of energy demand for commercial, office, industrial or manufacturing development, meet or exceed 20% of energy demand for multi-family residential development, and meet or exceed 30% of energy demand for single-family residential development.	Project Applicant/ Planning Department	Prior to issuance of building permits for Tenant Improvements and prior to final building inspection for Tenant Improvements
4.9 Hazards and Hazardous Materials				
Thresholds a. and b.: Based on the Phase I ESA prepared by Tetra Tech (*Technical Appendix H*), there are no indications of on-site or off-site RECs or VECs on the Project site under existing conditions. During Project construction and operation, mandatory compliance with federal, State, and local regulations would ensure that the	Less than Significant	**CRDR 4.9-1** All future businesses operating on the site would be subject to compliance with Riverside County Ordinance No. 651.1, which sets forth requirements for handling hazardous materials, requires a permit for handling certain types and quantities of hazardous materials, requires businesses to report	As set forth by Ordinance No. 651.1	As set forth by Ordinance No. 651.1

Potential Environmental Impact	Significance Determination	Mitigation Measures (MM) and County Regulations & Design Requirements (CRDR)	Responsible/ Monitoring Parties	Implementation Stage
Project as proposed would not create a significant hazard to the public or environment through the routine transport, use, or disposal of hazardous materials.		their hazardous materials inventory, identifies different classifications of hazardous materials handlers, and requires reporting of spills or releases or threatened releases of a hazardous material to the Riverside County Department of Environmental Health (DEH) and to the Governor's Office of Emergency Services.		
Threshold c.: The Project would not impair or physically interfere with an adopted emergency response plan or emergency evacuation plan. No emergency facilities exist on the Project site, and the site does not serve as an emergency evacuation route. Thus, impacts would be less than significant.	Less than Significant	**CRDR 4.9-2** All future contracts with construction contractors shall comply with all applicable regulations and requirements promulgated by the federal Occupational Safety and Health Administration (OSHA).	Project Applicant, Construction Contractors/ Building & Safety Department, OSHA	Future contracts with construction contractors
Threshold d.: There are no existing or planned schools within one-quarter mile of the Project site. The nearest school the Project site is the Harvest Hill STEAM Academy, located approximately 0.5-mile southwest of the Project site. With mandatory regulatory compliance, the Project would not emit hazardous emissions, or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school, and impacts would be less than significant.	Less than Significant	**CRDR 4.9-3** The Project shall comply with Title 22, Division 4.5 of the California Code of Regulations, which requires residents and employees to dispose of household hazardous waste, including pesticides, batteries, old paint, solvents, used oil, antifreeze, and other chemicals, at a Household Hazardous Waste Collection Facility.	As set forth by Title 22, Division 4.5 of the California Code of Regulations	As set forth by Title 22, Division 4.5 of the California Code of Regulations
Threshold e.: The analysis conducted by Tetra Tech included a review of regulatory databases, and determined that the Project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (Tetra Tech, 2020, p. ES-2-ES-8). As such, the Project would not create a significant hazard to the public or the environment due to the Project site's inclusion on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, and no impact would occur.	No Impact	**CRDR 4.9-4** The Project shall comply with Title 22, Division 4.5, Chapter 11 of the California Code of Regulations which requires fluorescent lamps, batteries, and mercury thermostats be recycled or taken to a Household Hazardous Waste Collection Facility.	As set forth by Title 22, Division 4.5, Chapter 11 of the California Code of Regulations	As set forth by Title 22, Division 4.5, Chapter 11 of the California Code of Regulations
Threshold f., g.., and h: The Project site is not located within two miles of a public airport or within an airport land use plan, and there are no components of the proposed Project that would affect airport operations. The closest airport is the French Valley Airport located roughly 3.3 south miles southwest of the Project site. The Project site is	No Impact			

Potential Environmental Impact	Significance Determination	Mitigation Measures (MM) and County Regulations & Design Requirements (CRDR)	Responsible/ Monitoring Parties	Implementation Stage
located outside of the compatibility zones for the French Valley Airport, indicating that the Project site is not subject to airport-related hazards. Therefore, the Project would not result in an inconsistency with an Airport Master Plan, would not require review by the Airport Land Use Commission, and would not result in a safety hazard for people residing or working in the Project area. Impacts would be less than significant. **Threshold i:** There are no active private airstrips in the Project vicinity. The nearest active private airport is the Hemet-Ryan Airport, located 7.2 miles northeast of the Project site. The Project site is not located within the AIA for this facility, and the Project would not be subject to substantial safety hazards due to aircraft operations at the Hemet-Ryan Airport. As such, the Project would not result in a safety hazard for people residing or working in the Project area, and no impact would occur.	No Impact			
4.10 Hydrology and Water Quality				
Thresholds a., b., and i.: The Project would be served potable water by the EMWD, and no groundwater wells are proposed on site; thus, Project direct impacts to groundwater supplies would be less than significant. Additionally, the total amount of runoff from the site would not change with Project development, and as such Project-related runoff would be conveyed to downstream facilities where groundwater recharge would continue to occur. Additionally, water quality impacts during construction, including potential impacts due to a conflict with the San Diego Basin Plan and potential impacts to groundwater quality, would be less than significant. In addition, with implementation of the proposed Project, all runoff generated on site would be appropriately treated by the Project's BMPs prior to ultimate discharge into the Santa Margarita River watershed. Thus, the Project would not adversely affect surface or groundwater quality. Accordingly, the proposed Project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality; would not substantially decrease groundwater	Less than Significant	**CRDR 4.10-1** The Project Applicant is required to comply with the provisions of the Project's NPDES permit, and the Project's SWPPP. Compliance with the NPDES permit and the SWPPP would identify and implement an effective combination of erosion control and sediment control measures (i.e., Best Management Practices) to reduce or eliminate discharge to surface water from storm water and non-stormwater discharges during construction activities.	Project Applicant/ Building and Safety Department	During construction activities

Potential Environmental Impact	Significance Determination	Mitigation Measures (MM) and County Regulations & Design Requirements (CRDR)	Responsible/ Monitoring Parties	Implementation Stage
supplies or interfere substantially with groundwater recharge; and would not conflict with the San Diego Basin Plan or result in adverse groundwater quality impacts. Impacts would be less than significant.				
Thresholds c. and f.: Grading proposed as part of the Project generally would maintain the site's existing drainage patterns, with runoff continuing to flow from the northerly higher elevation to south and southeasterly of the Project site and offsite toward the southeast. In addition, the Project improvements would reduce the total peak flows from the Project site under post-development conditions. As such, implementation of the proposed Project would not result in an increase in peak runoff from the Project site and therefore would not result in the alteration of the existing alignment of any downstream receiving waters. Additionally, because existing drainage facilities downstream are adequately sized to accommodate peak runoff from the Project site and surrounding areas under existing conditions, and because peak runoff from the Project site would be reduced with development of the Project site as proposed, the Project would not contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems. Impacts would be less than significant.	Less than Significant			
Threshold d.: With mandatory adherence to the SWPPP requirements, effects associated with construction-related erosion, siltation, water quality, and flooding on downstream water sources and flood control systems would be maintained at a level below significance. With development of the Project site, large portions of the Project site would consist of impervious surfaces, with areas of pervious surfaces largely confined to landscaped and open space areas. Thus, the potential for erosion hazards on site would be substantially decreased as compared to existing conditions with buildout of the Project site. Additionally, implementation of the Project's proposed drainage system would result in a reduction in peak flows from the Project site, indicating that the Project	Less than Significant			

Potential Environmental Impact	Significance Determination	Mitigation Measures (MM) and County Regulations & Design Requirements (CRDR)	Responsible/ Monitoring Parties	Implementation Stage
would not result in increased erosion hazards in areas tributary to the Project site. As such, long-term erosion impacts would be less than significant.				
Thresholds e. and g.: The Project site is located outside of mapped floodplains and is not subject to inundation due to flood hazards. The Project's proposed drainage system has been designed to preclude the potential for flooding hazards on site, in accordance with standard County requirements. With implementation of the Project's proposed drainage system, the peak runoff from the Project site would be reduced as compared to existing conditions. As such, the Project would not substantially increase the rate of surface runoff in a manner which would result in flooding on-site or off-site and would not impede or redirect flood flows, and impacts would be less than significant.	Less than Significant			
Threshold h.: The Project site is located approximately 31.0 miles northeast of the Pacific Ocean, and as such there is no potential for the Project site to be inundated with tsunamis. According to Figure 10 of the SWAP, the Project site is not located within the dam inundation area for any bodies of water. As such, it can be concluded that the Project site also would not be subject to seiche hazards associated with Lake Skinner or Diamond Valley Lake. Additionally, and as discussed more fully under the analysis of Threshold g., areas planned for development on site are not located in areas subject to inundation during the 1% annual chance flood. Accordingly, the Project would not risk the release of pollutants due to inundation from floods, tsunamis, or seiches, and no impact would occur.	No Impact			
4.11 Land Use and Planning				
Threshold a.: The Project would not conflict with the General Plan, SWAP, the SCAG 2020-2045 RTP/SCS, or any other land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Additionally, there are no impacts due to land use incompatibility that have not already been evaluated and mitigated to the maximum feasible extent in relevant	Less than Significant	Impacts would be less than significant; therefore, mitigation measures are not required.	N/A	N/A

Potential Environmental Impact	Significance Determination	Mitigation Measures (MM) and County Regulations & Design Requirements (CRDR)	Responsible/ Monitoring Parties	Implementation Stage
sections of this EIR; therefore, Project impacts due to land use incompatibility would be less than significant. **Threshold b.:** The Project would not disrupt or divide the physical arrangement of an established community (including a low-income or minority community), and impacts would be less than significant.	No Impact			
4.12 Mineral Resources				
Threshold a.: The Project site does not contain any known mineral resources that would be of value to the region or the residents of the State. Accordingly, with implementation of the proposed Project there would be no impact to known mineral resources. **Threshold b.:** The Project would not result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan, and no impact would occur. **Threshold c.:** The Project would not be an incompatible land use located adjacent to a State classified or designated area or existing surface mine, and no impact would occur. **Threshold d.:** The Project would not expose people or property to hazards from proposed, existing, or abandoned quarries or mines, and no impact would occur.	No Impact No Impact No Impact No Impact	No impacts to mineral resources would occur with implementation of the proposed Project; thus, mitigation measures are not required.	N/A	N/A
4.13 Noise				
Thresholds a. and b.: The Project does not involve an airport-related component, and would not create or exacerbate aircraft-related noise in the local area. The Project site also occurs outside of the 55 dBA CNEL contours for the French Valley Airport, and would not be exposed to substantial airport-related noise associated with French Valley Airport. Additionally, the Project would not be exposed to substantial noise levels associated with private airstrips. As such, the Project would not expose people residing or working in the Project area to excessive airport-related noise levels, and impacts would be less than significant.	Less than Significant	**MM 4.13-1** Prior to final building inspection, and in order to reduce Project-related traffic noise impacts, the Project Applicant shall install rubberized asphalt as mitigation for traffic-related noise impacts along the segment of Keller Road east of Leon Road (Segment #22) and Keller Road between Pourroy Road and Winchester Road (SR 79). **MM 4.13-2** Prior to final building inspection, Riverside County shall verify that minimum 6-foot-tall noise barriers have been constructed between the outdoor living areas (backyards) of single-family residential uses in Planning Areas	Project Applicant, Construction Contractors/ Building & Safety Department Project Applicant, Construction Contractors/	Prior to final building inspection Prior to final building inspection

Potential Environmental Impact	Significance Determination	Mitigation Measures (MM) and County Regulations & Design Requirements (CRDR)	Responsible/ Monitoring Parties	Implementation Stage
Threshold c.: During onsite construction activities no individual or cumulative piece of construction equipment would exceed the NIOSH threshold of 80 dBA Leq at the nearest potential receptors to onsite construction; therefore, the noise impacts due to Project construction noise would be less than significant at all receiver locations. With respect to operational noise, Project operational activities would not exceed the identified thresholds of significance of 55.0 dBA Leq during the daytime or 45.0 dBA Leq during the nighttime at the nearest sensitive receptors. Additionally, Project-related operational noise increases would not exceed the thresholds of significance. Therefore, Project operational noise levels would represent a less-than-significant impact. Project-related traffic under EAC (2028) and Horizon Year (2040) conditions would expose sensitive receptors along the roadway segment of Keller Road east of Leon Road (Segment #22) to noise level increases that exceed the significance criteria. Implementation of MM 4.13-1 would ensure that the roadway segment of Keller Road between Leon Road and Winchester Road is paved with rubberized asphalt. With the minimum 4 dBA CNEL noise reduction provided by the rubberized asphalt mitigation, Project-related off-site traffic noise level increases would be reduced to less-than-significant levels along the roadway segment of Keller Road between Leon Road and Winchester Road. With respect to on-site traffic-related noise, prior to mitigation, future residential uses within Planning Areas 1, 2, and 4 would experience significant impacts due to exterior noise levels. Additionally, proposed single-family, multi-family, and commercial retail uses on site would be exposed to interior traffic noise levels that would exceed the County of Riverside 45 dBA CNEL interior noise level standard for residential development and the 50 dBA CNEL interior noise level threshold for commercial uses. Implementation of Mitigation Measure MM 4.13-2 would ensure that minimum 6-foot-tall noise barriers are	Less than Significant with Mitigation	1, 2 and 4 facing Keller Road. The required noise control barriers shall be constructed so that the top of each wall extends to the recommended height above the pad elevation of the lot it is shielding. When the road is elevated above the pad elevation, the barrier shall extend to the recommended height above the highest point between the residential home and the road. The barrier shall provide a weight of at least 4 pounds per square foot of face area with no decorative cutouts or line-of-sight openings between shielded areas and the roadways, or a minimum transmission loss of 20 dBA. The barrier must present a solid face from top to bottom. Unnecessary openings or decorative cutouts shall not be made. All gaps (except for weep holes) should be filled with grout or caulking. The noise barrier shall be constructed using one of the following materials: ▪ Masonry block; ▪ Stucco veneer over wood framing (or foam core), or one-inch-thick tongue and groove wood of sufficient weight per square foot; ▪ Glass (1/4-inch-thick), or other transparent material with sufficient weight per square foot capable of providing a minimum transmission loss of 20 dBA; ▪ Earthen berm; or ▪ Any combination of these construction materials **MM 4.13-3** Prior to final building inspection, Riverside County shall ensure that all land uses incorporate a windows-closed condition and a means of mechanical ventilation (e.g. air conditioning). In addition, prior to final building inspection, Riverside County shall verify that the multi-family residential (HDR) land uses in Planning Area 6 and the commercial land uses in Planning Area 7 facing Winchester Road (SR-79) include upgraded windows and sliding glass doors with minimum Sound Transmission Class (STC) ratings of 34. The following requirements also shall apply:	Building & Safety Department Project Applicant, Construction Contractors/ Building & Safety Department	Prior to final building inspection

Potential Environmental Impact	Significance Determination	Mitigation Measures (MM) and County Regulations & Design Requirements (CRDR)	Responsible/ Monitoring Parties	Implementation Stage
constructed between the outdoor living areas (backyards) of single-family residential uses in Planning Areas 1, 2 and 4 and Keller Road. With construction of the required noise barriers, future residential uses within proposed Planning Areas 1, 2, and 4 of proposed SP 380A1 would experience exterior noise levels of less than 65.0 dBA CNEL. Implementation of Mitigation Measure MM 4.13-3 would ensure that all land uses incorporate a windows-closed condition and a means of mechanical ventilation (e.g., air conditioning), and would further ensure that the multi-family residential (HDR) land uses in Planning Area 6 and the commercial land uses in Planning Area 7 facing Winchester Road (SR-79) include upgraded windows and sliding glass doors with minimum STC ratings of 34. Furthermore, Mitigation Measure MM 4.13-4 would ensure that a final noise study is prepared prior to occupancy to verify that all land uses on site meet the interior noise level standards for residential (45 dBA CNEL) and commercial (50 dBA CNEL) land uses. Implementation of the required mitigation would reduce potential exterior and interior noise impacts to below a level of significance. **Threshold d.:** The proposed Project would only have the potential to result in excessive ground-borne vibration or ground borne noise levels during construction activities, as Project operational activities would not involve a large number of large trucks or uneven surfaces that could produce ground-borne vibration affecting nearby sensitive receptors. Project-related construction activities would result in construction vibration velocity levels estimated to range from 0.000 to 0.005 in/sec RMS, which would be below the County of Riverside threshold of 0.01 in/sec RMS at all receiver locations, as shown on Table 4.13-19. Therefore, the Project-related vibration impacts are considered less than significant during the construction activities at the Project site.	Less than Significant	▪ Windows/Sliding Glass Doors: All residential units require windows and sliding glass doors that have well-fitted, well-weather-stripped assemblies, and the following sound transmission class (STC) ratings: 1. Multi-family residential (HDR) land uses in Planning Area 6 and the commercial land uses in Planning Area 7 facing Winchester Road (SR-79) require upgraded windows and sliding glass doors with minimum STC ratings of 34 (all windows/glass doors, all floors); 2. All other residential lots require windows and sliding glass doors with minimum sound transmission class (STC) ratings of 27. ▪ Exterior Doors (Non-Glass): All exterior doors shall be well weather-stripped and have well-sealed perimeter gaps around the doors to achieve the STC ratings recommended below: 1. Residential land uses in Planning Area 6 require upgraded doors with minimum STC ratings of 34 (all floors); 2. All other residential lots require doors with minimum sound transmission class (STC) ratings of 27. ▪ Roof: Roof sheathing of wood construction shall be per manufacturer's specification or caulked plywood of at least one-half inch thick. Ceilings shall be per manufacturer's specification or well-sealed gypsum board of at least one-half inch thick. Insulation with at least a rating of R-19 shall be used in the attic space. ▪ Ventilation: 1. Exterior vents of residential units in Planning Area 6 shall be oriented away from Winchester		

Potential Environmental Impact	Significance Determination	Mitigation Measures (MM) and County Regulations & Design Requirements (CRDR)	Responsible/ Monitoring Parties	Implementation Stage
		Road (SR-79). If such an orientation cannot be avoided, then an acoustical baffle shall be placed in the attic space behind the vents. 2. Arrangements for any habitable room shall be such that any exterior door or window can be kept closed when the room is in use and still receive circulated air. A forced air circulation system (e.g., air conditioning) or active ventilation system (e.g., fresh air supply) shall be provided which satisfies the requirements of the Uniform Building Code. **MM 4.13-4** Prior to final building inspection, a final noise study shall be prepared to finalize the mitigation measures identified in Mitigation Measure MM 4.13-3 using the precise grading plans and actual building design specifications, and shall include modified or supplemental mitigation, if necessary, to meet the interior noise level standards for residential (45 dBA CNEL) and commercial (50 dBA CNEL) land uses. **CRDR 4.13-1** All construction activities and haul truck deliveries shall adhere to Section 2.i of Riverside County Ordinance No. 847, which prohibits construction activities that make loud noise from occurring between 6:00 p.m. and 6:00 a.m. during the months of June through September, and between 6:00 p.m. and 7:00 a.m. during the months of October through May, and on Sundays and Federal holidays.	Project Applicant, Project Acoustical Consultant/ Building & Safety Department As set forth by Section 2.i of Riverside County Ordinance No. 847	Prior to final building inspection As set forth by Section 2.i of Riverside County Ordinance No. 847
4.14 Paleontological Resources				
Threshold a.: The Project would not impact any known paleontological resources or unique geological features. However, the Project site is underlain by soils and geologic units with a "High" potential for containing unique paleontological resources. Thus, there is a potential for impacts to paleontological resources that during Project grading and excavation. Implementation of Mitigation Measure MM 4.14-1 would ensure that the Project's PRIMP is implemented as part of future site grading activities. Implementation of the Project's PRIMP would	Less than Significant with Mitigation	**MM 4.14-1** Prior to the issuance of grading permits, the County shall condition proposed grading permits to require implementation of the Project's Paleontological Resource Impact Monitoring Program (PRIMP), which is included as Technical Appendix K to the Project's EIR. Provided below is a summary of the requirements identified by the PRIMP: ▪ All mass grading, excavation, drilling, and trenching activities within undisturbed Pleistocene very old	Project Applicant, Project Paleontologist/ County Geologist, Planning Department	Prior to the issuance of grading permits and during grading and ground-disturbing activities

Potential Environmental Impact	Significance Determination	Mitigation Measures (MM) and County Regulations & Design Requirements (CRDR)	Responsible/ Monitoring Parties	Implementation Stage
ensure that paleontological resources, if uncovered during site grading activities, are appropriately treated, and would reduce the Project's direct and cumulatively-considerable impacts to paleontological resources to less-than-significant levels.		sandy alluvial channel deposits at the on-site portion of the Project, starting at the surface, shall be monitored full-time for paleontological resources by a Riverside County-qualified paleontologist or a monitor supervised by a Riverside County-qualified paleontologist (Paleontological Monitor). The duration of monitoring may be increased or decreased at the discretion of the Paleontological Monitor based on observations of the geology, stratigraphy, and/or the presence of fossils discovered by the Paleontological Monitor. ▪ Prior to the initiation of any grading, drilling, and/or excavation activities, a preconstruction meeting shall be held and attended by the Paleontological Monitor, representatives of the grading contractor and subcontractors, the Project owner or developer, and a representative of the Lead Agency (Riverside County). The nature of potential paleontological resources shall be discussed, as well as the protocol that is to be implemented following discovery of any fossiliferous materials. ▪ In the field, the Paleontological Monitor shall be the responsible persons onsite with the assigned authority and responsibility to oversee all grading operations that might adversely affect any salvage efforts. ▪ Any identified fossils shall be collected and placed in cardboard flats or plastic buckets and identified by field number, collector, and date collected. Notes shall be taken on the map location and stratigraphy of the site, and the site shall be photographed before it is vacated and the fossils are removed to a safe place.		

Potential Environmental Impact	Significance Determination	Mitigation Measures (MM) and County Regulations & Design Requirements (CRDR)	Responsible/ Monitoring Parties	Implementation Stage
		▪ During mass grading, any discovered fossil site shall be protected by red flagging to prevent it from being overrun by earthmovers (scrapers) before salvage begins. All grading activities within 50 feet of the discovery site shall be suspended until fossil recovery has been completed. ▪ If the site involves a large terrestrial vertebrate, for example, large bone(s) or a mammoth tusk, that is/are too large to be easily removed by a single monitor, a field crew shall be sent to the site to excavate around the find, encase the discovery within a plaster jacket, and remove it after the plaster has set. For large fossils, use of the contractor's construction equipment shall be solicited to remove the jacket to a safe location before it is returned to an appropriate laboratory facility. ▪ In the event that fossils are found by construction workers when the Paleontological Monitor is not on-site or is occupied elsewhere, all work shall be halted within 50 feet of the discovery location until it can be properly evaluated by the Paleontological Monitor. ▪ Sediments containing small invertebrate and/or vertebrate fossils also shall be collected as discussed below. When vertebrate fossil remains are recovered, additional sediment samples shall be taken from the same location to process for micro-vertebrate specimens. ▪ Isolated fossils shall be collected by hand, wrapped in paper, and placed in temporary collecting flats or five-gallon buckets. Notes shall be taken on the map location and stratigraphy of the site, and the site shall be photographed before it is vacated and the fossils are removed to a safe place. As small invertebrate		

Potential Environmental Impact	Significance Determination	Mitigation Measures (MM) and County Regulations & Design Requirements (CRDR)	Responsible/ Monitoring Parties	Implementation Stage
		fossils typically represent multiple specimens of a limited number of organisms, a scientifically-suitable sample shall be obtained from one to several five-gallon buckets of fossiliferous sediment. If it is possible to dry-screen the sediment in the field, a concentrated sample shall consist of one or two buckets of material. For micro-vertebrate fossils, the standard test is usually the observed presence of small pieces of bone within the sediments. If bone is present, as many as 20 to 40 five-gallon buckets of sediment shall be collected and returned to a separate facility to wet screen the sediment. If, after five buckets have been wet-screened and have failed to yield any micro-vertebrate or other fossil material under microscopic examination, then this process can be terminated. In the laboratory, any recovered fossils shall be cleaned of extraneous matrix, any breaks repaired, and the specimen, if necessary, shall be stabilized by soaking in an archivally approved acrylic hardener (e.g., a solution of acetone and Paraloid B-72). ▪ Fossils shall be identified by an adjunct invertebrate or vertebrate paleontology specialist, depending on the group of fossils needing identification (e.g., mollusks, reptiles, birds, mammals, or fish). Standard museum curation steps shall be utilized by, or under the direct supervision of, the principal investigator, who has a minimum nine years of paleontological curatorial experience. Curation steps shall include cleaning, preparing, sorting, identifying, painting, numbering, and labeling all specimens before submittal to the receiving institution. ▪ Pursuant to the County of Riverside's "SABER" Policy, paleontological materials (fossils) found in		

Potential Environmental Impact	Significance Determination	Mitigation Measures (MM) and County Regulations & Design Requirements (CRDR)	Responsible/ Monitoring Parties	Implementation Stage
		Riverside County shall be directed to the Western Science Center on Searl Road in Hemet, Riverside County, California, unless otherwise directed by the County Geologist. A written agreement between the Project developer and the preferred archival institution shall be in place prior to commencement of grading activities. The Project owner/developer shall assume financial responsibility for any institutional curation fees for the Project. ▪ Prior to final grading inspection, a final written report shall be produced by an approved Riverside County paleontologist, and submitted to the County of Riverside Geologist at the conclusion of grading activities for the Project. The report shall include sections on general background information, previous studies (both geologic and paleontologic), results of findings and analysis, discussion of all recovered fossils, and a fossil list identified to the lowest taxonomic level possible, as well as a list of references cited and index and locality maps and graphics to show the locations of all fossil localities, etc. A letter documenting receipt and acceptance of the fossil collections by the receiving institution shall be included in the final report, a copy of which shall be archived with the fossil collection. If fossils are not recovered during the project, the final report shall be in a shortened letter format.		
4.15 Population and Housing				
Threshold a.: The Project site does not contain any existing residences or housing, and the Project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.	No Impact	No significant environmental impacts related to population and housing would occur due to the Project. No mitigation measures are required.	N/A	N/A
Threshold b.: While commercial uses proposed as part of the Project would create a demand for additional housing, including affordable housing, the Project would	Less than Significant			

Potential Environmental Impact	Significance Determination	Mitigation Measures (MM) and County Regulations & Design Requirements (CRDR)	Responsible/ Monitoring Parties	Implementation Stage
accommodate a total of 433 dwelling units on site, including 80 age-qualified multi-family dwelling units. The proposed age-qualified units would provide for affordable housing, as the HDR land use designation represents one of the more affordable categories of housing under the General Plan Land Use Element. Furthermore, the Riverside County General Plan designates areas of the County in which lower-income housing can be accommodated to meet the County's RHNA obligations, and does not rely on residential development on the Project site in order to meet its RHNA obligations. Moreover, it is anticipated that any future employees generated by the Project could be accommodated by the dwelling units proposed on site, existing residential communities, and/or by future residential uses to be constructed in accordance with the General Plan Land Use Plan or the general plans of cities within the County, and that no additional housing, including housing affordable to households earning 80% or less of the County's median income, would be required to accommodate Project-related employees. Impacts would be less than significant. **Threshold c.:** The intensity and density of land uses proposed by the Project generally would conform to the site's existing General Plan and Specific Plan land use designations. Because the Project would redesignate lands planned for urban uses with similar urban uses, and because the Project would result in a substantial reduction in areas designated for CR land uses as compared to the site's existing Specific Plan land use designations, the Project would not directly induce substantial unplanned population growth in the area, and impacts would be less than significant. The Project also would not indirectly induce substantial unplanned population growth due to infrastructure improvements, and impacts would be less than significant.	Less than Significant			
4.16 Public Services				
Threshold a.: With payment of mandatory DIF fees, the proposed Project's potential direct and cumulatively-considerable impacts to the Riverside County Fire	Less than Significant	**CRDR 4.16-1** As a condition of Project approval, the proposed Project would be required to conform to all mandatory local, State, and federal laws, ordinances, and standards relating to	Project Applicant/ Building and	Prior to issuance of building permits and prior

Potential Environmental Impact	Significance Determination	Mitigation Measures (MM) and County Regulations & Design Requirements (CRDR)	Responsible/ Monitoring Parties	Implementation Stage
Department would be reduced to less-than-significant levels, and the Project would not result in or require the construction of new fire protection facilities that could result in a significant impact to the environment.		fire safety. Among other items, these requirements include conformance with the Uniform Building Code Section 1503, which requires that all buildings be constructed with fire retardant roofing material, as well as standard Riverside County Fire Department conditions of approval (COAs) for specific plans, which prohibit flag lots and require alternative/secondary access routes to neighborhoods. The alternative/secondary access routes would be required to be maintained throughout construction and buildout of the proposed Project.	Safety Department	to final building inspection
Threshold b.: With payment of mandatory DIF fees, the proposed Project's potential direct and cumulatively-considerable impacts to the Riverside County Sheriff's Department would be reduced to less-than-significant levels, and the Project would not result in or require the construction of new police protection facilities that could result in a significant impact to the environment.	Less than Significant			
Threshold c.: The Project would generate approximately 288 students on an annual basis. Although the MUSD and PUHSD may need to construct new school facilities to meet the growing demand within this part of Riverside County, the payment of mandatory school impact fees would ensure that the Project would not result in significant direct or cumulatively-considerable impacts to the ability of the MUSD and/or PUHSD to provide for school services. As such, the Project impacts would be less than significant.	Less than Significant	**CRDR 4.16-2** The Project would be required to adhere to Riverside County Ordinance No. 659, which requires payment of a development impact fee (DIF) to assist the County in providing for fire protection facilities (including fire stations), sheriff protection facilities (including sheriff stations), library facilities, and health facilities.	As set forth by Ordinance No. 659	As set forth by Ordinance No. 659
Threshold d.: Although the Project would contribute to a need for new or expanded library facilities, the Project would be required to contribute DIF fees, which would be used in part to provide for library space and/or new book volumes. Accordingly, with payment of DIF fees, Project impacts to library services and facilities are evaluated as less than significant on both a direct and cumulatively-considerable basis.	Less than Significant	**CRDR 4.16-3** The Project is required to comply with Riverside County Ordinance No. 575, which requires mandatory payment of school impact fees pursuant to Public Education Code § 17072.10-18.	As set forth by Ordinance No. 575	As set forth by Ordinance No. 575
Threshold e.: With payment of mandatory DIF fees, the Project would result in less-than-significant direct and cumulatively-considerable impacts to health services facilities, and the Project would not result in or require the construction of new health services facilities that could result in a significant impact to the environment.	Less than Significant			

Potential Environmental Impact	Significance Determination	Mitigation Measures (MM) and County Regulations & Design Requirements (CRDR)	Responsible/ Monitoring Parties	Implementation Stage
4.17 Recreation				
Thresholds a. and d.: The physical construction of the on-site recreational facilities has been addressed under the relevant issue areas identified throughout this EIR (e.g., air quality, biological resources, cultural resources). Under each of these topics, Project impacts are determined to be less than significant, or mitigation measures have been identified to reduce impacts to the maximum feasible extent. There are no components of the planned recreational facilities on site that have not already been addressed and accounted for throughout this EIR. Accordingly, Project impacts due to parkland development on site would be less than significant, requiring no mitigation beyond that which is identified in other portions of this EIR.	Less than Significant	**CRDR 4.17-1** The Project would be required to comply with the VWRPD 2020 Master Plan, which sets forth a parkland standard of 5.0 acres per 1,000 residents, specifies parkland dedication requirements, and imposes in-lieu park impact fees to address potential parkland deficiencies.	Project Applicant/ Planning Department, VWRPD	Prior to final building inspection
Threshold b. and c.: Because the Project would accommodate 4.1 acres of excess park and recreational facilities, it can be concluded that any use of off-site parks and recreational facilities would be off-set by County residents utilizing on-site recreational facilities. As a result, the Project would not increase the use of existing neighborhood or regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated, and impacts would be less than significant. Additionally, because the Project would exceed the VWRPD parkland standards by 4.1 acres, the Project would be fully consistent with the VWRPD 2020 Master Plan and no in-lieu fee payments (Quimby fees) would be required. Thus, the Project would not conflict with the VWRPD 2020 Master Plan, and impacts would be less than significant and no Quimby fees would be required.	Less than Significant			
4.18 Transportation				
Threshold a.: The proposed development on site would be required to comply with all applicable Riverside County ordinances related to the circulation system. In addition, EIR *Technical Appendix P* includes a detailed analysis of the proposed Project's consistency with the Riverside County General Plan and SWAP policies. As	Less than Significant	**MM 4.18-1** Prior to the issuance of grading permits or improvement plans affecting public roadways, the Project Applicant shall prepare and Riverside County shall approve a temporary traffic control plan. The temporary traffic control plan shall comply with the applicable requirements of the	Project Applicant, Project Traffic Engineer/ Transportation	Prior to issuance of grading permits or improvement plans affecting

Potential Environmental Impact	Significance Determination	Mitigation Measures (MM) and County Regulations & Design Requirements (CRDR)	Responsible/ Monitoring Parties	Implementation Stage
demonstrated in the analysis therein, with approval of the Project's proposed General Plan Amendment No. 210004, the proposed Project would not conflict with any applicable policies of the General Plan or SWAP, including policies within the General Plan Circulation Element and SWAP that relate to the circulation system, transit, roadway, bicycle, and/or pedestrian facilities. With respect to the LOS standards, the Project would be conditioned to require construction of improvements, payment of DIF and TUMF fees, and payment of fair-share contributions towards improvements not included in any existing fee programs. The improvements to be constructed as part of the Project, as part of the DIF or TUMF programs, or as the result of Project fair-share contributions would provide for an acceptable LOS at all Study Area facilities, with possible exception of facilities under the jurisdiction of Caltrans. Although it is expected that intersections with I-215 and other Caltrans facilities within the Study Area may not achieve Caltrans' LOS standards under near- or long-term conditions, Caltrans does not have any fee programs in place to address deficiencies along Caltrans facilities. Furthermore, pursuant to SB 743 and State CEQA Guidelines § 15064.3(a), "…a project's effect on automobile delay shall not constitute and environmental impact." As such, for purposes of CEQA, the Project's contribution to the projected LOS deficiencies at Study Area facilities would be less than significant. **Threshold b.:** Buildout of the residential uses proposed as part of the Project would result in a VMT per capita that is 53.9% above the County's VMT per capita threshold of significance, while buildout of the commercial retail component has the potential to result in VMT impact in the event any individual commercial retail building exceeds 50,000 s.f. in size. The proposed Project has been designed to provide for residential land uses in close proximity to the proposed on-site commercial retail uses within Planning Area 7 of proposed SP 380A1. Additionally, the Project would be required to comply with the development standards and design guidelines pursuant to SP 380A1,	Significant and Unavoidable	California Manual on Uniform Traffic Control Devices (CMUTCD). A requirement to comply with the temporary traffic control plan shall be noted on all grading and building plans and also shall be specified in bid documents issued to prospective construction contractors. **MM 4.18-2** Prior to approval of any future implementing discretionary applications (e.g., plot plans, conditional use permits) for the proposed commercial retail uses that include buildings larger than 50,000 square feet in size, and prior to approval of future implementing discretionary applications (e.g., tentative maps, plot plans) for the proposed multi-family uses within Planning Area 6 of SP 380A1, the Project Applicant shall prepare a project-level Vehicle Miles Travelled (VMT) analysis to identify site-specific Transportation Demand Management (TDM) measures to reduce VMT associated with the Project's proposed commercial retail and multi-family uses to the maximum feasible extent. TDM strategies that may be applicable at the implementing project level may include, but are not necessarily limited to, the following: ▪ Collaborate with the Riverside Transit Authority (RTA) to determine the feasibility of providing new bus stops for RTA Route 79 along Winchester Road (SR-79) adjacent to the Project site. ▪ Reduce the amount of parking associated with the proposed commercial retail uses in order to discourage passenger vehicle traffic. ▪ Implement a local shuttle service (grouped strategy with transit system improvements). Any feasible TDM strategies identified as part of the future-required VMT analysis shall be imposed as conditions of approval on the implementing discretionary application(s).	Department, Planning Department Project Applicant, Project Traffic Engineer/ Transportation Department, Planning Department	roadways Prior to approval of any future implementing discretionary applications for multi-family development or development of commercial retail buildings larger than 50,000 s.f.

Potential Environmental Impact	Significance Determination	Mitigation Measures (MM) and County Regulations & Design Requirements (CRDR)	Responsible/ Monitoring Parties	Implementation Stage
which includes requirements to provide minimum 8-foot-wide decomposed granite (DG) meandering trails within proposed Planning Area 9 and along the on-site portions of Keller Road, and to provide for minimum 8-foot-wide sidewalks along the boundary of proposed Planning Areas 6 and 7 along Winchester Road. The Project also would accommodate bike lanes along the on-site portions of Keller Road, and planned improvements to Winchester Road along the Project's frontage also would accommodate bicycle lanes. The Project's remaining on-site local roadways also would accommodate bicycle uses. Additionally, the Project would be subject to compliance with Mitigation Measure MM 4.18-2, which requires the identification of site-specific TDM measures to reduce VMT prior to approval of implementing multi-family or commercial retail developments associated with the Project. Notwithstanding, even with the implementation of all feasible VMT reduction measures, Project-generated VMT cannot be reduced to a level of less than significant.		**CRDR 4.18-1** Prior to issuance of building permits, the Project Applicant shall pay appropriate Development Impact Fee Program (DIF) fees at the rates then in effect in accordance with Riverside County Ordinance No. 659. **CRDR 4.18-2** Prior to final building inspection, the Project Applicant shall pay appropriate Western Riverside County Transportation Uniform Mitigation Fee Program Ordinance (TUMF) fees at the rates then in effect in accordance with Riverside County Ordinance No. 824. **CRDR 4.18-3** Prior to final building inspection for each phase of the proposed Project, the Project Applicant shall construct the improvements identified in Table 1-3 of the Project's Traffic Study (*Technical Appendix L2* to this EIR). **CRDR 4.18-4** Prior to final building inspection for each phase of the proposed Project, the Project Applicant shall make fair-share contributions towards required transportation improvements, in accordance with Table 1-3 of the Project's Traffic Study (*Technical Appendix L2* to this EIR).	Project Applicant/ Planning Department Project Applicant/ Planning Department Project Applicant/ Planning Department Project Applicant/ Planning Department	Prior to issuance of building permits Prior to final building inspection Prior to final building inspection Prior to final building inspection
Threshold c.: The Project would not substantially increase hazards due to a geometric design feature or due to incompatible land uses. Impacts would be less than significant.	Less than Significant			
Threshold d.: Although the Project would result in the increased maintenance of roadways and would increase traffic on existing and planned roadways, any incremental increase in the need to maintain public roadway facilities would be offset by tax revenue generated by the Project's proposed land uses. There are no components of the proposed Project that would result in or require a substantial increase in expenditures by Riverside County for public road maintenance such that environmental impacts would result. As such, Project impacts would be less than significant.	Less than Significant			
Threshold e.: Mitigation Measure MM 4.18-1 requires the Project Applicant to prepare and obtain Riverside County approval of a temporary traffic control plan prior to	Less than Significant with Mitigation			

Potential Environmental Impact	Significance Determination	Mitigation Measures (MM) and County Regulations & Design Requirements (CRDR)	Responsible/ Monitoring Parties	Implementation Stage
issuance of grading permits or improvement plans affecting public roadways. Implementation of the required mitigation would ensure that Project-related construction activities would not substantially affect circulation during the Project's construction. With implementation of the required mitigation, impacts would be reduced to less-than-significant levels. **Threshold f.:** Mitigation Measure MM 4.18-1 requires the Project Applicant to prepare and obtain Riverside County approval of a temporary traffic control plan prior to issuance of grading permits. With implementation of the required mitigation, the Project would not result in inadequate emergency access or access to nearby uses during the Project's construction phase. Accordingly, with implementation of the required mitigation, impacts would be reduced to less-than-significant levels. **Threshold g.:** No construction or expansion of facilities for bicycles is proposed as part of the Project, aside from bicycle facilities that could be accommodated along Keller Road, Winchester Road, and along on-site roadways. Impacts associated with proposed improvements to roadways have been evaluated throughout this EIR, and impacts were determined to be less than significant or would be reduced to less-than-significant levels with the incorporation of mitigation measures.	Less than Significant with Mitigation No Impact			
4.19 Tribal Cultural Resources				
Threshold a.: The Project has the potential to result in significant impacts to previously-undiscovered Tribal Cultural Resources. Implementation of EIR Mitigation Measures MM 4.5-1 through MM 4.5-9 would ensure appropriate treatment of any Tribal Cultural Resources that may be identified during Project-related ground-disturbing activities. Implementation of the required mitigation would reduce Project impacts to Tribal Cultural Resources to below a level of significance.	Less than Significant	Mitigation Measures MM 4.5-1 through MM 4.5-8 shall apply (refer to EIR Subsection 4.5, Cultural Resources). The mitigation measures included in EIR Subsection 4.5 have been drafted to include all of the mitigation requirements requested during the Project's Tribal Consultation process. No additional mitigation measures are required. **CRDR 4.19-1** Unless otherwise required by law, the site of any reburial of Native American human remains or associated grave goods shall not be disclosed and shall not be governed by public disclosure requirements of the California Public	As specified above for Mitigation Measures MM 4.5-1 through MM 4.5-9 Project Applicant, Project Archaeologist/	As specified above for Mitigation Measures MM 4.5-1 through MM 4.5-9 In the event Native American human remains or associated grave

Potential Environmental Impact	Significance Determination	Mitigation Measures (MM) and County Regulations & Design Requirements (CRDR)	Responsible/ Monitoring Parties	Implementation Stage
		Records Act. The Coroner, pursuant to the specific exemption set forth in California Government Code Section 6254 (r), parties, and Lead Agencies, will be asked to withhold public disclosure information related to such reburial, pursuant to the specific exemption set forth in California Government Code Section 6254 (r).	County Archaeologist, Planning Department	goods are discovered on site
		CRDR 4.19-2 In the event that human remains are encountered during ground-disturbing construction activities on site or within the Project's off-site improvement areas, compliance with California Health and Safety Code § 7050.5 and Public Resources Code § 5097 et. seq. shall be required. State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the Riverside County Coroner has made the necessary findings as to origin. Further, pursuant to Public Resource Code Section 5097.98(b) remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. The County Coroner shall determine that no investigation of the cause of death is required, and determine if the remains are of Native American origin. In the event that the remains are determined to be of Native American origin, the Native American Heritage Commission (NAHC) shall be contacted within the period specified by law (24 hours). Subsequently, the Native American Heritage Commission shall identify the "Most Likely Descendant." The Most Likely Descendant shall then make recommendations and engage in consultation concerning the treatment of the remains as provided in Public Resources Code Section 5097.98. If the NAHC is unable to identify a Most Likely Descendant, or if the Most Likely Descendant failed to make a recommendation within 48 hours after being notified by the NAHC, or the Project Applicant rejects the recommendation of the Most Likely Descendent, the Project Applicant shall rebury the Native American human remains and associated grave goods on the property in a location not subject to further ground disturbance. Evidence of compliance with this mitigation measure, if human remains are found, shall	Project Applicant, Project Archaeologist/ County Archaeologist, Planning Department, NAHC, County Coroner	In the event that human remains are discovered during grading activities

Potential Environmental Impact	Significance Determination	Mitigation Measures (MM) and County Regulations & Design Requirements (CRDR)	Responsible/ Monitoring Parties	Implementation Stage
		be provided to Riverside County upon the completion of a treatment plan and final report detailing the significance and treatment finding.		
4.20 Utilities and Service Systems				
Threshold a.: Although the Project would require construction of new or expanded water, wastewater conveyance, and storm water drainage systems, impacts associated with the construction of such facilities have been evaluated throughout this EIR under the appropriate subject headings (e.g., air quality, biological resources, etc.). Where significant direct or cumulative impacts are identified, mitigation measures have been imposed to reduce the Project's impacts to the maximum feasible extent. There are no environmental impacts that would occur specifically related to the Project's proposed water, sewer, and drainage improvements. As such, with the mitigation measures specified in this EIR, Project impacts due to water, sewer, and drainage improvements would be less than significant. Additionally, the Project's wastewater generation would represent approximately 1.3% of the Temecula Valley RWRF's current excess capacity, and would represent 0.8% of the ultimate planned excess capacity. Accordingly, the Project would not result in or require the expansion of the existing facilities at the Temecula Valley RWRF, and impacts would therefore be less than significant. **Threshold b.:** Based on present information and the assurance that MWD is engaged in identifying solutions that, when combined with the rest of its supply portfolio, will ensure a reliable long-term water supply for its member agencies, EMWD has determined that it will be able to provide adequate water supplies to meet the potable water demand for the proposed Project as part of its existing and future demands. (EMWD, 2021d) Accordingly, sufficient water supplies are available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years. Furthermore, the use of recycled water on-site would serve to further reduce the Project's water demand. The	Less than Significant Less than Significant	**CRDR 4.20-1** The Project is required to comply with the provisions of the California Solid Waste Integrated Waste Management Act, (AB 939, 1989) which mandates a reduction of disposed waste throughout California. **CRDR 4.20-2** The Project is required to comply with the provisions of the California Solid Waste Reuse and Recycling Act (AB 1327) which developed a model ordinance for adoption of recyclable materials in development projects. This Act requires all development projects that are commercial, industrial, institutional, or marina in nature and where solid waste is collected and loaded, to provide an adequate area for collecting and loading recyclable materials over the lifetime of the project. The area is required to be provided before building permits are issued. **CRDR 4.20-3** The Project is required to comply with the provisions of the Mandatory Commercial Recycling Program (AB 341): AB 341 made a legislative declaration that it is the policy goal of the state that not less than 75% of solid waste generated be source reduced, recycled, or composted by the year 2020, and required the Department of Resources Recycling and Recovery, by January 1, 2014, to provide a report to the Legislature that provides strategies to achieve that policy goal and also includes other specified information and recommendations. **CRDR 4.20-4** The Project would be subject to the following applicable standard conditions of approval imposed on the Project by the RCDWR: ▪ Prior to issuance of a building permit, a Waste Recycling Plan (WRP) shall be submitted to the	As set forth by AB 939 As set forth by AB 1327 As set forth by AB 341 Project Applicant/ RCDWR	As set forth by AB 939 As set forth by AB 1327 As set forth by AB 341 Prior to issuance of a building permit, prior to final building inspection, and during the life of

Potential Environmental Impact	Significance Determination	Mitigation Measures (MM) and County Regulations & Design Requirements (CRDR)	Responsible/ Monitoring Parties	Implementation Stage
Project's effect on EMWD's regional water network would be less than significant. **Thresholds c. and d.:** Impacts associated with proposed sewer facilities are inherent to the Project's construction phase, and impacts have been evaluated throughout this EIR under the appropriate subject headings (e.g., air quality, biological resources, etc.). Where significant direct or cumulative impacts are identified, mitigation measures have been imposed to reduce the Project's impacts to the maximum feasible extent. There are no environmental impacts that would occur specifically related to the Project's proposed sewer improvements. As such, with the mitigation measures specified in this EIR, Project impacts due to proposed sewer improvements would be less than significant. Additionally, the Project's wastewater generation would represent approximately 1.3% of the Temecula Valley RWRF's current excess capacity, and would represent 0.8% of the ultimate planned excess capacity. Accordingly, the Project would not result in or require the expansion of the existing facilities at the Temecula Valley RWRF, and impacts would therefore be less than significant. **Threshold e.:** Regional solid waste facilities would have adequate capacity to handle solid waste generated by the Project's construction and operational phases. 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. Accordingly, impacts would be less than significant. **Threshold f.:** With mandatory compliance to AB 939, AB 341, and RCDWR's programs and policies, the Project would not result in a significant impact due to noncompliance with regulations related to solid waste. A less-than-significant impact would occur. **Threshold g.:** Impacts associated with the construction or	Less than Significant Less than Significant Less than Significant Less than	Riverside County Department of Waste Resources for approval. At a minimum, the WRP must identify the materials (i.e., cardboard, concrete, asphalt, wood, etc.) that will be generated by construction and development, the projected amounts; the measures/methods that will be taken to recycle, reuse, and/or reduce the amount of materials; the facilities and/or haulers that will be utilized; and the targeted recycling or reduction rate. During Project construction, the Project site shall have, at a minimum, two (2) bins: one for waste disposal and the other for the recycling of Construction and Demolition (C&D) materials. Additional bins are encouraged to be used for further source separation of C&D recyclable materials. Accurate record keeping (receipts) for recycling of C&D recyclable materials and solid waste disposal must be kept. Arrangements can be made through the franchise hauler. ▪ Prior to final building inspection, evidence (i.e., receipts or other type of verification) to demonstrate project compliance with the approved WRP shall be presented by the project proponent to the Planning Division of the Riverside County Department of Waste Resources in order to clear the project for occupancy permits. Receipts must clearly identify the amount of waste disposed and Construction and Demolition (C&D) materials recycled. ▪ Hazardous materials are not accepted at Riverside County landfills. In compliance with federal, state, and local regulations and ordinances, any hazardous waste generated in association with the Project shall be disposed of at a permitted Hazardous Waste disposal facility. Hazardous waste materials include,		the proposed Project

Potential Environmental Impact	Significance Determination	Mitigation Measures (MM) and County Regulations & Design Requirements (CRDR)	Responsible/ Monitoring Parties	Implementation Stage
expansion of utility facilities would be less than significant or otherwise mitigated to the maximum feasible extent by this EIR. No additional mitigation would be required.	Significant	but are not limited to, paint, batteries, oil, asbestos, and solvents.		
4.21 Wildfire				
Threshold a.: The Project site and surrounding areas are not identified as evacuation routes, and there are no adopted emergency response plans or emergency evacuation plans applicable to the Project area. During construction and at Project build-out, the Project would be required to maintain adequate access for emergency vehicles. Accordingly, the Project would not impair implementation of or physically interfere with an adopted emergency response plan or an emergency evacuation plan. Impacts would be less than significant.	Less than Significant	**CRDR 4.21-1** Future implementing developments within the Project site (e.g., plot plans, building permits, etc.) shall be reviewed by Riverside County for compliance with the fire protection measures included in Section 2.8, Fire Protection Plan, of SP 380A1.	Project Applicant/ Building and Safety Department, Planning Department, Riverside County Fire Department	Prior to approval of future implementing developments (e.g., plot plans, building permits, etc.)
Thresholds b. and e.: The Project would be subject to the fire abatement requirements specified by SP 380A1, which includes requirements for the provision of a 100-foot wide FMZ around all buildings, and specifies additional fire protection measures for buildings where the 100-foot wide FMZ cannot be achieved. With mandatory compliance with the fire abatement requirements of SP 380A1, the Project would not exacerbate wildfire risks, and would not expose Project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. Additionally, the Project would not expose people or structures either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires with implementation of the Project's proposed fire protection measures, and the Project would accommodate adequate circulation facilities to allow for evacuation of the site in the event of wildfires in the area. Impacts would be less than significant.	Less than Significant			
Threshold c.: Impacts to areas requiring FMZs have been evaluated throughout this EIR under the appropriate subject heading (e.g., biological resources, cultural resources), and where impacts are identified mitigation measures are identified to reduce impacts to the extent feasible. There are no components of the proposed FMZs	Less than Significant			

Potential Environmental Impact	Significance Determination	Mitigation Measures (MM) and County Regulations & Design Requirements (CRDR)	Responsible/ Monitoring Parties	Implementation Stage
that would result in impacts not already addressed by this EIR. Accordingly, the Project would not exacerbate fire risk, and would not result in temporary or ongoing impacts to the environment beyond what is already evaluated and disclosed by this EIR. Impacts would be less than significant. **Threshold d.:** Although during extreme fire conditions there still would remain a potential for wildland fires to affect future buildings on site, implementation of the required enhanced construction features provided by the applicable codes and the fuel modification requirements required by SP 380A1 would reduce the site's vulnerability to wildfire to less-than-significant levels. Additionally, with development of the site runoff on the site would be controlled by the Project's proposed drainage system, thereby precluding fire-related flooding impacts downstream. In addition, the Project site would not cause or be affected by fire-induced landslides. Therefore, the Project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes, and impacts would be less than significant.	Less than Significant			

1.0 INTRODUCTION

1.1 PURPOSES OF CEQA AND LEGAL AUTHORITY FOR THIS EIR

This Environmental Impact Report (EIR) has been prepared in compliance with the California Environmental Quality Act (Public Resources Code § 2100 et. seq. (CEQA), as amended, and the State CEQA Guidelines (Title 14 California Code of Regulations § 15000 et. seq.) ("State CEQA Guidelines"), as amended. As stated by State CEQA Guidelines § 15002(a), the basic purposes of CEQA are to:

- Inform governmental decision makers and the public about the potential, significant environmental effects of proposed government actions (including the discretionary approval of land entitlement applications submitted by private parties);
- Identify the ways that environmental damage can be avoided or significantly reduced;
- Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible; and
- Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if a project will be approved involving significant environmental effects.

The public agency with the principal responsibility for carrying out or approving a project or the first public agency to make a discretionary decision to proceed with a proposed project should ordinarily act as the "Lead Agency" pursuant to State CEQA Guidelines §§ 15050-15051. The County of Riverside is the Lead Agency for the proposed Project evaluated in this EIR.

Under CEQA, if a Lead Agency determines that there is substantial evidence in light of the whole record that a project may have a significant effect on the environment, the agency must prepare an Environmental Impact Report (EIR) (State CEQA Guidelines § 15064(a)(1)). The purpose of an EIR is to inform public agency decision-makers and the public of the potentially significant environmental effects of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project (State CEQA Guidelines § 15121(a)).

This EIR is an informational document that represents the independent judgment of the County of Riverside (as the Lead Agency) for use by the Riverside County decision-makers, responsible and trustee agencies, and members of the general public to evaluate the physical environmental effects that could result from constructing and operating the proposed Project. The County of Riverside has reviewed and, as necessary, directed revisions to all submitted drafts, technical studies, and reports supporting this EIR for consistency with County policies and requirements to ensure that this EIR reflects its own independent judgment. Governmental approvals requested from the County of Riverside by the Project Applicant include:

1. Adoption by resolution of a General Plan Amendment (GPA210004);
2. Adoption of Amendment No. 1 to the Keller Crossing Specific Plan No. 380 (SP00380A01);
3. Adoption by ordinance of a Change of Zone (CZ2100012); and
4. Adoption by Resolution of Tentative Tract Map No. 38163 (TTM38163)

Other related discretionary and administrative actions that are required to construct and operate the Project described in this EIR are listed in Section 3.0, *Project Description*. This document complies with all criteria, standards, and procedures of CEQA §§ 21000 et seq. and State CEQA Guidelines §§ 15000 et seq.

As a first step in the CEQA compliance process, Riverside County determined that implementation of the Project has the potential to result in significant environmental effects, and a Project EIR, as defined by State CEQA Guidelines § 15161, is required. As stated in State CEQA Guidelines § 15161, a Project EIR should "…focus primarily on the changes in the environment that would result from the development project" and "…examine all phases of the project including planning, construction, and operation." This EIR represents the independent judgment of Riverside County (as the Lead Agency) and evaluates the physical environmental effects that could result from constructing and operating the proposed Project. Acting as Lead Agency, Riverside County will consider the following issues regarding the proposed Project: a) evaluation of this EIR to determine if the physical environmental impacts are adequately disclosed; b) assessment of the adequacy and feasibility of identified mitigation measures and the potential addition, modification to, or deletion of mitigation measures, standard conditions of approval, or Project design features; c) consideration of alternatives to the Project that would reduce or eliminate significant environmental effects of the Project; and, if necessary, d) consideration of Project benefits that override the Project's unavoidable and unmitigable significant effects on the environment.

Accordingly, and in conformance with State CEQA Guidelines § 15121(a), the purposes of this EIR are to: (1) disclose information by informing public agency decision makers and the public generally of the significant environmental effects associated with all phases of the Project; (2) identify possible ways to minimize or avoid those significant effects; and (3) to describe a reasonable range of alternatives to the Project that would feasibly attain most of the basic Project objectives but would avoid or substantially lessen its significant environmental effects.

Before taking action to approve the Project, the County of Riverside (serving as the Lead Agency) has the obligation to: (1) ensure this EIR has been completed in accordance with CEQA; (2) review and consider the information contained in this EIR as part of its decision making process; (3) make a statement that this EIR reflects Riverside County's independent judgment; (4) ensure that all significant effects on the environment are avoided or substantially lessened where feasible; and, if necessary (5) make written findings for each unavoidable significant environmental effect stating the reasons why mitigation measures or project alternatives identified in this EIR are infeasible and citing the specific benefits of the proposed Project that outweigh its unavoidable adverse effects (State CEQA Guidelines §§ 15090-15093).

The roles and responsibilities of the County of Riverside Planning Commission and Board of Supervisors for Project-related approvals are as follows.

- **The Planning Commission**: The Planning Commission will recommend to the Board of Supervisors whether the Project's applications, which include GPA210004, SP00380A01, CZ2100012, and TM38163 should be approved, modified, or denied, and will recommend to the Board of Supervisors whether to certify the Final EIR (FEIR) with or without modifications.

- **Board of Supervisors**: The Board of Supervisors will decide whether to approve, modify, or deny GPA210004, SP00380A01, CZ 2100012, and TM38163. Project-related approvals will be subject to a noticed public hearing held before the Board of Supervisors. Upon approval or conditional approval of the Project and certification of this EIR by the Board of Supervisors, the County would conduct additional discretionary and administrative level reviews as needed to implement the Project.

This EIR and all supporting technical appendices are available at the County of Riverside Planning Department, 4080 Lemon Street, 12th Floor, Riverside, CA 92501 during the County's regular business hours, or can be requested in electronic form by contacting the County Planning Department.

1.2 Summary Of The Project Evaluated By This EIR

The County of Riverside is the Lead Agency for the proposed Project, under whose authority this EIR has been prepared. For purposes of this EIR, the term "Project" refers to the Project's discretionary applications (GPA210004, SP00380A01, CZ2100012, and TM38163) and the discretionary actions required to implement the Project, as proposed, and all of the activities associated with Project implementation including planning, construction, and long-term operations.

In summary, the Project as evaluated herein consists of a General Plan Amendment, Change of Zone, Specific Plan Amendment, and Tentative Tract Map. Collectively, the approval of these discretionary actions would allow for the development of 433 residential dwelling units on 82.6 acres, up to 176,000 s.f. of commercial space on 13.3 acres, a 6.4-acre park, a 4.1-acre paseo/land use buffer, water quality management plan basins on 11.2 acres, 1.0 acre of very low-density residential uses (with no dwelling units proposed in this area), and 61.4 acres of conserved open space. Specifically, the Project Applicant is requesting the following governmental approvals from the County of Riverside to implement the Project (refer to Chapter 3.0, *Project Description*, for a complete description of the Project's construction and operational characteristics):

- **General Plan Amendment No. GPA210004:** The Project Applicant is seeking a General Plan Amendment (GPA) to modify and reconfigure the adopted land use designations of the Keller Crossing Specific Plan No. 380 and the Southwest Area Plan (SWAP). Under existing conditions, the Project site is designated for 9.9 acres of "Very Low Density Residential (VLDR)," 18.3 acres of "Low Density Residential (LDR)," 13.9 acres of "Medium-Density Residential (MDR)," 39.5 acres of Mixed Use, 37.8 acres of "Commercial Retail (CR)," and 61.1 acres of "Open Space-Conservation (OS-C)" land uses. As part of GPA No. 21004, the Project site would be redesignated to include 61.2 acres of MDR, 14.1 acres of "Medium-High-Density Residential (MHDR)," 7.3 acres of "High-Density Residential (HDR)," 1.0 acre of "Community Development – Very Low Density Residential (CD-VLDR)," 13.3 acres of CR, 10.5 acres of "Open Space-Recreation (OS-R)," 61.4 acres of "Open Space-Conservation Habitat (OS-CH)," 11.2 acres of "Open Space-Water (OS-W)" land uses, as well as 16.0 acres of major circulation facilities.

- **Change of Zone No. CZ2100012:** The Riverside County Zoning Ordinance (Ordinance No. 348), which is part of the County's Municipal Code, assigns a zoning classification to all properties in the County boundaries. All development within the County is required, by law, to comply with the provisions of the Zoning Ordinance. Under existing conditions, the Project site is zoned for "Specific

Plan Zone (SP Zone)," indicating that zoning for the property is as set forth by the zoning ordinance adopted in conjunction with the original Keller Crossing Specific Plan No. 380 (SP 380). A Change of Zone (CZ No. 2100012) is proposed as part of the Project, which would amend the Specific Plan Zoning Ordinance to modify and establish the Planning Area boundaries, permitted uses, and development standards throughout the 196.0-acre Project site in order to reflect the land uses proposed as part of Amendment No. 1 to Specific Plan No. 380 (SP 380A1), as described below.

- **Specific Plan Amendment No. SP00380A01 (SP 380A1):** SP 380A1 would modify the uses, configuration, acreages, unit counts, densities, and land use designations of all the Planning Areas within the Keller Crossing Specific Plan No. 380. Additionally, SP 380A1 would reduce the overall project acreage by 5.1 acres from 201.1 acres to 196.0 acres as a result of more accurate mapping. Specifically, proposed SPA 380A1 would make the following changes:

    - Increase the number of residential units by 113 units, from 320 units to 433 units;
    - Eliminate the Mixed Use land use;
    - Eliminate the LDR land use;
    - Increase the MDR land use acreage by 47.3 acres, from 13.9 acres to 61.2 acres, in proposed Planning Areas 1, 2, 3, and 5, and increase the total number of MDR dwelling units by 235 units, from 42 units to 277 units;
    - Establish one (1) MHDR neighborhood on 14.1 acres in Planning Area 4, with a total of 76 units;
    - Establish one (1) HDR neighborhood on 7.3 acres in Planning Area 6, with 80 Age Qualified (55+) homes;
    - Reduce the CR land use acreage by 24.5 acres, from 37.8 acres to 13.3 acres, in Planning Area 7 with a maximum of 176,000 s.f. of building area;
    - Establish a 6.4-acre public park (OS-R) in Planning Area 8;
    - Establish a 4.1-acre land use buffer with a recreational paseo (OS-R) in Planning Area 9;
    - Revise the land use designation of Planning Area 10 from OS-C to OS-CH and increase the acreage of planned conserved open space by 0.3-acre, from 61.1 acres to 61.4 acres;
    - Establish Water Quality Management basins designated OS-W in Planning Areas 11A and 11B on 11.2 acres; and
    - Establish a 1.0-acre portion designated CD-VLDR in Planning Area 12, with no dwelling units allocated or proposed in this area.

- **Tentative Tract Map No. 38163:** Tentative Tract Map No. 38163 (herein, "TTM 38163") would subdivide the approximately 196.0-acre Project site to implement the land uses proposed as part of SP 380A1. TTM 38163 would subdivide the 196.0-acre Project site into 353 single-family residential lots on 52.5 acres, one lot for the development of 80 multi-family residential units on 5.5 acres, one lot for CD-VLDR land uses on 1.0 acre (which is not proposed for residential development as part of the Project), one lot for commercial retail land uses on 13.3 acres, one lot for the development of a public park on 6.4 acres, one lot for land use buffer and paseo trail uses on 4.1 acres, 24 lots for landscaped areas and landscaped slopes on 9.9 acres, three lots for detention basins on 11.2 acres, one lot for conservation habitat land uses on 61.4 acres, with remaining areas consisting of proposed roadway improvements.

1.3 CEQA Process Overview

CEQA (Public Resources Code, §§ 21000- 21177) requires that all public agencies within the State of California, having land use approval over project activities that have the potential to affect the quality of the environment, shall regulate such activities so that impacts to the environment can be prevented to the extent feasible. Such activity is reviewed and monitored through the CEQA process, as provided in the State CEQA Guidelines (California Code of Regulations, Title 14, Division 6, Chapter 3, §§ 15000-15387). CEQA distinguishes varied levels of documentation and public review based on a project's anticipated level of effect on the environment.

When it is determined through preliminary review that a project may likely have one or more significant effects upon the environment, then an Environmental Impact Report (EIR) must be prepared. The "scope" of the EIR may be determined through preparation of an Initial Study and a public scoping process. The EIR should consider both the potential project-specific (direct and indirect) and cumulative environmental impacts that could result from the implementation of the proposed project.

Pursuant to State CEQA Guidelines § 15121, the EIR is primarily an informational document intended to inform the public agency decision-makers and the general public of the potentially significant effects of a proposed project. The EIR should disclose all known potentially significant impacts; identify feasible means to minimize or mitigate those effects; and, consider a number of feasible alternatives to the project that might further reduce significant impacts while still attaining the project objectives. The decision-makers must consider the information in an EIR before taking action on the proposed project. The EIR may constitute substantial evidence in the record to support the agency's action on the project.

The EIR is prepared by or under the direction of the Lead Agency, which for the proposed Project is the County of Riverside. The County of Riverside is the public agency that has the primary responsibility for approving or carrying out the Project. Further, Responsible and Trustee Agencies, which are public agencies that have a level of discretionary approval over some component of the proposed Project, may rely upon the EIR prepared by the County of Riverside.

An EIR is prepared in two key stages. First, a Draft EIR is prepared and distributed for public and agency review. Once comments on the Draft EIR are received, responses to those comments and any additional relevant project information are prepared and compiled in a Final EIR. Both of these documents (i.e., the Draft EIR and the Final EIR), along with any related technical appendices and reference sources, represent the complete record of the EIR. Throughout this document, the terms Final EIR or Draft EIR may be used interchangeably since both are part of the ultimate EIR record; however, "Draft EIR" may be used specifically when referring to information provided in the volume made available for the CEQA-required 45-day public review period.

In accordance with State CEQA Guidelines § 15087, this Draft EIR will be made available for review by the public and public agencies for a minimum period of 45 days to provide comments "on the sufficiency of the document in identifying and analyzing the possible impacts on the environment and ways in which the significant effects of the project might be avoided or mitigated" (State CEQA Guidelines § 152049(a)). Responses to written comments received during the public review period will be included in the Final EIR.

During the decision-making process, the Project and its design features, objectives, merits, environmental consequences, and socioeconomic factors, among other information contained in the Project's administrative record, will be considered by Riverside County decision-makers. If the Final EIR is certified and the Project approved, Riverside County and other public agencies with permitting authority over all, or portions, of the Project would be able to rely on the Final EIR as part of their permitting processes to evaluate the environmental effects of the Project as they pertain to the approval or denial of applicable permits.

1.4 EIR Scope, Format, And Content

1.4.1 EIR Scope

Pursuant to the procedural requirements of CEQA, on August 31, 2021, the County filed a Notice of Preparation (NOP) with the California Office of Planning and Research (State Clearinghouse) and the Riverside County Clerk to indicate that an EIR would be prepared to evaluate the Project's potential to impact the environment. The NOP also was distributed to surrounding property owners, responsible and trustee agencies, and other interested parties for a 30-day public review period that commenced on August 31, 2021 and concluded on September 30, 2021. The NOP was distributed for public review to solicit responses to help the County identify the full scope and range of potential environmental concerns associated with the Project so that these issues could be fully examined in this EIR. Comments on the NOP were received from the following agencies and individuals:

- California Department of Conservation (DOC)
- Native American Heritage Commission (NAHC)
- Department of California Highway Patrol (CHP)
- South Coast Air Quality Management District (SCAQMD)
- Southern California Association of Governments (SCAG)
- Riverside County Department of Waste Resources (DWR)
- Riverside Transit Agency (RTA)
- Eastern Municipal Water District (EMWD)
- Valley-Wide Recreation and Parks District (VWRPD)
- Hemet Unified School District (HUSD)
- City of Menifee
- Endangered Habitats League (EHL)
- Lozeau Drury, LLP
- Domenigoni Barton Properties
- Brian James
- Zive Petrovski
- Dennis F. Tuffin

In addition, a publicly-noticed EIR Scoping Meeting was held at the Riverside County Administrative Center, 1st Floor Conference Room 2A, located at 4080 Lemon Street, Riverside, California, 92501 on September 27th, 2021, which provided members of the general public an additional opportunity to comment on the scope of environmental issues to be addressed in this EIR.

An Initial Study was not prepared for the proposed Project because the County determined that an EIR was clearly required. As such, this EIR evaluates all of the environmental topics identified in Appendix G to the State CEQA Guidelines and in the County's standard Environmental Assessment Checklist form. Based on Appendix G and the County's Environmental Assessment Checklist form, and in consideration of all comments received by Riverside County on the NOP and during the EIR Scoping Meeting, Section 4.0 of this EIR evaluates the Project's potential to cause adverse effects to the following environmental issue areas:

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Energy

- Geology and Soils
- Greenhouse Gas Emissions
- Hazards/Hazardous Materials
- Hydrology/Water Quality
- Land Use/Planning
- Mineral Resources
- Noise
- Paleontological Resources
- Population/Housing
- Public Services
- Recreation
- Transportation
- Tribal Cultural Resources
- Utilities/Service Systems
- Wildfire

The Project's potential to result in growth-inducing impacts are discussed in Section 5.0, *Other CEQA Considerations*, of this EIR. The NOP, public review distribution list, and written comments received by the County during the NOP public review period are provided in *Technical Appendix A* to this EIR. Please refer to Table 1-1, *Summary of NOP Comments*, for summarized comments received during NOP public review period.

Table 1-1 Summary of NOP Comments

Commenter	Date	Comments	Location in EIR Where Comment(s) Addressed
Native American Heritage Commission (NAHC)	September 10, 2021	• Project is subject to Native American Consultation pursuant to Assembly Bill (AB) 52 and Senate Bill (SB) 18 • Prepare a cultural resources assessment to evaluate potential impacts to archaeological and historical resources	• Subsections 4.5 (Cultural Resources) and 4.19 (Tribal Cultural Resources)
Department of California Highway Patrol (CHP)	September 21, 2021	• Project is located in close proximity to State Route 79 (Winchester Road) which is a major arterial route • Concerned Project could have a negative impact on CHP operations due to an increase in traffic, which could necessitate the need for additional traffic control measures to mitigate the potential increase in traffic collisions and calls for service	• Subsection 4.18 (Transportation)
South Coast Air Quality Management District (SCAQMD)	September 20, 2021	• Requests an analysis of air quality impacts based on SCAQMD guidance • Requests an analysis of consistency with the 2016 Air Quality Management Plan • Requests mitigation measures and other features per the California Air Resources Board Air Quality and Land Use Handbook: A Community Health Perspective and the SCAQMD CEQA Air Quality Handbook	• Subsection 4.3 (Air Quality) and 4.8 (Greenhouse Gas Emissions)

Commenter	Date	Comments	Location in EIR Where Comment(s) Addressed
		• Evaluate air quality emissions against the SCAQMD regional and localized thresholds for both construction and operations • Identify feasible mitigation measures to address Project-related air quality impacts • Identify alternatives to reduce or avoid air quality impacts	
Southern California Association of Governments (SCAG)	September 29, 2021	• Requests an analysis of consistency with the goals listed in the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS or Connect SoCal) • Requests review of the Final Program EIR for Connect SoCal for guidance as appropriate • Recommends the incorporation of project-level performance standards-based mitigation measures in the PEIR to be considered for adoption and implementation by lead, responsible, or trustee agencies in the region, as applicable and feasible	• Subsection 4.18 (Transportation)
Riverside County Department of Waste Resources	September 7, 2021	• Build-out of the Project may have the potential to increase the amount of waste that could adversely affect solid waste facilities. The DEIR should include the projected maximum amount of waste generated from build-out of the Project, using appropriate waste generation factors for the proposed land uses • Provides suggestions for consideration in order to meet the goals and standards of State legislation and regulations addressing solid waste. • Provides suggestions for consideration in order to meet the goals and standards of State legislation and regulations addressing solid waste. • Requests compliance with AB 1826	• Subsection 4.20 (Utilities and Service Systems)
Riverside Transit Agency (RTA)	September 30, 2021	• Interested in providing input on the commercial development plans when available • Recommends adding a bus stop and crosswalk at Winchester and Keller Road	• Subsection 4.18 (Transportation)
Endangered Habitats League (EHL)	August 30, 2021	• Interested in MSHCP compliance o Requests notifications of future CEQA documents and hearings	• Subsection 4.4 (Biological Resources)

Commenter	Date	Comments	Location in EIR Where Comment(s) Addressed
Andy Domenigoni, Domenigoni Barton Properties	September 9, 2021	• Owners of SP 310 north of Keller Crossing project, concerned with the proposed density increase and its effects on traffic from Temecula to Winchester to Menifee to Hemet o Interested in how the project will address the Highway 79 policy area which requires a 9% reduction in traffic	• Subsection 4.18 (Transportation) • Subsection 4.11 (Land Use and Planning)
Brian James, Resident	September 24, 2021	• It appears there are only two access points to the project, with one of them ending up right in front resident's house. The additional traffic (noise and light pollution) is a concern. • What is the proposed access to and from residents property? • How will construction affect water well?	• Subsections 4.1 (Aesthetics), 4.13 (Noise), and 4.18 (Transportation) • Subsection 4.18 (Transportation) • Subsection 4.10 (Hydrology and Water Quality)
Zive Petrovski, Resident	September 27, 2021	• Concerns regarding traffic. • Concerned that water will seep through the surrounding lower elevation properties and cause adverse effects. • Concern over well water quality and availability? • Concern over air quality and water quality pollution. • Concern over proximity of realigned Keller Road to existing residences. • Concern over signage of Old Keller and whether it will remain a private road. • Requests utility connections for existing residents south of the realigned Keller Road. • Concerns over school capacity. • Concerns of potential impacts to birds, coyotes, and other wildlife. • Concerns over energy consumption and the provision of solar panels. • Concerns over local air quality due to increase of traffic, as well as localized air quality health hazards.	• Section 2.0 (Environmental Setting), and Subsections 4.18 (Transportation) and 4.10 (Hydrology and Water Quality) • Subsections 4.3 (Air Quality) and 4.10 (Hydrology and Water Quality) • Subsection 4.18 (Transportation) • Subsection 4.18 (Transportation) • Section 3.0 (Project Description) • Subsection 4.7 (Geology and Soils) • Subsection 4.4 (Biological Resources) • Subsection 4.6 (Energy) • Subsection 4.3 (Air Quality)

Commenter	Date	Comments	Location in EIR Where Comment(s) Addressed
		• Requests local residents be kept up to date on the Project.	
Zive Petrovski, Resident	September 28, 2021	• Concerned over minimum lot sizes and if the Project is proposing to up-zone the site. • Worried there is a massive deviation as to what is currently being presented vs what was put into record by Riverside County in Dec 2013. • Believes the proposed project would not be an amendment to previous plans but should be treated as a new proposed plan with changes to zoning which need to allow public participation with the planning commission to discuss/agree/disagree with these changes.	• Section 3.0 (Project Description) • Section 3.0 (Project Description) and Subsection 4.11 (Land Use and Planning) • N/A
Dennis Tuffin, Resident		• Concerns over proposed changes to land uses within the Project site. • Traffic infrastructure and traffic patterns in the project area are not consistent or safe with the existing community conditions and/or county conditions and the proposed changes threaten the same • Concerns over access and safety due to congestion and inadequate roads. • Concerns over drainage, water, and flooding hazards and impacts to jurisdictional resources. • Concern over damage to the aquifer and existing wells. • Explosive blasting and environmental impacts from blasting including impacts on wells - the environmental impacts of these activities need to be closely evaluated. • Requests review of traffic and congestion and adequacy of existing and planned infrastructure. • Concerns regarding potential impacts associated with grading. • Concerns over sludge and animal waste soil amendments on the Project site.	• Subsection 4.11 (Land Use and Planning) • Subsection 4.18 (Transportation) • Subsection 4.18 (Transportation) • Subsections 4.10 (Hydrology and Water Quality) and 4.4 (Biological Resources) • Subsection 4.10 (Hydrology and Water Quality • Subsection 4.18 (Transportation) • Subsections 4.7 (Geology and Soils) and 4.10 (Hydrology and Water Quality) • Subsection 4.9 (Hazards and Hazardous Materials)

Commenter	Date	Comments	Location in EIR Where Comment(s) Addressed
		• Concerns over construction equipment and dust, erosion and noise control and abatement.	• Subsections 4.3 (Air Quality) and 4.13 (Noise)
		• Requests a bus stop along Highway 79 at Keller Road.	• Subsection 4.18 (Transportation)
		• Concerns over drought and climate change. • Greenhouse Gases - All the concerns about Climate Change, Traffic Congestion, Drought and Access are effected by and in turn effect and exacerbate the production of Greenhouse Gases.	• Subsections 4.8 (Greenhouse Gas Emissions) and 4.20 (Utilities and Service Systems)
		• Concerns over impacts to blue line streams and water courses and associated potential impacts associated with drainage, flooding, residential wells and safety.	• Subsections 4.4 (Biological Resources) and 4.10 (Hydrology and Water Quality)
		• Concern over incompatibility of land uses, particularly with equestrian uses.	• Subsection 4.11 (Land Use and Planning)
		• Requests an analysis of alternative energy.	• Subsection 4.6 (Energy)

1.4.2 Use of This EIR

This EIR will be made available for review by the public and public agencies for a minimum period of 45 days to provide comments "on the sufficiency of the document in identifying and analyzing the possible impacts on the environment and ways in which the significant effects of the project might be avoided or mitigated" (State CEQA Guidelines § 152049(a)). During the decision-making process, the Project and its design features, objectives, merits, environmental consequences, and socioeconomic factors, among other information contained in the Project's administrative record, will be considered by Riverside County decision-makers. If the Final EIR is certified and the Project approved, Riverside County and other public agencies with permitting authority over all, or portions, of the Project will be able to use the Final EIR as part of their permitting processes to evaluate the environmental effects of the Project as they pertain to the approval or denial of applicable permits.

1.4.3 Content And Organization Of This EIR

This EIR contains all of the information required to be included in an EIR as specified by the CEQA Statutes and Guidelines (California Public Resources Code, Section 21000 et. seq. and California Code of Regulations, Title 14, Chapter 5). This EIR is organized in the following manner:

- **Section S.0, Executive Summary**, provides an overview of the EIR document and CEQA process. The Project, including its objectives, is described, and the location and regional setting of the Project site is documented. In addition, the Executive Summary discloses potential areas of controversy related to the Project, including those issues identified by other agencies and the public, and identifies potential alternatives to the proposed Project that would reduce or avoid significant impacts, as

required by CEQA. Finally, the Executive Summary provides a summary of the Project's impacts, mitigation measures, and conclusions, in a table that forms the basis of the EIR's Mitigation Monitoring and Reporting Program.

- **Section 1.0, Introduction**, provides introductory information about the CEQA process and the responsibilities of the County of Riverside, serving as the Lead Agency for this EIR; a brief description of the Project; the purpose of this EIR; applications proposed by the Project Applicant that would require discretionary County approvals; permits and approvals required by other agencies; and an overview of the EIR format.

- **Section 2.0, Environmental Setting**, describes the environmental setting, including an overview of the regional and local setting, as well as descriptions of the Project site's physical conditions and surrounding context. The existing setting is defined as the condition of the Project site and surrounding area at the approximate date this EIR's NOP was released for public review on August 31, 2021. The setting discussion also addresses the relevant regional planning documents that apply to the Project site and vicinity.

- **Section 3.0, Project Description**, serves as the EIR's Project Description for purposes of CEQA and contains a level of specificity commensurate with the level of detail proposed by the Project, including the summary requirements pursuant to State CEQA Guidelines § 15123. This Section provides a detailed description of the Project, including its purpose and main objectives; design features; landscaping; site drainage; utilities; grading and construction characteristics; and operational characteristics expected over the Project's lifetime. In addition, the discretionary actions required of the County of Riverside and other government agencies to implement the Project are discussed.

- **Section 4.0, Environmental Analysis**, provides an analysis of the potential direct, indirect, and cumulative impacts that may occur from implementing the proposed Project. The topics analyzed in this section include the topics summarized above under Section 1.4.1. A conclusion concerning significance is reached for each discussion; mitigation measures are presented as warranted. The environmental changes identified in Section 4.0 and throughout this EIR are referred to as "effects" or "impacts" interchangeably. The State CEQA Guidelines also describe the terms "effects" and "impacts" as being synonymous (CEQA Guidelines § 15358).

  In the environmental analysis subsections of Section 4.0, the existing conditions are disclosed that are pertinent to the subject area being analyzed, accompanied by a specific analysis of physical impacts that may be caused by implementing the proposed Project. Impacts are evaluated on a direct, indirect, and cumulative basis. Direct impacts are those that would occur directly as a result of the proposed Project. Indirect impacts represent secondary effects that would result from Project implementation. Cumulative effects are defined in State CEQA Guidelines § 15355 as "…two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts."

  The analyses in Section 4.0 are based in part upon technical reports that are appended to this EIR. Information also is drawn from other sources of analytical materials that directly or indirectly relate to

the proposed Project and are cited in Section 7.0, *References*. Where the analysis demonstrates that a physical adverse environmental effect may or would occur without undue speculation, feasible mitigation measures are recommended to reduce or avoid the significant effect. Mitigation measures must be fully enforceable, have an essential nexus to a legitimate governmental interest, and be "roughly proportional" to the impacts of the Project. The discussion then indicates whether the identified mitigation measures would reduce impacts to below a level of significance. In most cases, implementation of the mitigation measures would reduce the adverse environmental impacts to below a level of significance. If mitigation measures are not available or feasible to reduce an identified impact to below a level of significance, the environmental effect is identified as a significant and unavoidable adverse impact, for which a Statement of Overriding Considerations (SOC) would need to be adopted by the County of Riverside pursuant to State CEQA Guidelines § 15093.

- **Section 5.0, Other CEQA Considerations**, includes specific topics that are required by CEQA. These include a summary of the Project's significant and unavoidable environmental effects, a discussion of the significant and irreversible environmental changes that would occur should the Project be implemented, as well as potential growth-inducing impacts of the proposed Project.

- **Section 6.0, Project Alternatives**, describes and evaluates alternatives to the proposed Project that could reduce or avoid the Project's adverse environmental effects. CEQA does not require an EIR to consider every conceivable alternative to the Project but rather to consider a reasonable range of alternatives that will foster informed decision making and public participation. A range of three (3) alternatives is presented in Section 6.0.

- **Section 7.0, References**, cites all reference sources used in preparing this EIR and lists the agencies and persons that were consulted during preparation of this EIR. Section 7.0 also lists the persons who authored or participated in preparing this EIR.

CEQA requires that an EIR contain, at a minimum, certain specified content. Table 1-2, *Location of CEQA Required Topics*, provides a quick reference in locating the CEQA-required sections within this document.

1.4.4 Incorporation By Reference

State CEQA Guidelines § 15147 states that the "information contained in an EIR shall include summarized… information sufficient to permit full assessment of significant environmental impacts by reviewing agencies and members of the public," and that the "placement of highly technical and specialized analysis and data in the body of an EIR shall be avoided." State CEQA Guidelines § 15150 allows for the incorporation "by reference all or portions of another document… [and is] most appropriate for including long, descriptive, or technical materials that provide general background but do not contribute directly to the analysis of a problem at hand." The purpose of incorporation by reference is to assist the Lead Agency in limiting the length of this EIR. Where this EIR incorporates a document by reference, the document is identified in the body of the EIR, citing the appropriate section(s) of the incorporated document and describing the relationship between the incorporated part of the referenced document and this EIR.

Table 1-2 Location of CEQA Required Topics

CEQA Required Topic	State CEQA Guidelines Reference	Location in this EIR
Table of Contents	§ 15122	Table of Contents
Summary	§ 15123	Section S.0
Project Description	§ 15124	Section 3.0
Environmental Setting	§ 15125	Section 2.0
Consideration and Discussion of Environmental Impacts	§ 15126	Section 4.0
Significant Environmental Effects Which Cannot be Avoided if the Proposed Project is Implemented	§ 15126.2(b)	Section 4.0 & Subsection 5.1
Significant Irreversible Environmental Impacts Which Would be Involved in the Proposed Action Should it be Implemented	§ 15126.2(c)	Subsection 5.2
Growth-Inducing Impacts of the Proposed Project	§ 15126.2(d)	Subsection 5.3
Consideration and Discussion of Mitigation Measures Proposed to Minimize Significant Effects	§ 15126.4	Section 4.0 & Table S-1
Consideration and Discussion of Alternatives to the Proposed Project	§ 15126.6	Section 6.0
Effects Not Found to be Significant	§ 15128	Subsection 5.4
Organizations and Persons Consulted	§ 15129	Section 7.0 & Technical Appendices
Discussion of Cumulative Impacts	§ 15130	Section 4.0
Energy Conservation	Appendices F and G	Subsection 4.6

Therefore, the detailed technical studies, reports, and supporting documentation that were used in preparing this EIR are bound separately as Technical Appendices. The Technical Appendices are available for review at the Riverside County Planning Department, 4080 Lemon Street, 12th Floor, Riverside, CA 92502, during the County's regular business hours or can be requested in electronic form by contacting the County's Planning Department. The individual technical studies, reports, and supporting documentation that comprise the Technical Appendices are as follows:

A. Notice of Preparation (NOP) and Written Comments on the NOP
B1. Air Quality Impact Analysis
B2. Supplemental Air Quality and Greenhouse Gas Assessment Evaluation
C1. Biological Resources Assessment
C2. Determination of Biologically Equivalent or Superior Preservation (DBESP)
C3. Jurisdictional Delineation
D. Phase I Cultural Resources Assessment
E. Energy Analysis
F1. Updated Geotechnical and Infiltration Evaluation
F2. Preliminary Geotechnical Investigation
G. Greenhouse Gas Analysis
H. Phase I Environmental Site Assessment
I1. Preliminary Drainage Study
I2. County Project Specific Water Quality Management Plan
J. Noise Impact Analysis

K. Paleontological Resources Impact Monitoring Program
L1. Vehicle Miles Traveled (VMT) Analysis
L2. Traffic Study
M. Water Supply Assessment
N. Fuel Modification Plan
O. Keller Crossing Specific Plan No. 380
P. General Plan Consistency Analysis
Q. Hydraulic Analysis Report
R. Sewer Capacity Study

Other reference sources that are incorporated into this EIR by reference are listed in Section 7.0, *References*, of this EIR. In most cases, documents or websites not included in the EIR's Technical Appendices are cited by a link to the online location where the document/website can be viewed by the public. All references relied upon by this EIR are included as part of Riverside County's Administrative Record pertaining to the proposed Project.

1.5 Responsible and Trustee Agencies

The California Public Resource Code (§ 21104) requires that all EIRs be reviewed by responsible and trustee agencies (see also State CEQA Guidelines § 15082 and § 15086(a)). As defined by State CEQA Guidelines § 15381, "the term 'Responsible Agency' includes all public agencies other than the Lead Agency which have discretionary approval power over the project." A Trustee Agency is defined in State CEQA Guidelines § 15386 as "a state agency having jurisdiction by law over natural resources affected by a project which are held in trust for the people of the State of California."

For the proposed Project, the Riverside County Flood Control and Water Conservation District (RCFCWCD) is a Responsible Agency and would be responsible for approving the Project's drainage infrastructure. Eastern Municipal Water District (EMWD) is a Responsible Agency that would review and approve proposed water and sewer connections. The San Diego Regional Water Quality Control Board (RWQCB) is identified as a Responsible Agency, and would be responsible for issuance of a National Pollutant Discharge Elimination System (NPDES) Permit to ensure that on-site water flows do not result in siltation, other erosional effects, or degradation of surface or subsurface water quality, and for issuance of a Construction General Permit. The San Diego RWQCB also would be responsible for issuing a Waste Discharge Order for Project impacts to RWQCB jurisdictional areas pursuant to Section 13260 of the California Water Code. The California Department of Fish and Wildlife (CDFW) is identified as a Trustee Agency for issuance of a 1602 Streambed Alteration Agreement. There are no other agencies that are identified as Responsible or Trustee Agencies for the proposed Project.

1.6 Areas of Controversy

Substantive issues raised in response to the NOP were previously summarized in Table 1-1. The purpose of this table is to present the primary environmental issues of concern raised by public agencies and the general public during the NOP review period. The table is not intended to list every comment received by the County during the NOP review period. Regardless of whether or not a comment is listed in the table, all applicable comments received in responses to the NOP are addressed in this EIR. Based on comments received during

the NOP review period, concerns were raised regarding potential impacts to aesthetics, air quality, biological resources, cultural resources, energy, geology/soils, greenhouse gas emissions, hazards/hazardous materials, hydrology/water quality, land use/planning, noise, tribal cultural resources, transportation, and utilities/service systems. No other areas of controversy were identified as part of the NOP process, beyond comments regarding the Project's potential environmental effects.

1.7 To Be Resolved By The Decision-Making Body

The primary issues to be resolved by the decision-making body for the proposed Project involve the Project's significant and unavoidable impacts in the issue areas of Air Quality and Transportation, which are addressed in EIR Subsections 4.3 and 4.18, respectively. The Riverside County Board of Supervisors will need to evaluate whether the mitigation measures proposed to reduce the Project's unavoidable impacts adequately reduce Project impacts to the maximum feasible extent. The Board of Supervisors will also make a determination as to whether the Project's benefits outweigh these adverse environmental effects in support of adopting a Statement of Overriding Consideration's pursuant to State CEQA Guidelines § 15093. Finally, the Board of Supervisors will decide whether to approve one of the Project alternatives in lieu of the proposed Project, if it is determined that one of the alternatives is feasible and its approval would serve to substantially reduce or avoid significant environmental impacts.

2.0 ENVIRONMENTAL SETTING

This Section 2.0 is provided pursuant to State CEQA Guidelines § 15125(a), and includes a description of the physical environmental conditions in the vicinity of the Project site and its off-site improvement areas from both a local and regional perspective as it existed at the time the Notice of Preparation (NOP) was published for this EIR, which occurred on August 31, 2021. This Section provides a brief overview of resources on and surrounding the Project site; additional detail regarding existing conditions for individual issue areas (e.g., biology, geology, etc.) is provided within the appropriate subsection headings within Section 4.0, *Environmental Analysis*, of this EIR.

2.1 REGIONAL SETTING AND LOCATION

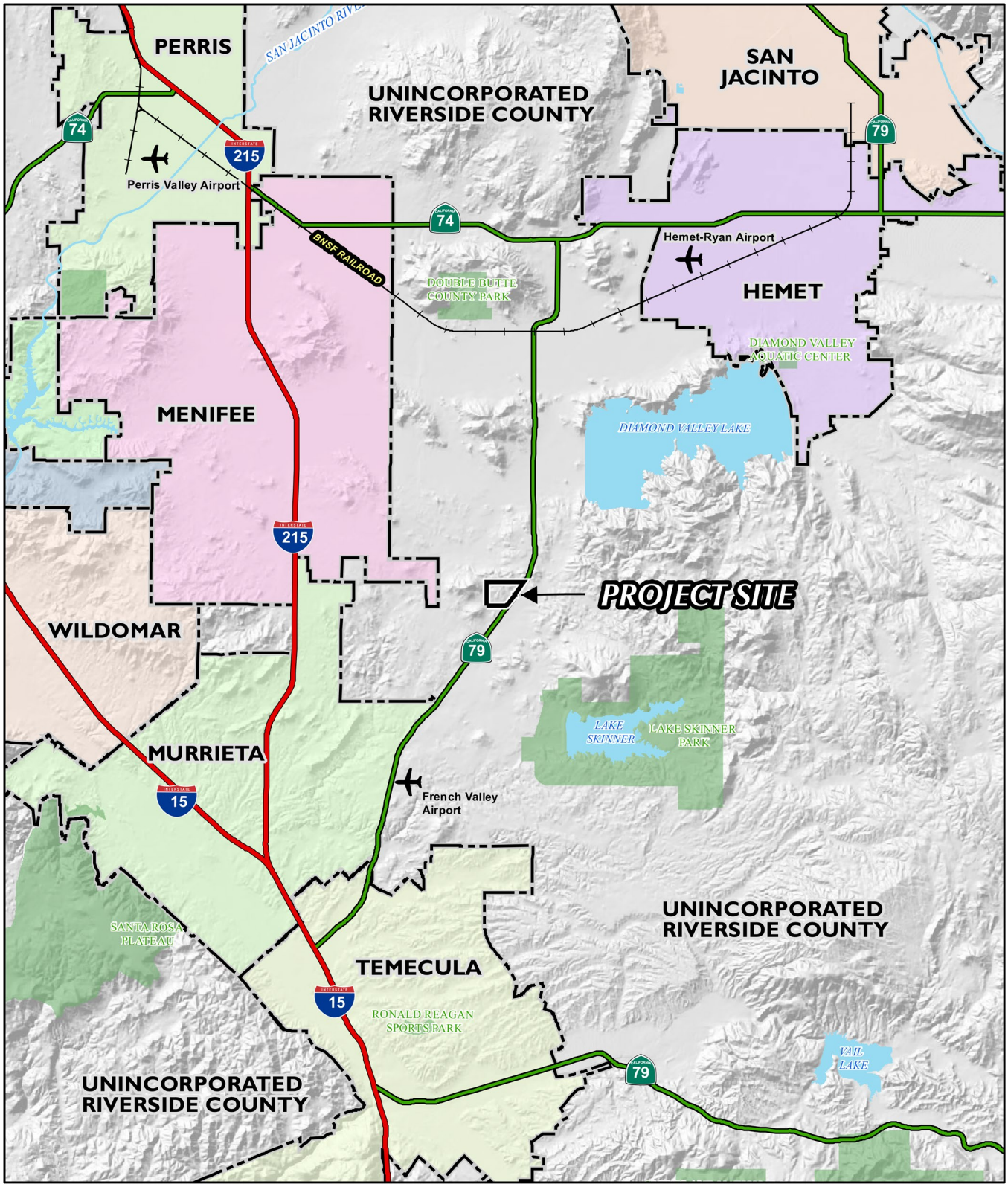
The 196.0-acre Project site is located within unincorporated western Riverside County, California. Figure 2-1 *Regional Map*, depicts the Project site's location within the regional vicinity. As shown, Riverside County abuts San Bernardino County to the north; Orange County to the west; and San Diego and Imperial Counties to the south. Riverside County is located in an urbanizing area of southern California commonly referred to as the Inland Empire. The Inland Empire is an approximate 28,000 square-mile region comprising western San Bernardino County, western Riverside County, and the eastern reaches of Los Angeles County. As of 2018, SCAG estimates that Riverside County as a whole had a population 2,415,954 (SCAG, 2019, p. 3) SCAG estimates that the population will increase to 22.1 million by 2040. (SCAG, 2020a, p. 48)

2.2 LOCAL SETTING AND LOCATION

The Project site is located within the western region of unincorporated Riverside County, California. As depicted in Figure 2-2, *Vicinity Map*, the Project site is within the French Valley Community of the Southwest Area Plan (SWAP) of unincorporated Riverside County and is within the Sphere of Influence (SOI) of the City of Murrieta. The Project site is located northeast of the City of Murrieta, southeast of the City of Menifee, and is approximately 2.2 miles southwest of Diamond Valley Lake. SR-79 borders the eastern boundary of the Project site, State Route 74 (SR-74) is located approximately 9 miles north of the Project site, while Interstate 215 (I-215) is located approximately 8 miles southwest of the Project site (Google Earth, 2018). From the local perspective, and as depicted on Figure 2-2 *Vicinity Map*, the 196.0-acre Project site is bound to the south by Keller Road, to the west by the future alignment of Pourroy Road, and to the east by Highway 79 (SR-79). The Project site encompasses Assessor Parcel Numbers (APNs) 472-110-(001, 002, 003, 004, 007, 008, 009, 032, 033, and 034.). The 196.0-acre Project site is located in Section 21, Township 6 South, Range 2 West, San Bernardino Baseline and Meridian. (RCIT, 2021)

2.3 SURROUNDING LAND USES AND DEVELOPMENT

Land uses in the immediate vicinity of the Project site are illustrated on Figure 2-3, *Surrounding Land Uses and Development*. Land to the west and north of the Project site includes vacant and undeveloped land along with several rural residential homes. Keller Road abuts the southern boundary of the Project site, beyond which are undeveloped lands and a few residential homes, with a master-planned residential community located further to the south. SR-79 abuts the eastern boundary of the Project site, beyond which are undeveloped lands and a few rural residential homes.

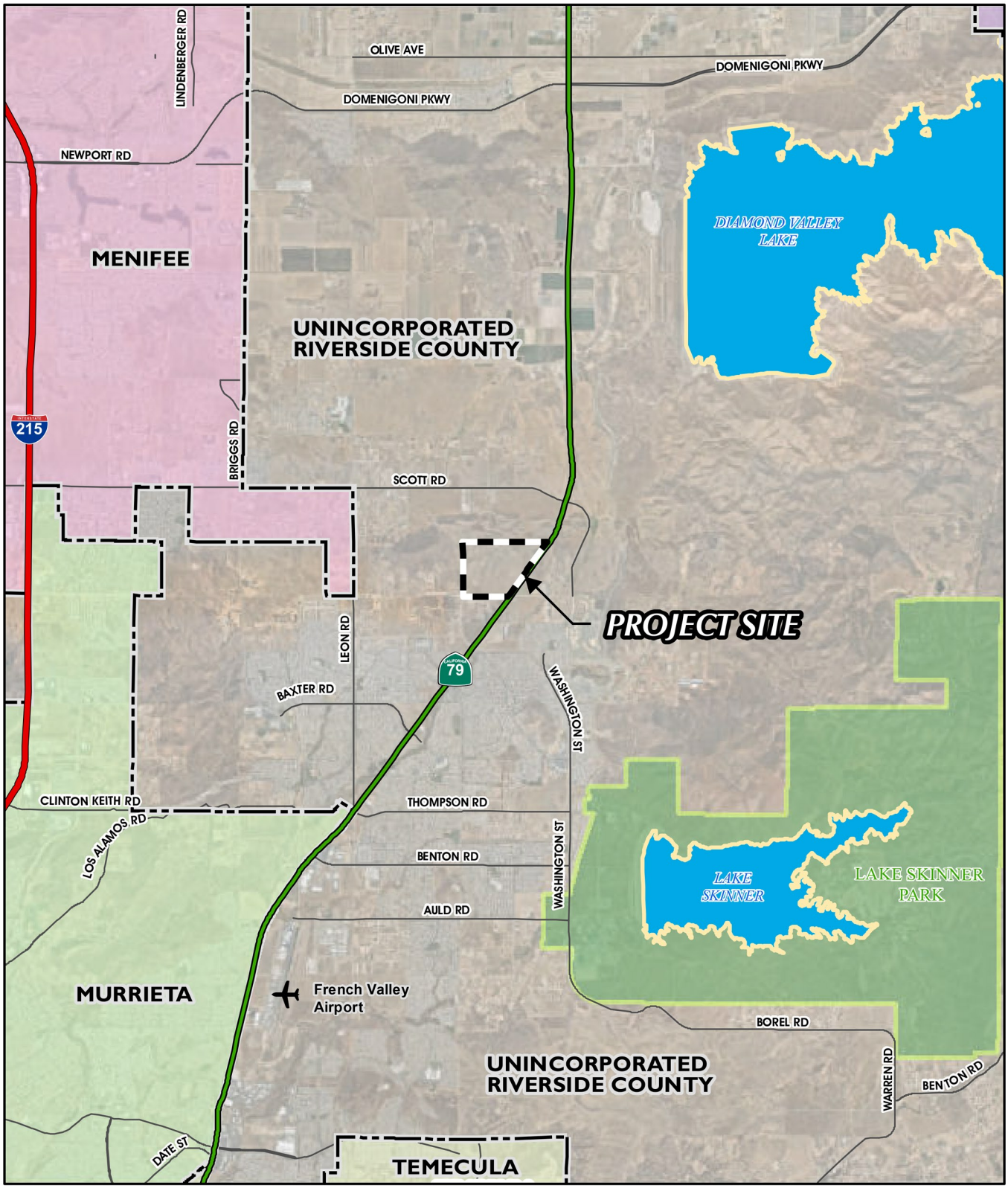


Source: ESRI, RCTLMA (2021)

Figure 2-1

0 0.75 1.5 3 Miles

Regional Map

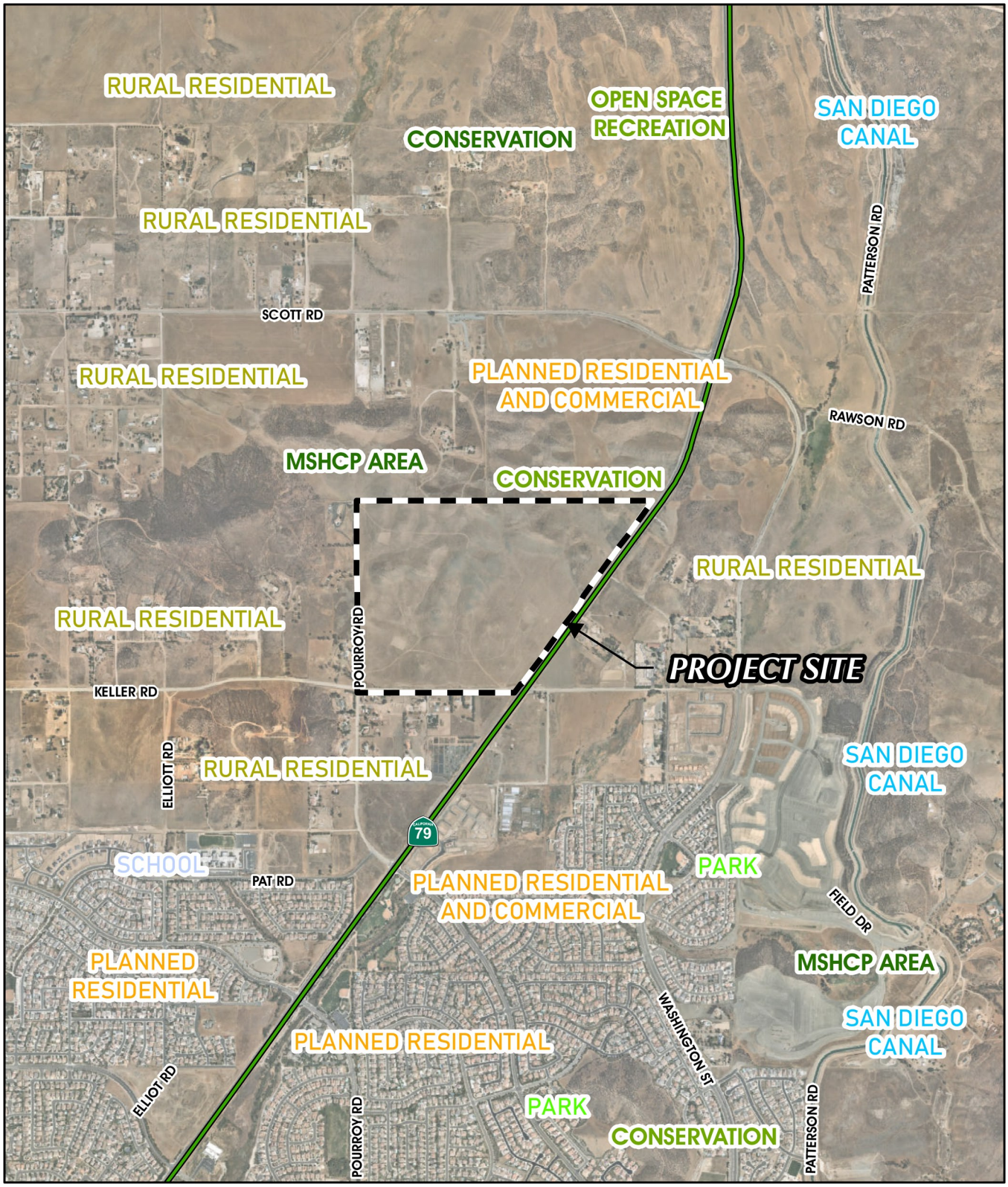


Source(s): ESRI, Nearmap Imagery (2021), RCTLMA (2021)

Figure 2-2

0 0.5 1 2 Miles

Vicinity Map



Source(s): ESRI, Nearmap Imagery (2021), RCTLMA (2021)

0 500 1,000 2,000 Feet

Figure 2-3

Surrounding Land Uses and Development

2.4 LOCAL PLANNING CONTEXT

State CEQA Guidelines § 15125(d) requires that EIRs identify the general plans and regional plans that are applicable to the project under evaluation, and recognize potential inconsistencies. Plans that are applicable to the Project evaluated herein are summarized below, with additional information provided in the applicable resource discussions in Section 4.0, *Environmental Analysis*.

2.4.1 SCAG REGIONAL TRANSPORTATION PLAN/SUSTAINABLE COMMUNITIES STRATEGY (RTP/SCS)

The Southern California Association of Governments (SCAG) is a regional agency established pursuant to California Government Code § 6500, also referred to as the Joint Powers Authority law. SCAG is designated as a Council of Governments (COG), a Regional Transportation Planning Agency (RTPA), and a Metropolitan Planning Organization (MPO). The Project site is within SCAG's regional authority. As an MPO and public agency, SCAG develops transportation and housing strategies that transcend jurisdictional boundaries that affect the quality of life for southern California as a whole. On September 3, 2020, SCAG's Regional Council adopted *Connect SoCal (2020-2045 Regional Transportations Plan/Sustainable Communities Strategy)*. Connect SoCal is a long-range visioning plan that balances future mobility and housing needs with economic, environmental, and public health goals. Connect SoCal embodies a collective vision for the region's future and is developed with input from local governments, county transportation commissions (CTCs), tribal governments, non-profit organizations, businesses, and local stakeholders within the counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura. Connect SoCal includes over 4,000 transportation projects, ranging from highway improvements, railroad grade separations, bicycle lanes, new transit hubs, and replacement bridges. These future investments were included in county plans developed by the six CTCs and seek to reduce traffic bottlenecks, improve the efficiency of the region's network, and expand mobility choices. The goals of Connect SoCal are to: 1) encourage regional economic prosperity and global competitiveness; 2) improve mobility, accessibility, reliability, and travel safety for people and goods; 3) enhance the preservation, security, and resilience of the regional transportation system; 4) increase person and goods movement and travel choices within the transportation system; 5) reduce greenhouse gas emission and improve air quality; 6) support healthy and equitable communities; 7) adapt to a changing climate and support an integrated regional development pattern and transportation network; 8) leverage new transportation technologies and data-driven solutions that result in more efficient travel; 9) Encourage development of diverse housing types in areas that are supported by multiple transportation options; and 10) Promote conservation of natural and agricultural lands and restoration of habitats. (SCAG, 2020)

2.4.2 SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT AIR QUALITY MANAGEMENT PLAN (AQMP)

The Project site is the South Coast Air Basin (SoCAB), which is managed by the South Coast Air Quality Management District (SCAQMD). The SoCAB includes parts of San Bernardino, Los Angeles, and Riverside counties and all of Orange County. The SCAQMD is directly responsible for reducing emissions from stationary (area and point), mobile, and indirect sources. Currently, the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) are exceeded in most parts of the South Coast Air Basin. In response, and in conformance with California Health & Safety Code § 40702 et seq. and the California Clean Air Act, the SCAQMD has adopted a series of Air Quality Management Plans (AQMPs) to meet the State and federal ambient air quality standards. AQMPs are updated regularly in order to more effectively reduce emissions, accommodate growth, and to minimize any negative fiscal impacts of air pollution control on the economy. Each version of the plan is an update of the previous plan and has a 20-

year horizon with a revised baseline. The most recent AQMP was adopted by the AQMD Governing Board on March 3, 2017 ("2016 AQMP"). The 2016 AQMP incorporates the latest scientific and technological information and planning assumptions, including the SCAG *2016-2040 Regional Transportation Plan/ Sustainable Communities Strategy (RTP/SCS)* and updated emission inventory methodologies for various source categories. The 2016 AQMP is based on assumptions provided by the Emission FACtor model (EMFAC) developed by the California Air Resources Board (CARB) for motor vehicle information and assumptions provided by SCAG for demographics. The air quality levels projected in the 2016 AQMP are based on the assumption that development associated with general plans, specific plans, residential projects, and wastewater facilities will be constructed in accordance with population growth projections identified by SCAG in its *2016 RTP/SCS*. The 2016 AQMP also assumes that such development projects will implement strategies to reduce emissions generated during the construction and operational phases of development. (SCAQMD, 2017)

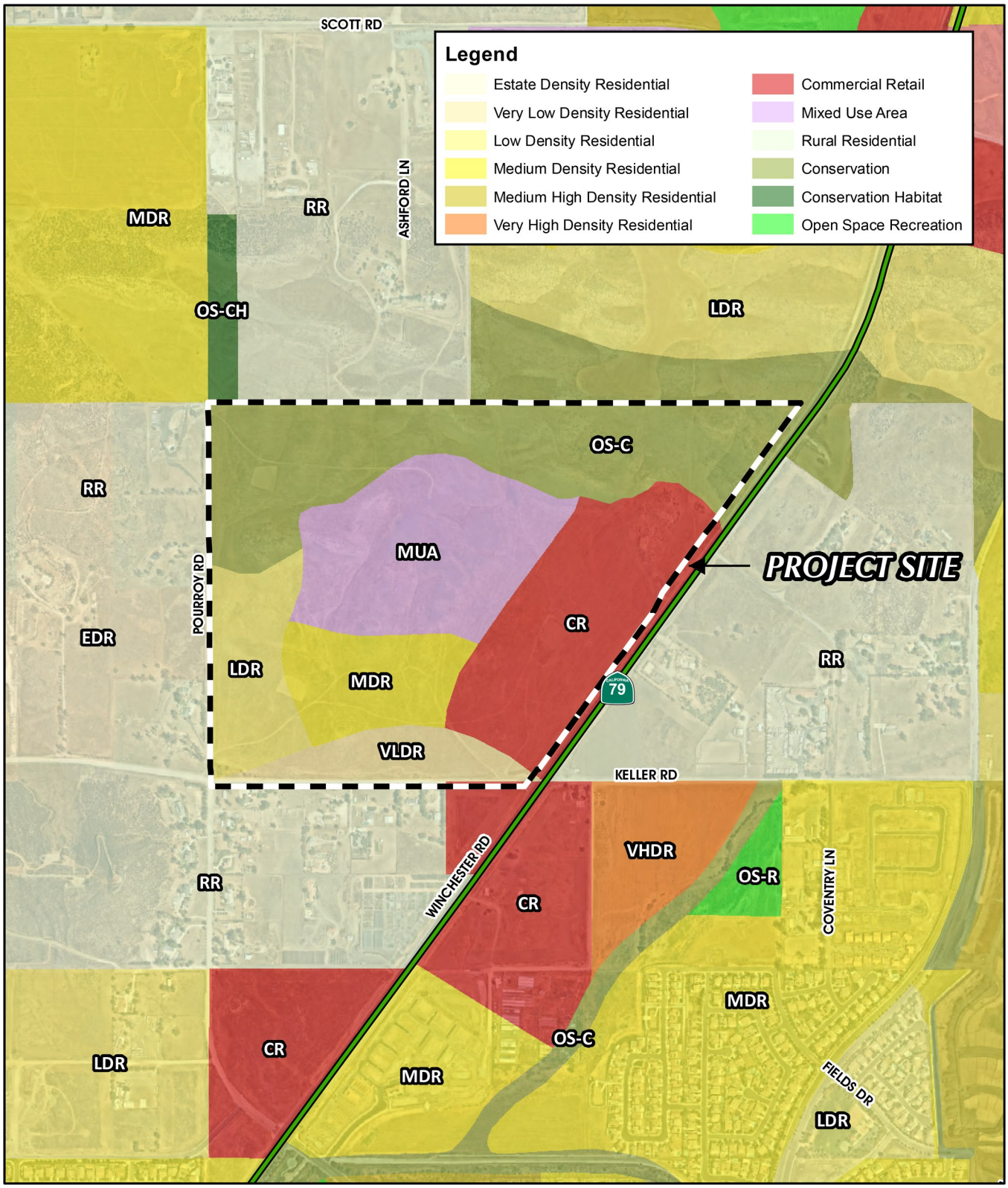
2.4.3 County of Riverside General Plan and Southwest Area Plan (SWAP)

The prevailing planning document for the Project site and its surrounding area is the Riverside County General Plan. The Project site is located within the SWAP portion of the Riverside County General Plan. As depicted on Figure 2-4, *Existing General Plan Land Use Designations*, the County's General Plan and SWAP indicate that the entire 196.0-acre Project site is located within the Keller Crossing Specific Plan No. 380 (SP 380) and is designated by the General Plan and SWAP for 9.9 acres of "Very Low Density Residential (VLDR)," 18.3 acres of "Low Density Residential (LDR)," 13.9 acres of "Medium Density Residential (MDR)," 39.5 acres of "Mixed Use," 37.8 acres of "Commercial Retail (CR)," and 61.1 acres of "Open Space-Conservation (OS-C)." (Riverside County, 2021b, Figure 3)

Additionally, the entire 196.0-acre Project site is located within the Highway 79 Policy Area, which is intended to address transportation infrastructure capacity within the policy area. Applicable policies are also located in the Circulation Element of the General Plan. Proposed developments within the Highway 79 Policy Area are required to demonstrate that adequate transportation infrastructure capacity exists or will exist to accommodate the added traffic growth. Additionally, the Highway 79 Policy Area requires that proposed development must produce traffic at a level that is 9% less than the trips projected from the 2003 General Plan traffic model residential land use designations. (Riverside County, 2021b, p. 36)

2.4.4 Keller Crossing Specific Plan

The 196.0-acre Project site is located fully within the boundaries of the Keller Crossing Specific Plan No. 380 (SP 380), which was adopted by Riverside County on November 3, 2013. The intent of SP 380 is to create a flexible development program that would provide a broad array of land uses, create a mixed-use master plan that is responsive to the future needs of the surrounding communities, respect the natural terrain and topography, respect the heritage of the French Valley, provide thoughtful edge condition treatments, and create a mixed-use pedestrian-friendly community that is based on sustainability principles. As shown on Figure 2-5, *Existing Specific Plan Land Use Designations*, the Project site is currently designated by SP 380 for development with 3 VLDR dwelling units on 9.9 acres; 25 LDR dwelling units on 18.3 acres; 42 MDR dwelling units on 13.9 acres; 39.5 acres of Mixed Use, including 250 dwelling units and 250,000 square feet (s.f.) building area; 400,000 s.f. of CR uses on 37.8 acres; 61.1 acres of OS-C uses; and 20.6 acres of major circulation facilities. (Riverside County, 2013, Table 2-1)



Source(s): ESRI, Nearmap Imagery (2021), RCTLMA (2021)

0 250 500 1,000 Feet

Figure 2-4

Existing General Plan Land Use Designations

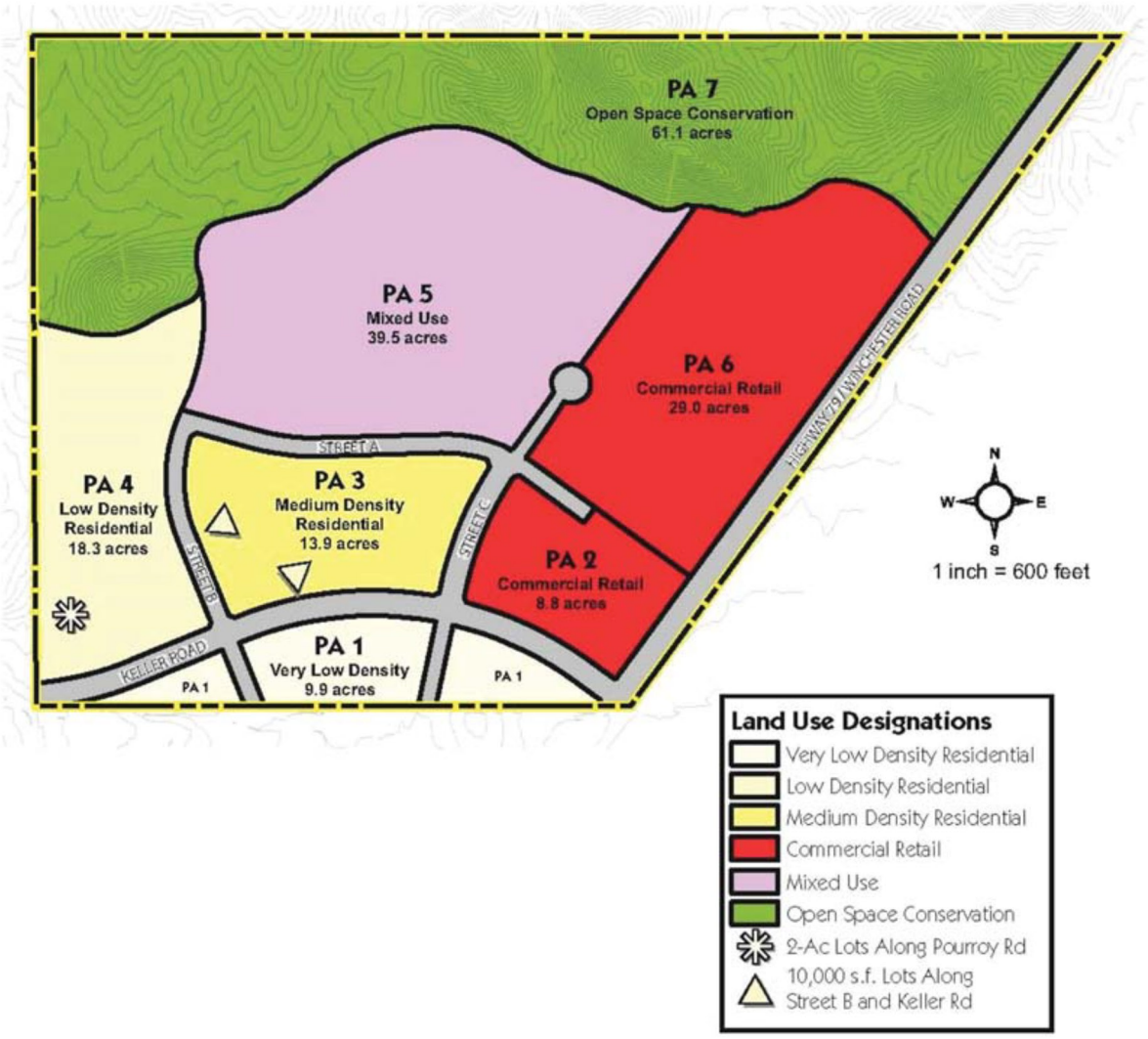


Figure 2-5

Not to Scale

Existing Specific Plan Land Use Designations

2.4.5 CITY OF MURRIETA GENERAL PLAN

The City of Murrieta General Plan was last updated on July 7th, 2020. The plan provides a foundation for City policies and actions and guides both the physical development of Murrieta and the provision of public infrastructure and services. The Project is located within the City of Murrieta's Sphere of Influence (SOI). The Sphere of Influence area is comprised of 5,341 acres east of the City's boundary, generally located south of Scott Road, west of Winchester Road (SR-79) and north of Clinton Keith Road/Los Alamos Road. The County of Riverside is currently responsible for the administration of land use decisions within the Sphere of Influence. The City of Murrieta designates pre-zoning for the areas within the SOI, and designates the Project site for land uses that are consistent with the existing SP380, as described above in subsection 2.4.4.

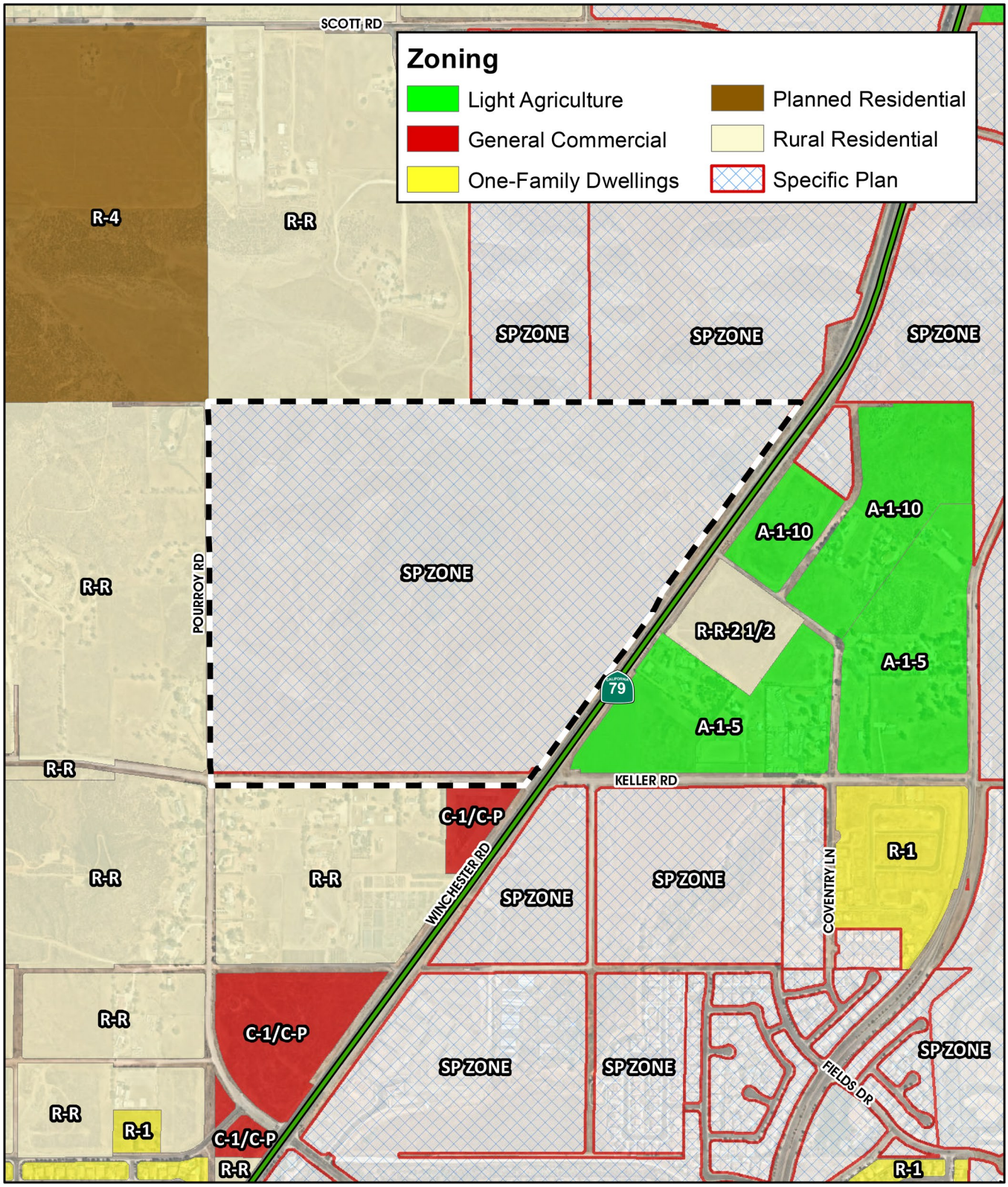
2.4.6 ZONING

The Riverside County Land Use Ordinance (Ordinance No. 348) is intended to implement the Riverside County General Plan's land use plan. As shown on Figure 2-6, *Existing Zoning Classifications*, the Project site is zoned "Specific Plan (SP)," indicating that the property is within the boundaries of an adopted Specific Plan. As such, the 196.0-acre Project site is subject to the zoning classifications established by the adopted SP 380 zoning ordinance, which generally reflect the land use designations applied to the site as part of SP 380 (described above in subsection 2.4.4). (RCIT, 2021)

2.4.7 WESTERN RIVERSIDE COUNTY MULTIPLE SPECIES HABITAT CONSERVATION PLAN

The Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP), a regional Habitat Conservation Plan (HCP), was adopted on June 17, 2003, and an Implementing Agreement (IA) was executed between the United States Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW), and participating entities. The intent of the Western Riverside County MSHCP is to preserve native vegetation and meet the habitat needs of multiple species, rather than focusing preservation efforts on one species at a time. The MSHCP identifies Criteria Cells and Cell Groups, in which habitat conservation efforts are targeted. As shown on Figure 2-7, *MSHCP Cell Groups and Criteria Cells,* the Project site is located within MSHCP Criteria Cells 5169 and 5173, neither of which are located within a Cell Group. According to the MSHCP, conservation within Cell 5169 is intended to focus on grassland, chaparral, and coastal sage scrub habitat, with conservation comprising approximately 25% to 35% of Cell 5169 focusing in the northern portion of the Cell. Conservation within Cell 5173 is intended to focus on chaparral habitat and agricultural land, with conservation comprising approximately 20% to 30% of Cell 5173 focusing in the northern portion of the cell. (RCIT, 2021; Riverside County, 2003, Table 3-16)

In addition to conservation criteria within areas designated to be included within the MSHCP Reserve System, the MSHCP also identifies a number of additional survey and conservation requirements. A small portion of the Project site along the western boundary is located within the Criteria Area Species Survey Area (CASSA) for Parish's brittlescale, Davidson's saltscale, Thread-leaved brodiaea, Round-leaved filaree, Smooth tarplant, Coulter's goldfields, Little mousetail, and Mud nama. The same area of the Project site also is located within the Narrow Endemic Plant Species Survey Area (NEPSSA) for Munz's onion, San Diego ambrosia, Many-stemmed dudleya, Spreading navarretia, California Orcutt grass, and Wrights's trichocoronis. The entire Project site also is located within the Burrowing Owl Survey Area. The Project site is not located with any

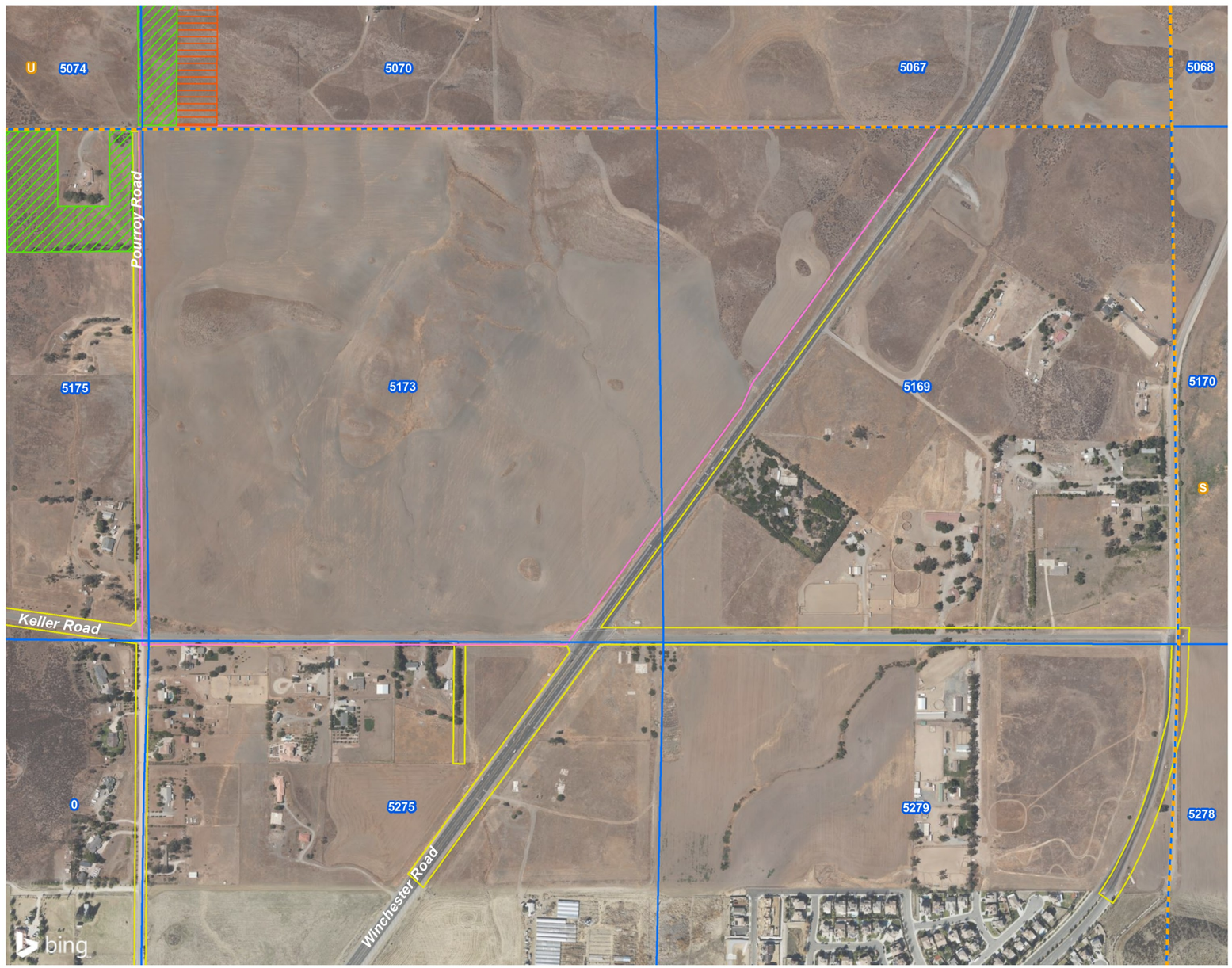


Source(s): ESRI, Nearmap Imagery (2021), RCTLMA (2021)

0 250 500 1,000 Feet

Figure 2-6

Existing Zoning Classifications



Onsite Project Site
Offsite Project Site
Cell Group
Criteria Cell
MSHCP Conserved Lands
MSHCP Conservation Easements

Source(s): Glenn Lukos Associates (03-30-2022)

Not to Scale

Figure 2-7

MSHCP Cell Group and Criteria Cells

amphibian, mammal, or invertebrate species survey areas. (RCA, 2021) Refer to EIR Subsection 4.4, *Biological Resources*, for a complete description of applicable MSHCP requirements and the Project's consistency with the MSHCP.

2.5 EXISTING PHYSICAL SITE CONDITIONS

Pursuant to State CEQA Guidelines § 15125, the physical environmental condition for purposes of establishing the setting of an EIR is the environment as it existed at the time the EIR's NOP was released for public review. The NOP for this EIR was released for public review on August 31, 2021. The following subsections provide a description of the Project site's physical environmental condition ("existing conditions") as of that approximate date. The site's current physical conditions and surrounding areas are shown on Figure 2-8, *Aerial Photograph*. More detailed information regarding the Project's site's environmental setting as it relates to a specific environmental issue area is provided in the various subsections of EIR Section 4.0, *Environmental Analysis*.

2.5.1 LAND USE

The existing land use condition of the Project areas is shown on Figure 2-8. As shown, under existing conditions, the Project site consists of undeveloped land that is used for dryland farming. The northern portions of the Project site include several rolling hill forms that contain natural vegetation. Highway 79 abuts the Project site's eastern boundary and is improved with two travel lanes in each direction. Keller Road abuts the southern boundary of the Project site, and currently consists of a partially improved gravel roadway.

2.5.2 SITE TOPOGRAPHY

As shown in Figure 2-9, *USGS Topographic Map*, the Project site's topography is characterized by relatively flat topography in the southern portions of the site, with undulating hill forms occurring in the north and northeastern portions of the Project site. Elevations on site range from 1,422 feet above mean sea level (amsl) in the southeast corner of the Project site to 1,587 feet amsl near the northeast corner of the Project site. (Google Earth, 2018)

2.5.3 AIR QUALITY AND CLIMATE

The Project site is located in the South Coast Air Basin (SoCAB) within the jurisdiction of SCAQMD. The SCAQMD was created by the 1977 Lewis-Presley Air Quality Management Act, which merged four county air pollution control bodies into one regional district. Under the Act, the SCAQMD is responsible for bringing air quality in areas under its jurisdiction into conformity with federal and State air quality standards. The Project site is located within the SoCAB, a 6,745-square mile subregion of the SCAQMD, which includes portions of Los Angeles, Riverside, and San Bernardino Counties, and all of Orange County. The SoCAB is bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. (Urban Crossroads, 2021a, p. 5)



Source(s): ESRI, Nearmap Imagery (2021), RCTLMA (2021)

0 250 500 1,000 Feet

Figure 2-8

Aerial Photograph



Source(s): ESRI, RCTLMA (2021)

0 500 1,000 2,000 Feet

Figure 2-9

USGS Topographic Map

As documented in the Project's Air Quality Impact Analysis (*Technical Appendix B* to this EIR), although the climate of the SoCAB is characterized as semi-arid, the air near the land surface is quite moist on most days because of the presence of a marine layer. More than 90% of the SoCAB's rainfall occurs from November through April. Temperatures during the year range from an average minimum of 36°F in January to over 100°F maximum in the summer. During the late autumn to early spring rainy season, the SoCAB is subjected to wind flows associated with the traveling storms moving through the region from the northwest. This period also brings five to ten periods of strong, dry offshore winds, locally termed "Santa Ana[s]" each year. (Urban Crossroads, 2021a, pp. 5-6)

2.5.4 Agriculture and Forestry Resources

Under existing conditions, the Project site is used for agricultural production. As more fully discussed in EIR Subsection 4.2, *Agriculture and Forestry Resources*, the California Department of Conservation (CDC) Farmland Mapping and Monitoring Program (FMMP) identifies "Important Farmland" to include lands mapped as "Prime Farmland," "Farmland of Statewide Importance," and "Unique Farmland." As mapped pursuant to the FMMP, the 196.0-acre Project site contains "Farmland of Local Importance" and "Other Lands," and does not contain any "Important Farmland" types. The Project site is not zoned for agricultural use and is not subject to any Williamson Act contracts or County Agricultural Preserves. Additionally, no forestry resources occur on site under existing conditions. (RCIT, 2021)

2.5.5 Biological Resources

The Project site and off-site improvement areas support the following vegetation/land cover types: agriculture, developed, disturbed, disturbed buckwheat scrub, ornamental, and disturbed mulefat scrub, none of which comprise a special-status vegetation community. During focused surveys, only one special-status plant, paniculate tarplant (*Deinandra paniculata*), was detected on site. The following special-status animals were detected within the Study Area: California horned lark (*Eremophila alpestris actia*) and northern harrier (*Circus cyaneus*). Potential jurisdictional features within the Project site and off-site improvement areas include ten ephemeral drainage features, referred to herein as Drainages A, A-1, B, C, D, E, F, G, H, and I. Within the Project site and off-site improvement areas, there is a total of 0.64-acre of Regional Water Quality Control Board (Regional Board) jurisdictional areas and 0.75-acre of California Department of Fish and Wildlife jurisdictional areas, while no portions of the Project site or off-site improvement areas contain waters subject to the jurisdiction of the Army Corps of Engineers (Corps). Additionally, there are no State- or federally-protected wetlands within the Project site and off-site improvement areas. Refer to EIR Subsection 4.4, *Biological Resources*, for a detailed description of the vegetation communities that occur on site.

2.5.6 Geology

The Project site is located the Peninsular Range Province of Southern California. The Peninsular Ranges are essentially a series of northwest-southeast oriented fault blocks. Several major fault zones are found in this province. The Elsinore Fault zone and the San Jacinto Fault zone trend northwest-southeast and are mostly found near the middle of the province. The San Andreas Fault zone borders the northeasterly margin of the province, and the San Jacinto fault borders the province adjacent the Colorado Desert province. (GeoTek, Inc., 2021, p. 8)

The Project site is located in an area geologically mapped to be underlain mostly by meta-sedimentary (phyllite) bedrock (phyllite and schist, with abundant feldspar and quartz) with areas in the southeast, south, and west of the site underlain by alluvium that have been geologically mapped as older alluvium. Additionally, the site was geologically mapped as being underlain by very old alluvial deposits and Phyllite bedrock. (GeoTek, Inc., 2021, p. 8)

2.5.7 SOILS

Table 2-1, *Summary of On-Site Soils*, provides a summary of the soils present on the Project site, and identifies the attendant rate of runoff and erosion susceptibility. As shown, approximately 15.8% of the Project site has a "Slow" rate of runoff and a "Slight" susceptibility to erosion. Approximately 1.9% of the Project site has a "Slow to Medium" rate of erosion and a "Moderate" susceptibility to erosion. Approximately 15.7% of the Project site has a "Medium" rate of runoff and a "Moderate" susceptibility to erosion. Approximately 49.5% of the Project site has a "Rapid" rate of runoff and a "High" susceptibility to erosion. Approximately 17.1% of the Project site has a "Very Rapid" rate of runoff and a "Very High" susceptibility to erosion. (USDA, 1971, pp. 36, 40, and 60; USDA, 2021)

Table 2-1 Summary of On-Site Soils

Map Symbol	Map Unit Name	Rate of Runoff	Erosion Susceptibility	Acres in AOI[1, 2]	Percent of AOI[1, 2]
EcC2	Escondido fine sandy loam, 2 to 8 percent slopes, eroded	Slow	Slight	31.3	15.8%
EcD2	Escondido fine sandy loam, 8 to 15 percent slopes, eroded	Medium	Moderate	11.3	5.9%
FwE2	Friant fine sandy loam, 5 to 25 percent slopes, eroded	Medium	Moderate	0.0	0.0.%
GaC	Garretson very fine sandy loam, 2 to 8 percent slopes	Slow to Medium	Moderate	3.4	1.7%
LaC	Las Posas loam, 2 to 8 percent slopes	Slow to Medium	Moderate	0.3	0.2%
LaD2	Las Posas loam, 8 to 15 percent slopes, eroded	Medium	Moderate	0.0	0.0%
LoF2	Lodo gravelly loam, 15 to 50 percent slopes, eroded	Rapid	High	83.8	42.7%
LpE2	Lodo rocky loam, 8 to 25 percent slopes, eroded	Rapid	High	3.8	1.9%
LpF2	Lodo rocky loam, 25 to 50 percent slopes, eroded	Very Rapid	Very High	33.5	17.1%
VaE3	Vallecitos loam, 8 to 25 percent slopes, severely eroded	Rapid	High	9.5	4.9%
VeC2	Vallecitos loam, thick solum variant, 2 to 8 percent slopes, eroded	Medium	Moderate	13.3	6.8%
VsD2	Vista coarse sandy loam, 8 to 15 percent slopes, eroded	Medium	Moderate	5.9	3.0%
Totals for Area of Interest:		--	--	**196.0**	**100.0%**

1. AOI = Area of Interest.
2. Values reflect rounding.

(USDA, 1971, pp. 30, 34, 42-44, and 62-65; USDA, 2021)

2.5.8 HYDROLOGY

Under existing conditions, drainage water courses flow naturally from the northerly higher elevation to the southern and southeasterly portions of the Project site, which ultimately flow offsite toward and through several existing Caltrans reinforced concrete pipe (RCP) culvert under-crossings along Winchester Road (Highway 79). A major drainage course, southwest of the Project site, conveys a significant tributary area runoff from the north and west areas of the Project site and surface-flows southeasterly across Pourroy Road and Keller Road. This water course continues southeasterly, adjacent to existing residential parcels, and crosses Highway 79 via several Caltrans RCP culverts. Presently, there is no existing storm drain infrastructure within the Project site or within the Pourroy Road and Keller Road rights-of-way adjacent to the Project site. (K&A Engineering, Inc., 2021, p. 3) Refer to EIR

Subsection 4.10, *Hydrology and Water Quality*, for additional information regarding the site's existing drainage conditions.

2.5.9 NOISE

The most common and significant source of noise in Riverside County is mobile noise generated by transportation-related sources. Other sources of noise are the various land uses (i.e., commercial, and institutional) that generate stationary-source noise. The Project site abuts Highway 79 to the east and Keller Road to the south. As shown in EIR Table 4.13-1, the ambient recorded noise levels in the Project area range from 46.8 to 64.5 A-weighted decibels (dBA) equivalent noise level (Leq) during daytime hours and from 38.0 to 60.7 dBA Leq during nighttime hours. (Urban Crossroads, 2021d, p. 24) Refer to EIR Subsection 4.13, *Noise*, for additional information regarding the site's existing noise conditions.

2.5.10 TRANSPORTATION

Regional access to the Project site is primarily provided via Winchester Road (Highway 79), which abuts the eastern boundary of the Project site. Highway 79 provides access to Highway 74 to the north and to Interstate 15 (I-15) in the south. Highway 74 is located approximately 4.0 miles to the north of the Project site, Interstate 215 (I-215) is located approximately 4.0 miles west of the Project site, and I-15 is located approximately 7.3 miles southwest of the Project site.

As shown on Figure 7 of the SWAP, the Riverside County General Plan and SWAP classify Highway 79 as an "Expressway (128' to 220' ROW)" facility. Along the Project site's frontage, Keller Road is classified as a "Secondary (100' ROW)" facility, while the portion of Pourroy Road located south of Keller Road also is classified as a "Secondary (100' ROW)" facility. The future segment of Pourroy Road that abuts the western boundary of the Project site is not classified by the SWAP. (Riverside County, 2021b, Figure 7)

Riverside County is currently served by the Riverside Transit Authority (RTA), a public transit agency serving the unincorporated Riverside County region. Bus Route 79 travels along portions of Highway 79 and has a stop located at Pourroy Road one mile south of the Project site. Transit service is reviewed and updated by RTA periodically to address ridership, budget, and community demand needs. Changes in land use can affect these periodic adjustments which may lead to either enhanced or reduced service where appropriate. (Urban Crossroads, 2021f, p. 40)

Under existing conditions, no pedestrian or bicycle facilities have been constructed on the Project site. As shown in Figure 8 of the SWAP, there are proposed Community Trails along Leon Road, Keller Road, and Pourroy Road and a proposed regional trail along Abelia Street. (Riverside County, 2021b, Figure 8; Urban Crossroads, 2021f, p. 40)

2.5.11 PUBLIC FACILITIES

Fire protection services in the Project area are primarily provided by the Riverside County Fire Department (RCFD). The primary fire station servicing the site would be RCFD Station 83 (37500 Sky Canyon Dr, Murrieta, CA) which is located is approximately 4.6 miles and nine (9) minutes driving time to the furthest point in the Project site. Secondary fire protection service would be provided by RCFD Station 34 (32655 Haddock St, Winchester, CA), which is located approximately 5.8 miles and nine (9) minutes driving time to

the furthest point in the Project site. The third closest fire station is Murrieta Fire Department Station #2 (28155 Baxter Road, Murrieta, CA), located approximately 6.7 miles and 12 minutes away from the furthest portion of the Project site. Additional agencies such as nearby cities also would respond equipment under mutual aid agreements but would likely arrive after RCFD engines are on-scene. (Firewise, 2021, p. 12)

The Riverside County Sheriff's Department (RCSD) provides community policing to the Project area via the Southwest Station located at 30755 Auld Road, Suite A, Murrieta, CA 92563, approximately 3.4 roadway miles south of the Project site (Google Earth, 2018). The Riverside County Sheriff's Department has set a minimum level of service standard of 1.0 deputy per 1,000 people. In addition to community policing, other services provided by the Sheriff's Department include, but are not limited to, operating of the emergency 911 system, operating correctional facilities, performing traffic control, and providing crime prevention education. Also, the Sheriff's Department coordinates with volunteer groups such as Neighborhood Watch Programs and the Community Oriented and Policing Problem Solving (COPPS) Program and the Community Oriented Policing (COP) Program.

The Project site is located in the attendance boundary of the Menifee Union School District (MUSD) for K-8 school services, and the Perris Union High School District (PUHSD) for high school services. The nearest school within the MUSD is Harvest Hill Steam Academy, which provides K-8 school services and is located at 31600 Pat Road in Winchester, or approximately 0.5 mile southwest of the Project site. The nearest high school within the PUHSD is the Liberty High School, located at 32255 Leon Road in Winchester, or approximately 3.6 miles northwest of the Project site. (Google Earth, 2018).

Major park facilities within the Project vicinity include Brookfield Park and Washington Park. Brookfield Park is located approximately 1.3 miles south of the Project site. Washington Park is approximately 1.2 miles east of the Project site. (Google Earth, 2018).

The Project site is located within the Riverside County Public Library System (RCPLS) service area. The nearest library servicing the proposed Project site is the Sun City Library, located at 26982 Cherry Hills Blvd. (Sun City, Menifee). The Sun City Library is approximately 7.3 miles northwest of the Project site. (Google Earth, 2018). It is also worth noting that the French Valley Public Library is under construction and will be located 1.8 miles south of the Project.

2.5.12 Utilities and Service Systems

A. Water Service

The Project site is located in the service area of the Eastern Municipal Water District (EMWD). The EMWD provides water services to communities in Riverside County extending from Moreno Valley to Temecula, and west of Perris to the City of Hemet. Approximately 75% of the EMWD's potable water demand is supplied from imported water from Metropolitan Water District (MWD) of Southern California through its Colorado River Aqueduct and its connections to the State Water Project. The remaining 25% of potable water demand within EMWD is supplied through groundwater management and desalination efforts. As discussed in the EMWD's Urban Water Management Plan (UWMP), EMWD has adequate water supplies that are available to meet EMWD's estimated water demand through the year 2045 under normal, historic single-dry year, and historic multiple-dry year conditions. (EMWD, 2021c)

Under existing conditions, there is an 18-inch domestic water transmission line at the intersection of Pourroy Road and Ruft Road located approximately 0.4-mile southwest of the Project site, and a 12-inch domestic water line in Washington Street approximately 0.6-mile southeast of the Project site. Additionally, recycled water service is available in the area from an existing 24-inch recycled water line, located approximately 1.0 mile west of the Project site within Leon Road.

B. Sewer Service

The Project site is located in the service area of EMWD. The EMWD wastewater collection and treatment facilities treat approximately 43 million gallons per day (mgd) of wastewater at its four active regional water reclamation facilities through 1,813 miles of sewer pipelines. (EMWD, n.d.) Under existing conditions, there is an existing 18-inch sewer main within Abelia Street southeast of Highway 79, approximately 0.5 mile south of the Project site. Sewer flows from the Project area are conveyed to the Temecula Valley Regional Water Reclamation Facility (TVRWRC) for treatment, which has a current daily capacity of 23 million gallons per day (mgd) with typical daily flows of approximately 14 mgd. The TVRWRC has an ultimate capacity of 28 million gpd. (EMWD, 2021)

C. Solid Waste Services

The Riverside County Department of Waste Resources (RCDWR) is responsible for the efficient and effective landfill disposal of non-hazardous county waste within the County, and operates six active landfills in addition to holding a contract agreement to dispose of waste at the private El Sobrante Landfill (Riverside County, 2015, p. 4.17-36). Solid waste generated by the Project would be disposed at either the El Sobrante Landfill or the Lamb Canyon Landfill. The El Sobrante Landfill is located approximately 23.3 miles to the northwest of the Project site at 10910 Dawson Canyon Road in Riverside County, while the Lamb Canyon Landfill is located approximately 17.2 miles northeast of the Project site at 16411 Lamb Canyon Road in the City of Beaumont.

D. Other Services

The Project site also is located in the service territories of the Southern California Gas Company (natural gas) and Southern California Edison (electricity) (California Energy Commission, 2020).

2.5.13 Rare and Unique Resources

As required by State CEQA Guidelines § 15125(c), the environmental setting should identify any inconsistencies between a proposed project and applicable general, specific, or regional plans, and place special emphasis on resources that are rare or unique to that region and would be affected by the project. The principal discretionary actions required of Riverside County to implement the Project are described in detail in Section 3.0, *Project Description*, and are listed in Table 3-7 *Matrix of Project Approvals/Permits*.

Based on the existing conditions of the Project site and surrounding area described above and discussed in more detail in Section 4.0, *Environmental Analysis*, the Project site does not contain any rare or unique resources. A majority of the Project site is subject to on-going agricultural activities or is otherwise routinely disturbed for fire abatement purposes, and thus the Project site does not contain major areas of sensitive biological resources. As discussed in EIR Section 4.2, *Agriculture and Forest Resources*, the Project consists

primarily of land classified as "Farmlands of Local Importance," although such farmland is not rare or unique in the Project region. Additionally, the Project site does not contain any trees that would be considered part of a forest. Based on a review of the site's existing conditions, there are no rare or unique resources on the Project site.

3.0 PROJECT DESCRIPTION

This section provides all of the information required for an EIR Project Description by State CEQA Guidelines § 15124, including a description of the Project's precise location and boundaries; a statement of the Project's objectives; a description of the Project's technical, economic, and environmental characteristics; and a description of the intended use of this EIR, including a list of the government agencies that are expected to use this EIR in their decision-making process; a list of the permits and approvals that are required to implement the project; and a list of related environmental review and consultation requirements.

3.1 REGIONAL SETTING

The 196.0-acre Project site is located within the western portion of unincorporated Riverside County, California. Figure 2-1 (previously presented) depicts the Project site's location within the regional vicinity. As shown, Riverside County abuts San Bernardino County to the north; Orange County to the west; and San Diego and Imperial Counties to the south. Riverside County is located in an urbanizing area of southern California commonly referred to as the Inland Empire. The Inland Empire is an approximate 28,000 square-mile region comprising western San Bernardino County, western Riverside County, and the eastern reaches of Los Angeles County.

3.2 PROJECT LOCATION AND SETTING

As previously depicted on Figure 2-2, the Project site is located within the French Valley Community of the Southwest Area Plan (SWAP) of unincorporated Riverside County. More specifically, the 196.0-acre Project site is bound to the south by Keller Road, to the west by the future alignment of Pourroy Road, and to the east by Highway 79 (SR-79). The 196.0-acre Project site is vacant and undeveloped under existing conditions, with the flatter portions in the western and southern portions of the site having been used for dryland farming. Land to the west and north of the Project site includes vacant and undeveloped land along with several rural residential homes. Keller Road is immediately south of the Project site, beyond which are undeveloped lands and a few residential homes. Highway 79 occurs immediately east of the Project site, beyond which are undeveloped lands, open space, and a few rural residential homes. Refer to EIR Section 2.0 for a detailed description of the local setting and surrounding land uses.

3.3 PROPOSED PROJECT

The proposed Project consists of applications for the first amendment to the Keller Crossing Specific Plan No. 380 (SP00380A01; herein referred to as "SP 380A1"), a General Plan Amendment (GPA210004), a Change of Zone (CZ2100012), and a Tentative Tract Map (TTM38163) to allow for future of development of the 196.0 acre Project with up to 176,000 square feet (s.f.) of "Commercial Retail" land uses on 13.3 acres, 277 "Medium-Density Residential (MDR)" dwelling units on 61.2 acres, 76 "Medium-High-Density Residential (MHDR)" dwelling units on 14.1 acres, 80 "High-Density Residential (HDR)" dwelling units that would be age qualified on 7.3 acres, 1.0 acre of "Community Development-Very Low Density Residential (CD-VLDR)" land uses (with no CD-VLDR dwelling units proposed or allocated), 10.5 acres of "Open Space-Recreation (OS-R)" land uses, 11.2 acres of "Open Space-Water (OS-W)" land uses, 61.4 acres of "Open Space-Conservation Habitat (OS-CH)" land uses, and 16.0 acres of major circulation facilities.

This EIR analyzes the physical effects associated with all components of the proposed Project, including planning, construction, and ongoing operation. The governmental approvals requested from Riverside County to implement the Project consist of the following:

1. Adoption by resolution of a General Plan Amendment (GPA210004);
2. Adoption of Amendment No. 1 to Specific Plan No. 380 (SP00380A01);
3. Adoption by ordinance of a Change of Zone (CZ2100012); and
4. Adoption by resolution of Tentative Tract Map No. 38163 (TM38163)

The Project's applications, as submitted to the County of Riverside by the Project Applicant, are herein incorporated by reference pursuant to State CEQA Guidelines § 15150 and are available for review at the Riverside County Planning Department, 4080 Lemon Street, 12th Floor, Riverside, CA 92501. All other discretionary and administrative approvals that would be required of the County of Riverside or other government agencies are also within the scope of the Project analyzed in this EIR.

3.4 STATEMENT OF OBJECTIVES

The underlying purposes of the proposed Project are to develop a mixed-use community that incorporates single-family and multi-family land uses along with commercial areas, recreational areas, and open space areas, and to comply to the greatest feasible extent with applicable Riverside County standards, codes, and policies. The following is a list of specific objectives that the proposed Project intends to achieve.

A. To efficiently develop an underutilized property with a complementary mix of land uses, including residential, commercial, recreational, and open space land uses.

B. To establish a master-planned community in a manner that is sensitive to the environment as well as visually and functionally compatible with surrounding existing and proposed land uses.

C. To develop a mixed-use community with a design that takes topographic, geologic, hydrologic, and environmental opportunities and constraints into consideration.

D. To increase the available housing supply within the region by providing detached single-family homes and age-qualified multi-family homes that will be marketable within the evolving economic profile of Riverside County and surrounding communities.

E. To construct commercial uses within proximity to regional transportation facilities that will provide for employment opportunity and that can attract tenants at competitive lease rates to help ensure that the uses are occupied and positively contribute to the local economy.

F. To provide a system of public and community facilities, including recreational facilities, in an efficient and timely manner and meet the needs of Project residents and residents of surrounding communities.

G. To require project design elements such as architecture, landscaping, color, paving, walls, fencing, signage, entry treatments, and other similar design features that would ensure the community is developed in a manner that is aesthetically pleasing.

H. To establish development phasing that results in logical coordinated growth.

3.5 PROJECT'S COMPONENT PARTS AND DISCRETIONARY APPROVALS

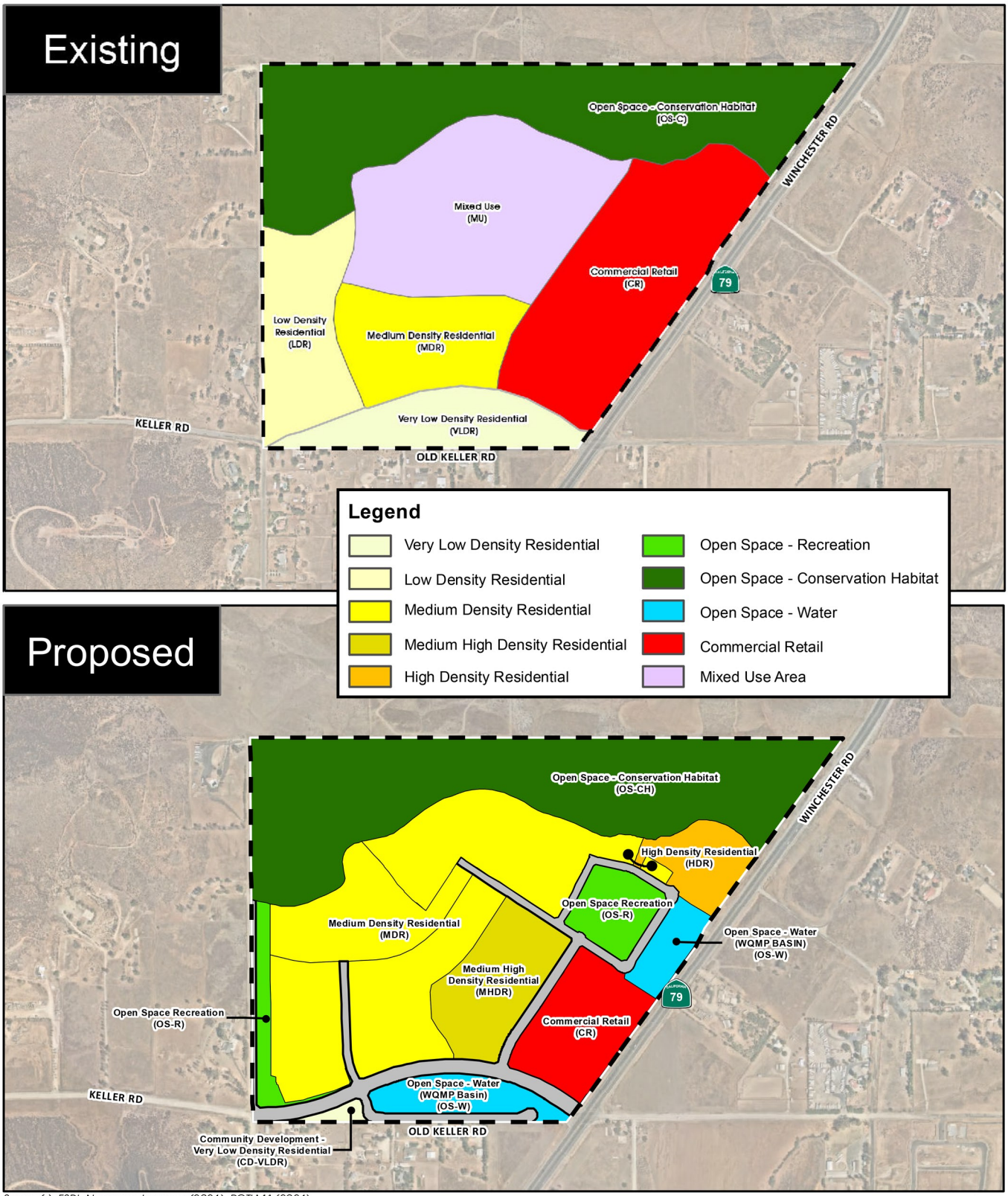
The proposed Project consists of applications for General Plan Amendment No. 210004 (GPA210004), Amendment No. 1 to the Keller Crossing Specific Plan No. 380 (SP00380A01; herein, "SP 380A1"), Change of Zone No. 2100012 (CZ2100012), and Tentative Tract Map No. 38163 (TTM38163) to allow for future development of the 196.0-acre Project site with up to 176,000 s.f. of "Commercial Retail" land uses on 13.3 acres, 277 "Medium-Density Residential (MDR)" dwelling units on 61.2 acres, 76 "Medium-High-Density Residential (MHDR)" dwelling units on 14.1 acres, 80 "High-Density Residential (HDR)" dwelling units that would be age qualified on 7.3 acres, 1.0 acre of "Community Development – Very Low Density Residential (CD-VLDR)" land uses (with no dwelling units allocated or proposed to this area), 10.5 acres of "Open Space-Recreation (OS-R)" land uses, 11.2 acres of "Open Space-Water (OS-W)" land uses, 61.4 acres of "Open Space-Conservation Habitat (OS-CH)" land uses, and 16.0 acres of major circulation facilities. The principal discretionary actions required of the County of Riverside to implement the Project are described in detail on the following pages. Additional discretionary and administrative actions that would be necessary to implement the proposed Project are listed in Table 3-9, *Matrix of Project Approvals/Permits*, at the end of this Section.

3.5.1 GENERAL PLAN AMENDMENT NO. 210004

The Riverside County General Plan assigns a land use designation to all properties within the County's jurisdiction. Development is required by law to comply with the provisions of the County's General Plan. The Project Applicant is seeking a General Plan Amendment (GPA No. 210004) to modify and reconfigure the adopted General Plan and Southwest Area Plan (SWAP) land use designations for the 196.0-acre Project site to reflect the land uses proposed as part of SP 380A1 (discussed below).

Specifically, and as depicted on Figure 3-1, *General Plan Amendment No. 210004*, under existing conditions, the Project site is designated for 9.9 acres of CD-VLDR land uses, 18.3 acres of "Low Density Residential (LDR)" land uses, 13.9 acres of MDR land uses, 39.5 acres of "Mixed Use," 37.8 acres of CR land uses, 61.1 acres of "Open Space-Conservation (OS-C)," and 20.6 acres of circulation. As part of GPA No. 210004, the 196.0-acre Project site would be redesignated to include 61.2 acres of MDR, 14.1 acres of MHDR, 7.3 acres of HDR, 1.0 acre of CD-VLDR, 13.3 acres of CR, 10.5 acres of OS-R, 61.4 acres of OS-CH, 11.2 acres of OS-W, and 16.0 acres of circulation.

The MDR land use designation is intended to accommodate single-family detached and attached residences with a density range of 2 to 5 dwelling units per acre with minimum lot sizes ranging from 5,500 to 20,000 s.f. The MHDR land use designation is intended to accommodate single-family detached and attached residences with a density range of 5 to 8 dwelling units per acre, with minimum lot sizes ranging from 4,000 to 6,500 s.f. The HDR land use designation is intended to accommodate single-family attached residences and multi-family dwellings with a density range of 8 to 14 dwelling units per acre. The CD-VLDR land use designation is intended to accommodate detached single family residential dwelling units and ancillary structures on large parcels with a density range of 1-2 dwelling units per acre, with minimum lot size of one acre. The CR land use designation is intended to accommodate local and regional serving retail and service uses. The OS-R land



Source(s): ESRI, Nearmap Imagery (2021), RCTLMA (2021)

0 250 500 1,000 Feet

Figure 3-1

General Plan Amendment No. A21004

use designation is intended to accommodate recreational uses including parks (neighborhood parks allowed), trails, athletic fields, and golf courses. The OS-C land use designation land use designation is intended to provide for the protection of open space for natural hazard protection, cultural preservation, and natural and scenic resource preservation. The OS-CH land use designation applies to public and private lands conserved and managed in accordance with adopted Multi Species Habitat and other Conservation Plans and in accordance with related Riverside County policies. The OS-W land use designation is intended to accommodate bodies of water and natural or artificial drainage corridors.

3.5.2 CHANGE OF ZONE NO. 2100012

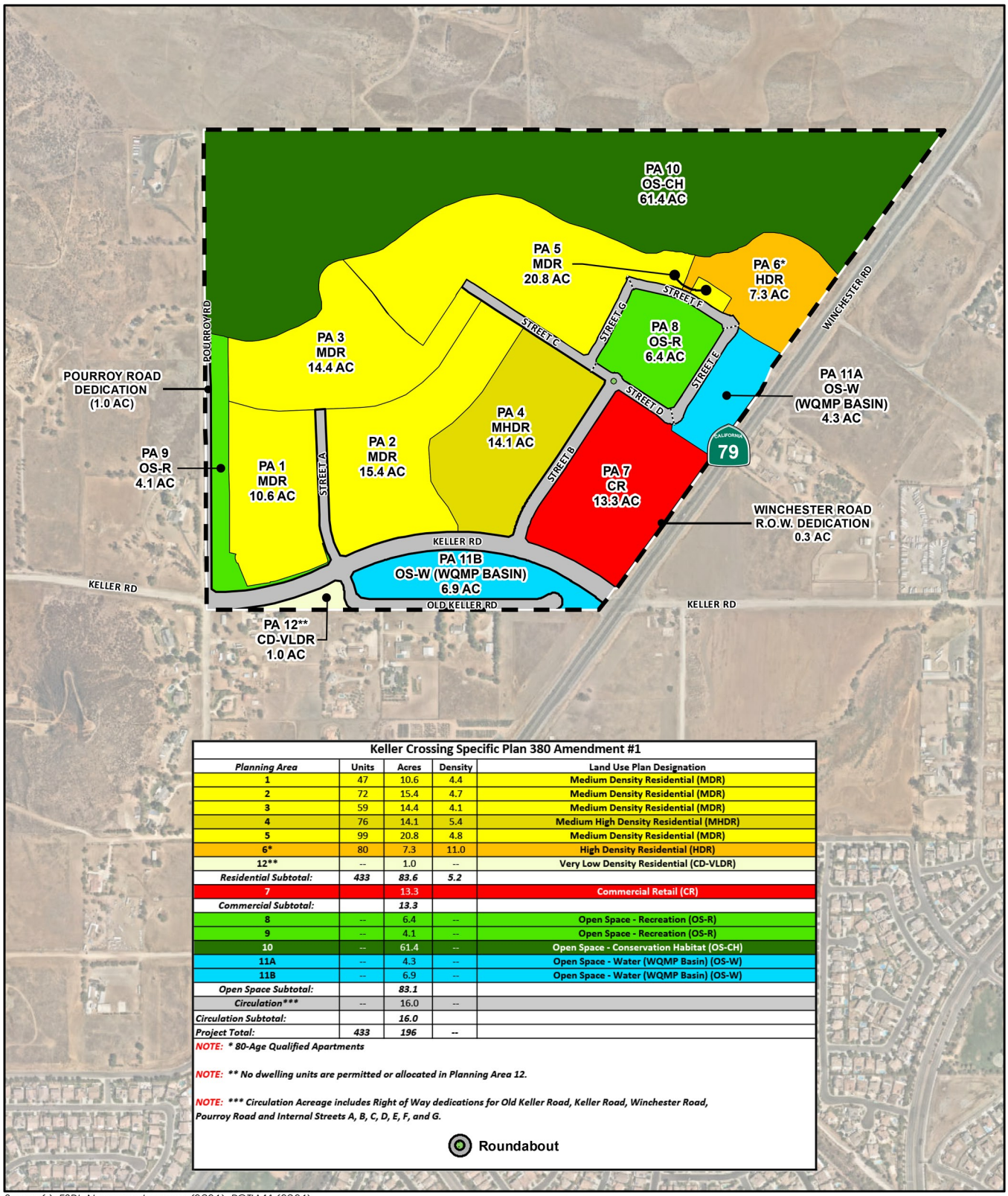
The Riverside County Zoning Ordinance (Ordinance No. 348), which is part of the County's Municipal Code, assigns a zoning designation to all properties within unincorporated Riverside County. All development within the County is required, by law, to comply with the provisions of the Zoning Ordinance. Under existing conditions, the Project site is zoned for "Specific Plan Zone (SP Zone)," indicating that the property is within the boundaries of an adopted specific plan. As such, the 196.0-acre Project site is subject to the zoning classifications and requirements established by the adopted Specific Plan No. 380, which generally reflect the land use designations applied to the site as part of the adopted Specific Plan No. 380. A Change of Zone (CZ No. 2100012) is proposed as part of the Project, which would modify and establish the Planning Area boundaries, permitted uses, and development standards throughout the 196.0-acre Project site in order to reflect the land uses proposed as part of SP 380A1. Refer to subsection 3.5.3 for a description of the land uses proposed as part of SP 380A1.

3.5.3 SPECIFIC PLAN NO 380, AMENDMENT NO. 1

A. Proposed Land Uses

The Project entails the first amendment to the Keller Crossing Specific Plan No. 380 (SP 380A1). As depicted on Figure 3-2, *Specific Plan Amendment No. 380A1 Proposed Land Use Plan*, and summarized on Table 3-1, *SP 380A1 Proposed Land* Uses, proposed SP 380A1 would allow for up to 176,000 square feet (s.f.) of "Commercial Retail" land uses on 13.3 acres, 277 "Medium-Density Residential (MDR)" dwelling units on 61.2 acres, 76 "Medium-High-Density Residential (MHDR)" dwelling units on 14.1 acres, 80 "High-Density Residential (HDR)" dwelling units that would be age qualified on 7.3 acres, 1.0 acre of Community Development-Very Low Density Residential (CD-VLDR) land uses (with no dwelling units allocated or proposed as part of SP 380A1), 10.5 acres of "Open Space-Recreation (OS-R)" land uses, 11.2 acres of "Open Space-Water (OS-W)" land uses, 61.4 acres of "Open Space-Conservation Habitat (OS-CH)" land uses, and 16.0 acres of major circulation facilities. SP 380A1 would achieve this by modifying the allocation, distribution, lot sizes, and development standards of the land uses within the Keller Crossing Specific Plan No. 380. Specifically, the proposed land uses within proposed SP 380A1 would include the following:

- **Medium Density Residential (MDR):** SP 380A1 would allow for a total of 277 single-family dwelling units on 61.2 acres within Planning Areas (PAs) 1, 2, 3, and 5 with an overall density of 4.5 dwelling units per acre (du/ac). The MDR land use would allow for the development of 47 dwelling units on 10.6 acres with minimum 7,000 s.f. lots within proposed PA 1, 131 dwelling



Keller Crossing Specific Plan 380 Amendment #1				
Planning Area	Units	Acres	Density	Land Use Plan Designation
1	47	10.6	4.4	Medium Density Residential (MDR)
2	72	15.4	4.7	Medium Density Residential (MDR)
3	59	14.4	4.1	Medium Density Residential (MDR)
4	76	14.1	5.4	Medium High Density Residential (MHDR)
5	99	20.8	4.8	Medium Density Residential (MDR)
6*	80	7.3	11.0	High Density Residential (HDR)
12**	--	1.0	--	Very Low Density Residential (CD-VLDR)
Residential Subtotal:	*433*	*83.6*	*5.2*	
7		13.3		Commercial Retail (CR)
Commercial Subtotal:		*13.3*		
8	--	6.4	--	Open Space - Recreation (OS-R)
9	--	4.1	--	Open Space - Recreation (OS-R)
10	--	61.4	--	Open Space - Conservation Habitat (OS-CH)
11A	--	4.3	--	Open Space - Water (WQMP Basin) (OS-W)
11B	--	6.9	--	Open Space - Water (WQMP Basin) (OS-W)
Open Space Subtotal:		*83.1*		
*Circulation****	--	16.0	--	
Circulation Subtotal:		*16.0*		
Project Total:	*433*	*196*	--	

*NOTE: * 80-Age Qualified Apartments*

*NOTE: ** No dwelling units are permitted or allocated in Planning Area 12.*

*NOTE: *** Circulation Acreage includes Right of Way dedications for Old Keller Road, Keller Road, Winchester Road, Pourroy Road and Internal Streets A, B, C, D, E, F, and G.*

Roundabout

Source(s): ESRI, Nearmap Imagery (2021), RCTLMA (2021)

0 200 400 800 Feet

Figure 3-2

Specific Plan Amendment No. 380A1
Proposed Land Use Plan

Table 3-1 SP 380A1 Proposed Land Uses

Planning Area	Units	Acres	Density	Land Use Designation
1	47	10.6	4.4	Medium Density Residential (MDR)
2	72	15.4	4.7	Medium Density Residential (MDR)
3	59	14.4	4.1	Medium Density Residential (MDR)
4	76	14.1	5.4	Medium High Density Residential (MHDR)
5	99	20.8	4.8	Medium Density Residential (MDR)
6*	80	7.3	11.0	High Density Residential (HDR)
12**	--	1.0	--	Community Development – Very Low Density Residential (CD-VLDR)
Residential Subtotal:	**433**	**83.6**	**5.2**	
7	--	13.3	--	Commercial Retail (CR)
Commercial Subtotal:	**--**	**13.3**	**--**	
8	--	6.4	--	Open Space – Recreation (OS-R)
9	--	4.1	--	Open Space – Recreation (OS-R)
10	--	61.4	--	Open Space – Conservation Habitat (OS-CH)
11A	--	4.3	--	Open Space – Water (OS-W)
11B	--	6.9	--	Open Space – Water (OS-W)
Open Space Subtotal:	**--**	**83.1**	**--**	
Circulation***	--	16.0		N/A
Circulation Subtotal:	**--**	**16.0**	**--**	
Project Total:	**433**	**196.0**	**2.2**	**--**

* 80 Age-Qualified dwelling units.
** No dwelling units would be allocated to Planning Area 12.
*** Circulation acreage includes Right-of-Way dedications for Keller Road, Winchester Road, Pourroy Road and Internal Streets A, B, C, D, E, F, and G.

units on 29.8 acres with minimum 6,000 s.f. lots within proposed PAs 2 and 3, and 99 dwelling units on 20.8 acres with minimum 5,000 s.f. lots within proposed PA 5. Access to PAs 1, 2, 3 and 5 would be accommodated from Keller Road via proposed Streets A, B, C, G, and F.

- **Medium High Density Residential (MHDR):** SP 380A1 would allow for a total of 76 single-family dwelling units on 14.1 acres within PA 4 with an overall density of 5.4 du/ac. The minimum lot size within PA 4 would be 5,000 s.f. Access to PA 4 would be accommodated from Keller Road via proposed Street B.

- **High Density Residential (HDR):** SP 380A1 would allow for a total of 80 multi-family age-qualified dwelling units on 7.3 acres within PA 6 with an overall density of 11.0 du/ac. Access to PA 6 would be accommodated from Keller Road via proposed Streets B and C.

- **Community Development -Very Low Density Residential (CD-VLDR):** SP 380A1 proposes to designate 1.0 acre of the Project site for CD-VLDR within PA 12, although no dwelling units are allocated or proposed within PA 12 as part of SP 380A1. A portion of PA 12 will be vacated to adjacent landowners along Old Keller Road, a portion would be transferred to the Riverside County Flood Control and Water Conservation District (RCFCWCD) for storm drain easement purposes, and a portion would serve as a landscaped slope maintained by Valley-Wide Recreation and Park District (VWRPD).

- **Commercial Retail (CR):** SP 380A1 would allow for up to 176,000 s.f. of commercial retail land uses on 13.3 acres within Planning Area 7. The commercial component would accommodate a wide range of businesses, including but not limited to, retail sales, supermarkets, pharmacies, and restaurants (including drive-through). Access to PA 7 would be available from Highway 79 (Winchester Road), Keller Road, and proposed Street B.

- **Open Space – Recreation (OS-R):** One recreation park site is proposed within PA 8 on a total of 6.4 acres and would accommodate both passive and active recreational uses. An additional 4.1 acres of OS-R land uses are proposed in PA 9, which would include a paseo and also would serve as a land use buffer from existing land uses to the west. Access to the PA 8 park site would be accommodated from Keller Road via proposed Streets B, C, D, E, F, and G, while access to PA 9 would be accommodated via Keller Road and internal roadways within PAs 1 and 3.

- **Open Space – Conservation Habitat (OS-CH):** SP 380A1 would preserve 61.4 acres of existing hillsides within PA 10 in the northern portion of the Project site for conservation purposes under the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). No development is proposed within PA 10.

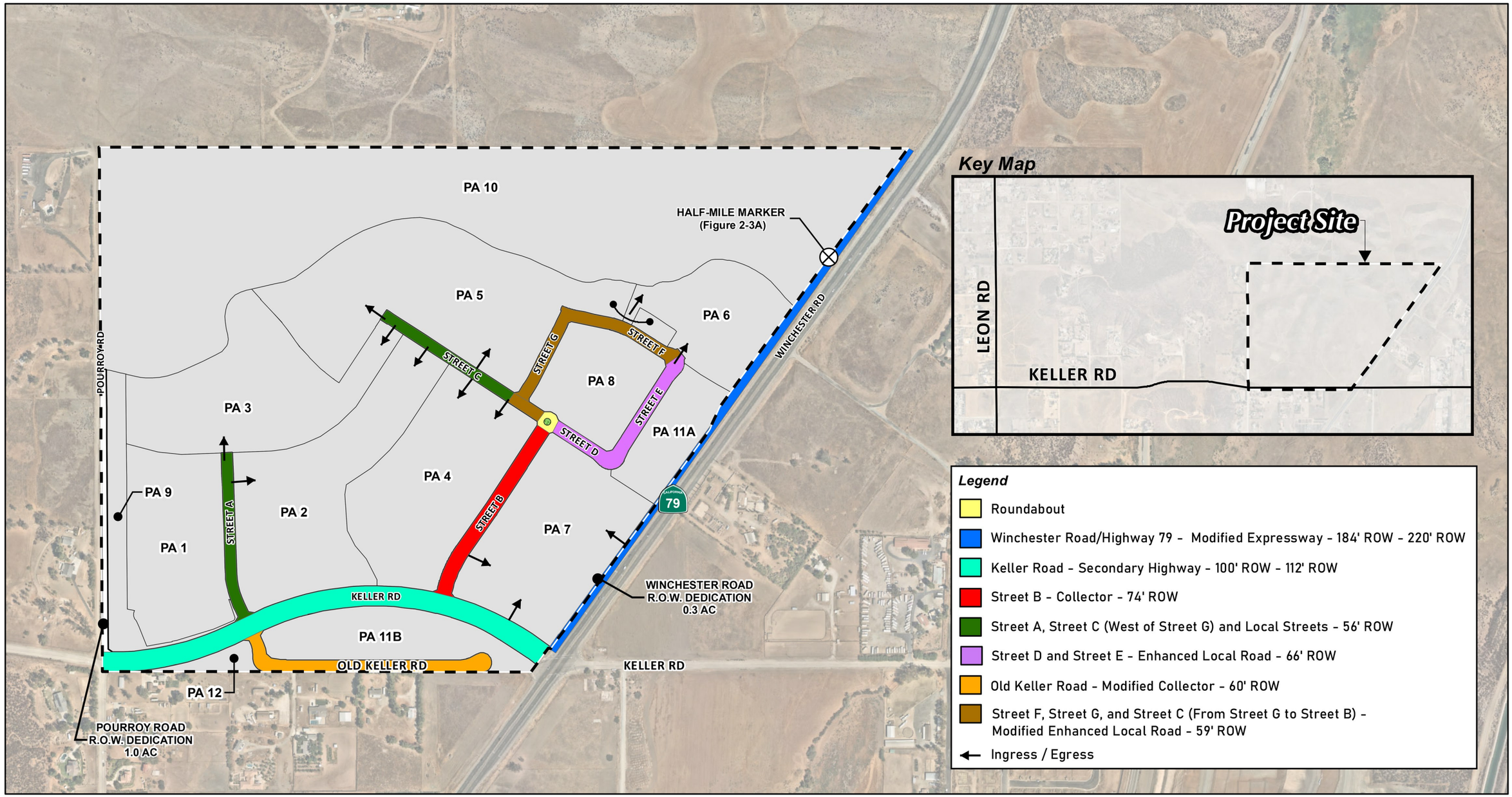
- **Open Space – Water (OS-W):** SP 380A1 would accommodate 4.3 acres and 6.9 acres of OS-W within PAs 11A and 11B, respectively. PAs 11B and 11B would consist of detention basins, which would capture, temporarily detain, and convey stormwater runoff. In addition, the basins would include storm water management capabilities to provide for the removal of water-borne pollutants from stormwater prior to discharge from the Project site.

- **Circulation:** SP 380A1 would accommodate the construction of 16.0 acres of major roadways on site, which include Right-of-Way (ROW) dedications for Old Keller Road, Keller Road, Winchester Road, Pourroy Road, and Internal Streets A, B, C, D, E, F, and G.

B. Proposed Circulation Plan

Proposed SP 380A1 includes a Roadway Master Plan, which is depicted on Figure 3-3, *Proposed Roadway Master Plan*. Proposed roadway cross-sections are depicted on 3-4A and 3-4B, *Proposed Roadway Cross-Sections*. As shown, access to the Project site would be afforded via Keller Road and Winchester Road/Highway 79. Access within the Project site would be accommodated via proposed Streets A, B, C, D, E, F, and G, as well as internal local roadways extending from these streets. Access to the commercial retail uses proposed within PA 7 could be accommodated via driveways along Winchester Road/Highway 79, Keller Road, and Street B. Additionally, in order to calm internal traffic, a roundabout is proposed at the intersection of Street B and Streets C and D. Provided below is a brief description of the SP 380A1 Roadway Master Plan facilities.

- **Winchester Road/Highway 79 – Modified Expressway (½-Width 92'-122' ROW, 184'-220' Total ROW):** Winchester Road/Highway 79 is classified by the General Plan and SWAP as an

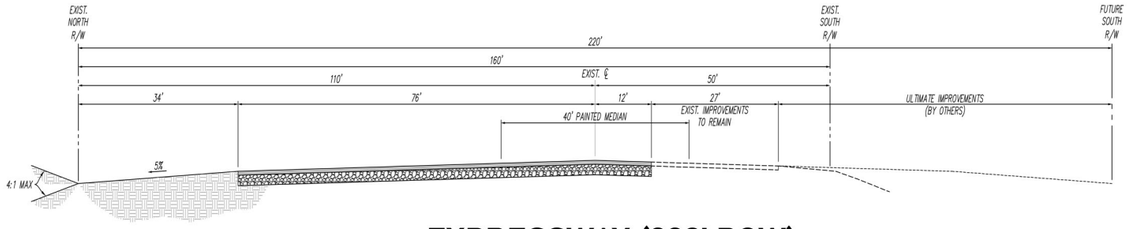


Source: ESRI, Nearmap (2021), K&A Engineering (03-23-2022)

0 125 250 500 Feet

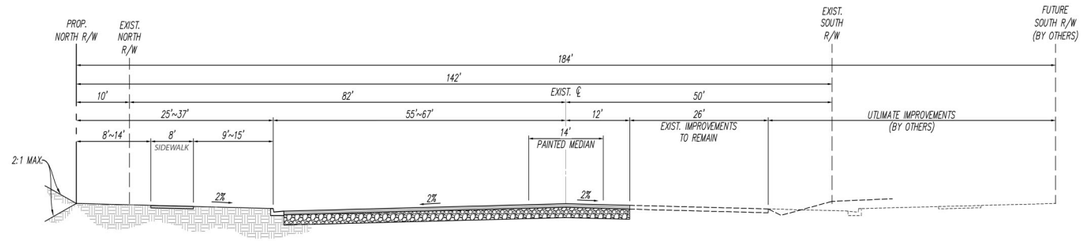
Figure 3-3

Proposed Roadway Master Plan



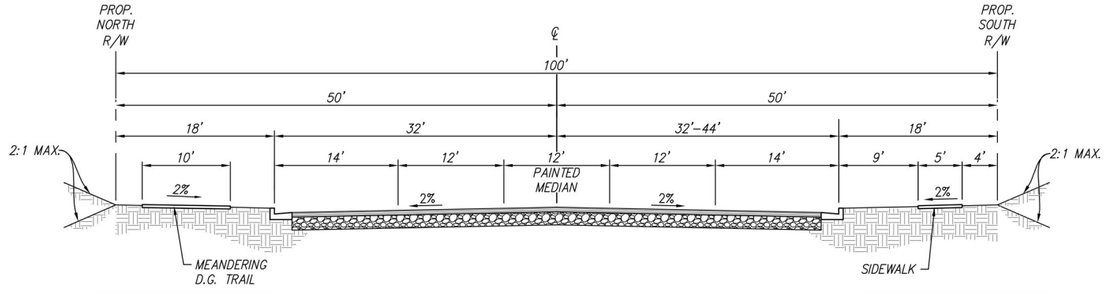
EXPRESSWAY (220' ROW)
WINCHESTER ROAD
STD. NO. 82, MODIFIED

From 1/2 Mile North of Keller Road to Project Boundary

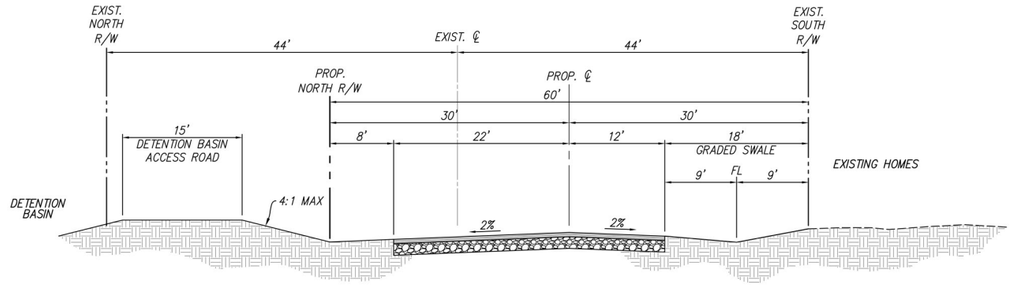


EXPRESSWAY (184' ROW)
WINCHESTER ROAD
STD. NO. 83, MODIFIED

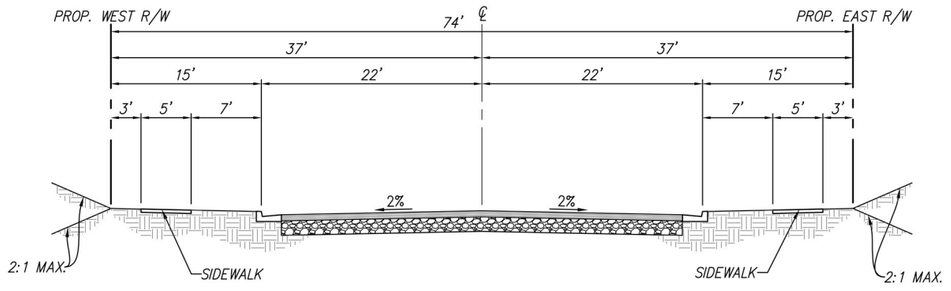
From Keller Road to 1/2 Mile North of Keller Road



SECONDARY HIGHWAY (100' – 112' ROW)
KELLER ROAD
STD. NO. 94, MODIFIED



MODIFIED COLLECTOR (60' ROW)
OLD KELLER ROAD
STD. NO. 103, MODIFIED



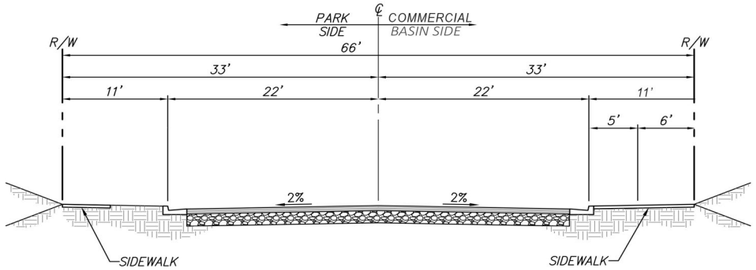
Collector (74' ROW)
STREET B
STD. NO. 103

Source(s): K&A Engineering (06-2022)

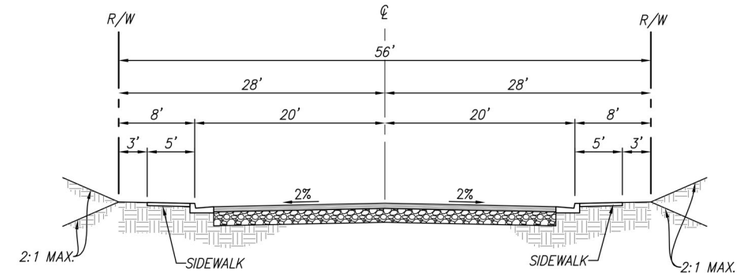
Figure 3-4A

Not to Scale

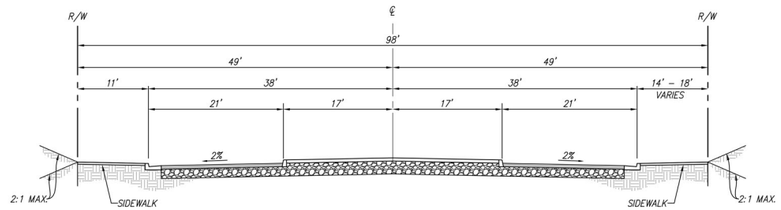
Proposed Roadway Cross-Sections



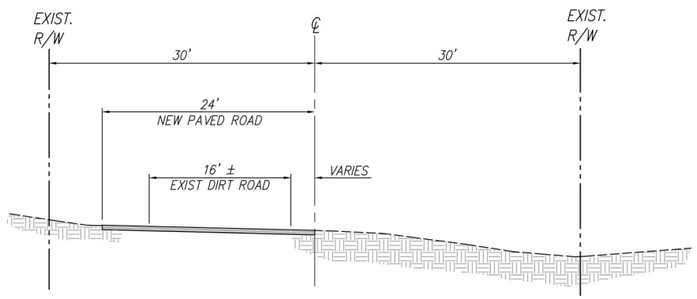
ENHANCED LOCAL STREET (66' ROW)
STREET D AND STREET E
STD. NO. 104



LOCAL STREET (56' ROW)
STREET A, STREET C (WEST OF STREET G), AND LOCAL STREETS
STD. NO. 105, SECTION A (MODIFIED)

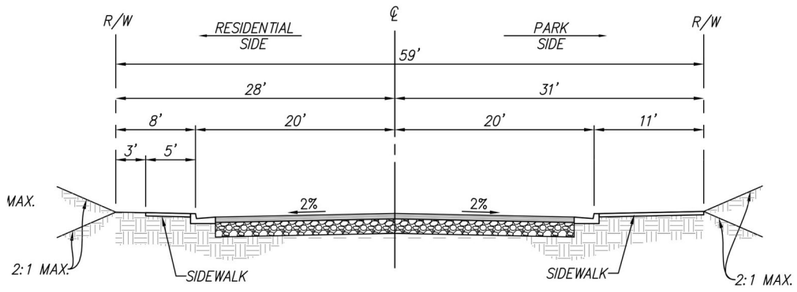


ROUNDABOUT



(60' ROW)
POURROY ROAD

****NOTE: Pourroy Road to be paved at existing grade as a fire safety access road for existing residents off-site west of the project site, but will not be constructed as part of the specific plan project site.**



MODIFIED LOCAL STREET (59' ROW)
STREET F, STREET G, AND STREET C (BETWEEN STREET G AND STREET B)
STD. NO. 105, MODIFIED

Source(s): K&A Engineering (03-22-2022)

Figure 3-4B

Not to Scale

Proposed Roadway Cross-Sections

"Expressway" with an ultimate ROW width ranging from 184 to 220 feet. Two roadway cross-sections are proposed for Winchester Road. For the portion of Winchester Road from 0.5-mile north of Keller Road to the northern Project boundary, Winchester Road would be improved along the western edge to include up to 88 feet of paving including a 32-foot portion of the striped center median. Along the western edge of this portion of the roadway, a 34-foot landscaped parkway would be accommodated. For the portion of Winchester Road between Keller Road and 0.5-mile north of Keller Road, Winchester Road would be improved along the western edge to provide between 67 feet and 79 of paving including a 14-foot striped center median, and a landscaped parkway along the western edge of the roadway ranging in width from 25 feet to 37 feet, which would include an 8-foot-wide curb-separated sidewalk. As part of the Project, approximately 0.2-acre (up to 10 feet in width) of ROW would be dedicated to the County of Riverside and/or Caltrans.

- ***Keller Road – Secondary Highway (100'-112' ROW):*** Keller Road is classified by the General Plan and SWAP as a "Secondary Highway" with an ultimate ROW width of 100 feet. As part of the Project, Keller Road would be slightly realigned to the north through the southern portions of the Project site in order to facilitate a 90-degree intersection with Winchester Road/Highway 79. As part of the Project, a total of 100 feet of ROW would be dedicated along the portion of Keller Road that traverses the Project site, and this roadway would be improved to include 64 feet of paving (including a 12-foot-wide painted median) and 18-foot-wide parkways along each side of the roadway that would include 5-foot-wide curb-separated sidewalk along the southern side of the roadway and a 10-foot-wide curb-separated meandering decomposed granite (d.g.) trail along the northern edge of the roadway. The ROW may increase to 112 feet and consist of 76 feet of paving (curb-to-curb) at the intersection of Keller Road and Winchester Road to accommodate turn lanes.

- ***Street "B" – Collector Road (74' ROW):*** "Street B" would consist of a public road that would be classified as a Collector Road, and would serve as the primary entry into the Project site. Street "B" would provide internal connectivity to the residential homes, public park, and the commercial area of the community. Street "B" would include a 74-foot-wide ROW, and would be improved to include 44 feet of paving (curb to curb) and a 15-foot-wide parkway along each side of the roadway that would include 5-foot-wide curb-separated sidewalks.

- **Streets "D" and "E" – Enhanced Local Street (66' ROW):** Streets "D" and "E" would consist of public roads that would be designated as Enhanced Local Streets. Streets "D" and "E" would be improved to provide a 66-foot ROW, which would include 44 feet of paving (curb-to-curb), with 11-footwide parkways along each side that would include a 5-foot-wide curb-separated sidewalk along the western/northern edges of the roadways and a 15-foot-wide sidewalk along the eastern/southern edges of the roadways.

- **Streets "G" and "F" and Street "C" (Between Streets "G" and "B") – Modified Local Street (66' ROW):** Streets "G" and "F" and the segment of Street "C" between Streets "G" and "B" would consist of public roads that would be designated as Modified Local Streets. These streets would be improved to provide a 59-foot ROW, which would include 40 feet of paving (curb-to-curb). An 11-foot-wide sidewalk would be accommodated along these streets along the side of the street that abuts the park in

PA 8, while the side of these streets that abut residential uses in PAs 4, 5, and 6 would include an 8-foot-wide parkway with a five-foot-wide curb-adjacent sidewalk.

- **Street "A," Street "C" (west of Street "G"), and Internal Streets – Local Streets (56' ROW):** Street "A," Street "C" (west of Street "G"), and all other internal streets would consist of public Local Streets (56' wide) that would provide internal connectivity between the various land uses proposed on site. These Local Roads would include a total of 56 feet of right-of-way, 40 feet of paving (curb-to-curb), and 8-foot-wide parkways along each side of the road within which would be 5-foot-wide curb-adjacent sidewalks.

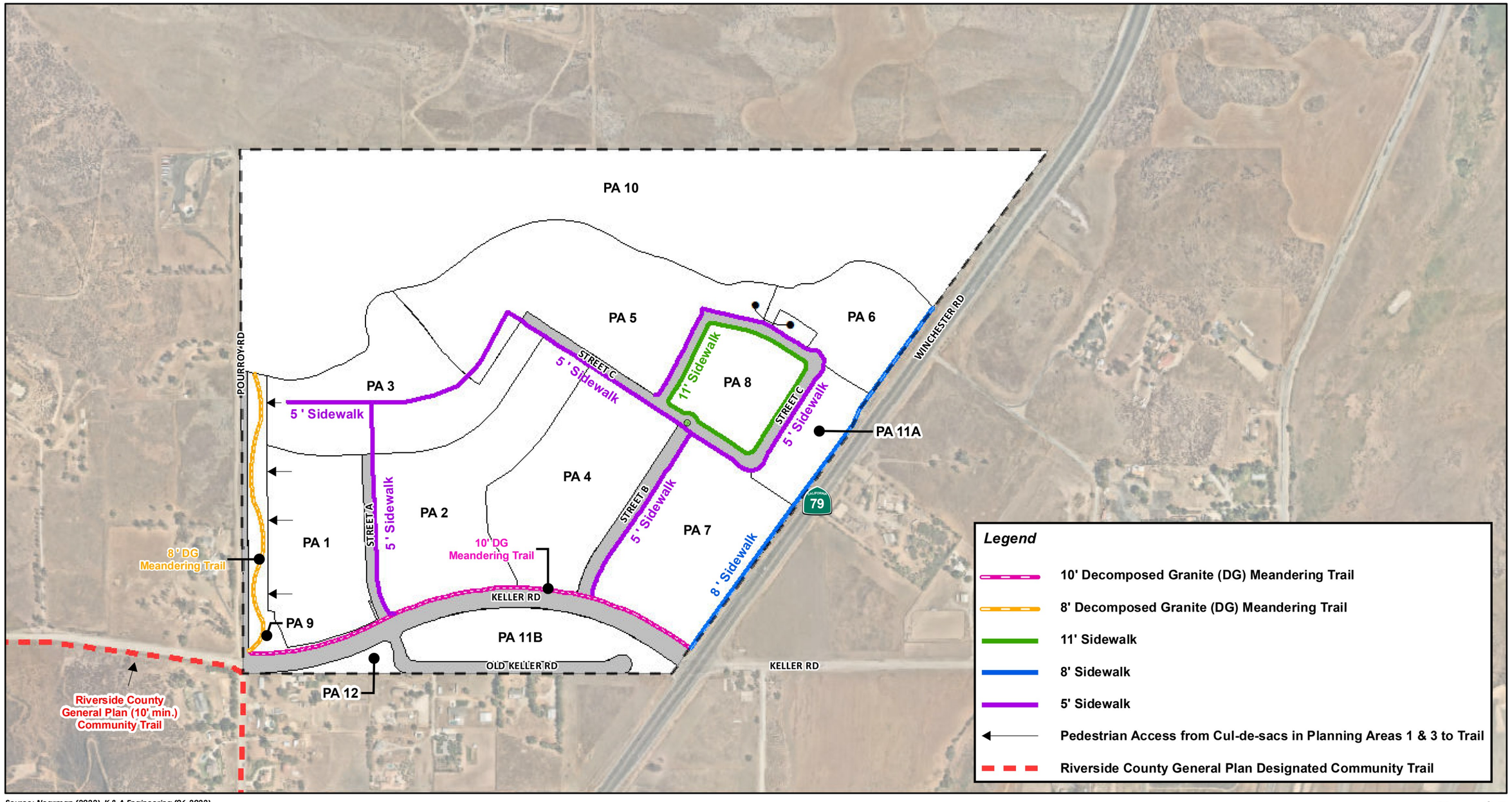
- ***Roundabout:*** A roundabout, designed to calm traffic before it enters the residential neighborhoods, is proposed at the intersection of Street "B" and Streets "C" and "D." The roundabout would include 42 feet of paving and a 34-foot-wide landscaped island. Parkways are proposed on either side of the roundabout, with one side including an 11-foot-wide sidewalk, and the other side including a sidewalk measuring between 14 to 18 feet in width. A traditional intersection may be utilized at this location in lieu of a roundabout.

- ***Pourroy Road:*** The portion of Pourroy Road that abuts the Project site is not classified as part of the General Plan or SWAP, and consists of a 16-foot-wide dirt road within the western half of the alignment. Approximately 24 feet of the western 30-foot half-width section of Pourroy Road would be paved as part of the Project, leaving the eastern 30-foot half-width section of the ROW as additional buffer between the Project site and the established large lot neighborhood to the west. No access to the Project site is proposed from Pourroy Road, although Pourroy Road would provide fire safety access for the established neighborhood to the west. No other improvements aside from the 24-foot-wide paved road portion are proposed.

- ***(Old) Keller Road – Modified Collector (60' ROW):*** Along the Project's southern boundary, approximately 28 feet of the existing right-of-way for (Old) Keller Road would be vacated, resulting in a total ROW of 60 feet along Old Keller Road. This roadway would be improved to include 34 feet of paving, an 8-foot-wide landscaped parkway along the northern edge of the roadway, and an existing 18-foot-wide graded swale along the southern edge of the roadway. A 15-foot-wide detention basin access road would be accommodated within the portion of the ROW to be abandoned as part of the Project.

C. *Conceptual Pedestrian Circulation Plan*

Proposed SP 380A1 includes a Conceptual Pedestrian Circulation Plan, as depicted on Figure 3-5, *Conceptual Pedestrian Circulation Plan*. Pedestrian circulation within the Project area would be accommodated by sidewalks ranging in size from 5 feet to 11 feet in width, a 10-foot-wide d.g. meandering trail along the northern edge of Keller Road, and an 8-foot-wide d.g. meandering trail within proposed PA 9 along the western Project boundary. The Conceptual Pedestrian Circulation Plan has been designed to connect each of the residential neighborhoods, including the Age-Qualified neighborhood in PA 6, to the park (PA 8), open space trails (PA 9), and commercial center (PA 7).



Source: Nearmap (2022), K & A Engineering (06-2022)

0 125 250 500 Feet

Figure 3-5

Conceptual Pedestrian Circulation Plan

D. Drainage and Water Quality Improvements

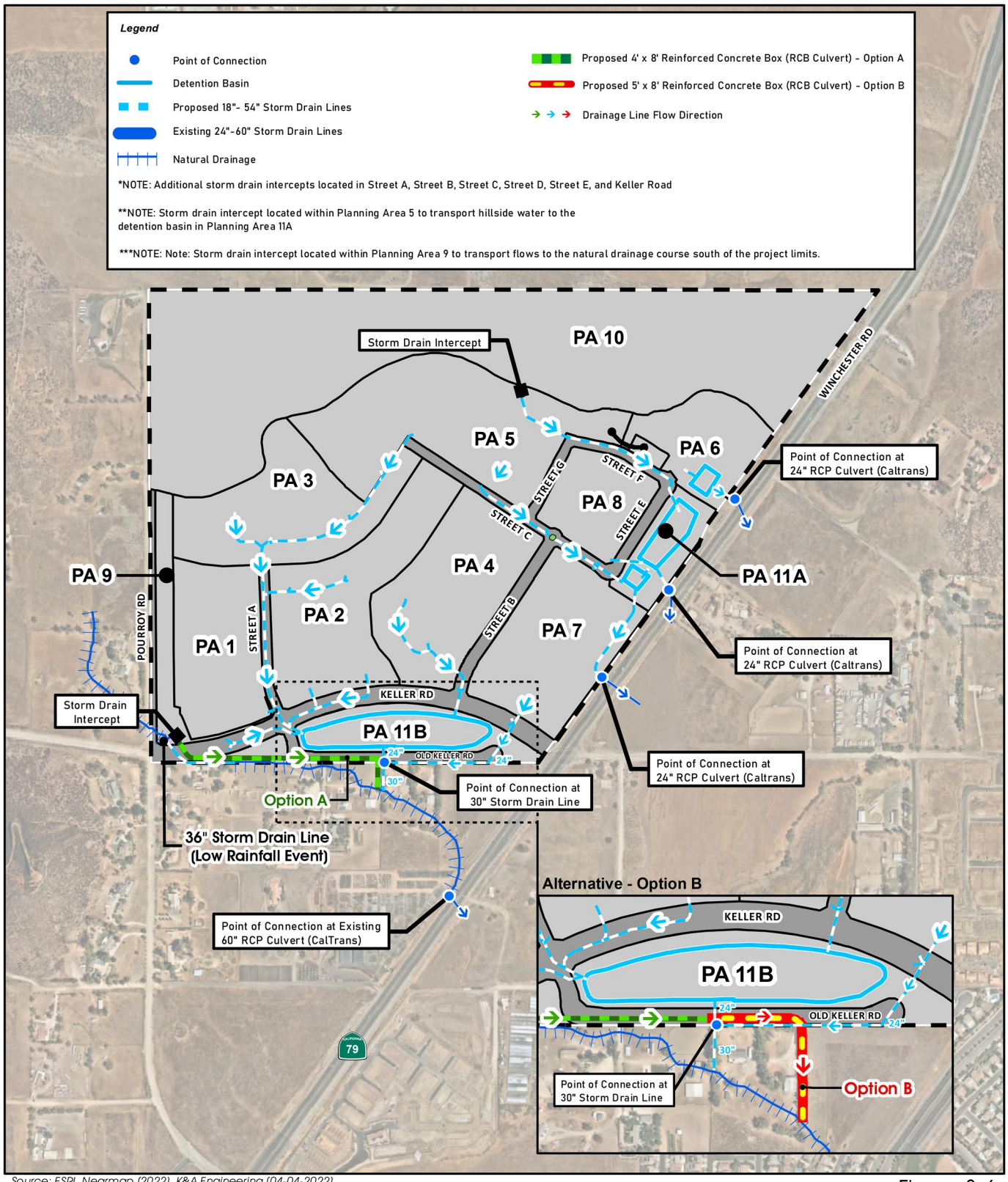
The Project site is located within the Santa Margarita Watershed in the County of Riverside. According to mapping information from the Riverside County Flood Control and Water Conservation District (RCFCWCD), the Project site is located within the Murrieta Creek/Warm Springs Valley Master Drainage Plan (MDP). Existing drainage water courses flow naturally from the northerly higher elevations to the southern and southeasterly portions of the Project site, which ultimately flow offsite toward and through several existing Caltrans reinforced concrete pipe (RCP) culvert-under-crossings along Winchester Road (Highway 79). Presently, there is no existing storm drain infrastructure on-site or within Pourroy Road or Keller Road rights-of-way. (K&A Engineering, Inc., 2021)

As shown on Figure 3-6, *Conceptual Drainage and Water Quality Plan*, the Project has been designed to detain runoff generated on the Project site such that there would be no increase in developed storm flows as compared to existing drainage conditions. Runoff generated within the developed portions of the Project site would be collected via a series of on-site catch basins and storm drain lines ranging in size from 18 inches to 54 inches, which would convey flows into proposed detention basins in PAs 11A and 11B, which ultimately would discharge flows into their respective existing pre-developed water courses. Hillside storm flows from the open space in PA 10 would be intercepted and conveyed through a bypass storm drain line directly into the detention basins (low flow and storm water) proposed within PA 11A, adjacent to Winchester Road. The basin also would accommodate storm flows and runoff from the portion of PA 5 located north of Street "C" and runoff from the park proposed in PA 8. Flows from PA 6 would be detained by the proposed basin within PA 6. Outflows from PA 6 and the detention basin in PA 11A would be conveyed through 24-inch storm drain lines to three points of connection within the existing 24-inch Reinforced Concrete Pipes (RCPs) in Winchester Road.

The detention basin within PA 11B at the southern edge of the Project would detain and provide water quality treatment for the remaining portions of the Project's runoff. At the southwest corner of the Project site, flows from PA 9 would be conveyed south and easterly within a 4' x 8' reinforced box culvert (RBC) that transitions to a 5' x 8' RCB, which would then be conveyed south to the existing natural drainage channel. During low rainfall events, a storm drain would intercept the natural drainage course traversing the southern tip of PA 9 and convey these flows under Old Keller Road to bypass the PA 11B basin. Two options are proposed for the proposed bypass connection to the existing natural drainage channel, as depicted on Figure 3-6. Flows from the natural drainage channel (including flows from the storm drain intercept, natural drainage channel, and PA 11B) would then be conveyed to an existing 60-inch RCP within Winchester Road.

Drainage facilities proposed as part of the Project would be maintained by the Riverside County Flood Control and Water Conservation District (RCFCWCD) or VWRPD, as follows:

- The detention basin in PA 11A, the storm drain intercept conveying flows from PA 10, and the drainage facilities proposed in PA 6 would be maintained by the VWRPD. The VWRPD would conduct annual maintenance to remove sediment, debris, and litter from the pipes. As part of annual maintenance, VWRPD also would inspect hydraulic and structural facilities, and examine the outlet for clogging and structural integrity, as well as damage to any structural element. The VWRPD would repair facilities as needed.



Source: ESRI, Nearmap (2022), K&A Engineering (04-04-2022)

Figure 3-6

Conceptual Drainage and Water Quality Plan

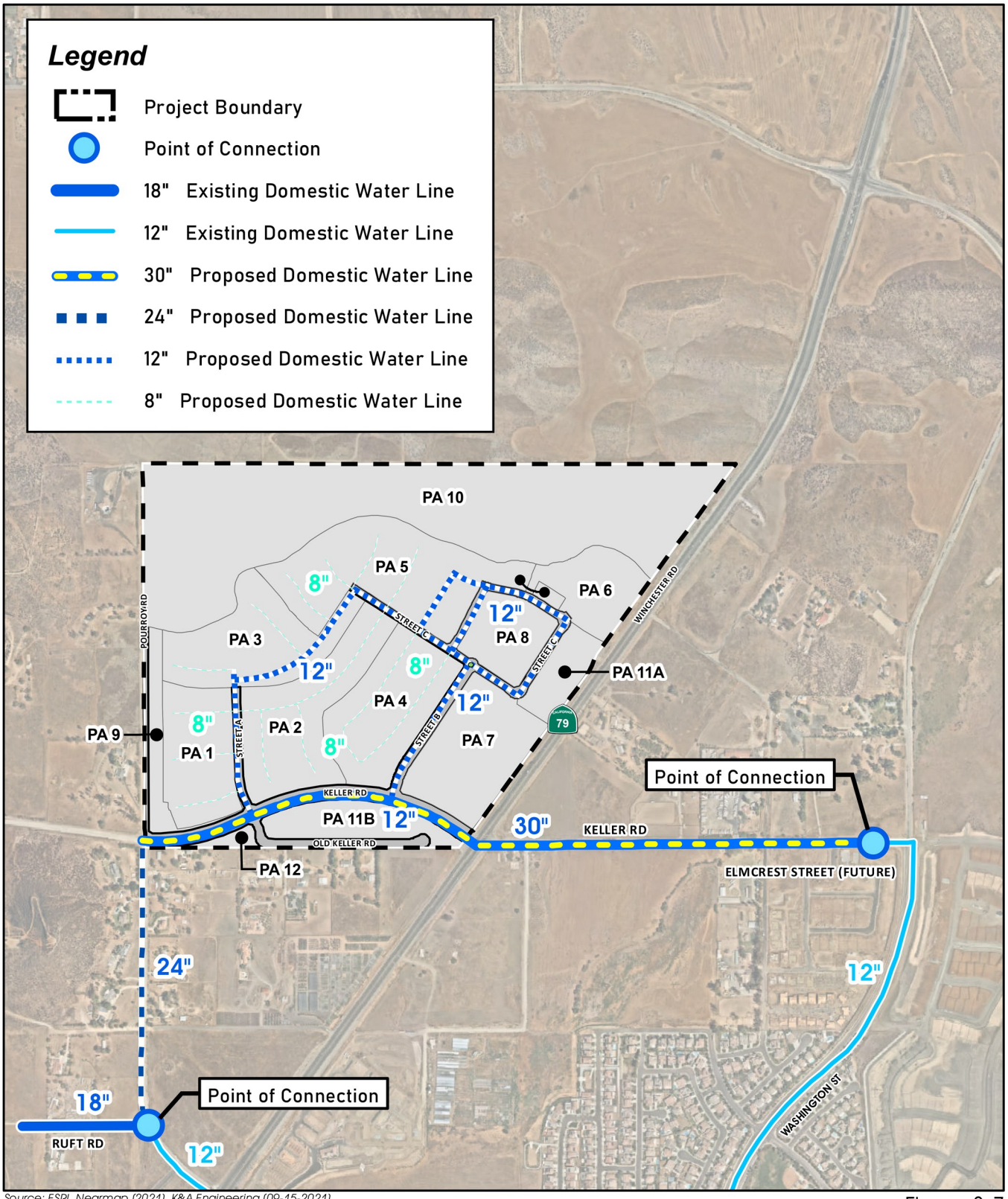
- The detention basin in PA 11B would be subject to annual maintenance by the RCFCWCD to remove sediment, debris, and litter from the pipe. As part of annual maintenance, RCFCWCD also would inspect hydraulic and structural facilities, and examine the outlet for clogging and structural integrity, as well as damage to any structural element. The RCFCWCD would repair facilities as needed.
- The debris inlet basin (including inlet and outlet structures) proposed in the southern portion of PA 9 would be subject to maintenance by the RCFCWCD every five years, or sooner and whenever substantial sediment accumulation has occurred. Maintenance activities would include the removal of debris and litter from the entire basin; an inspection of the hydraulic and structural facilities; an examination of the outlet for clogging, the embankment and spillway integrity, as well as damage to any structural embankment. RCFCWCD also would check for erosion, slumping, and overgrowth, and would remove accumulated sediment and debris from the forebay and ensure that the notch weir is clear, allowing for proper drainage. The RCFCWCD also would check inlet structures for sediment buildup. The RCFCWCD would repair facilities as needed.
- The drainage bypass of existing flows near the southern portion of PA 9 also would be maintained by RCFCWCD. RCFCWCD would maintain the 4' x 8' RBC that transitions to a 5' x 8' RCB, as well as all inlet and outlet structures, on an annual basis. Maintenance activities would include the removal of sediment, debris, and litter from the pipe; an inspection of hydraulic and structural facilities; and an examination of the outlet for clogging, structural integrity, and damage to any structural element. The RCFCWCD would repair facilities as needed.

E. Water and Sewer Plan

1. Potable Water Plan

The Eastern Municipal Water District (EMWD) would provide potable water to the Project via the EMWD 1627 Pressure Zone water system. As shown on Figure 3-7, *Conceptual Domestic Water Plan* , the surrounding area is served by an existing EMWD water system consisting of an 18-inch water transmission line located at the intersection of Pourroy Road and Ruft Road. This line connects to an existing 12-inch water main in Pourroy Road, which runs southeasterly in Pourroy Road to a connection Washington Street, and then north in Washington Street.

As part of the Project, a 24-inch water main would be constructed in Pourroy Road that would connect to the existing 18-inch line at the intersection of Ruft Road and Pourroy Road. The 24-inch water main would extend north within Pourroy Road and east within proposed Keller Road to its intersection with Street "A." A series of domestic water lines ranging in size from 8 to 12 inches in size are proposed within Keller Road and internal roadways on site. The proposed 30-inch domestic water line within Keller Road would extend east within Keller Road, and then connect to an existing 12-inch water line within Keller Road, just west of Washington Street. The onsite domestic water system would be used for domestic use, landscape irrigation for individual homeowners, and fire protection.



Source: ESRI, Nearmap (2021), K&A Engineering (09-15-2021)

0 250 500 1,000 Feet

Figure 3-7

Conceptual Domestic Water Plan

2. Recycled Water Plan

A recycled water system is proposed for park irrigation, common area landscaping, and manufactured slope and detention basin maintenance. Recycled water would be provided by EMWD from an existing 24-inch recycled water line in Leon Road, located approximately 1.0 mile west of the Project site. As shown on Figure 3-8, *Conceptual Recycled Water Plan*, a 12-inch recycled water line would be constructed within Keller Road between Leon Road an Street "B." The on-site recycled water system would connect to the proposed 12-inch line in Keller Road, and would be extended on site via an 8-inch looped recycled water system.

3. Sewer Plan

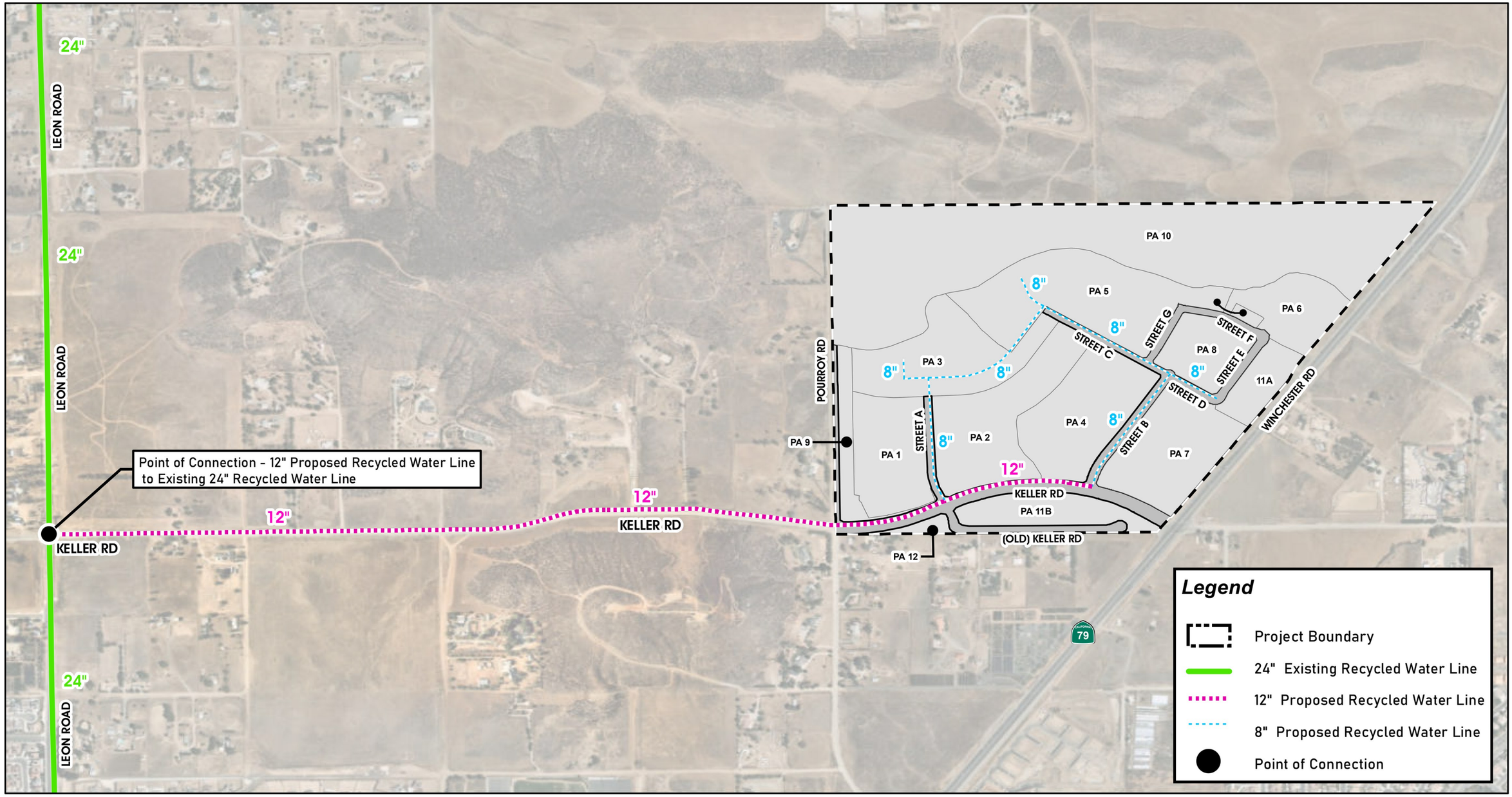
Sewer service for the proposed Project would be provided by EMWD. As shown on Figure 3-9, *Conceptual Sewer Plan*, an existing 18-inch gravity sewer main and existing manhole are located southeast of Winchester Road in Abelia Street, and this gravity sewer and manhole would serve as the Project's point of connection with the regional sewer system. The on-site sewer system would consist of 8-inch gravity sewer lines connecting to a proposed 12-inch gravity sewer line within Keller Road, which would extend south in Pourroy Road to the point of connection at the intersection of Winchester Road and Abelia Road.

The Morningstar Village development project, located southeast of Pourroy Road and Koon Street, proposes a 15-inch gravity sewer main in Pourroy Road that would connect to the existing 18-inch gravity sewer main in Abelia Street and is currently under review by EMWD. In the event that the Morningstar Village's sewer infrastructure is constructed prior to the SP 380A1 final engineering design, then the 15-inch sewer main in Pourroy Road would serve as the point of connection for the proposed 12-inch gravity sewer main within Keller Road.

4. Grading Plan

Development of the Project would involve re-contouring the pre-development terrain of the Project area to create building pads and roads, sloping from the higher northerly elevations to lower southerly elevations within PAs 1, 2, 3, 4, 5, 6, 7, 8, 9, 11A, 11B, and 12. No grading is proposed in Planning Area 10, which would be designated as OS-CH and would remain undisturbed. As shown on Figure 3-10, *Conceptual Grading Plan*, the grading of the Project site would consist of standard residential grading for the single-family and multi-family residential lots and adjacent streets, along with mass grading of the commercial area planned for PA 7 and minimal localized grading for the development of the park planned within PA 8. The grading generally would follow the existing drainage patterns and the grading design boundaries for a nearly balanced rough graded condition with raw cut and fill quantities of approximately 1.2 million cubic yards (cy). It is anticipated that the Project's grading concept would result in balanced earthwork on-site without no need to export excess materials or to import materials from off-site areas. It is anticipated that the proposed grading for the Project would be conducted in two phases as detailed below:

- Phase 1 – Southern portions of Project site:
  - Residential PAs 1, 2 and 4;
  - Commercial area in PA 7;
  - Recreational uses in PA 9;
  - WQMP basins in PAs 11A and 11B;

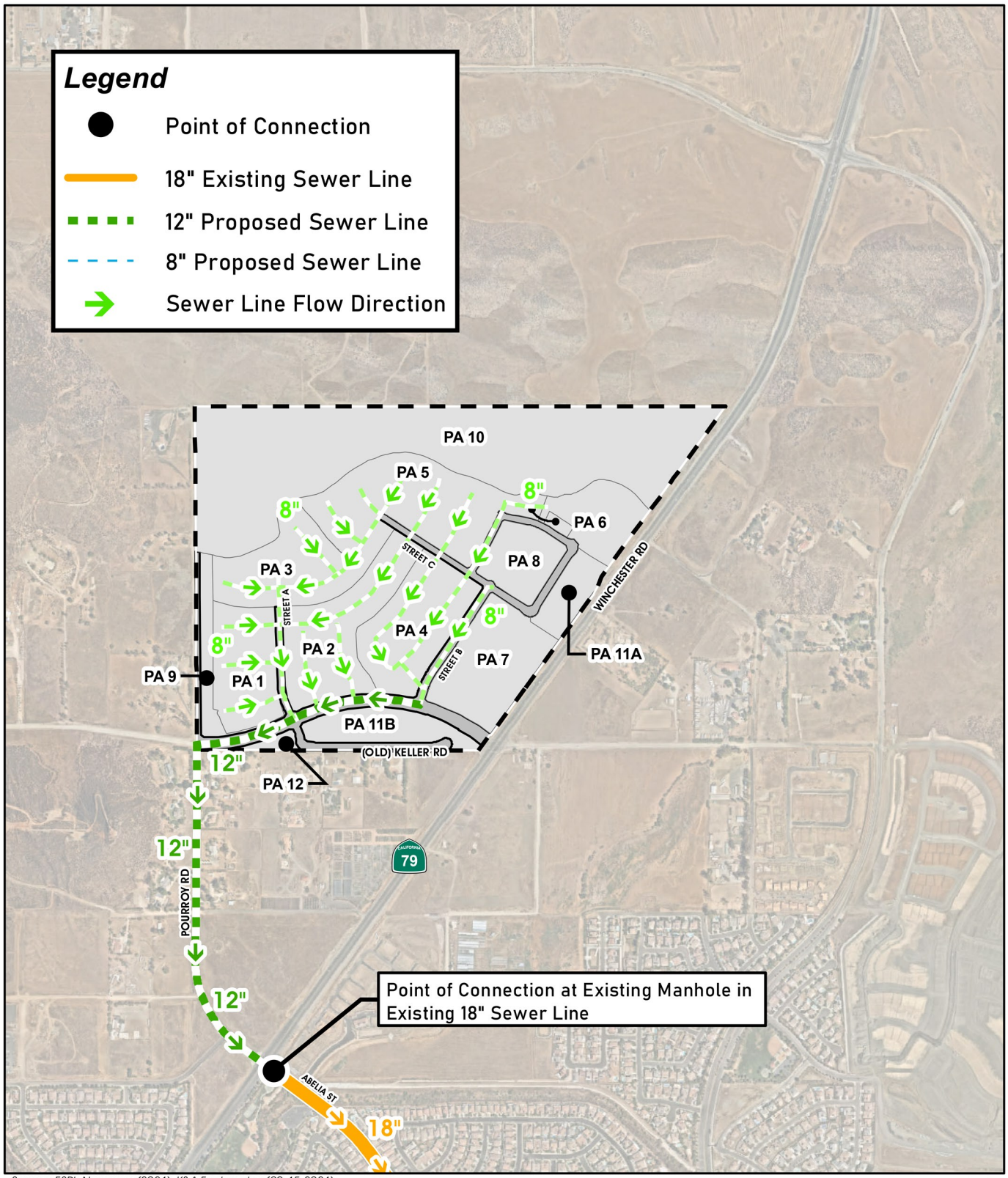


Source: ESRI, Nearmap (2021), K&A Engineering (09-15-2021)

0 200 400 800 Feet

Figure 3-8

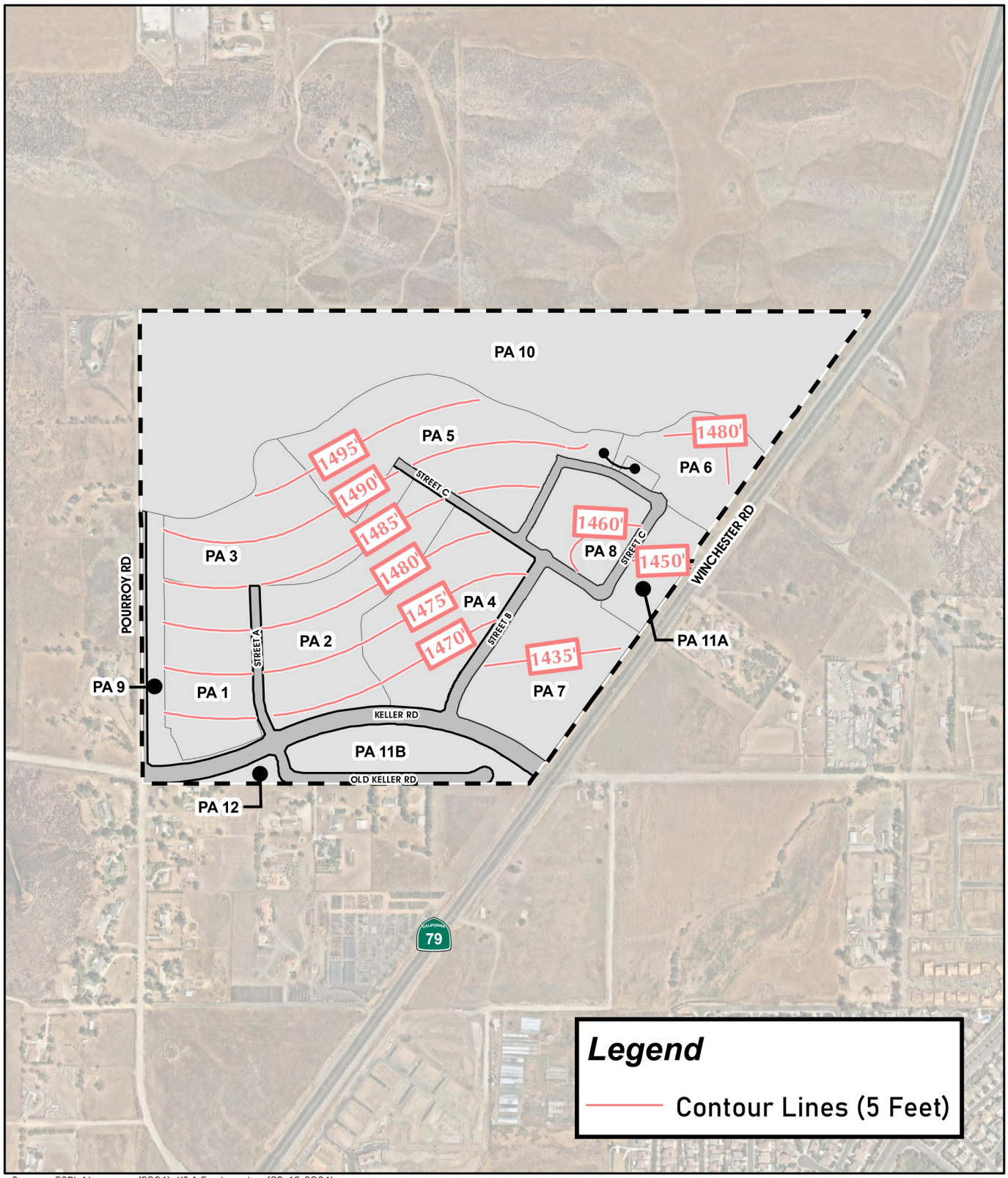
Conceptual Recycled Water Plan



Source: ESRI, Nearmap (2021), K&A Engineering (09-15-2021)

Figure 3-9

Conceptual Sewer Plan



Source: ESRI, Nearmap (2021), K&A Engineering (09-15-2021)

0 200 400 800 Feet

Figure 3-10

Conceptual Grading Plan

- PA 12; and
- Old Keller Road, Keller Road, Street "A," Street "B," most of Street "C," Street "D," Street "E," and internal neighborhood roads

- Phase 2 – Northern portions of Project site:
  - Residential PAs 3, 5 and 6;
  - Public park in PA 8; and
  - A segment of "Street C," Street "F," "Street "G," and remaining internal neighborhood roads

5. Fuel Modification Plan

SP 380A1 includes a Fuel Modification Plan ("FMP"; *Technical Appendix N* to this EIR) that would protect the proposed residential units and other structures from fire hazards, while at the same time creating a smooth visual transition from the natural vegetation that may be located to the homeowner's front, side, and/or rear landscapes. As shown in Figure 3-11*, Conceptual Fuel Modification Plan,* fuel modification zones are proposed within all residential PAs, as well as in areas that abut residential and commercial development areas and within the detention basins within PAs 11A and 11B. Fuel modification area planting would be in accordance with the Riverside County Fire Department standards and requirements, and would utilize appropriate plant materials and irrigation treatments. Lots that are within PAs adjacent to open space would be developed in accordance with the Project's FMP to provide adequate buffering and fuel modification zones consistent with Riverside County Fire Department standards. Fuel modification zones would be provided where the conditions outlined below exist, as per Riverside County Fire Department standards. The required FMZs would consist of the following:

- **Urban-Wildland Interface**: In order to adequately protect structures adjacent to open space areas and the MSHCP-dedicated hillsides, SP 380A1 would require sufficient "defensible space" between the dwelling units and the fuel associated with the open land. A total of one-hundred (100) feet of fuel modification treatment shall be required on all lots abutting native vegetation. In those areas where 100 feet of fuel modification zones cannot be achieved due to open space protection issues or property boundary limitations, alternative protection measures would be implemented to help protect the homes from wildfire. These protection measures would be based on worst case scenarios (slope, wind, native vegetation, fuel moisture, humidity, etc.) and fire fuel modeling. The affected lots may include measures consisting of, but not limited to, non-combustible fire deflection walls, increased width of required irrigated landscaping, or additional ignition resistant construction requirements greater than the required building codes.

- **Fuel Modification Zone 1A**: Fuel Modification Zone 1A would be homeowner maintained within individual lots and shall be free of all combustible construction and materials. Zone 1A generally would be located within the rear yard and side yards of the homes within all residential Planning Areas. It would consist of an irrigated zone surrounding the building pad as measured from the exterior walls of the building or from the most distal point of a combustible projection or an accessory structure within 10 feet of the main building to the lot boundary. This distance area would provide the best protection against the high radiant heat produced by a wildfire and also would provide a generally open area in which fire suppression forces can operate during wildfire events. This zone would include a level or



Source: ESRI, Nearmap (2022), K&A Engineering (04-04-2022), Firewise 2000 LLC (04-04-2022)

Figure 3-11

0 200 400 800 Feet

Conceptual Fuel Modification Plan

level-graded area around the structure and minimum 10-foot setbacks between buildings and trees. Landscaping in this zone shall be in accordance with Table IV-1 (Community Plant Palette) and Table IV-2 (Prohibited Plant List) of proposed SP 380A1.

- **Fuel Modification Zone 1B**: Fuel Modification Zone 1B would be maintained by the Valley-Wide Recreation and Park District and would consist of irrigated and fire-resistant landscaping and manufactured slopes that would extend from residential property lines. Zone 1B generally would be located in landscaping areas outside of homeowner lots, including in Planning Areas 1, 3, 5, and 6, starting from the lot parcel line extending 30 feet outwards, within parks, roadway landscaping, and manufactured slopes. This zone would be planted with fire resistant shrubs, trees, and groundcovers and would be irrigated and maintained by the Valley-Wide Recreation and Park District year-round. Landscaping in this zone would be in accordance with Table IV-1 (Community Plant Palette) and Table IV-2 (Prohibited Plant List) of proposed SP 380A1.

- **Fuel Modification Zone 2**: Fuel Modification Zone 2 would be maintained by the Valley-Wide Recreation and Park District and would consist of thinning treatment to ensure that areas in this zone contain 50% open space and are free of any dead and dying combustible vegetation. Zone 2 generally would begin at the outer edge of Zone 1A and Zone 1B landscaping and includes Planning Areas 1, 3, 5, 6, and 11A. This zone would consist of a non-irrigated area and must be maintained yearly prior to fire season to clear out any dead, dying, and invasive material. Landscaping in this zone shall be in accordance with Table IV-1 (Community Plant Palette) and Table IV-2 (Prohibited Plant List) of proposed SP 380A1.

- **Roadside Fuel Treatment**: Roadside fuel treatment would be managed by the Valley-Wide Recreation and Park District and would include all public roads, which shall have a minimum of 20 feet of combustible vegetation clearance on each side of the roadway. Temporary roadside fuel treatment maintenance would be applied to public roads until adjoining properties are developed. Sidewalks and related non-combustible improvements are encouraged in fuel treatment areas to enhance the level of protection. Landscaping for roadside fuel treatment shall be in accordance with Table IV-1 (Community Plant Palette) Table IV-2 (Prohibited Plant List) of proposed SP 380A1.

Additional building features would be required for a few homes within residential Planning Areas 3 and 5 where the minimum 100-foot fuel treatment setback cannot be achieved. For any home or building that has reduced fuel modification distances, 6-foot solid non-combustible walls would be required to limit any actual radiant fire that may start in the conservation habitat area. Homes on these lots would be required to be single-story, any swinging exterior doors would be required to be self-closing, and copper piping in attics would be required. Fire sprinklers would be required to extend outside under the eaves and interior fire sprinklers would be required in attics and garages. Landscaping in this zone shall be in accordance with Table IV-1 (Community Plant Palette) Table IV-2 (Prohibited Plant List) of proposed SP 380A1.

6. Proposed Keller Crossing Specific Plan Design Guidelines

Proposed SP 380A1 also includes Design Guidelines related to site planning, architecture, lighting, signage, and landscape/hardscape design. The Design Guidelines are intended to allow for flexibility for future implementing developments while providing standards to help ensure the site is developed in a manner

consistent with the development quality, character, and theme as described by SP 380A1. Future implementing developments would be reviewed by the County for compliance with the Design Guidelines section of SP 380A1. Refer to Chapter 4 of proposed SP 380A1 for the specific design standards that would apply to future development.

3.5.4 Tentative Tract Map No. 38163

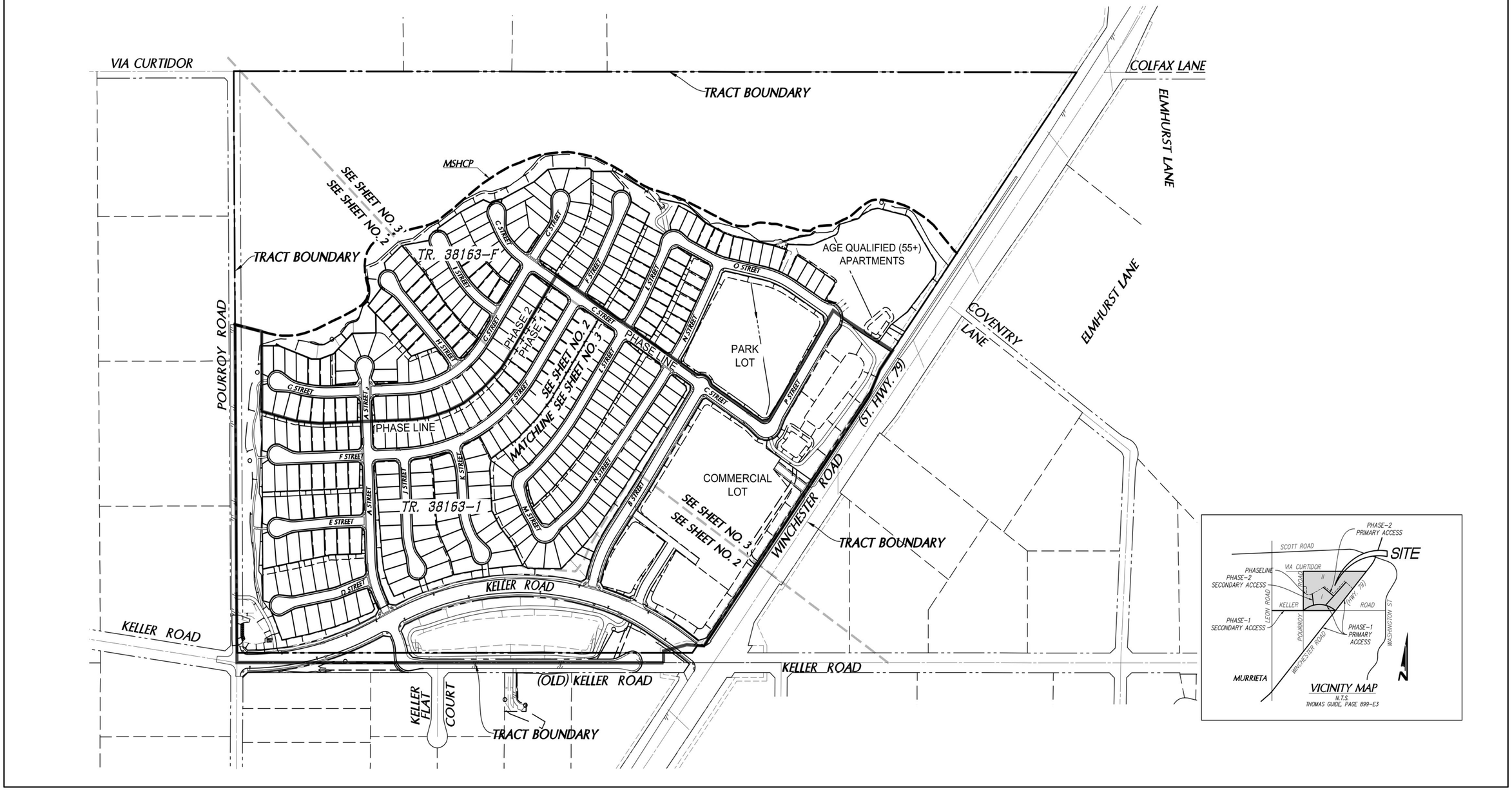
As shown on Figure 3-12, *Tentative Tract Map* 38163, and as summarized in Table 3-2, *Tentative Tract Map 38163 Land Use Summary*, Tentative Tract Map No. 38163 (TTM 38163) would subdivide the approximately ±196.0 acre Project site to implement the land uses proposed as part of SP 380A1. TTM 38163 would subdivide the 196.0-acre Project site into 353 single-family residential lots on 52.5 acres, one lot for the development of 80 multi-family residential units on 5.5 acres, one lot for CD-VLDR land uses on 1.0 acre (which is not proposed for residential development as part of the Project), one lot for commercial retail land uses on 13.3 acres, one lot for the development of a public park on 6.4 acres, one lot for land use buffer and paseo trail uses on 4.1 acres, 24 lots for landscaped areas and landscaped slopes on 9.9 acres, three lots for detention basins on 11.2 acres, one lot for conservation habitat land uses on 61.4 acres, with remaining areas consisting of proposed roadway improvements. A detailed description of the various land uses that would result from the approval of TTM 38163 is provided below.

Table 3-2 Tentative Tract Map 38163 Land Use Summary

Land Use	Lot Numbers	Acreage[2]
Single Family Residential (MDR and MHDR)	Lots 1-195 (Tract No. 38163-1) Lots 196-353 (Tract No. 38163-F)	52.5
Multi-Family Residential (HDR)	Lot 354 (Tract No. 38163-F)	5.5
Community Development – Very Low Density Residential (CD-VLDR)[1]	Lot 385	1.0
Commercial Retail (CR)	Lot 381 (Tract No. 38163-1)	13.3
Open Space – Recreation (OS-R)	Lot 377 (Tract No. 38163-1) Lot 355 (Tract No. 38163-F)	10.5
Landscaped/Landscaped Slopes	Lots 357, 358, 363, 364, 372, 375, 378, 379, 382, 382, and 383 (Tract No. 38163-1) Lot 356, 359-362, 365-371, 373, 374, 376, and 380 (Tract No. 38163-F)	9.9
Detention Basins (OS-W)	Lots 382, 383, and 384 (Tract No. 38163-1)	11.2
Open Space – Conservation Habitat (OS-CH)	N/A	61.4
Roadways	N/A	30.7
Totals:	**--**	**196.0**

1. No dwelling units are proposed within proposed Lot 385.

- **Single Family Residential.** TTM 38163 proposes to subdivide the property to provide a total of 353 single-family residential lots on 52.5 acres, which would range in size from 5,000 s.f. to 14,681 s.f. The average lot size would be 6,475 s.f. Lots 1-195 of Tract No. 38163-1 and Lots 196-353 of Tract No. 38163-F are intended to implement Planning Areas 1 through 5 of SP 380A1.



Source(s): K&A Engineering (07-27-2022)

Not to Scale

Figure 3-12

Tentative Tract Map 38163

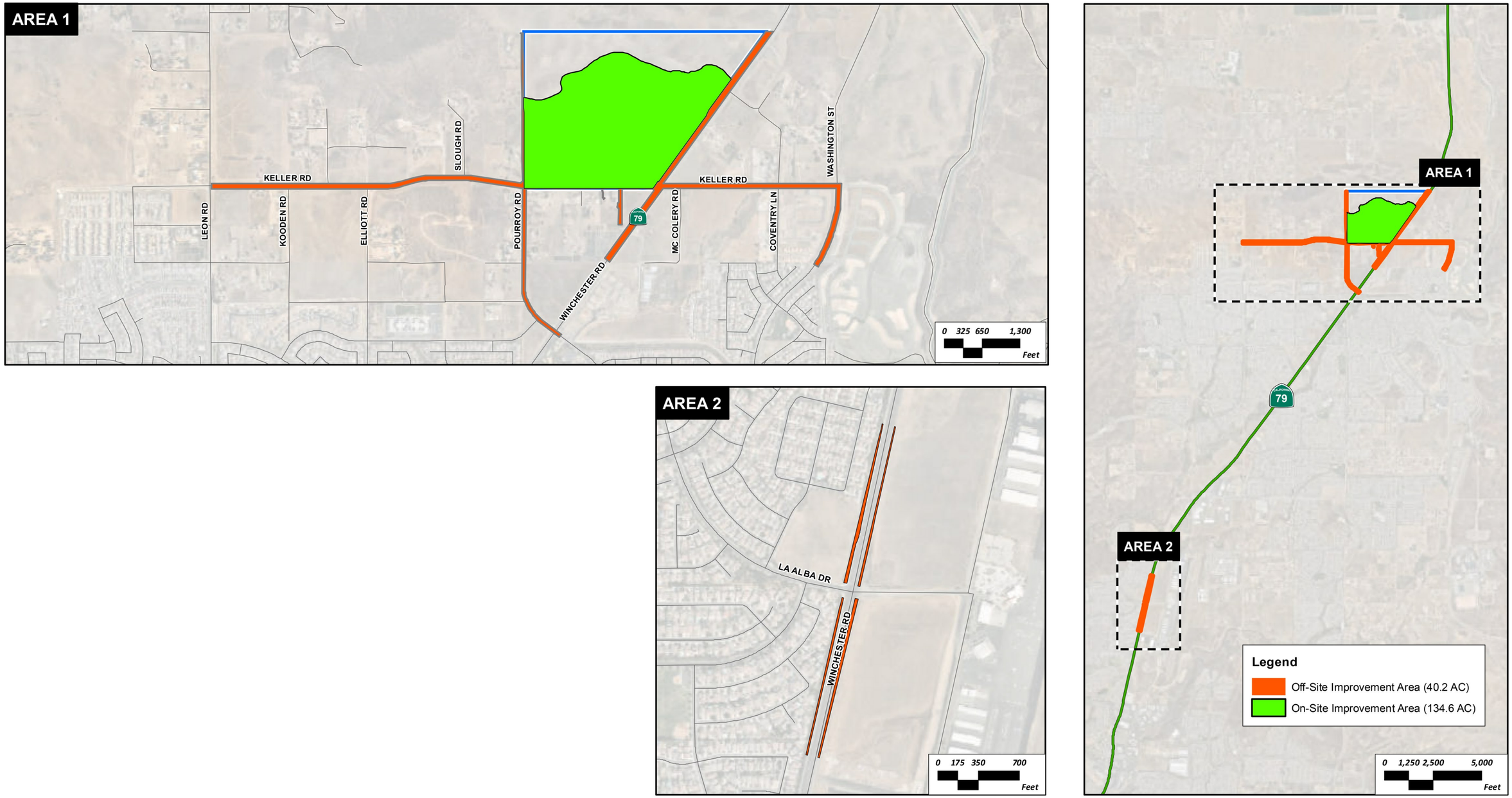
- **Multi-Family Residential.** TM 38163 proposes one multi-family residential lot in the northeastern portion of the site on 5.5 acres (Lot 354). Lot 354 is intended to implement Planning Area 6 of SP 380A1 and would allow for the development of 80 Age-Qualified multi-family dwelling units.
- **Community Development – Very Low Density Residential (CD-VLDR).** TM 38163 proposes a 1.0-acre lot (Lot 385) within PA 12, with no dwelling units proposed in this area. A portion of PA 12 would be vacated to adjacent landowners along Old Keller Road; a portion would be transferred to the Riverside County Flood Control and Water Conservation District for storm drain easement purposes; and a portion would serve as a landscaped slope maintained by Valley-Wide Recreation and Park District.
- **Commercial Retail.** TTM 38163 proposes one commercial lot along a portion of the eastern boundary of the site on 13.3 acres (Lot 381) and is intended to implement PA 7 of SP 380A1. As proposed by the SP 380A1, Planning Area 7 would allow for up 176,000 s.f. of commercial retail uses.
- **Recreation Park Site and Land Use Buffer/Paseo Trail.** TTM 38163 proposes two lots for recreation purposes on 10.5 acres along the western boundary of the site as well in the eastern portion of the Project site. Lots 355 (Tract No. 38163-F) and 377 (Tract No. 38163-1) would implement Planning Areas 8 and 9 of SP 380A1, respectively.
- **Detention Basins.** TTM 38163 proposes three lots for detention basins (Lots 382, 383, and 384) on-site on a total of 11.2 acres, which would implement Planning Areas 11A and 11B of SP 380A1.
- **Open Space Conservation Habitat.** TTM 38163 proposes one lot open space conservation habitat uses in accordance with the MSHCP on 61.4 acres, which would implement Planning Area 10 of SP 380A1.
- **On-Site Public Roadways.** TTM 38163 proposes public streets on approximately 30.7 acres, including the proposed realignment of Keller Road; Old Keller Road, Winchester Road, and Pourroy Road; proposed Streets A, B, C, D, E, F, and G; and other internal roadways.

3.6 Project Construction and Operational Characteristics

3.6.1 Construction Details

A. Proposed Physical Disturbance

For purposes of analysis throughout this EIR, it is assumed that implementation of the Project would result in disturbances to all portions of the Project site, with exception of the 61.4 acres in the northern portions of the Project site (proposed PA 10 of SP 380A1), which are proposed for OS-CH land uses. In addition, the Project would require off-site impacts to areas proposed for roadway improvements and/or construction of water, sewer, and drainage facilities. As shown on Figure 3-13, *Proposed Limits of Physical Disturbance*, areas planned for disturbance on site would comprise approximately 134.6 acres, while off-site improvements would result in physical impacts to up to 40.2 acres. No other on- or off-site physical impacts are anticipated from Project implementation.



Source(s): RCTLMA (2021), Nearmap Imagery (2021)

Figure 3-13

Proposed Limits of Physical Disturbance

B. Timing of Construction Activities

For purposes of analysis throughout this EIR, it is assumed that construction activities would commence as early as November 2022, and would be completed by the end of 2024. Although it is possible that construction activities would not commence as early as November 2022, the assumption that construction activities would commence as early as November 2022 provides a "worst case" assessment of potential construction-related impacts since air quality emission factors for construction decrease as time passes and the analysis year increases due to emission regulations becoming more stringent and the phasing out of older, more polluting equipment.[1] Construction of the Project is expected to occur in two phases, with the first phase consisting of buildout of Planning Areas 1, 2, 4, 7, 9, 11A, 11B, and 12 of SP 380A1 and the second phase consisting of buildout of Planning Areas 3, 5, 6, and 8. Phase 1 is anticipated to be fully occupied in 2023, while the overall Project is anticipated to be fully occupied in 2028. Buildout and occupancy of the Project would occur based on market conditions at the time of implementation.

3.6.2 Operational Characteristics

The proposed Project would be operated as a residential community and as a neighborhood commercial center. As such, typical operational characteristics include residents and visitors traveling to and from the residential portion of the site, customers and vendors traveling to and from the commercial area of the site, leisure and maintenance activities occurring on individual residential lots and in the on-site recreation areas, and general maintenance of common areas. Low levels of noise and a moderate level of artificial exterior lighting typical of a mixed-use community is expected. Lighting associated with the proposed commercial retail uses would be subject to compliance with County of Riverside Ordinance Nos. 655 and 915. Ordinance No. 655 would require the use of low-pressure sodium lamps and the shielding of all nonexempt outdoor lighting fixtures. Ordinance No. 915 requires that all outdoor luminaires shall be located, adequately shielded, and directed such that no direct light falls outside the Project boundaries or onto the public right-of-way.

A. Future Population

Implementation of the proposed Project would result in the construction of 353 single-family homes and 80 multi-family age-restricted dwelling units. According to Appendix E to the Riverside County General Plan, the average household size in the SWAP area for residential development is 3.17 persons per household (pph). However, as the County's General Plan land use conversion data does not contain a relevant conversion factor for age-restricted housing, future population associated with the age restricted housing component was modeled based on an average persons per household figure obtained from the National Association of Home Builders (NAHB) publication, "Approving 55+ Housing: Facts That Matter," which indicates that age-restricted housing generates approximately 2.11 persons per household. As shown in Table 3-3, *Estimated Future Population*, the Project is estimated to generate a future population of approximately 1,288 residents. (Riverside County, 2021a, Appendix E, Table E-2; NAHB, n.d., Figure I-2)

[1] As shown in the CalEEMod User's Guide Version 2016.3.2, Section 4.3 "OFFROAD Equipment" as the analysis year increases, emission factors for the same equipment pieces decrease due to the natural turnover of older equipment being replaced by newer less polluting equipment and new regulatory requirements.

Table 3-3 Estimated Future Population

Land Use	Dwelling Units	Persons per Household	Estimated Population
Single Family Residential	353	3.17 pph	1,119
Multi-Family Residential (Age Restricted)	80	2.11 pph	169
Totals:	**433**	**--**	**1,288**

(Riverside County, 2021a, Appendix E, Table E-2; NAHB, n.d., Figure I-2)

It should be noted that the proposed Project is located within the Valley-Wide Recreation and Park District (VWRPD). The VWRPD's Master Plan establishes a different pph value for residential uses within its district (i.e., 3.12 pph). Accordingly, while the population generation rates shown in Table 3-3 are used for the analysis throughout most of this EIR, the calculation of parkland demand is instead based on the single-family residential rates used in the VWRPD's Master Plan. For purposes of calculating parkland demand, it is assumed that the single-family residential uses would generate 1,101 residents (353 household * 3.12 pph = 1,101 persons), while the proposed age-restricted multi-family uses would generate 169 residents (as shown in Table 3-3). Thus, for purposes of calculating parkland demand (only), it is assumed the Project would result in the generation of 1,270 residents. (VWRPD, 2021)

B. Employment

Because the users of the Project's non-residential buildings are not yet known, the number of jobs that the Project would generate cannot be precisely determined. Appendix E to the Riverside County General Plan provides an estimate of the number of employees typically associated with various proposed land use types. Accordingly, Table 3-4, *Estimated Employment*, provides an estimate of the number of employees anticipated with the buildout of the commercial retail land use, based on the rates identified in Appendix E to the County's General Plan. As shown, buildout of 176,000 s.f. of commercial retail land uses is estimated to result in up to 352 employees. (Riverside County, 2021a, Appendix E-1, p. 4 and Table E-5)

Table 3-4 Estimated Employment

Land Use Designation	Building Area/Acreage	Employment Generation Factors	Estimated Employees
Commercial Retail	176,000 s.f.	500 s.f./employee	352
Totals:	**176,000 s.f**	**--**	**352**

(Riverside County, 2021a, Appendix E-1, p. 4 and Table E-5)

C. Traffic

1. Project Trip Generation

A Project-specific Traffic Study was prepared for the proposed Project by Urban Crossroads, Inc. ("TS"; *Technical Appendix L2)*. As discussed in the Project's TS, in order to develop the traffic characteristics of the proposed Project, trip-generation statistics published in the Institute of Traffic Engineers (ITE) Trip Generation Manual (10th Edition, 2017) for the following land use codes (Urban Crossroads, 2022, p. 59):

- Single Family Detached Housing (ITE Land Use Code 210)
- Senior Housing – Attached (ITE Land Use Code 252)

- Supermarket (ITE Land Use Code 850)
- Pharmacy with Drive-Thru Window (ITE Land Use Code 881)
- Shopping Center (ITE Land Use Code 820) – Based on Regression Equation for 101,500 SF
- Fast-food Restaurant with Drive-Thru Window (ITE Land Use Code 934)
- Sports Park/Active Park (Source: San Diego Municipal Code Land Development Code Trip Generation Manual)

As the Project is proposed to include shopping center, restaurant, and other complementary uses, pass-by percentages have been obtained from the ITE Trip Generation Handbook (3rd Edition, 2017). Patrons of the uses may also visit other uses on-site, including the restaurants, and retail uses, without leaving the site. The ITE Trip Generation Handbook has been utilized to determine the internal capture for the applicable mix of uses. (Urban Crossroads, 2022, p. 59)

Internal capture is a percentage reduction that can be applied to the trip generation estimates for individual land uses to account for trips internal to the site. In other words, trips may be made between individual retail uses on-site and can be made either by walking or using internal roadways without using external streets. As the trip generation for the site was conservatively estimated based on individual land uses as opposed to the average ITE Shopping Center rate, an internal capture reduction was applied to recognize the interactions that would occur between the various complementary land uses. The internal capture is based on the National Cooperative Highway Research Program's (NCHRP Report 684) internal capture trip capture estimation tool. (Urban Crossroads, 2022, p. 60)

The trip generation rates and trip generation summary for Phase 1 and Project Buildout are shown on Table 3-5, *Project (Phase 1) Trip Generation Summary*, and Table 3-6, *Project Buildout Trip Generation Summary*, respectively. It should be noted that the data shown in Table 3-6 assumes a total of 356 single-family detached dwelling units, while only 353 single-family detached dwelling units are proposed as part of the Project; thus, the data in Table 3-6 slightly overstates the number of trips that would be generated by the Project. Phase 1 of the proposed Project is anticipated to generate a net total of 1,842 trip-ends per day with 144 AM peak hour trips and 193 PM peak hour trips, as shown on Table 3-5. Buildout of the proposed Project is anticipated to generate a net total of 6,298 trip-ends per day with 646 AM peak hour trips and 573 PM peak hour trips, as shown on Table 3-6. (Urban Crossroads, 2022, p. 60)

2. Project Trip Distribution and Assignment

The Project trip distribution represents the directional orientation of traffic to and from the Project site. Trip distribution is the process of identifying the probable destinations, directions, or traffic routes that would be utilized by Project traffic. The potential interaction between the planned land uses and surrounding regional access routes are considered to identify the route where Project traffic would distribute. Long-range trip distribution patterns take into consideration the buildout of future roadway facilities that could likely be utilized by Project traffic. Each of the Project Buildout trip distributions includes an alternative that assumes the right-in/right-out access driveway along SR-79, which have been utilized for the alternative access scenarios only. Trip distribution patterns are shown on the following exhibits of the Project's TS (*Technical Appendix L2*): (Urban Crossroads, 2022, p. 62)

Table 3-5 Project (Phase 1) Trip Generation Summary

Land Use	Quantity Units[1]	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
Single Family Detached Residential	195 DU	36	108	144	122	71	193	1,842

[1] DU = dwelling units

(Urban Crossroads, 2022, Table 4-1)

Table 3-6 Project Buildout Trip Generation Summary

Land Use	Quantity Units[1]	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
Single Family Detached Residential	356 DU	66	198	264	222	130	352	3,362
Senior Housing - Attached	80 DU	6	10	16	11	9	20	296
Park	6.5 AC	7	7	14	13	13	26	326
Internal Capture:		-5	-44	-49	-137	-82	-219	-2,092
Residential Subtotal:		74	171	245	109	70	179	1,892
Commercial Retail	101.500 TSF	126	77	203	264	285	549	6,074
Internal Capture:		-9	-13	-22	-58	-84	-142	-1,572
Pass-by Reduction (34% PM/Daily):		0	0	0	-68	-68	-136	-1,532
Supermarket	50.000 TSF	115	76	191	236	226	462	5,340
Internal Capture:		-10	-10	-20	-51	-65	-116	-1,342
Pass-by Reduction (36% PM/Daily):		0	0	0	-58	-58	-116	-1,440
Pharmacy with Drive-Thru Window	14.000 TSF	28	25	53	72	72	144	1,528
Internal Capture:		-5	-1	-6	-16	-10	-26	-276
Pass-by Reduction (49% PM/Daily):		0	0	0	-27	-27	-54	-614
Fast-Food Restaurant with Drive-Thru	10.500 TSF	215	207	422	178	165	343	4,946
Internal Capture:		-65	-26	-91	-77	-98	-175	-2,524
Pass-by Reduction (49% AM; 50% PM/Daily):		-74	-74	-148	-34	-34	-68	-1,212
Commercial Retail Subtotal		204	197	401	223	171	394	4,406
Project Buildout Total:		**278**	**368**	**646**	**332**	**241**	**573**	**6,298**

[1] DU = dwelling units; TSF = thousand square feet; AC = acres

(Urban Crossroads, 2022, Table 4-2)

- Exhibit 4-1: Near-term trip distribution patterns for the residential use
- Exhibit 4-2: Near-term trip distribution patterns for the commercial retail use
- Exhibit 4-3: Long-range trip distribution patterns for the residential use
- Exhibit 4-4: Long-range trip distribution patterns for the commercial retail use

The assignment of traffic from the Project area to the adjoining roadway system is based upon the Project trip generation, trip distribution, and the arterial highway and local street system improvements that would be in place by the time of initial occupancy of the Project. Based on the identified Project traffic generation and trip distribution patterns, the Project only ADT and peak hour intersection turning movement volumes are shown on the following exhibits in the Project's TS (*Technical Appendix L2*): (Urban Crossroads, 2022, p. 62)

- Exhibit 4-5: Project (Phase 1) traffic volumes
- Exhibit 4-6: Project (Project Buildout) traffic volumes

- Exhibit 4-7: Project (Project Buildout – Alternative Access) traffic volumes
- Exhibit 4-8: Project (Project Buildout Horizon Year) traffic volumes
- Exhibit 4-9: Project (Project Buildout Horizon Year – Alternative Access) traffic volumes

D. Water Demand

Based on the Water Supply Assessment prepared by EMWD and included as *Technical Appendix M* to this EIR, Table 3-7, *Projected Water Demand*, provides an estimate of the amount of water that would be needed to serve the Project. As shown, the Project would result in an Average Day Demand (ADD) of 238,240 gallons and an annual demand of 267.06 acre-feet per year (AFY) (EMWD, 2021d, Table 11).

Table 3-7 Projected Water Demand

Land Use Category	Average Day Demand (gpd)	Annual Demand (AFY)
Medium Density Residential	123,200	138.10
Medium-High Density Residential	30,400	34.08
High Density Residential	24,800	27.80
Commercial Retail	38,940	43.65
Open Space Recreation	20,900	23.43
Total	**238,240**	**267.06**

(EMWD, 2021d, Table 11)

E. Wastewater Generation

Based on the sewer capacity study prepared for the Project (*Technical Appendix R* to this EIR) and the Project's proposed land uses (as previously summarized in Table 3-2), Table 3-8, *Estimated Wastewater Generation*, provides an estimate of the amount of wastewater that would be generated by the Project. As shown, the Project is anticipated to generate approximately 120,985 gallons per day (gpd) of wastewater requiring treatment. (Dexter Wilson, 2021a)

Table 3-8 Estimated Wastewater Generation

Land Use	*Quantity*	*Unit Flows*	*Total Average Flow, gpd (gallons per day [gpd])*
Medium Density Residential and Medium High Density Residential	353 units	235 gpd/unit	82,955
Very High Density Residential	80 units	152.75 gpd/unit	12,220
Commercial Retail	13.3 acres	1,700 gpd/acre	22,610
Open Space – Recreation[1]	6.4 acres	500 gpd/acre	3,200
		Total Wastewater Generated:	***120,985 gpd***

1. "Open Space – Recreation" includes only the park use within PA 8 of SP 380A1, as the landscaped areas and paseo within proposed PA 9 would not contain any restrooms that could result in the generation of wastewater.

(Dexter Wilson, 2021a, Table 1)

3.7 SUMMARY OF REQUESTED ACTIONS

The County of Riverside has primary approval responsibility for the proposed Project. As such, the County serves as the Lead Agency for this EIR pursuant to State CEQA Guidelines § 15050. The role of the Lead Agency was previously described in detail in Section 1.0 of this EIR. As part of the approval process for the proposed Project, the County's Planning Commission will hold a public hearing to consider this EIR, the Project's General Plan Amendment (GPA210004), Amendment No. 1 to Specific Plan No. 380 (SP00380A01), Change of Zone (CZ2100012), and Tentative Tract Map (TTM38163). The Planning Commission will make advisory recommendations to the Board of Supervisors on whether to approve, approve with changes, or deny GPA210004, SP00380A01, CZ2100012, and TTM38163 and whether to certify this EIR. A public hearing will then be held before the Board of Supervisors, which will consider the information contained in the Project's EIR and the EIR's Administrative Record in its decision-making processes, and will certify or decline to certify this EIR, and will approve, approve with changes, or deny proposed GPA210004, SP00380A01, CZ2100012, and TTM38163.

3.8 RELATED ENVIRONMENTAL REVIEW AND CONSULTATION

Subsequent to approval of GPA210004, SP00380A01, CZ2100012, and TTM38163, additional discretionary applications would be required to implement the Project. Plot Plans would be required for development within the commercial portion of the Project, while Conditional Use Permits (CUPs) also may be required for certain types of uses. Implementation of the proposed multifamily uses within PA 6 of SP 380A1 also may require approval of a condominium map. Riverside County would review future applications for consistency with the General Plan, SWAP, SP 380A1, and the adopted zoning ordinance for the site. Additionally, the County would be required to conduct additional CEQA review for the future implementing discretionary approvals, and would evaluate whether the implementing discretionary action(s) meet the conditions of State CEQA Guidelines §§ 15162 and 15163 requiring preparation of a Subsequent or Supplemental EIR. If the implementing discretionary action(s) do not meet the conditions of State CEQA Guidelines §§ 15162 or 15163, then an Addendum to this EIR may be prepared in accordance with State CEQA Guidelines § 15164.

Following approval of implementing discretionary actions, ministerial actions also would be necessary to implement the proposed Project. These include, but are not limited to, grading permits, building permits, encroachment permits/road improvements, drainage infrastructure improvements, water and sewer infrastructure improvements, stormwater permit(s) (NPDES), and State and federal resource agency permits. Table 3-9, *Matrix of Project Approvals/Permits*, provides a summary of the agencies responsible for subsequent discretionary approvals associated with the Project. This EIR covers all federal, State, and local government approvals which may be needed to construct or implement the Project, whether explicitly noted in Table 3-9, or not [State CEQA Guidelines §15124(d)].

Table 3-9 Matrix of Project Approvals/Permits

Public Agency	Approvals and Decisions
County of Riverside	
Riverside County Planning Commission	• Provide recommendations to the Riverside County Board of Supervisors whether to approve Amendment No. 1 to the Keller Crossing Specific Plan No. 380 (SP00380A01), General Plan Amendment No. 210004 (GPA210004), Change of Zone No. 2100012 (CZ2100012), and TTM 38163 (TTM38163). • Provide recommendations to the Riverside County Board of Supervisors regarding certification of this Project EIR.
Riverside County Board of Supervisors	• Approve, conditionally approve, or deny Amendment No. 1 to the Keller Crossing Specific Plan No. 380 (SP00380A01). • Approve or deny General Plan Amendment No. 210004 (GPA210004). • Approve or deny Change of Zone No. 2100012 (CZ2100012). • Approve, conditionally approve, or deny TTM No. 38163 (TTM38163). • Reject or certify this Project EIR along with appropriate CEQA Findings.
Subsequent Riverside County Discretionary and Ministerial Approvals	
Riverside County Subsequent Implementing Approvals: Planning Department and/or Building & Safety	• Approve implementing Plot Plans. • Approve implementing Conditional Use Permits. • Approve implementing condominium map(s). • Record Final Maps. • Issue Grading Permits. • Issue Building Permits. • Approve Road Improvement Plans. • Issue Encroachment Permits. • Issue Conditional Use Permits, if required.
Other Agencies – Subsequent Approvals and Permits	
San Diego Regional Water Quality Control Board	• Issuance of a National Pollutant Discharge Elimination System (NPDES) Permit • Issuance of a Construction General Permit • Issuance of a Waste Discharge Order pursuant to Section 13260 of the California Water Code
California Department of Fish and Wildlife	• Issuance of a Section 1602 Streambed Alteration Agreement
Riverside County Flood Control and Water Conservation District (RCFCWCD)	• Approval of proposed drainage infrastructure
South Coast Air Quality Management District (SCAQMD)	• Permits and approvals associated with operation of stationary equipment, if proposed
Eastern Municipal Water District (EMWD)	• Approval of proposed water and sewer connections and improvements

4.0 ENVIRONMENTAL ANALYSIS

4.0.1 SUMMARY OF EIR SCOPE

In accordance with State CEQA Guidelines §§ 15126-15126.4, this EIR Section 4.0, *Environmental Analysis*, provides analyses of potential direct, indirect, and cumulatively-considerable impacts that could occur from planning, constructing, and operating the proposed Project.

In compliance with the procedural requirements of CEQA, a Notice of Preparation (NOP) was prepared and distributed for a 30-day public review period on August 31, 2021, in accordance with State CEQA Guidelines Section 15082. An Initial Study was not prepared for the Project, and as such the NOP indicated that the required EIR will evaluate all of the topics listed in Appendix G to the State CEQA Guidelines, as implemented by Riverside County and the County's standard Environmental Assessment (EA) Form. Public comment on the scope consisted of written comments received by Riverside County in response to the NOP issued for this EIR. Oral comments also were provided by members of the public at the EIR Scoping Meeting held on September 27th, 2021 at the County of Riverside Administrative Building located at 4080 Lemon Street in Riverside, California 92501. Taking all known information and public comments into consideration and the updates to the State CEQA Guidelines, 21 primary environmental subject areas are evaluated in this Section 4.0, as listed below. Each Subsection evaluates several specific subject matters related to the general topic of the Subsection. The title of each Subsection is not limiting; therefore, refer to each Subsection for a full account of the subject matters addressed therein.

4.1 Aesthetics
4.2 Agriculture and Forest Resources
4.3 Air Quality
4.4 Biological Resources
4.5 Cultural Resources
4.6 Energy
4.7 Geology and Soils
4.8 Greenhouse Gas Emissions
4.9 Hazards and Hazardous Materials
4.10 Hydrology and Water Quality
4.11 Land Use and Planning
4.12 Mineral Resources
4.13 Noise
4.14 Paleontological Resources
4.15 Population and Housing
4.16 Public Services
4.17 Recreation
4.18 Transportation
4.19 Tribal Cultural Resources
4.20 Utilities and Service Systems
4.21 Wildfire

4.0.2 SCOPE OF CUMULATIVE EFFECTS ANALYSIS

CEQA requires that an EIR contain an assessment of the cumulative impacts that may be associated with a proposed project. As noted in State CEQA Guidelines § 15130(a), "an EIR shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable." "[A] cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects creating related impacts" (State CEQA Guidelines §15130(a)(1)). As defined in State CEQA Guidelines § 15355:

> *'Cumulative Impacts' refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.*

(a) The individual effects may be changes resulting from a single project or a number of separate projects.

(b) The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

State CEQA Guidelines § 15130(b) describes two acceptable methods for identifying a study area for purposes of conducting a cumulative impact analysis. These two approaches include: 1) a list of past, present, and probable future projects producing related or cumulative impacts, including if necessary, those projects outside the control of the agency (the 'list of projects' approach), or 2) a summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact (the 'summary of projections' approach).

The summary of projections approach is used in this EIR, except for the evaluation of near-term traffic and vehicular-related air quality, greenhouse gas, and noise impacts, which rely instead on the list of projects approach. This methodology was determined to be appropriate by Riverside County because long-range planning documents contain a sufficient amount of information to enable an analysis of cumulative effects for all subject areas, with exception of traffic and vehicular-related air quality, greenhouse gas, and noise effects, which require a greater level of detailed study.

Under this approach, the cumulative analysis under most sections considers impacts to each issue area based on the presumed buildout of the Riverside County General Plan as well as the general plans of any nearby jurisdictions that occur within the cumulative study area for each subject area. For most issue areas, this would encompass nearby areas within unincorporated Riverside County, nearby portions of the City of Murrieta, and nearby portions of the City of Menifee, although the cumulative study area may be smaller or larger depending on the issue area under evaluation. For example, for the issue area of aesthetics, the cumulative study area is defined by the Project's viewshed (i.e., off-site areas with views of the Project site), which encompasses lands within the immediate Project vicinity (i.e., within approximately two miles of the Project site). For the issue of hydrology and water quality, by contrast, the cumulative study area is defined as the Santa Margarita Watershed, which encompasses portions of Riverside and San Diego Counties. For the issue of biology, the cumulative study area corresponds to the boundaries of the Western Riverside County Multiple Habitat Species Conservation Plan (MSHCP), as the MSHCP provides for the conservation of a wide variety of special status plant and animal species and encompasses a broad region that generally represents biological conditions associated with the Project area; thus, the cumulative study area for biological resources includes all future land uses within western Riverside County as called for by the general plans of the County and the various cities that are included in the MSHCP region. Refer to the individual Subsections within EIR Section 4.0 for a description of the specific cumulative study area used for each subject area evaluated in this EIR.

As noted, for most issue areas, nearby portions of unincorporated Riverside County and nearby portions of the City of Murrieta and City of Menifee are used as the Project's cumulative study area. This cumulative study area encompasses a large area surrounding the Project site that has similar environmental characteristics as the Project area. This area largely contains open space, undeveloped lands, agricultural, and rural residential uses,

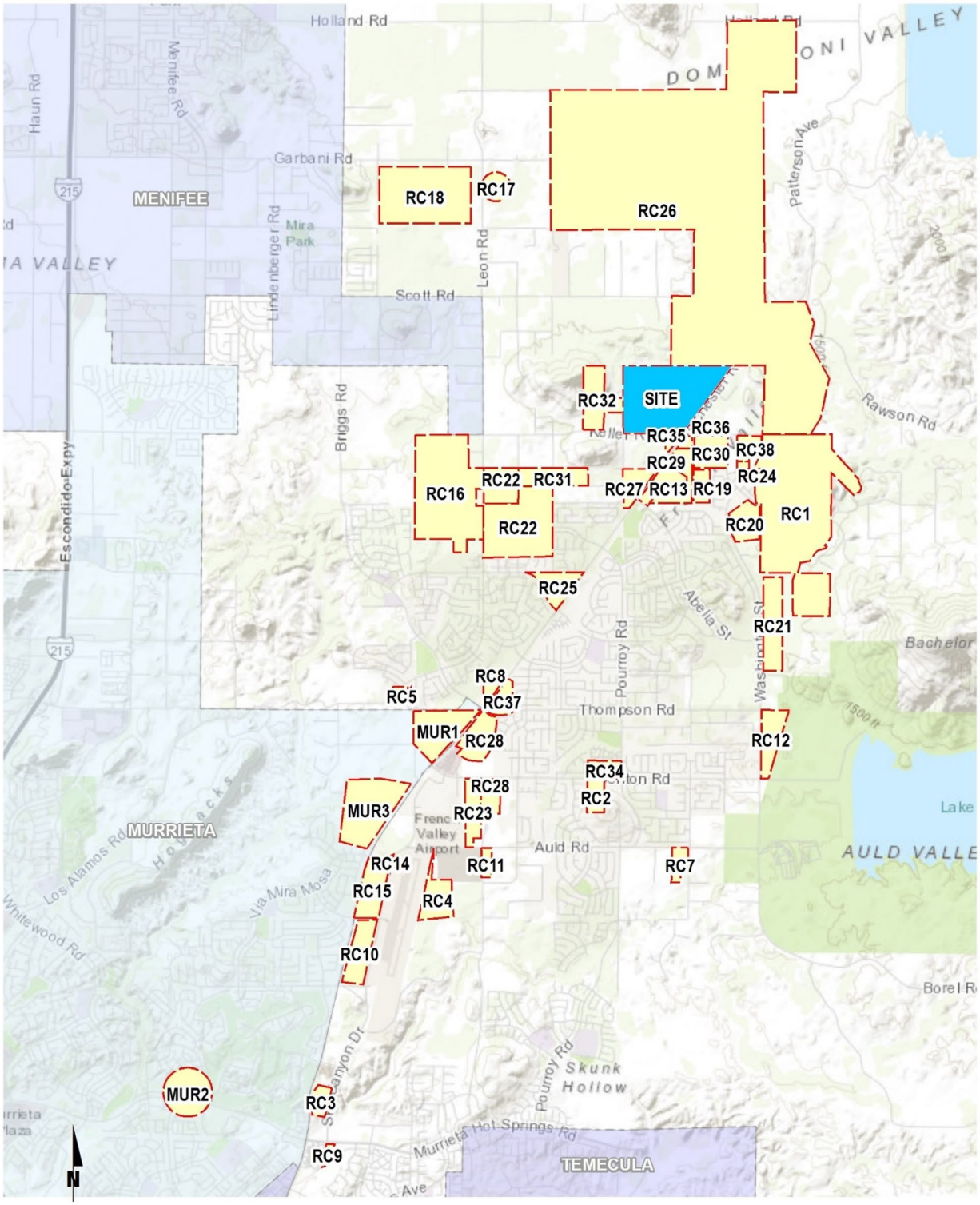
with master-planned residential communities and commercial retail uses located further to the south and west. This study area exhibits similar characteristics in terms of climate, geology, and hydrology. This study area also encompasses the service areas of the Project site's primary public service and utility providers. Areas outside of this study area either exhibit topographic, climatological, or other environmental circumstances that differ from those of the Project area, or are simply too far from the proposed Project site to produce environmental effects that could be cumulatively considerable.

The analysis of cumulatively-considerable traffic-related air quality, greenhouse gas, and noise impacts relies on a combined approach, utilizing the list of projects approach for the near-term projection of cumulative traffic volumes, and the summary of projections approach for the long-term projection of cumulative traffic volumes. With the combined approach, the cumulative impact analyses for air quality, greenhouse gas, and noise impacts overstate the Project's (and Project-related components') potential cumulatively-considerable impacts as compared to an analysis that would rely solely on the list of projects approach or solely on the summary of projections approach; therefore, the combined approach provides a conservative, "worst-case" analysis for cumulative traffic-related air quality, greenhouse gas, and noise impacts.

For near-term conditions, the analyses of cumulatively-considerable vehicular-related impacts to air quality, greenhouse gas, and noise are based on existing traffic conditions plus ambient growth and the manual addition of traffic from past, present, and reasonably foreseeable projects, and includes approved and pending development projects in proximity to the Project site that would contribute traffic to the same transportation facilities as the Project, as well as large, traffic-intensive projects farther from the Project site that have the potential to affect regional transportation facilities. This methodology recognizes development projects that have the potential to contribute measurable traffic to the same intersections, roadway segments, and/or State highway system facilities as the proposed Project and have the potential to be made fully operational in the foreseeable future. As shown on Table 4.0-1, *Cumulative Projects List*, and as depicted on Figure 4.0-1, *Cumulative Development Projects Location Map*, the near-term cumulative impact analysis of traffic-related air quality, greenhouse gases, and noise impacts, includes 46 other past, present, and reasonably foreseeable projects within this study area in addition to the summary of projections. The analysis of long-term cumulatively-considerable traffic impacts considers full buildout of nearby portions of unincorporated Riverside County, the City of Murrieta, and the City of Menifee, based on the general plan land use plans for these jurisdictions.

For the issue of air quality, the cumulative study area comprises the South Coast Air Basin (SCAB), while the cumulative impact analysis relies on guidance from the South Coast Air Quality Management District (SCAQMD). The SCAQMD published a report giving direction on how to address cumulative impacts from air pollution: *White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution* (SCAQMD, 2003). In this report the AQMD states on page D-3:

> *"…the AQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR. The only case where the significance thresholds for project specific and cumulative impacts differ is the Hazard Index (HI) significance threshold for toxic air contaminant (TAC) emissions. The project specific (project increment) significance threshold is HI > 1.0 while the cumulative*



Source: Urban Crossroads (07-01-2021)

Figure 4.0-1

Not to Scale

Cumulative Development Projects Location Map

Table 4.0-1 Cumulative Projects List

#	Project Name	Land Use[1]	Quantity	Units[2]
County of Riverside:				
RC1	Belle Terre (SP 382)	Single Family Housing	1282	DU
RC2	TR 32323	Single Family Housing	38	DU
RC3	PP 22147	Medical Office	10.750	TSF
	PP 22352	Business Park	177.742	TSF
RC4	French Valley Airport	Business Park	694.629	TSF
		Apartments	240	DU
		Condominium	211	DU
RC5	PP 26249	SFDR	48	DU
RC6	TTM 37308	SFDR	8	DU
RC7	TTM 37418	SFDR	6	DU
RC8	CUP 03593	Gas Station	6.200	TSF
		Commercial Retail	26.500	TSF
		Storage	128.600	TSF
	TR 33751	Single Family Housing	11	DU
	PP 26212	Car Wash	30	STALLS
RC9	PP 20574	Medical Office	29.400	TSF
RC10	KTM HQ	Hotel	200	RM
		Fitness Club	20.000	TSF
		Medical Office	77.000	TSF
		Office	160.000	TSF
		Research & Development	188.000	TSF
		High-Turnover Restaurant	14.500	TSF
		Fast Food w/ Drive-Thru	8.000	TSF
RC11	CUP180023	Gas Station with Convenience Market	16	VFP
RC12	TTM No. 35770	Single Family Housing	156	DU
	TR 37028	Single Family Housing	133	DU
RC13	Sevilla	Multifamily Housing (Low-Rise)	180	DU
RC14	Fausto Office Building	Single Tenant Office Building	7.850	TSF
RC15	French Valley Walmart & Commercial/Business Center (PP 21750, PM 34669)	Free-Standing Discount Store/Superstore	205.000	TSF
		Shopping Center	113.300	TSF
		Bank with Drive-Thru	5.500	TSF
		High Turnover (Sit-Down) Restaurant	6.500	TSF
		Fast Food Restaurant w/ Drive-Thru	4.000	TSF
RC16	Spencer's Crossing (SP 312 A-1)	Single Family Housing	1,671	DU
		Parks	32.1	AC
RC17	Perris Union HSD High School	High School	2800	STU
RC18	La Ventana Ranch	Single Family Housing	535	DU
		Community Park	15.0	AC
		Passive Park	2.0	AC
RC19	TR 36687	SFDR	71	DU
RC20	TR 33423	SFDR	134	DU
RC21	TR 30837	SFDR	320	DU
RC22	TR 32185	SFDR	426	DU
RC23	PM 29509	General Light Industrial	37.1	AC
RC24	TR 33303	SFDR	24	DU
RC25	TTM No. 37078	SFDR	164	DU
	PPT 170003	Condominium	168	DU
RC26	Domenigoni - Barton Properties (SP 310)	SFDR	2823	DU
		Mixed Use	200.8	AC
		Commercial Retail	42.4	AC
		Commercial Recreation	117.9	AC
		School	44.0	AC
		Passive Park	37.6	AC
RC27	PP 24054	Commercial Retail	160.680	TSF
RC28	Quinto Do Lago (SP 284)	Business Park/Commercial	45.3	AC

Table 4.0-1 Cumulative Projects List

#	Project Name	Land Use[1]	Quantity	Units[2]
		Industrial Park	38.8	AC
RC29	Winchester Village (SP 286A5)	SFDR	3912	DU
		Condominium	783	DU
		Commercial Retail	54.9	AC
		Commercial Recreation	36.7	AC
		Schools	55.0	AC
		Active Parks	58.4	AC
RC30	TR 36722 (SP 286A6)	SFDR	146	DU
RC31	TR 34150	SFDR	82	DU
RC32	TR 37089	SFDR	21	DU
RC33	CUP 3700	Gas Station w/ Convenience Market	6	VFP
		Car Wash	0.800	TSF
		Commercial Retail	3.225	TSF
RC34	TTM No. 37715	SFDR	145	DU
RC35	CUP190012	Self-Storage	185.468	TSF
RC36	PP19442	Multifamily Housing	186	DU
RC37	PP26344	Shopping Center	133.877	TSF
RC38	TR31700	SFDR	64	DU
RC39	PAR210002	Single Family Housing	88	DU
RC40	PAR210022	Self-Storage/Office/RV Storage	128.928	TSF
RC41	SP0030A01	Single Family Housing	356	DU
		Age Qualified Housing	80	DU
		Commerical Land Use	18.0	AC
		Parks	6.5	AC
		Preservation	61.1	AC
RC42	TR37078	Condominium	154	DU
RC43	CUP03078R2	Shopping Center/Drive-Thru/Gas Station	302.881	TSF
City of Murrieta:				
MUR1	Murrieta Marketplace (DP-2011-3129)	Commercial Retail	548.055	TSF
MUR2	Murrieta 196 (DP2013-3335)	Apartments	196	DU
MUR3	Adobe Springs (Tentative Parcel Map No. 36779)	SFDR	287	DU

1. SFDR = Single Family Detached Residential
2. AC = Acres; DU = Dwelling Units; TSF = Thousand Square Feet; VFP = Vehicle Fueling Positions; STU = Students; RMS = Rooms

(Urban Crossroads, 2021f, Table 4-3)

> *(facility-wide) is HI > 3.0. It should be noted that the HI is only one of three TAC emission significance thresholds considered (when applicable) in a CEQA analysis. The other two are the maximum individual cancer risk (MICR) and the cancer burden, both of which use the same significance thresholds (MICR of 10 in 1 million and cancer burden of 0.5) for project specific and cumulative impacts.*
>
> *Projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant."*

The cumulative analysis provided in EIR Subsection 4.3 assumes that individual projects that do not generate emissions that exceed the SCAQMD's recommended daily thresholds for project-specific impacts also would not cause a cumulatively-considerable increase in emissions for those pollutants for which the South Coast Air Basin (SCAB) is in nonattainment, and, therefore, would not be considered to have a significant, adverse air

quality impact. Alternatively, individual project-related emissions that exceed SCAQMD thresholds for Project-specific impacts would be considered cumulatively considerable.

Compliance with the SCAQMD guidelines for evaluating direct and cumulatively-considerable impacts due to air quality emissions has been shown to result in a demonstrable reduction in air quality pollutants within the South Coast Air Basin (SCAB). As more thoroughly discussed in EIR Subsection 4.3, regulations promulgated by the SCAQMD have led to a dramatic reduction in the level of air quality pollutants within the SCAB, including levels of ozone, particulate matter (PM_{10} and $PM_{2.5}$), carbon monoxide (CO), and oxides of nitrogen (NO_X). As noted in the SCAQMD 2016 AQMP, "the remarkable historical improvement in air quality since the 1970's is the direct result of Southern California's comprehensive, multiyear strategy of reducing air pollution from all sources as outlined in its AQMPs" (SCAQMD, 2017). Improvements also have been seen in ozone levels. Part of the control processes of the SCAQMD's duty to greatly improve the air quality in the SCAB is the uniform CEQA review procedures required by SCAQMD's CEQA Handbook (SCAQMD, 2019). The single threshold of significance used to assess Project direct and cumulative impacts has in fact been successful, as evidenced by the track record of the air quality in the SCAB dramatically improving over the course of the past decades (refer to EIR Subsection 4.3 for an additional discussion on the improvements of air quality within the SCAB).

Environmental impacts associated with buildout of the cumulative study area were evaluated in CEQA compliance documents prepared for the respective general plans of each of the above-named jurisdictions. The location where each of these CEQA compliance documents is available for review is provided below. All of the CEQA compliance documents listed below are herein incorporated by reference pursuant to State CEQA Guidelines § 15150.

- Riverside County General Plan Program EIR No. 521 (SCH No. 2009041065), available for review at the Riverside County Planning Department, located at 4080 Lemon Street, 12th Floor, Riverside, California 92501.

- City of Murrieta General Plan 2035 EIR (SCH No. 2010111084), available for public review at the City of Murrieta Planning Division, located at 1 Town Square, 24601 Jefferson Avenue, Murrieta, California 92562.

- City of Menifee General Plan EIR (SCH No. 2012071033), available for public review at the City of Menifee Planning Division, 29844 Haun Road, Menifee, California 92586.

4.0.3 Identification of Impacts

Subsections 4.1 through 4.21 of this EIR evaluate the twenty-one (21) environmental subjects warranting detailed analysis. The format of discussion is standardized as much as possible in each Subsection for ease of review. The environmental setting is discussed first, followed by a discussion of the Project's potential environmental impacts based on specified thresholds of significance used as criteria to determine whether potential environmental effects are significant.

The thresholds of significance used in this EIR are based on the thresholds presented in State CEQA Guidelines Appendix G and as applied by Riverside County's standard Environmental Assessment (EA) Form. The thresholds are intended to assist the reader of this EIR in understanding how and why this EIR reaches a conclusion that an impact would or would not occur, is significant, or is less than significant.

Serving as the CEQA Lead Agency for this EIR, Riverside County is responsible for determining whether an adverse environmental effect identified in this EIR should be classified as significant or less than significant. While Riverside County has generally elected to use the thresholds presented in State CEQA Guidelines Appendix G, it should be noted that CEQA affords the County discretion to formulate standards of significance, and recognizes that the significance of a particular impact may vary with the setting (14 Cal. Code Regs., § 15064(b)). The standards of significance used in this EIR are based on the independent judgment of the Riverside County, taking into consideration the updated State CEQA Guidelines Appendix G, Riverside County's Municipal Code, and adopted County policies and ordinances; the judgment of the technical experts that prepared this EIR's Technical Appendices; performance standards adopted, implemented, and monitored by regulatory agencies; significance standards recommended by regulatory agencies; and the standards in CEQA that trigger the preparation of an EIR. As required by State CEQA Guidelines § 15126.2(a), impacts are identified in this EIR as direct, indirect, cumulative, short-term, long-term, on-site, and/or off-site impacts of the proposed Project. A summarized "impact statement" is provided in each subsection following the analysis.

The following terms are used to describe the level of significance related to the physical conditions within the area affected by the proposed Project:

- No Impact: An adverse change in the physical environment would not occur.

- Less-than-Significant Impact: An adverse change in the physical environment would occur but the change would not be substantial or potentially substantial and would not exceed the threshold(s) of significance presented in this EIR.

- Significant Impact: A substantial or potentially substantial adverse change in the physical environment would occur and would exceed the threshold(s) of significance presented in this EIR, requiring the consideration of mitigation measures.

Each Subsection also includes a discussion or listing of the applicable regulatory criteria (laws, policies, regulations, etc.) that the Project is required to comply with (if any). If impacts are identified as significant after mandatory compliance with regulatory criteria, feasible mitigation measures are presented that would either avoid the impact or reduce the magnitude of the impact. The following terms are used to describe the level of significance following the application of recommended mitigation measures:

- Less-than-Significant Impact with Mitigation: A substantial or potentially substantial adverse change in the physical environment would occur that would exceed the threshold(s) of significance presented in this EIR; however, the impact can be avoided or reduced to a less-than-significant level through the application of feasible mitigation measure(s).

- Significant and Unavoidable Impact: A substantial or potentially substantial adverse change in the physical environment would occur that would exceed the threshold(s) of significance presented in this EIR. Feasible and enforceable mitigation measure(s) that have a proportional nexus to the Project's impact are either not available or would not be fully effective in avoiding or reducing the impact to below a level of significance.

For any impact identified as significant and unavoidable, Riverside County would be required to adopt a statement of overriding considerations pursuant to State CEQA Guidelines § 15093 in order to approve the Project despite its significant impact(s) to the environment. The statement of overriding considerations would list the specific economic, legal, social, technological, and other benefits of the Project, supported by substantial evidence in the Project's administrative record, that outweigh the unavoidable impacts.

4.1 AESTHETICS

This Subsection describes the aesthetic qualities and visual resources present on the Project site and in the site's vicinity and evaluates the potential effects that the Project may have on these resources. Descriptions of existing visual characteristics, both on-site and in the vicinity of the Project site, and the analysis of potential impacts to aesthetic resources are based, in part, on field observations and site photographs collected by T&B Planning Inc. in January 2021, analysis of aerial photography (Google Earth, 2021), and Project application materials submitted to Riverside County and described in Section 3.0, *Project Description*, of this EIR. This Subsection also is based in part on information and policies contained in the Riverside County General Plan Update No. 960 (Riverside County, 2021), Riverside County GIS database (RCIT, 2021), Riverside County Ordinance No. 348 (Riverside County, 2019c), and Riverside County Ordinance No. 655 (Riverside County, 1988).

4.1.1 EXISTING CONDITIONS

A. Existing Aesthetic Conditions

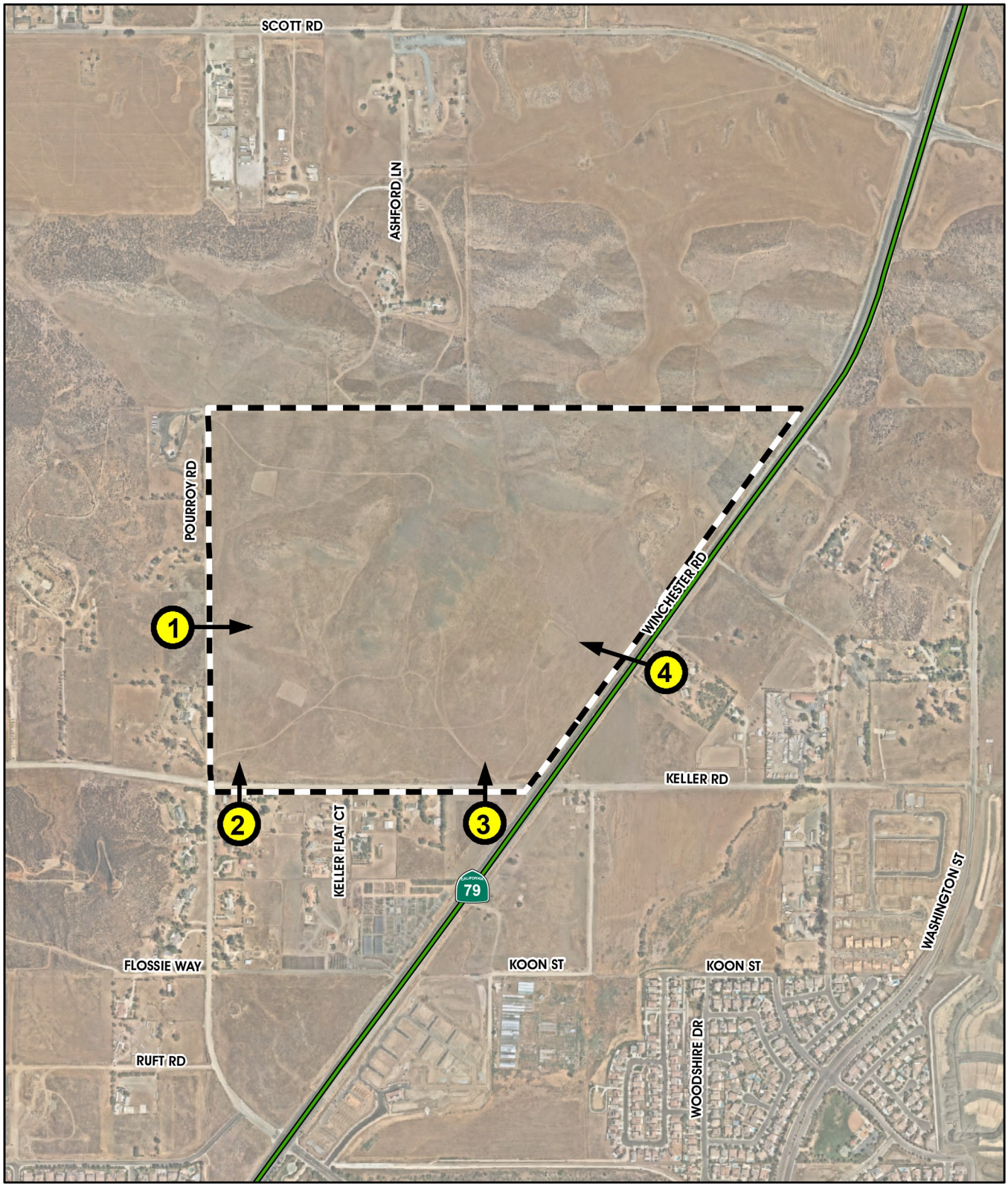
The Project site comprises 196.0 acres of undeveloped land located west of Highway 79 (SR-79), north of Keller Road, and east of the future alignment of Pourroy Road. Under existing conditions, the Project site is largely undisturbed, with the flatter portions in the western and southern portions of the site having been used for agricultural production (dry farming).

The Project site generally is characterized by relatively flat topography in the southern portions of the site, with undulating hill forms occurring in the north and northeastern portions of the Project site. Elevations on site range from 1,422 feet above mean sea level (amsl) in the southeast corner of the Project site to 1,587 feet amsl near the northeast corner of the Project site. (Google Earth, 2021)

To illustrate the existing visual conditions of the Project site in more detail, a photographic inventory was prepared. Figure 4.1-1, *Site Photographic Key Map*, depicts the locations of the four vantage photographs, each of which are described below. These photographs, shown on Figure 4.1-2 and Figure 4.1-3, were taken in January 2021 and provide a representative visual inventory of the site's visual characteristics as seen from surrounding public viewing areas.

- Site Photograph 1: Site Photograph 1 was taken along the western Project boundary along the future alignment of Pourroy Road looking northeast to southeast. As shown in this photograph, in the foreground and in the left and right portions of this photo is an existing dirt road (Pourroy Road). Powerlines associated with existing residential uses are visible on the left and right portion of the photo. In the middle ground are undeveloped vegetated areas on site that are disturbed and that historically have been subject to agricultural uses (dry farming). The existing hill forms that occur in the northern portion of the Project site are visible in the left and middle portions of the photo, while several large hill forms that occur off site and to the east of the Project site are visible along the horizon.

- Site Photograph 2: Site Photograph 2 was taken along the southern Project boundary along (Old) Keller Road near its intersection with Pourroy Road, and depicts views of the southwest corner of the Project



Source(s): ESRI, Nearmap Imagery (2021), RCTLMA (2021)

0 250 500 1,000 Feet

Figure 4.1-1

Site Photographic Key Map

Northeast



Southeast

Photo 1: West of the project boundary boundary along the future alignment of Pourroy Road looking northeast to southeast

Northwest



Northeast

Photo 2: South of the project boundary along (Old) Keller Road just west of its intersection with Winchester Road (Highway 79) looking northwest to northeast

Figure 4.1-2

Not to Scale

Site Photographs 1 and 2

Northwest



Northeast

Photo 3: South of the project boundary along (Old) Keller Road just west of its intersection with Winchester Road (Highway 79), depicting views of the southeast corner of the Project site looking northwest to northeast

Southwest



Northeast

Photo 4: East of the project boundary along Winchester Road (Highway 79) depicting westerly views of the Project site

Figure 4.1-3

Not to Scale

Site Photographs 3 and 4

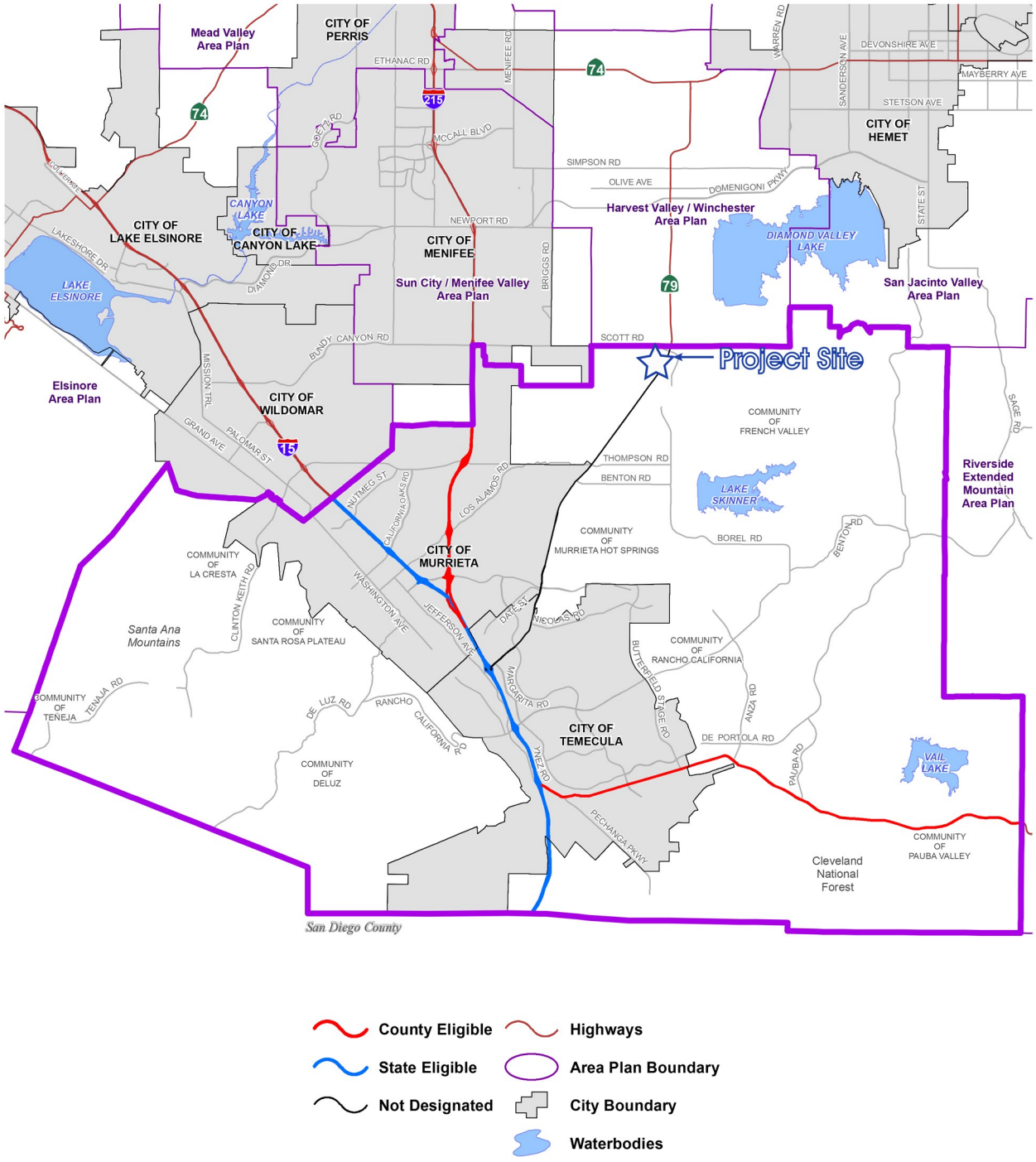
site looking north and east. As shown in this photograph, in the foreground is the existing (Old) Keller Road and a stop sign at the intersection with Pourroy Road. Powerlines located along Keller Road and Pourroy Road also are visible in the foreground and extend into the middle ground on both the left and right side of the photo. In the near ground, ruderal vegetation is visible along the Project site's frontage with (Old) Keller Road. Further in the distance, the Project site appears to be regularly disced as part of on-going agricultural (dry farming) activities. The existing rural residential uses located west of the Project site are visible in the middle ground in the left portion of the photo, along with fencing and several trees. Along the horizon in the right portion of the photo are the existing hill forms in the northern portion of the Project site, beyond which several prominent hill forms occurring off-site and to the east of the Project site are visible.

- Site Photograph 3: Site Photograph 3 was taken along the southern Project boundary along (Old) Keller Road just west of its intersection with Winchester Road (Highway 79), and depicts views of the southeast corner of the Project site looking northwest to northeast. As shown in this photograph, in the foreground is the existing (Old) Keller Road, beyond which the Project site is visible. As shown from this location, the Project site's frontage with (Old) Keller Road consists of disturbed and ruderal vegetation, beyond which is vegetation that is regularly disturbed as part of on-going dryland farming activities on site. In the right portion of the photo is the existing (Old) Keller Road/Winchester Road intersection and associated stoplight, street lights, and telephone poles. Existing powerlines also are visible along (Old) Keller Road in the right and left portions of the photo. The existing hill forms that occur in the northern portion of the Project site are visible along the horizon in the central portion of the photo. In the distance in the left portion of the photo is an existing off-site hill form that occurs to the west of the Project site, while several existing hill forms that occur to the east of the Project site are visible along the horizon in the right portion of the photo.

- Site Photograph 4: Site Photograph 4 was taken along the eastern Project boundary along Winchester Road (Highway 79) and depicts westerly views of the Project site. As shown in this photograph, in the foreground Winchester Road (Highway 79) is visible, along with associated signage and traffic barriers. The Project site is visible in the middle ground and appears to consist of undeveloped largely flat vegetated areas on site that are disturbed and subject to agricultural production (dry farming). The existing hill forms that occur in the northern portion of the Project site are visible in the right portion of the photo along the horizon. In the central and left portions of the photo, several existing hill forms that occur off site to the east of the Project site are visible.

B. Scenic Highways

According to Figure 9 (*Scenic Highways*) of the Southwest Area Plan (SWAP), and as shown on Figure 4.1-4, *SWAP Scenic Highways*, there are no officially designated scenic highways within the Project site's vicinity. The nearest State-designated scenic highway to the Project site is State Route 74 (SR-74), located approximately 15.3 miles northeast of the Project site. The nearest "State Eligible" Scenic Highway is Interstate 15 (I-15), located approximately 7.1 miles southwest of the Project site. There are no "County Designated" Scenic Highways in the Project vicinity. The nearest "County Eligible" Scenic Highway is Interstate 215 (I-215), located approximately 4.0 miles west of the Project site. (Riverside County, 2019b, Figure 9)



Source: RCTLMA (12-08-2015)

Figure 4.1-4

Not to Scale

SWAP Scenic Highways

4.1.2 Applicable Regulatory Requirements

A. *Riverside County General Plan*

The Riverside County General Plan does not have any specific sections related to aesthetics and visual resources. However, the Land Use Element of the Riverside County General Plan includes policies related to Land Use Compatibility, Community Design, and Scenic Corridors, which have applicability to the topic of aesthetics. The Land Use Element provides direction related to how future development is intended to build out, such as the intensity/density and character of new development. The Land Use Element also addresses the relationship between development, community enhancement, and natural resource management.

The Multipurpose Open Space Element of the Riverside County General Plan also addresses open space and scenic resources in Riverside County. According to the Multipurpose Open Space Element, scenic resources include: "…areas that are visible to the general public and considered visually attractive" and "…natural landmarks and prominent or unusual features of the landscape." Hillsides and ridges that rise above urban or rural areas or highways can also be considered scenic backdrops. Additionally, the Multipurpose Open Space Element defines scenic vistas as "…points, accessible to the general public, that provide a view of the countryside." Riverside County General Plan Policy OS 21.1 intends to "[i]dentify and conserve the skylines, view corridors, and outstanding scenic vistas within Riverside County." (Riverside County, 2021, pp. OS-52 to OS-53)

The Circulation Element, Land Use Element, and Multipurpose Open Space Element of the Riverside County General Plan also identify scenic corridors, which are roadways (including State and County eligible and designated scenic highways) that traverse scenic resources, and identify policies that are intended to protect and maintain the scenic resources within these corridors (Riverside County, 2021, p. OS-52). Scenic highways in the Project vicinity were previously depicted on Figure 4.1-4. As noted in the SWAP, Policy SWAP 19.1 seeks to "Protect the scenic highways in the Southwest planning area from change that would diminish the aesthetic value of adjacent properties in accordance with the Scenic Corridors sections of the General Plan Land Use, Multipurpose Open Space, and Circulation Elements." (Riverside County, 2019b, p. 49)

B. *Riverside County Ordinance No. 348, Land Use Ordinance*

Riverside County's Land Use Ordinance No. 348 establishes allowable uses of land and sets standards for what and how land may be developed. The ordinance protects the people and property of Riverside County from development of unsuitable land uses and aims to ensure that built areas are developed safely and with minimal conflict with surrounding lands. Ordinance No. 348 also identifies requirements for landscaping associated with development proposals. The landscaping of development projects should enhance the visual character and aesthetic quality of a site and its surroundings. (Riverside County, 2019c)

C. *Riverside County Ordinance No. 655, Regulating Light Pollution*

Riverside County has adopted an ordinance regulating light pollution (Ordinance No. 655). Ordinance No. 655 is intended to restrict the permitted use of certain light fixtures emitting light into the night sky which could have a detrimental effect on astronomical observation and research. Ordinance No. 655 sets forth requirements for lamp source and shielding of light emissions for outdoor fixtures to reduce "skyglow" or light pollution that affects day or nighttime views from the Mt. Palomar Observatory, which is located approximately 22.9

miles southeast of the Project site. As shown on SWAP Figure 6 (Southwest Area Plan Mt. Palomar Nighttime Lighting Policy Area), the Project site is located within the limits of "Zone B" of the Mt. Palomar Observatory Lighting Policy Area (Riverside County, 2019b, Figure 6). As such, the Project site is subject to the outdoor lighting policies and requirements specified by Riverside County Ordinance No. 655, which includes specific standards for lighting fixtures installed along public roadways and in other common areas and applies to all new development. Ordinance No. 655 encourages the use of low-pressure sodium lamps where possible, requires the shielding of all nonexempt outdoor lighting fixtures, specifies the hours of operation for non-exempt outdoor lighting fixtures, and regulates lighting fixtures used to illuminate an outdoor advertising display. (Riverside County, 1988)

D. Riverside County Ordinance No. 915, Regulating Outdoor Lighting

Riverside County has adopted an ordinance regulating outdoor lighting (Ordinance No. 915). Ordinance No. 915 is intended to provide minimum requirements for outdoor lighting in order to reduce light trespass. Ordinance No. 915 provides regulations on adequate lighting shielding, glare, and light trespass in order to ensure that all development in Riverside County installs lighting in a way that does not jeopardize the health, safety, or general welfare of Riverside County residents and does not degrade their quality of life. (Riverside County, 2012)

4.1.3 Basis For Determining Significance

According to Section I of Appendix G to the State CEQA Guidelines, the proposed Project would result in a significant impact to aesthetics if the Project or any Project-related component would (OPR, 2017a).

- *Have a substantial adverse effect on a scenic vista;*
- *Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;*
- *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; or*
- *Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.*

Additionally, the following thresholds are derived from EA No. 42865 (Riverside County's Environmental Assessment Checklist), as revised to reflect the December 2018 updates to the State CEQA Guidelines. As such, the following thresholds are used to evaluate the significance of the proposed Project's impacts on aesthetics. The proposed Project would result in a significant impact to aesthetics if the Project or any Project-related component would:

a. *Have a substantial effect upon a scenic highway corridor within which it is located;*

b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings and unique or landmark features; obstruct any prominent scenic vista or view open to the public; or result in the creation of an aesthetically offensive site open to public view;

c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality;

d. Interfere with the nighttime use of the Mt. Palomar Observatory, as protected through Riverside County Ordinance No. 655;

e. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area; or

f. Expose residential property to unacceptable light levels.

4.1.4 IMPACT ANALYSIS

Threshold a:	***Would the Project have a substantial effect upon a scenic highway corridor within which it is located?***

As previously indicated, there are no officially-designated scenic highways within the Project site's vicinity. The nearest State-designated scenic highway to the Project site is SR-74, located approximately 15.3 miles northeast of the Project site. The nearest "State Eligible" Scenic Highway is I-15, located approximately 7.1 miles southwest of the Project site. There are no "County Designated" Scenic Highways in the Project vicinity. The nearest "County Eligible" Scenic Highway is I-215, located approximately 4.0 miles west of the Project site. The Project site is not prominently visible from any portion of SR-74, I-15, or I-215 due to distance and intervening topography. As such, the Project would not have a substantial effect upon a scenic highway corridor, and no impact would occur. (Google Earth, 2021; Riverside County, 2019b, Figure 10)

Threshold b:	***Would the Project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings and unique or landmark features; obstruct any prominent scenic vista or view open to the public; or result in the creation of an aesthetically offensive site open to public view?***
Threshold c:	***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 points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?***

Under existing conditions, the 196.0-acre Project site is vacant and undeveloped. There are no scenic resources within the Project's boundaries under existing conditions, such as trees, rock outcroppings, or unique or landmark features. With implementation of the proposed Project, approximately 134.6 acres of the Project site would be developed with residential, commercial retail, recreational, and detention basin land uses. Areas along the northern boundary of the Project site would be preserved as natural open space, while an open space buffer is planned between the Project site and the existing residential uses to the west of the Project site. Although development of the Project site as proposed would represent a substantial change to the visual

character of the site, because the Project site does not contain any scenic resources, including but not limited to, trees, rock outcroppings, or landmark features, implementation of the proposed Project would not damage scenic resources, and impacts would be less than significant.

Future development within the Project boundaries would be required to comply with the development standards and design guidelines included as part of SP 380A1, which have been designed to ensure that the property is developed in a manner that is not aesthetically offensive. Design guidelines included as part of SP 380A1 include guidance related to site design, architecture, and landscaping, compliance with which would be assured by the County's future review of implementing applications (e.g., building permits, plot plans). As such, and assuming mandatory compliance with the development standards and design guidelines included as part of SP 380A1, the Project would not result in the creation of an aesthetically offensive site open to public view, and impacts would be less than significant.

The Project site occurs in an area that is transitioning from rural to urban uses, as evidenced by existing and under construction developments located west and south of the Project site. As noted above, mandatory compliance with the development standards and design guidelines included as part of SP 380A1 would ensure that the Project site is developed in a manner that would not substantially degrade the site's existing visual character or quality. In fact, the Project would convert the Project site from agricultural and open space uses to a master-planned mixed-use community, which would be visually compatible with existing and planned development in the area. Although there are hillsides to the west and northeast of the Project site that represent scenic resources, and based on a viewshed analysis conducted in Google Earth, the hills to the northeast of the Project site are not prominently visible from the Project site under existing conditions due to the existing hillsides that occur in the northern portions of the Project site (Google Earth, 2021). While implementation of the Project as proposed would obstruct some views of the surrounding area, including views of nearby hillsides to the west of the Project site, public views of these visual resources within the Project's viewshed still would be available from areas surrounding the Project site. As such, the Project would not obstruct any prominent scenic vista or view open to the public, and impacts would be less than significant.

Future development on the Project site would be required to comply with the zoning requirements of Riverside County Ordinance No. 460, as modified by SP 380A1, as well as all other provisions of Riverside County ordinances, including ordinances related to visual quality. As such, the Project would not conflict with applicable zoning or other regulations governing scenic quality, and impacts would be less than significant.

Threshold d: ***Would the Project interfere with the nighttime use of the Mt. Palomar Observatory, as protected through Riverside County Ordinance No. 655?***

As shown on Figure 6, *Mount Palomar Nighttime Lighting Policy Area*, of the SWAP, the Project site is located within the limits of "Zone B" of the Mt. Palomar Observatory Lighting Policy Area (Riverside County, 2019b, Figure 6). All development projects within Zone B of the Mt. Palomar Nighttime Lighting Policy Area are required to adhere to the requirements of Riverside County Ordinance No. 655, which controls artificial lighting sources to protect the Observatory. Ordinance No. 655 states that low-pressure sodium lamps are the preferred illuminating source, and that outdoor lighting fixtures are required to be shielded. Pursuant to Section 7 of Ordinance No. 655, future building permits would be required to include specific information with regards to lighting, as follows: 1) the location of the site where outdoor light fixtures would be installed; 2) plans indicating the location and type of fixtures of the premises; and 3) a description of the outdoor light fixtures,

including, but not limited to, manufacturer's catalog cuts and drawings. The required plans and descriptions would enable the County to determine whether compliance with the requirements of the ordinance is met. No building permits would be issued by the County unless the building permit applications demonstrate consistency with the various provisions of Ordinance No. 655. As such, the Project has no potential to interfere with the nighttime use of the Mt. Palomar Observatory, as protected through Riverside County Ordinance No. 655, and impacts would be less than significant. (Riverside County, 1988)

Threshold e:	***Would the Project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?***
Threshold f:	***Would the Project expose residential property to unacceptable light levels?***

In addition to Riverside County Ordinance No. 655, which is addressed above under the analysis of Threshold d., future development on the Project site would be subject to Riverside County Ordinance No. 915 as well as the development standards and design guidelines of SP 380A1. Ordinance No. 915 requires that all outdoor luminaires in shall be located, adequately shielded, and directed such that no direct light falls outside the parcel of origin, or onto the public right-of-way. Compliance with Ordinance No. 915 would be assured through future review of building permit applications by Riverside County, and would ensure that the Project does not expose residential property to unacceptable light levels. Impacts would be less than significant.

Additionally, SP 380A1 includes design guidelines that serve to prevent the creation of substantial light that could adversely affect day or nighttime views in the area and the exposure of residential properties to unacceptable light levels. Accordingly, Riverside County would review future implementing building permit applications for compliance with the Specific Plan design guidelines related to lighting.

Furthermore, none of the Project's proposed building materials would consist of reflective materials, except for the proposed windows, which would not be mirrored and would have similar low-potential glare characteristics as do other glass windows on buildings in the surrounding area. The proposed Project does not include any components that would generate substantial amounts of glare from reflective surfaces; therefore, impacts associated with glare would be less than significant.

Mandatory compliance with the development standards and design guidelines of SP 380A1 and Riverside County Ordinance Nos. 348 and 915 would ensure that all lighting and building design elements proposed by the Project are designed to prevent the creation of substantial light or glare that could affect day or nighttime views in the area. Accordingly, implementation of the Project would result in a less-than-significant impact related to new sources of light or glare.

Based on the foregoing analysis, and because the Project would be required to comply with the lighting standards in SP 380A1 as well as lighting provisions of Riverside County Ordinance Nos. 348, 655, and 915, impacts due to Project lighting and glare and due to the exposure of residential property to unacceptable light levels would be less than significant.

4.1.5 Cumulative Impact Analysis

For purposes of analysis, the Project's cumulative study area includes all areas within the Project's viewshed, as the Project does not have the potential to result in cumulatively-considerable impacts to visual quality outside of areas in which the Project site is visible.

As discussed under the analysis of Threshold a., there are no officially-designated or eligible State or County scenic highway corridors within the Project's viewshed. As such, the Project would not have a substantial effect on a scenic highway corridor, and no cumulatively-considerable impacts would occur.

The Project would not damage scenic resources, including, but not limited to, trees, rock outcroppings and unique or landmark features, and impacts would therefore be less-than-cumulatively considerable. Based on the Project site's topography relative to surrounding areas, future development is not anticipated to obstruct views of any scenic vistas or views open to public review; thus, impacts would be less-than-cumulatively considerable. Additionally, because the Project would be developed in compliance with the design guidelines and development standards of proposed SP 380A1, the Project would not contribute to the creation of an aesthetically offensive site open to public view, and impacts would therefore be less-than-cumulatively considerable. In addition, with mandatory compliance with the design guidelines and development standards of proposed SP 380A1, the Project would not contribute to the substantial degradation of the existing visual character or quality of the site or its surroundings, and impacts would therefore be less-than-cumulatively considerable. Furthermore, the Project would comply with the SP 380A1 zoning ordinance as well as all applicable Riverside County ordinances governing scenic quality, and a cumulatively-considerable impact would therefore not occur.

The Project and other cumulative developments within the Project's viewshed would be required to comply with Riverside County Ordinance No. 655 requirements pertaining to Zone B. Compliance with Ordinance No. 655 would be assured through future County review of building permit applications. As such, cumulatively-considerable impacts due to a conflict with Ordinance No. 655 would be less than significant.

The proposed Project as well as other cumulative developments within the Project's viewshed would be subject to compliance with Riverside County Ordinance Nos. 655 and 915. Additionally, future development on site would be subject to the SP 380A1 lighting design guidelines, while the existing residential developments to the south and west of the Project site were developed in a manner consistent with Ordinance Nos. 655 and 915. Future development on lands to the east and north of the Project site also would be subject to compliance with Ordinance Nos. 655 and 915. Although the Project and cumulative developments may incorporate building materials with the potential to create glare, only limited building materials such as glass would have the potential to create glare impacts, and such impacts would be minor and would not adversely affect day or nighttime views in the area. Impacts due to light and glare would be less-than-cumulatively considerable.

4.1.6 Significance of Impacts Before Mitigation

Threshold a.: No Impact. The Project site is not located within the viewshed of any officially designated scenic highways, and would not be visually prominent from any State- or County-eligible scenic highways. No impacts would occur to scenic highway corridors.

Thresholds b. and c.: Less-than-Significant Impact. The Project would not substantially damage scenic resources; obstruct any prominent scenic vista or view open to the public; result in the creation of an aesthetically offensive site open to public view; substantially degrade the existing visual quality or character of the site or its surroundings; or conflict with applicable zoning and other regulations governing scenic quality. Impacts would be less than significant.

Threshold d.: Less-than-Significant Impact. Project compliance with the provisions of County Ordnance No. 655 would be assured through future County review of building permits. Impacts due to a conflict with Ordinance No. 655 would be less than significant.

Thresholds e. and f.: Less-than-Significant Impact. Mandatory compliance with the SP 380A1 design guidelines related to lighting, along with compliance with Riverside County Ordinance Nos. 348, 655, and 915, would ensure that Project-related lighting and glare would not adversely affect day or nighttime views in the area, and also would ensure the Project does not expose residential property to unacceptable light levels. Impacts would be less than significant.

4.1.7 County Regulations, Design Requirements, and Mitigation

Applicable Regulations and Design Requirements

The following are applicable regulations and design requirements within Riverside County. Although these requirements technically do not meet CEQA's definition for mitigation, they are imposed herein to ensure Project compliance with applicable County regulations and design requirements.

- The Project is required to comply with Riverside County Ordinance No. 655, which is intended to restrict the permitted use of certain light fixtures emitting light into the night sky which could have a detrimental effect on astronomical observation and research. Ordinance No. 655 sets forth requirements for lamp source and shielding of light emissions for outdoor fixtures to reduce "skyglow" or light pollution that affects day or nighttime views from the Mount Palomar Observatory (located approximately 22.9 miles southeast of the Project site in northern San Diego County). Pursuant to the requirements of Ordinance No. 655, all lighting shall consist of low-pressure sodium lighting, or other lamp types that emit 4050 lumens or less. If light fixtures are proposed above 4050 lumens, then the lighting shall be fully shielded in conformance with the requirements of Ordinance No. 655.

- The Project is required to comply with Riverside County Ordinance No. 915, which is intended to provide minimum requirements for outdoor lighting in order to reduce light trespass. Ordinance No. 915 provides regulations on adequate lighting shielding, glare, and light trespass in order to ensure all development in Riverside County installs lighting in a way that does not jeopardize the health, safety, or general welfare of Riverside County residents or degrade their quality of life.

- The Project is required to comply with the Design Guidelines of SP 380A1. Compliance with these Design Guidelines would be assured by the County's future review of implementing building permit applications for compliance with the Specific Plan's design features that would serve to reduce and/or avoid impacts relating to aesthetics.

Mitigation

Impacts would be less than significant; therefore, mitigation is not required.

4.2 AGRICULTURE AND FORESTRY RESOURCES

The information and analysis in this Subsection 4.2 are based in part on information obtained from the California Department of Conservation (CDC) Farmland Mapping & Monitoring Program (FMMP) (CDC, 2021a), Riverside County GIS (RCIT, 2021), and the Riverside County General Plan Amendment 960 Final EIR (Riverside County, 2015). Refer to Section 7.0*, References*, for a complete list of these and other reference sources.

4.2.1 EXISTING CONDITIONS

A. Forest Resources

The Project site is located in the French Valley area of unincorporated Riverside County, a rapidly urbanizing region that generally contains dry, sparsely-vegetated terrain in the natural condition. As shown in Figure 4.5.1 of the Riverside County General Plan Update Draft EIR No. 521, aside from sparsely scattered lowland forests/woodlands, there are no forestry resources in the Project's vicinity under existing conditions. The nearest forest land to the Project site occurs within the Cleveland National Forest, located approximately 12.1 miles southwest of the Project site; however, no timber production occurs in association with the Cleveland National Forest. (Riverside County, 2015, Figure 4.5.2)

B. Agriculture Resources

1. Regional Agriculture Setting

According to the Riverside County Agricultural Commissioner's Office, in a document entitled, "Riverside County Agricultural Production Report 2018," the top three categories of agricultural resources cultivated in Riverside County (by value) are nursery stock, milk, and table grapes. In 2018 (the most recent year for which data is available), the total gross value of agricultural production in Riverside County was approximately $1.30 billion, which represents a 6.3% increase from 2017 when total values were $1.22 billion. (Agricultural Commissioner's Office, 2018)

The CDC reports that agricultural lands face continuing pressure from urbanization and rising production costs. The CDC's "2014-2016 California Farmland Conversion Report" summarizes land use conversion between 2014 and 2016 (the most recent years for which information has been reported by the CDC), and states that Riverside County as a whole experienced a net loss of 3,635 acres of Important Farmland between 2014 and 2016, representing a decline of 0.9% (CDC, n.d., Table A-25). Important Farmlands, as defined by State CEQA Guidelines Appendix G and by Riverside County, include Prime Farmland, Statewide Important Farmland, and Unique Farmland.

2. Historic and Existing Site Conditions

According to the Project's Phase I Environmental Site Assessment ("ESA"; *Technical Appendix H*), the lower elevations of the Project site have been used for agricultural production (dry farming) beginning in at least 1938. The higher elevations in the northeastern portions of the Project site consist of largely undisturbed open space that has not been subject to agricultural activities. (Tetra Tech, 2020)

3. Zoning

As described in EIR Section 2.0, *Environmental Setting*, the 196.0-acre Project site is zoned for "Specific Plan Zone (SP Zone)," indicating that the property is within the boundaries of an adopted specific plan. The adopted Keller Crossing Specific Plan No. 380 (SP 380) designates the property for future development with 3 "Very Low Density Residential (VLDR)" dwelling units on 9.9 acres; 25 "Low Density Residential (LDR)" dwelling units on 18.3 acres; 42 "Medium Density Residential (MDR)" dwelling units on 13.9 acres; 39.5 acres of "Mixed Use," including 250 dwelling units and 250,000 square feet (s.f.) building area; 400,000 s.f. of "Commercial Retail (CR)" uses on 37.8 acres; 61.1 acres of "Open Space-Conservation (OS-C)" uses; and 20.6 acres of major circulation facilities. The Project site is not zoned for agricultural production under existing conditions. The Project site is surrounded by Rural Residential (RR) land uses to the north, east, and south; however, pursuant to Riverside County Ordinance No. 625, lands designated for RR uses are not considered "land zoned for primarily agricultural purposes." The nearest property zoned primarily for agricultural production (as defined by Riverside County Ordinance No. 625) occurs east of Highway 79 and north of Keller Road approximately 150 feet east of the Project site, and is zoned "Light Agriculture (A-1)." (RCIT, 2021)

4. Agriculture Land Designations

The goal of the California Department of Conservation's Farmland Mapping and Monitoring Program (FMMP) is to provide consistent, timely, and accurate data to decision makers for use in planning for the present and future of California's agricultural land resources. To meet this goal, FMMP's objective is to provide maps and statistical data to the public, academia, and local, State, and federal governments to assist them in making informed decisions for the best utilization of California's farmland. The FMMP was established in 1982 in response to what was by then a critical need for data on the nature, location, and extent of farmland, grazing land, and urban built-up areas in the State. California Government Code § 65570 mandates FMMP to biennially report to the Legislature on the conversion of farmland and grazing land, and to provide maps and data to local governments and the public. The FMMP also was directed to prepare and maintain an automated map and database system to record and report changes in the use of agricultural lands. It was the intent of the Legislature and a broad coalition of building, business, government, and conservation interests that FMMP be non-regulatory, and provide a consistent and impartial analysis of agricultural land use and change in California. With this in mind, FMMP provides basic data from which observations and analyses can be made in the land use planning process. (CDC, 2004, p. 3)

Pursuant to the FMMP, all lands within California are classified into one of seven map categories. The minimum mapping unit is generally 10 acres, except as otherwise noted (CDC, 2004, p. 6). Provided below is a description of the various map categories established by the FMMP:

- **Prime Farmland (P)**: Farmland with the best combination of physical and chemical features able to sustain long-term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date. (CDC, 2004, p. 6)

- **Farmland of Statewide Importance (S)**: Farmland similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Land must have been used

for irrigated agricultural production at some time during the four years prior to the mapping date. (CDC, 2004, p. 6)

- **Unique Farmland (U)**: Farmland of lesser quality soils used for the production of the state's leading agricultural crops. This land is usually irrigated, but may include non-irrigated orchards or vineyards as found in some climatic zones in California. Land must have been cropped at some time during the four years prior to the mapping date. (CDC, 2004, p. 6)

- **Farmland of Local Importance (L)**: Land of importance to the local agricultural economy as determined by each county's board of supervisors and a local advisory committee. (CDC, 2004, p. 6)

- **Grazing Land (G)**: Land on which the existing vegetation is suited to the grazing of livestock. This category was developed in cooperation with the California Cattlemen's Association, University of California Cooperative Extension, and other groups interested in the extent of grazing activities. The minimum mapping unit for Grazing Land is 40 acres. (CDC, 2004, p. 6)

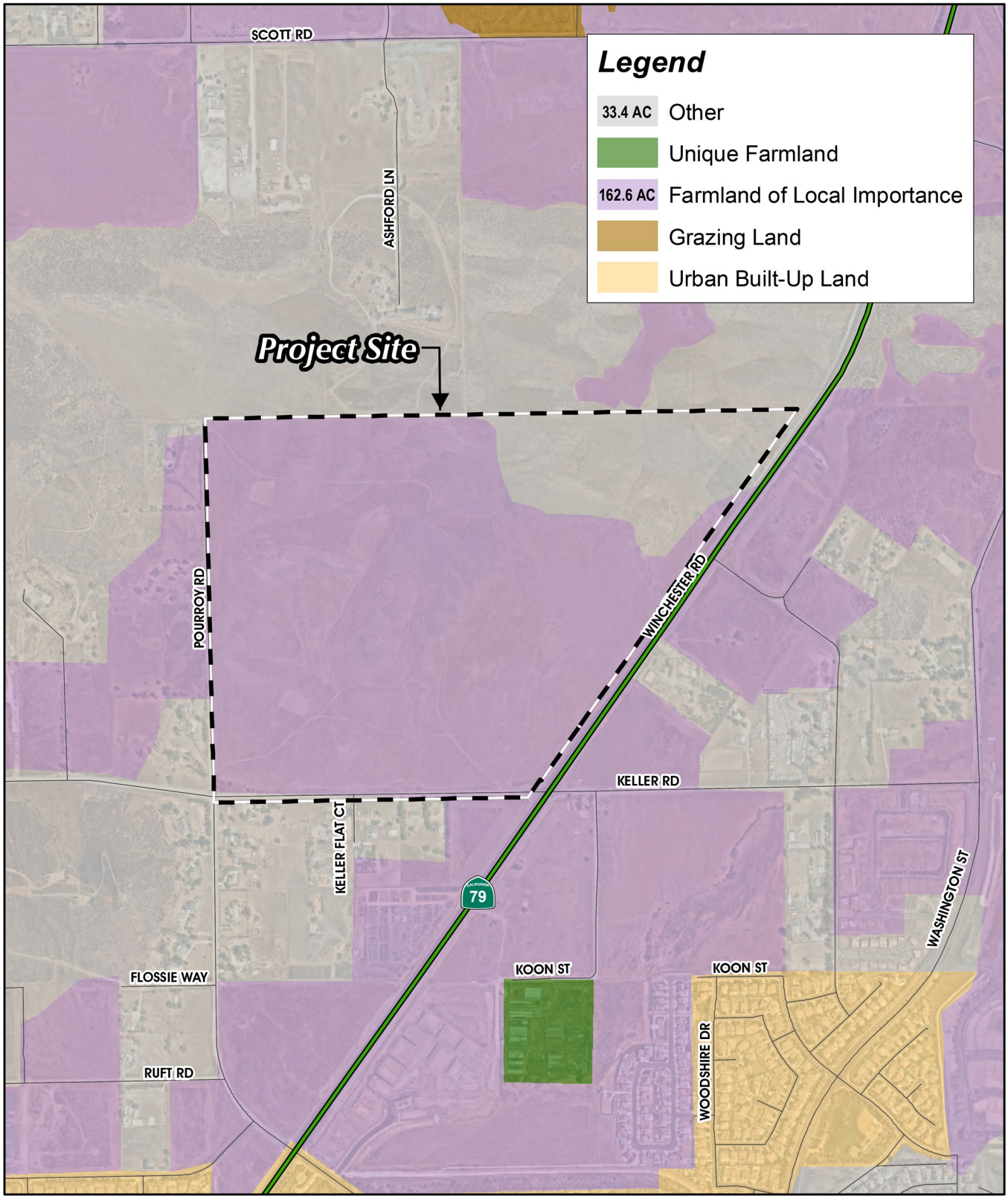
- **Urban and Built-Up Land (D)**: Land occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. This land is used for residential, industrial, commercial, institutional, public administrative purposes, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes. (CDC, 2004, p. 6)

- **Other Land (X)**: Land not included in any other mapping category. Common examples include low density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry, or aquaculture facilities; strip mines, borrow pits; and water bodies smaller than 40 acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land. (CDC, 2004, p. 6)

As shown on Figure 4.2-1, *FMMP Farmland Map*, approximately 162.6 acres of the Project site are mapped as containing "Farmland of Local Importance," while approximately 33.4 acres of the Project site are mapped as containing "Other Lands." "Farmland" is defined in Section II (a) of Appendix G of the State CEQA Guidelines to mean "Prime Farmland," "Farmland of Statewide Importance," or "Unique Farmland." Thus, there is no "Farmland" on the Project site under existing conditions as defined by Appendix G of the State CEQA Guidelines.

5. Williamson Act Land Preserves and Agricultural Preserves

Agricultural preserves are the result of Riverside County's participation in the California Land Conservation Act (CLCA) of 1965, also known as the Williamson Act, CA Gov. Code § 51200, et seq. This program allows owners of agricultural land to have their properties assessed for tax purposes on the basis of agricultural production rather than current market value. The main purpose of the Act is to encourage property owners to continue to farm their land, and to prevent the premature conversion of farmland to urban uses. According to Riverside County GIS, the Project site is not included in any agricultural preserves, and is not subject to a



Source(s): ESRI, Nearmap Imagery (2021), RCTLMA (2021)

0 250 500 1,000 Feet

Figure 4.2-1

FMMP Farmland Map

Williamson Act Contract. The nearest land within an Agricultural Preserve or subject to a Williamson Act Contract occurs approximately 0.6-mile east of the Project site ("Winchester No. 2") (RCIT, 2021).

4.2.2 Applicable Environmental Regulations

The following is a brief description of the state and local environmental laws and related regulations governing the protection of agricultural and forest resources.

A. State Regulations

1. California Land Conservation Act (CLCA)

The California Land Conservation Act (CLCA) of 1965, also known as the Williamson Act (CA Gov. Code § 51200, et seq.), enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use. In return, landowners receive property tax assessments which are much lower than normal because they are based upon farming and open space uses as opposed to full market value. Pursuant to Government Code § 51230, counties and cities may establish Agricultural Preserves, which define boundaries of those areas within which the city or county will be willing to enter into contracts pursuant to the CLCA; Contracts pursuant to the CLCA only are allowed for areas within established Agricultural Preserves. Agricultural Preserves generally must be at least 100 acres in size; however, a city or county may allow for lesser acreage if a finding is made that the characteristics of the agricultural enterprises in the area are unique and that the establishment of preserves of less than 100 acres is consistent with the general plan of the county or city. Once established, land uses within an Agricultural Preserve must be agricultural in nature, or other such uses that are not incompatible with agricultural uses. For lands within Agricultural Preserves, individual land owners may enter into a Contract with a county or city, which would provide for the exclusion of uses other than agricultural, and other than those compatible with agricultural uses, for the duration of the Contract, even if the land is sold to a new owner. In return for entering into a Contract, the landowner is granted preferential taxes that are based upon agricultural and related land uses rather than fair market value. Contracts may be exited at the option of the landowner or local government by initiating the process of term nonrenewal. Under this process, the remaining contract term (nine years in the case of an original term of ten years) is allowed to lapse, with the contract null and void at the end of the term. During the nonrenewal process, the annual tax assessment continually increases each year until it is equivalent to current tax rates at the end of the nonrenewal period. Under a set of specifically defined circumstances, a Contract may be cancelled without completing the process of term nonrenewal. Contract cancellation, however, involves a comprehensive review and approval process, and the payment of a fee by the landowner equal to 12.5 percent of the full market value of the property in question. (EPA, n.d.; CA Legislative Info, n.d.)

2. Farmland Mapping and Monitoring Program (FMMP)

The goal of the CDC's FMMP is to provide data to decision makers for use in planning for the present and future of California's agricultural land resources. To meet this goal, the FMMP's objective is to provide maps and statistical data to the public, academia, and local, State, and federal governments to assist them in making informed decisions for the best utilization of California's farmland. The FMMP was established in 1982 in response to what was by then a critical need for data on the nature, location, and extent of farmland, grazing land, and urban built-up areas in the State. Government Code § 65570 mandates the FMMP to biennially report

to the California Legislature on the conversion of farmland and grazing land to non-agricultural uses, and to provide maps and data to local government and the public. It was the intent of the Legislature and a broad coalition of building, business, government, and conservation interests that the FMMP be non-regulatory, and provide a consistent and impartial analysis of agricultural land use and change in California. With this in mind, the FMMP provides basic data from which observations and analyses can be made in the land use planning process. (CDC, 2004, p. 3)

B. Local Regulations

The following ordinances address farmland and agricultural preserves within unincorporated Riverside County.

- Riverside County Ordinance No. 509: This ordinance establishes uniform rules which apply to Agricultural Preserves. This ordinance determines which uses are agricultural or compatible uses within an Agricultural Preserve and prohibits all other uses within an Agricultural Preserve.

- Riverside County Ordinance No. 625: This "Right-to-Farm" Ordinance requires that development of residential uses adjacent to properties zoned primarily for agricultural purposes be regulated. Specifically, Ordinance No. 625 states that if any agricultural operation that has been in place for at least three years and is not considered a nuisance operation at the time the operation began, no change in surrounding land uses shall cause said operation to become a nuisance. A note is to be added to the Environmental Constraints Sheet for any tentative land division that states:

  > *"...that no agricultural activity, operation, or facility, or appurtenances thereof, conducted or maintained for commercial purposes, and in a manner consistent with proper and accepted customs and standards, as established and followed by similar agricultural operations in the same locality, shall be or become a nuisance, private or public, due to any changed condition in or about the locality, after the same has been in operation for more than three (3) years if it was not a nuisance at the time it began."*

  If any parcel within 300 feet of the site is zoned primarily for agricultural uses at the time of occupancy permit issuance, the Project shall comply with the "Right-to-Farm" Ordinance. County Ordinance No. 625 defines land zoned for "primarily agricultural purposes" as any land lying within any one of the following zone classifications established by the Riverside County Land Use Ordinance No. 348: A-1 (Light Agriculture); A-P (Light Agriculture with Poultry); A-2 (Heavy Agriculture); A-D (Agriculture-Dairy); or C/V (Citrus/Vineyard).

4.2.3 Basis For Determining Significance

Section II of Appendix G to the State CEQA Guidelines addresses typical adverse effects to forestry and agricultural resources, and includes the following threshold questions to evaluate the Project's impacts on forestry and agricultural resources (OPR, 2018a):

- *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?*

- *Would the Project conflict with existing zoning for agricultural use, or a Williamson Act contract?*

- *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))?*

- *Would the Project result in the loss of forest land or conversion of forest land to non-forest use?*

- *Would the Project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?*

Significance thresholds are set forth in Riverside County's Environmental Assessment Checklist, are derived from Section II of Appendix G to the State CEQA Guidelines (as most recently amended in December 2018), and state that the proposed Project would have a significant impact on forestry or agricultural resources if construction and/or operation of the Project would:

a. *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;*

b. *Conflict with existing agricultural zoning, agricultural use or with land subject to a Williamson Act contract or land within a Riverside County Agricultural Preserve;*

c. *Cause development of non-agricultural uses within 300 feet of agriculturally zoned property (Ordinance No. 625 "Right-to-Farm");*

d. *Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use;*

e. *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 Govt. Code section 51104(g));*

f. *Result in the loss of forest land or conversion of forest land to non-forest use; or*

g. *Involve other changes in the existing environment which, due to their location or nature, could result in con-version of forest land to non-forest use.*

The significance thresholds set forth in Riverside County's standard Environmental Assessment Checklist were used to evaluate the significance of the proposed Project's impacts on forestry and agricultural resources.

4.2.4 IMPACT ANALYSIS

Threshold a:	***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?***

As mapped by the CDC's FMMP (see Figure 4.2-1), the Project site is mapped as containing approximately 162.6 acres of "Farmland of Local Importance" and 33.4 acres of "Other Lands." Based on the FMMP, the Project site does not contain any Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Accordingly, the Project would not convert any land designated Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (i.e., FMMP-designated Farmland) to a non-agricultural use, and no impact would occur.

Threshold b:	***Would the Project conflict with existing agricultural zoning, agricultural use or with land subject to a Williamson Act contract or land within a Riverside County Agricultural Preserve?***

As defined by Riverside County Ordinance No. 625, "lands primarily zoned for agricultural use" include properties that are zoned for A-1 (Light Agriculture), A-P (Light Agriculture with Poultry), A-2 (Heavy Agriculture), A-D (Agriculture-Dairy), or C/V (Citrus/Vineyard). Under existing conditions, the Project site is zoned for "Specific Plan Zone (SP Zone)." The adopted Keller Crossing Specific Plan No. 380 Zoning Ordinance allows for residential, mixed use, commercial retail, and open space land uses, and does not zone any portion of the Project site for agricultural production. The existing zoning classifications are not considered agricultural zones pursuant to Section 4.b of Riverside County Ordinance No. 625, and are intended to allow for non-agricultural uses. As such, the Project would not conflict with existing agricultural zoning, and no impact would occur.

Under existing conditions, agricultural activities occur across the flatter portions of the southern portions of the Project site. With implementation of the Project, agricultural uses on site would be precluded. Although the Project would conflict with existing agricultural uses on site, the Project site is designated for urban development by the Riverside County General Plan, Southwest Area Plan (SWAP), and SP 380. Thus, while the Project would preclude future agricultural uses on site, such conversion was anticipated by the General Plan, SWAP, and SP 380. Furthermore, impacts associated with development of the Project site as proposed have been evaluated throughout this EIR, and mitigation measures have been identified to reduce the Project's impacts by the maximum feasible extent. Accordingly, Project impacts due to the elimination of existing agricultural uses on site would be less than significant.

According to Riverside County GIS, the Project site is not included in any agricultural preserves, and is not subject to a Williamson Act contract. The nearest land within an Agricultural Preserve or subject to a Williamson Act Contract occurs approximately 0.6 mile east of the Project site ("Winchester No. 2") (RCIT, 2021). Due to distance between the Project site and the Winchester No. 2 Agricultural Preserve, the Project has no potential to conflict with a Williamson Act contract or land within a Riverside County Agricultural Preserve, and impacts would be less than significant.

Threshold c:	***Would the Project cause development of non-agricultural uses within 300 feet of agriculturally zoned property (Ordinance No. 625 "Right-to-Farm")?***

Riverside County Ordinance No. 625 defines "land zoned for primarily agricultural purposes" as including the following zone classifications established by the Riverside County Land Use Ordinance No. 348: A-1 (Light Agriculture); A-P (Light Agriculture with Poultry); A-2 (Heavy Agriculture); A-D (Agriculture-Dairy); and C/V (Citrus/Vineyard). According to Riverside County GIS, the nearest property that allows for agriculture use as defined by Ordinance No. 625 occurs approximately 150 feet east of the Project site (east of Highway 79) and is zoned "Light Agriculture (A-1)" (RCIT, 2021). However, the Project would be subject to the provisions of Riverside County Ordinance No. 625, which protects agricultural operations from nuisance complaints and encourages the development, improvement, and long-term viability of agricultural land. Mandatory compliance with Ordinance No. 625 would ensure that Project-related construction and operational activities would not indirectly cause or contribute to the conversion of off-site farmland to non-agricultural use. Based on the mandatory compliance with Ordinance No, 625, impacts would be less than significant

Threshold d:	***Would the Project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?***

There are no components of the Project that would involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use. Although agricultural uses occur in the Project vicinity (refer to the discussion of Threshold c.), there are no components of the proposed Project that could indirectly affect these existing agricultural uses. Additionally, as indicated under the analysis of Threshold c., the Project would be subject to the provisions of Riverside County Ordinance No. 625, which protects agricultural operations from nuisance complaints and encourages the development, improvement, and long-term viability of agricultural land. Compliance with Ordinance No. 625 would ensure that future residential development on site does not result in indirect impacts to existing agricultural uses in the surrounding area. Thus, the Project would not result in any other changes to the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use, and impacts would be less than significant.

Threshold e:	***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 Govt. Code section 51104(g))?***
Threshold f:	***Would the Project result in the loss of forest land or conversion of forest land to non-forest use?***
Threshold g:	***Would the Project involve other changes in the existing environment which, due to their location or nature, could result in conversion of forest land to non-forest use?***

The Project site and surrounding areas are not zoned for 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 Govt. Code section 51104(g)) (RCIT, 2021). As such, the Project has no potential to conflict with such zoning, and no impact would occur.

According to Figure 4.5.2 (Forestry Resources Western Riverside County) of Riverside County EIR No. 521, which was prepared in conjunction with the County's 2015 General Plan Update, the Project site does not contain any forestry resources under existing conditions. The nearest areas containing forests occur within the Cleveland National Forest, located approximately 12.1 miles southwest of the Project site; however, no timber production occurs in association with the Cleveland National Forest. (Riverside County, 2015, Figure 4.5.2). Based on a review of aerial imagery, there are no forestry-related uses within the vicinity of the Project site (Google Earth, 2021). As such, the Project has no potential to result in the loss of forest land or conversion of forest land to non-forest use, and no impact would occur.

Furthermore, the Project would not involve other changes in the existing environment which, due to their location or nature, could result in conversion of forest land to non-forest use. No impact would occur.

4.2.5 Cumulative Impact Analysis

The cumulative study area for the evaluation of potential impacts to agriculture and forestry resources includes all of western Riverside County. Lands within western Riverside County generally exhibit similar climate, geologic, and soil characteristics, and agricultural production is evaluated by Riverside County and the State of California at the County level. Additionally, agricultural lands throughout western Riverside County are subject to future development that would preclude agricultural uses, based on the various land use designations applied to lands throughout western Riverside County by the County's General Plan and the general plans of other local jurisdictions.

As discussed under Threshold a., the Project would not convert any land designated Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a non-agricultural use as defined by State CEQA Guidelines Appendix G Section II(a) and the FMMP, and no impact would occur. As such, cumulatively-considerable impacts would not occur.

The Project site is not currently zoned for agricultural production. Thus, the Project would not result in a conflict with existing agricultural zoning, and impacts would therefore be less-than-cumulatively considerable. Although the Project would result in the discontinuation of agricultural activities on the southern portions of the Project site, the Project site is designated for urban development by the General Plan, SWAP, and SP 380. Thus, while the Project would preclude future agricultural uses on site, such conversion was anticipated by the General Plan, SWAP, and SP 380. Although other cumulative developments could result in the future conversion of areas planned for agricultural use to non-agricultural use, because the Project site is designated for future urban development, impacts due to the loss of agricultural uses on site would be less than significant on a cumulatively-considerable basis.

According to Riverside County GIS, the Project site is not included in any agricultural preserves, and is not subject to a Williamson Act contract. The nearest land within an Agricultural Preserve or subject to a Williamson Act Contract occurs approximately 0.6-mile east of the Project site ("Winchester No. 2") (RCIT, 2021). Due to distance between the Project site and the Winchester No. 2 site, the Project has no potential to conflict with a Williamson Act contract or land within a Riverside County Agricultural Preserve, and impacts would be less than significant on a cumulatively-considerable basis.

The Project would involve development of non-agricultural uses within 300 feet of agriculturally-zoned property. Other cumulative developments within the region also have the potential to introduce non-agricultural uses within 300 feet of agriculturally-zoned property. However, the Project and other cumulative developments within the County would be subject to the provisions of Riverside County Ordinance No. 625. As such, impacts due to a conflict with Riverside County Ordinance No. 625 would be less-than-cumulatively considerable.

There are no components of the proposed Project that could indirectly result in the conversion of nearby Farmland to non-agricultural uses. As such, Project impacts due to such conversion would be less-than-cumulatively considerable.

No lands in the Project vicinity are zoned for 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 Govt. Code section 51104(g)); as such, cumulatively-considerable impacts due to a conflict with existing zoning for, or rezoning of, forest land would not occur. The Project also would not result in the loss of forest land or conversion of forest land to non-forest use, and cumulatively-considerable impacts would not occur. There are no components of the Project that would involve other changes in the existing environment which, due to their location or nature, could result in conversion of forest land to non-forest use; thus, cumulatively-considerable impacts would not occur.

4.2.6 Significance of Impacts Before Mitigation

Threshold a.: No Impact. The Project would result in direct and indirect permanent impacts to 162.6 acres of "Farmland of Local Importance," and 33.4 acres of "Other Lands." Accordingly, the Project would not convert any land designated Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a non-agricultural use as defined by the FMMP, and no impact would occur.

Threshold b.: Less-than-Significant Impact. The Project site is not zoned for agricultural production. As such, the Project would not conflict with existing agricultural zoning, and no impact would occur. Under existing conditions, agricultural activities occur across the flatter areas within the southern portions of the Project site. With implementation of the Project, agricultural uses on site would be precluded. Although the Project would conflict with existing agricultural uses on site, the Project site is designated for urban development by the Riverside County General Plan, SWAP, and SP 380. Thus, while the Project would preclude future agricultural uses on site, such conversion was anticipated by the General Plan, SWAP, and SP 380. Accordingly, Project impacts due to the elimination of existing agricultural uses on site would be less than significant. Additionally, the Project site is not subject to a Williamson Act contract and is not located within any County Agricultural Preserves, and there are no components of the proposed Project that have the potential to adversely affect agricultural operations at the nearest agricultural preserve/Williamson Act-contracted lands. As such, Project impacts to agricultural preserves and Williamson Act-contracted lands would be less than significant.

Threshold c.: Less-than Significant Impact. The Project would result in the introduction of non-agricultural uses within 300 feet of agriculturally zoned property. However, the Project would be subject to the provisions of Riverside County Ordinance No. 625, which protects agricultural operations from nuisance complaints and encourages the development, improvement, and long-term viability of agricultural land. Mandatory

compliance with Ordinance No. 625 would ensure that Project-related construction and operational activities would not indirectly cause or contribute to the conversion of off-site farmland to non-agricultural use.

Threshold d.: Less-than-Significant Impact. The Project would be subject to Riverside County Ordinance No. 625, which would ensure that the urban land uses proposed by the Project would not conflict with existing agricultural operations in the surrounding area, and also would ensure the Project does not result in the conversion of the surrounding agricultural lands to non-agricultural use. There are no components of the Project that would involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use. Accordingly, impacts would be less than significant.

Thresholds e., f., and g.: No Impact. The Project site and surrounding areas are not zoned for 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 Govt. Code section 51104(g)). The Project would not result in the conversion of forest land to non-forest use. No impact would occur.

4.2.7 Applicable Regulations, Design Requirements, and Mitigation

Applicable Regulations and Design Requirements

The following are applicable regulations and design requirements within Riverside County. Although these requirements technically do not meet CEQA's definition for mitigation, they are imposed herein to ensure Project compliance with applicable County regulations and design requirements.

- The Project is required to comply with Riverside County Ordinance No. 625, which requires that when residential uses are developed adjacent to properties zoned primarily for agricultural purposes (that support agricultural operations that have been in place for at least three years and not considered a nuisance operation at the time the operation began), future homebuyers must be notified of any agricultural operations that are on-going in the area, and mandate that such agricultural uses shall not be the subject of nuisance complaints.

Mitigation

The Project would not result in any impacts to agriculture or forestry resources; therefore, mitigation measures are not required.

4.3 AIR QUALITY

This Subsection 4.3 is based on a technical report prepared by Urban Crossroads, Inc. (Urban Crossroads). The report addresses the Project's potential to result in regional and localized air quality impacts, and is entitled, "Keller Crossing Air Quality Impact Analysis" (herein, "AQIA"), dated October 8, 2021, and included as *Technical Appendix B1* to this EIR (Urban Crossroads, 2021a). Since preparation of the AQIA, in May 2022, the California Air Pollution Control Officers Association (CAPCOA) in conjunction with other California air districts, including the South Coase Air Quality Management district (SCAQMD), released the latest version of the CalEEMod Version 2022. Accordingly, a supplemental analysis was conducted by Urban Crossroads based on CalEEMod Version 2022, entitled, "Keller Crossing Specific Plan Air Quality and Greenhouse Gas Assessment Evaluation" (herein, "AQIA Supplement"), dated June 9, 2022, and included as *Technical Appendix B2* to this EIR (Urban Crossroads, 2022a). It should be noted that the Project's AQIA and AQIA Supplement assume the Project site would be developed with 436 dwelling units, while only 433 dwelling units are proposed; thus, the analyses in *Technical Appendices B1 and B2* provide a "worst case" analysis of the Project's potential impacts to air quality. Refer to Section 7.0*, References*, for a complete list of these and other reference sources.

4.3.1 EXISTING CONDITIONS

A. South Coast Air Basin

The Project site is located in the South Coast Air Basin (SoCAB) within the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The SCAQMD was created by the 1977 Lewis-Presley Air Quality Management Act, which merged four county air pollution control bodies into one regional district. Under the Act, the SCAQMD is responsible for bringing air quality in areas under its jurisdiction into conformity with federal and State air quality standards. The SoCAB consists of a 6,745-square mile subregion of the SCAQMD, which includes portions of Los Angeles, Riverside, and San Bernardino Counties, and all of Orange County. The SoCAB is bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. (Urban Crossroads, 2021a, p. 6)

B. Regional Climate

The regional climate has a substantial influence on air quality in the SoCAB. In addition, the temperature, wind, humidity, precipitation, and amount of sunshine influence the air quality. The annual average temperatures throughout the SoCAB vary from the low to middle 60 degrees Fahrenheit (°F). Due to a decreased marine influence, the eastern portion of the SoCAB shows greater variability in average annual minimum and maximum temperatures. January is the coldest month throughout the SoCAB, with average minimum temperatures of 47°F in downtown Los Angeles and 36°F in San Bernardino. All portions of the SoCAB have recorded maximum temperatures above 100°F. (Urban Crossroads, 2021a, p. 6)

Although the climate of the SoCAB can be characterized as semi-arid, the air near the land surface is quite moist on most days because of the presence of a marine layer. This shallow layer of sea air is an important modifier of SoCAB climate. Humidity restricts visibility in the SoCAB, and the conversion of sulfur dioxide (SO_2) to sulfates (SO_4) is heightened in air with high relative humidity. The marine layer provides an environment for that conversion process, especially during the spring and summer months. The annual average relative humidity within the SoCAB is 71% along the coast and 59% inland. Since the ocean effect is dominant,

periods of heavy early morning fog are frequent and low stratus clouds are a characteristic feature. These effects decrease with distance from the coast. (Urban Crossroads, 2021a, p. 6)

More than 90% of the SoCAB's rainfall occurs from November through April. The annual average rainfall varies from approximately nine inches in Riverside to fourteen inches in downtown Los Angeles. Monthly and yearly rainfall totals are extremely variable. Summer rainfall usually consists of widely scattered thunderstorms near the coast and slightly heavier shower activity in the eastern portion of the SoCAB with frequency being higher near the coast. Due to its generally clear weather, about three-quarters of available sunshine is received in the SoCAB. The remaining one-quarter is absorbed by clouds. The ultraviolet portion of this abundant radiation is a key factor in photochemical reactions. On the shortest day of the year there are approximately 10 hours of possible sunshine, and on the longest day of the year there are approximately 14½ hours of possible sunshine. (Urban Crossroads, 2021a, pp. 6-7, pp. 5-6)

The importance of wind to air pollution is considerable. The direction and speed of the wind determines the horizontal dispersion and transport of the air pollutants. During the late autumn to early spring rainy season, the SoCAB is subjected to wind flows associated with the traveling storms moving through the region from the northwest. This period also brings five to ten periods each year of strong, dry offshore winds, locally termed "Santa Anas." During the dry season, which coincides with the months of maximum photochemical smog concentrations, the wind flow is bimodal, typified by a daytime onshore sea breeze and a nighttime offshore drainage wind. Summer wind flows are created by the pressure differences between the relatively cold ocean and the unevenly heated and cooled land surfaces that modify the general northwesterly wind circulation over southern California. Nighttime drainage begins with the radiational cooling of the mountain slopes. Heavy, cool air descends the slopes and flows through the mountain passes and canyons as it follows the lowering terrain toward the ocean. Another characteristic wind regime in the SoCAB is the "Catalina Eddy," a low level cyclonic (counterclockwise) flow centered over Santa Catalina Island which results in an offshore flow to the southwest. On most spring and summer days, some indication of an eddy is apparent in coastal sections. (Urban Crossroads, 2021a, p. 7)

In the SoCAB, there are two distinct temperature inversion structures that control vertical mixing of air pollution. During the summer, warm high-pressure descending (subsiding) air is undercut by a shallow layer of cool marine air. The boundary between these two layers of air is a persistent marine subsidence/inversion. This boundary prevents vertical mixing which effectively acts as an impervious lid to pollutants over the entire SoCAB. The mixing height for the inversion structure is normally situated 1,000 to 1,500 feet above mean sea level (amsl). (Urban Crossroads, 2021a, p. 7)

A second inversion-type forms in conjunction with the drainage of cool air off the surrounding mountains at night followed by the seaward drift of this pool of cool air. The top of this layer forms a sharp boundary with the warmer air aloft and creates nocturnal radiation inversions. These inversions occur primarily in the winter, when nights are longer and onshore flow is weakest. They are typically only a few hundred feet above mean sea level. These inversions effectively trap pollutants, such as nitrogen oxides (NO_X) and carbon monoxide (CO) from vehicles, as the pool of cool air drifts seaward. Winter is therefore a period of high levels of primary pollutants along the coastline. (Urban Crossroads, 2021a, p. 7)

C. *Wind Patterns*

The distinctive climate of the Project area and the SoCAB is determined by its terrain and geographical location. The SoCAB is located in a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean in the southwest quadrant with high mountains forming the remainder of the perimeter. Wind patterns across the south coastal region are characterized by westerly and southwesterly onshore winds during the day and easterly or northeasterly breezes at night. Winds are characteristically light although the speed is somewhat greater during the dry summer months than during the rainy winter season. (Urban Crossroads, 2021a, pp. 7-8)

D. *Criteria Pollutants*

Criteria pollutants are pollutants that are regulated through the development of human health based and/or environmentally based criteria for setting permissible levels. Criteria pollutants, their typical sources, and health effects are identified in Table 4.3-1, *Criteria Pollutants*. (Urban Crossroads, 2021a, p. 8)

Table 4.3-1 Criteria Pollutants

Criteria Pollutant	Description	Sources	Health Effects
CO	CO is a colorless, odorless gas produced by the incomplete combustion of carbon-containing fuels, such as gasoline or wood. CO concentrations tend to be the highest during the winter morning, when little to no wind and surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion engines, unlike ozone (O_3), motor vehicles operating at slow speeds are the primary source of CO in the SoCAB. The highest ambient CO concentrations are generally found near congested transportation corridors and intersections.	Any source that burns fuel such as automobiles, trucks, heavy construction equipment, farming equipment and residential heating.	Individuals with a deficient blood supply to the heart are the most susceptible to the adverse effects of CO exposure. The effects observed include earlier onset of chest pain with exercise, and electrocardiograph changes indicative of decreased oxygen (O_2) supply to the heart. Inhaled CO has no direct toxic effect on the lungs but exerts its effect on tissues by interfering with O_2 transport and competing with O_2 to combine with hemoglobin present in the blood to form carboxyhemoglobin (COHb). Hence, conditions with an increased demand for O_2 supply can be adversely affected by exposure to CO. Individuals most at risk include fetuses, patients with diseases involving heart and blood vessels, and patients with chronic hypoxemia (O_2 deficiency) as seen at high altitudes.
SO_2	SO_2 is a colorless, extremely irritating gas or liquid. It enters the atmosphere as a pollutant mainly as a result of burning high sulfur-content fuel oils and coal and from chemical processes occurring at chemical plants and refineries. When SO_2 oxidizes in the atmosphere, it forms SO_4. Collectively, these pollutants are referred to as sulfur oxides (SO_X).	Coal or oil burning power plants and industries, refineries, diesel engines	A few minutes of exposure to low levels of SO_2 can result in airway constriction in some asthmatics, all of whom are sensitive to its effects. In asthmatics, increase in resistance to air flow, as well as reduction in breathing capacity leading to severe breathing difficulties, are observed after acute exposure to SO_2. In contrast, healthy individuals do not exhibit similar acute responses even after exposure to higher concentrations of SO_2. Animal studies suggest that despite SO_2

Table 4.3-1 Criteria Pollutants

Criteria Pollutant	Description	Sources	Health Effects
			being a respiratory irritant, it does not cause substantial lung injury at ambient concentrations. However, very high levels of exposure can cause lung edema (fluid accumulation), lung tissue damage, and sloughing off of cells lining the respiratory tract. Some population-based studies indicate that the mortality and morbidity effects associated with fine particles show a similar association with ambient SO_2 levels. In these studies, efforts to separate the effects of SO_2 from those of fine particles have not been successful. It is not clear whether the two pollutants act synergistically, or one pollutant alone is the predominant factor.
NO_X	NO_X consist of nitric oxide (NO), nitrogen dioxide (NO_2) and nitrous oxide (N_2O) and are formed when nitrogen (N_2) combines with O_2. Their lifespan in the atmosphere ranges from one to seven days for nitric oxide and nitrogen dioxide, to 170 years for nitrous oxide. NO_X is typically created during combustion processes and are major contributors to smog formation and acid deposition. NO_2 is a criteria air pollutant and may result in numerous adverse health effects; it absorbs blue light, resulting in a brownish-red cast to the atmosphere and reduced visibility. Of the seven types of nitrogen oxide compounds, NO_2 is the most abundant in the atmosphere. As ambient concentrations of NO_2 are related to traffic density, commuters in heavy traffic may be exposed to higher concentrations of NO_2 than those indicated by regional monitoring station.	Any source that burns fuel such as automobiles, trucks, heavy construction equipment, farming equipment and residential heating.	Population-based studies suggest that an increase in acute respiratory illness, including infections and respiratory symptoms in children (not infants), is associated with long-term exposure to NO_2 at levels found in homes with gas stoves, which are higher than ambient levels found in Southern California. Increase in resistance to air flow and airway contraction is observed after short-term exposure to NO_2 in healthy subjects. Larger decreases in lung functions are observed in individuals with asthma or chronic obstructive pulmonary disease (e.g., chronic bronchitis, emphysema) than in healthy individuals, indicating a greater susceptibility of these sub-groups. In animals, exposure to levels of NO_2 considerably higher than ambient concentrations result in increased susceptibility to infections, possibly due to the observed changes in cells involved in maintaining immune functions. The severity of lung tissue damage associated with high levels of O_3 exposure increases when animals are exposed to a combination of O_3 and NO_2.
O_3	O_3 is a highly reactive and unstable gas that is formed when VOCs and NO_X, both byproducts of internal combustion engine exhaust, undergo slow photochemical reactions in the presence of sunlight. O_3 concentrations are	Formed when reactive organic gases (ROG) and NO_X react in the presence of	Individuals exercising outdoors, children, and people with preexisting lung disease, such as asthma and chronic pulmonary lung disease, are considered to be the most susceptible sub-groups for O_3 effects. Short-term exposure (lasting for a few hours) to

Table 4.3-1 Criteria Pollutants

Criteria Pollutant	Description	Sources	Health Effects
	generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable to the formation of this pollutant.	sunlight. ROG sources include any source that burns fuels, (e.g., gasoline, natural gas, wood, oil) solvents, petroleum processing and storage and pesticides.	O_3 at levels typically observed in Southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes. Elevated O_3 levels are associated with increased school absences. In recent years, a correlation between elevated ambient O_3 levels and increases in daily hospital admission rates, as well as mortality, has also been reported. An increased risk for asthma has been found in children who participate in multiple outdoor sports and live in communities with high O_3 levels. O_3 exposure under exercising conditions is known to increase the severity of the responses described above. Animal studies suggest that exposure to a combination of pollutants that includes O_3 may be more toxic than exposure to O_3 alone. Although lung volume and resistance changes observed after a single exposure diminish with repeated exposures, biochemical and cellular changes appear to persist, which can lead to subsequent lung structural changes.
Particulate Matter	PM_{10} is a major air pollutant consisting of tiny solid or liquid particles of soot, dust, smoke, fumes, and aerosols. Particulate matter pollution is a major cause of reduce visibility (haze) which is caused by the scattering of light and consequently the significant reduction air clarity. The size of the particles (10 microns or smaller, about 0.0004 inches or less) allows them to easily enter the lungs where they may be deposited, resulting in adverse health effects. Additionally, it should be noted that PM_{10} is considered a criteria air pollutant. $PM_{2.5}$ is a similar air pollutant to PM_{10} consisting of tiny solid or liquid particles which are 2.5 microns or smaller (which is often referred to as fine particles). These particles are formed in the atmosphere from primary gaseous emissions that include SO_4	Sources of PM_{10} include road dust, windblown dust and construction. Also formed from other pollutants (acid rain, NO_X, SO_X, organics). Incomplete combustion of any fuel. $PM_{2.5}$ comes from fuel combustion in motor vehicles, equipment and industrial sources, residential and agricultural burning. Also formed from reaction of other	A consistent correlation between elevated ambient fine particulate matter (PM_{10} and $PM_{2.5}$) levels and an increase in mortality rates, respiratory infections, number and severity of asthma attacks and the number of hospital admissions has been observed in different parts of the United States and various areas around the world. In recent years, some studies have reported an association between long-term exposure to air pollution dominated by fine particles and increased mortality, reduction in lifespan, and an increased mortality from lung cancer. Daily fluctuations in $PM_{2.5}$ concentration levels have also been related to hospital admissions for acute respiratory conditions in children, to school and kindergarten absences, to a decrease in respiratory lung volumes in normal children, and to increased medication use in children and adults with asthma. Recent studies show

Table 4.3-1 Criteria Pollutants

Criteria Pollutant	Description	Sources	Health Effects
	formed from SO_2 release from power plants and industrial facilities and nitrates that are formed from NO_X release from power plants, automobiles and other types of combustion sources. The chemical composition of fine particles highly depends on location, time of year, and weather conditions. $PM_{2.5}$ is a criteria air pollutant.	pollutants (acid rain, NO_X, SO_X, organics).	lung function growth in children is reduced with long term exposure to particulate matter. The elderly, people with pre-existing respiratory or cardiovascular disease, and children appear to be more susceptible to the effects of high levels of PM_{10} and $PM_{2.5}$.
VOC	VOCs are hydrocarbon compounds (any compound containing various combinations of hydrogen and carbon atoms) that exist in the ambient air. VOCs contribute to the formation of smog through atmospheric photochemical reactions and/or may be toxic. Compounds of carbon (also known as organic compounds) have different levels of reactivity; that is, they do not react at the same speed or do not form O_3 to the same extent when exposed to photochemical processes. VOCs often have an odor, and some examples include gasoline, alcohol, and the solvents used in paints. Exceptions to the VOC designation include CO, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate. VOCs are a criteria pollutant since they are a precursor to O_3, which is a criteria pollutant. The terms VOC and ROG (see below) interchangeably.	Organic chemicals are widely used as ingredients in household products. Paints, varnishes and wax all contain organic solvents, as do many cleaning, disinfecting, cosmetic, degreasing and hobby products. Fuels are made up of organic chemicals. All of these products can release organic compounds while you are using them, and, to some degree, when they are stored.	Breathing VOCs can irritate the eyes, nose and throat, can cause difficulty breathing and nausea, and can damage the central nervous system as well as other organs. Some VOCs can cause cancer. Not all VOCs have all these health effects, though many have several.
ROG	Similar to VOC, ROGs are also precursors in forming O_3 and consist of compounds containing methane, ethane, propane, butane, and longer chain hydrocarbons, which are typically the result of some type of combustion/decomposition process. Smog is formed when ROG and NO_X react in the presence of sunlight. ROGs are a criteria pollutant since they are a precursor to O_3, which is a criteria pollutant. The terms ROG and VOC (see previous) interchangeably.	Sources similar to VOCs.	Health effects similar to VOCs.
Lead (Pb)	Pb is a heavy metal that is highly persistent in the environment and is considered a criteria pollutant. In the past, the primary source of Pb in the air was emissions from vehicles burning	Metal smelters, resource recovery, leaded gasoline, deterioration of Pb paint.	Fetuses, infants, and children are more sensitive than others to the adverse effects of Pb exposure. Exposure to low levels of Pb can adversely affect the development and function of the central nervous system,

Table 4.3-1 Criteria Pollutants

Criteria Pollutant	Description	Sources	Health Effects
	leaded gasoline. The major sources of Pb emissions are ore and metals processing, particularly Pb smelters, and piston-engine aircraft operating on leaded aviation gasoline. Other stationary sources include waste incinerators, utilities, and lead-acid battery manufacturers. It should be noted that the Project does not include operational activities such as metal processing or Pb acid battery manufacturing. As such, the Project is not anticipated to generate a quantifiable amount of Pb emissions.		leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence quotient. In adults, increased Pb levels are associated with increased blood pressure. Pb poisoning can cause anemia, lethargy, seizures, and death; although it appears that there are no direct effects of Pb on the respiratory system. Pb can be stored in the bone from early age environmental exposure, and elevated blood Pb levels can occur due to breakdown of bone tissue during pregnancy, hyperthyroidism (increased secretion of hormones from the thyroid gland), and osteoporosis (breakdown of bony tissue). Fetuses and breast-fed babies can be exposed to higher levels of Pb because of previous environmental Pb exposure of their mothers.
Odor	Odor means the perception experienced by a person when one or more chemical substances in the air come into contact with the human olfactory nerves.	Odors can come from many sources including animals, human activities, industry, natures, and vehicles.	Offensive odors can potentially affect human health in several ways. First, odorant compounds can irritate the eye, nose, and throat, which can reduce respiratory volume. Second, studies have shown that the VOCs that cause odors can stimulate sensory nerves to cause neurochemical changes that might influence health, for instance, by compromising the immune system. Finally, unpleasant odors can trigger memories or attitudes linked to unpleasant odors, causing cognitive and emotional effects such as stress.

(Urban Crossroads, 2021a, Table 2-1)

E. Existing Air Quality

Existing air quality is measured at established SCAQMD air quality monitoring stations. Monitored air quality is evaluated in the context of ambient air quality standards. These standards are the levels of air quality that are considered safe, with an adequate margin of safety, to protect the public health and welfare. National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) currently in effect are shown in Table 4.3-2, *Ambient Air Quality Standards.* (Urban Crossroads, 2021a, p. 16)

The determination of whether a region's air quality is healthful or unhealthful is determined by comparing contaminant levels in ambient air samples to the State and federal standards. The most recent State and federal standards were updated by CARB on May 4, 2016 and are presented in Table 4.3-2. The air quality in a region

Table 4.3-2 Ambient Air Quality Standards

Ambient Air Quality Standards						
Pollutant	Averaging Time	California Standards [1]		National Standards [2]		
		Concentration [3]	Method [4]	Primary [3,5]	Secondary [3,6]	Method [7]
Ozone (O_3)[8]	1 Hour	0.09 ppm (180 µg/m³)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m³)		0.070 ppm (137 µg/m³)		
Respirable Particulate Matter (PM10)[9]	24 Hour	50 µg/m³	Gravimetric or Beta Attenuation	150 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m³		—		
Fine Particulate Matter (PM2.5)[9]	24 Hour	—	—	35 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m³	Gravimetric or Beta Attenuation	12.0 µg/m³	15 µg/m³	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m³)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m³)	—	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10 mg/m³)		9 ppm (10 mg/m³)	—	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m³)		—	—	
Nitrogen Dioxide (NO_2)[10]	1 Hour	0.18 ppm (339 µg/m³)	Gas Phase Chemiluminescence	100 ppb (188 µg/m³)	—	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m³)		0.053 ppm (100 µg/m³)	Same as Primary Standard	
Sulfur Dioxide (SO_2)[11]	1 Hour	0.25 ppm (655 µg/m³)	Ultraviolet Fluorescence	75 ppb (196 µg/m³)	—	Ultraviolet Flouresence; Spectrophotometry (Pararosaniline Method)
	3 Hour	—		—	0.5 ppm (1300 µg/m³)	
	24 Hour	0.04 ppm (105 µg/m³)		0.14 ppm (for certain areas)[11]	—	
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas)[11]	—	
Lead[12,13]	30 Day Average	1.5 µg/m³	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m³ (for certain areas)[12]	Same as Primary Standard	
	Rolling 3-Month Average	—		0.15 µg/m³		
Visibility Reducing Particles[14]	8 Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	No National Standards		
Sulfates	24 Hour	25 µg/m³	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m³)	Ultraviolet Fluorescence			
Vinyl Chloride[12]	24 Hour	0.01 ppm (26 µg/m³)	Gas Chromatography			

Table 4.3-2 Ambient Air Quality Standards (Cont'd)

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 $\mu g/m^3$ is equal to or less than one. For PM2.5, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.

3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

4. Any equivalent measurement method which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.

5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

7. Reference method as described by the U.S. EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the U.S. EPA.

8. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.

9. On December 14, 2012, the national annual PM2.5 primary standard was lowered from 15 $\mu g/m^3$ to 12.0 $\mu g/m^3$. The existing national 24-hour PM2.5 standards (primary and secondary) were retained at 35 $\mu g/m^3$, as was the annual secondary standard of 15 $\mu g/m^3$. The existing 24-hour PM10 standards (primary and secondary) of 150 $\mu g/m^3$ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

10. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

11. On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

    Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

12. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

13. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 $\mu g/m^3$ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

14. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

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is considered to be in attainment by the state if the measured ambient air pollutant levels for O_3, CO (except 8-hour Lake Tahoe), SO_2 (1 and 24 hour), NO_2, PM_{10}, and $PM_{2.5}$ are not to be exceeded. All others are not to be equaled or exceeded. It should be noted that the three-year period is presented for informational purposes and is not the basis for how the State assigns attainment status. Attainment status for a pollutant means that the SCAQMD meets the standards set by the U.S. Environmental Protection Agency (EPA) and/or the California EPA (CalEPA). Conversely, nonattainment means that an area has monitored air quality that does not meet the NAAQS or CAAQS standards. In order to improve air quality in nonattainment areas, a State Implementation Plan (SIP) is drafted by CARB. The SIP outlines the measures that the state will take to improve air quality. Once nonattainment areas meet the standards and additional redesignation requirements, the EPA will designate the area as a maintenance area. (Urban Crossroads, 2021a, p. 16)

F. *Regional Air Quality*

Air pollution contributes to a wide variety of adverse health effects. The EPA has established NAAQS for seven of the most common air pollutants: CO, Pb, O_3, PM_{10}, $PM_{2.5}$, NO_2, and SO_2, which are known as criteria pollutants. The SCAQMD monitors levels of various criteria pollutants at 37 permanent monitoring stations and 5 single-pollutant source Pb air monitoring sites throughout the air district. On February 21, 2019, CARB posted the 2018 amendments to the State and national area designations. Table 4.3-3, *Attainment Status of Criteria Pollutants in the SoCAB,* shows the attainment designations for the SoCAB. (Urban Crossroads, 2021a, p. 19)

Table 4.3-3 Attainment Status of Criteria Pollutants in the SoCAB

Criteria Pollutant	State Designation	Federal Designation
O_3 – 1-hour standard	Nonattainment	--
O_3 – 8-hour standard	Nonattainment	Nonattainment
PM_{10}	Nonattainment	Attainment
$PM_{2.5}$	Nonattainment	Nonattainment
CO	Attainment	Unclassifiable/Attainment
NO_2	Attainment	Unclassifiable/Attainment
SO_2	Unclassifiable/Attainment	Unclassifiable/Attainment
Pb[1]	Attainment	Unclassifiable/Attainment

(Urban Crossroads, 2021a, Table 2-3)

G. *Local Air Quality*

The Project site is located within the Source Receptor Area (SRA) 26. Within SRA 26, the SCAQMD Temecula Valley monitoring station, located 3.5 miles southeast of the Project site, is the nearest long-term air quality monitoring station for O_3. The Temecula Valley monitoring station does not include data for CO, NO_2, PM_{10}, and $PM_{2.5}$. As such, the next nearest monitoring station monitoring the other pollutants will be used. The Metropolitan Riverside County 3 monitoring station, located in SRA 23, is the nearest monitoring station for CO, NO_2, PM_{10}, and $PM_{2.5}$. The Metropolitan Riverside County 3 is located approximately 33 miles northwest of the Project site. It should be noted that the Metropolitan Riverside County 3 monitoring stations was utilized

in lieu of the Perris Valley monitoring station only in instances where data was not available. (Urban Crossroads, 2021a, p. 19)

The most recent three (3) years of data available is shown on Table 4.3-4, *Project Area Air Quality Monitoring Summary (2017-2019)*, and identifies the number of days ambient air quality standards were exceeded for the study area, which is considered to be representative of the local air quality at the Project site. Data for O_3, CO, NO_2, PM_{10}, and $PM_{2.5}$ for 2017 through 2019 were obtained from the SCAQMD Air Quality Data Tables. Additionally, data for SO_2 has been omitted as attainment is regularly met in the SoCAB and few monitoring stations measure SO_2 concentrations. (Urban Crossroads, 2021a, p. 19)

Table 4.3-4 Project Area Air Quality Monitoring Summary (2017-2019)

Pollutant	Standard	Year		
		2018	2019	2020
O_3				
Maximum Federal 1-Hour Concentration (ppm)		0.107	0.091	0.108
Maximum Federal 8-Hour Concentration (ppm)		0.085	0.079	0.091
Number of Days Exceeding State 1-Hour Standard	> 0.09 ppm	2	0	5
Number of Days Exceeding State/Federal 8-Hour Standard	> 0.070 ppm	15	6	37
CO				
Maximum Federal 1-Hour Concentration	> 35 ppm	2.6	2	1.8
Maximum Federal 8-Hour Concentration	> 20 ppm	2.4	1.3	1.5
NO_2				
Maximum Federal 1-Hour Concentration	> 0.100 ppm	0.0542	0.0560	0.0581
Annual Federal Standard Design Value		0.0137	0.0122	0.0123
PM_{10}				
Maximum Federal 24-Hour Concentration ($\mu g/m^3$)	> 150 $\mu g/m^3$	148	143	124
Annual Federal Arithmetic Mean ($\mu g/m^3$)		49.4	43.1	52.2
Number of Days Exceeding Federal 24-Hour Standard	> 150 $\mu g/m^3$	0	0	0
Number of Days Exceeding State 24-Hour Standard	> 50 $\mu g/m^3$	168	130	154
$PM_{2.5}$				
Maximum Federal 24-Hour Concentration ($\mu g/m^3$)	> 35 $\mu g/m^3$	64.8	46.7	38.70
Annual Federal Arithmetic Mean ($\mu g/m^3$)	> 12 $\mu g/m^3$	13.87	12.53	14.03
Number of Days Exceeding Federal 24-Hour Standard	> 35 $\mu g/m^3$	4	9	5

ppm= Parts Per Million
Source: SCAQMD Historical Air Quality Data By Year, Air Quality Data Tables.
(Urban Crossroads, 2021a, Table 2-4)

4.3.2 Applicable Regulatory Requirements

The following is a brief description of the federal, State, and local environmental laws and related regulations governing air quality emissions.

A. Federal Regulations

1. Federal Clean Air Act

The Clean Air Act (CAA; 42 U.S.C. § 7401 et seq.) is the comprehensive federal law that regulates air emissions from stationary and mobile sources. Among other things, this law authorizes Environmental Protection Agency (EPA) to establish National Ambient Air Quality Standards (NAAQS) to protect public health and public welfare and to regulate emissions of hazardous air pollutants, which include ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_x), sulfur dioxide (SO_2), particulate matter (PM_{10}), $PM_{2.5}$, and lead (Pb). (EPA, 2020a)
One of the goals of the CAA was to set and achieve NAAQS in every state by 1975 in order to address the public health and welfare risks posed by certain widespread air pollutants. The setting of these pollutant standards was coupled with directing the states to develop state implementation plans (SIPs), applicable to appropriate industrial sources in the state, in order to achieve these standards. The CAA was amended in 1977 and 1990 primarily to set new goals (dates) for achieving attainment of NAAQS since many areas of the country had failed to meet the deadlines. (EPA, 2020a)

The sections of the federal CAA most directly applicable to the development of the Project site include Title I (Non-Attainment Provisions) and Title II (Mobile Source Provisions). Title I provisions address the urban air pollution problems of O_3 (smog), CO, and PM_{10}. Specifically, it clarifies how areas are designated and re-designated "attainment." It also allows EPA to define the boundaries of "nonattainment" areas: geographical areas whose air quality does not meet Federal air quality standards designed to protect public health. (EPA, 2020b) Mobile source emissions are regulated in accordance with the CAA Title II provisions. These standards are intended to reduce tailpipe emissions of hydrocarbons, CO, and NO_X on a phased-in basis that began in model year 1994. Automobile manufacturers also are required to reduce vehicle emissions resulting from the evaporation of gasoline during refueling. These provisions further require the use of cleaner burning gasoline and other cleaner burning fuels such as methanol and natural gas. (EPA, 2020c)

Section 112 of the Clean Air Act addresses emissions of hazardous air pollutants. Prior to 1990, CAA established a risk-based program under which only a few standards were developed. The 1990 Clean Air Act Amendments revised Section 112 to first require issuance of technology-based standards for major sources and certain area sources. "Major sources" are defined as a stationary source or group of stationary sources that emit or have the potential to emit 10 tons per year or more of a hazardous air pollutant or 25 tons per year or more of a combination of hazardous air pollutants. An "area source" is any stationary source that is not a major source. (EPA, 2020a)

For major sources, Section 112 requires that EPA establish emission standards that require the maximum degree of reduction in emissions of hazardous air pollutants. These emission standards are commonly referred to as "maximum achievable control technology" or "MACT" standards. Eight years after the technology-based MACT standards are issued for a source category, EPA is required to review those standards to determine whether any residual risk exists for that source category and, if necessary, revise the standards to address such risk. (EPA, 2020a)

2. National Emissions Standards for Hazardous Air Pollutants (NESHAPs) Program

National Emission Standards for Hazardous Air Pollutants (NESHAP) are stationary source standards for hazardous air pollutants. Hazardous air pollutants (HAPs) are those pollutants that are known or suspected to cause cancer or other serious health effects, such as reproductive effects or birth defects, or adverse environmental effects. The EPA develops national enforcement initiatives that focus on significant environmental risks and noncompliance patterns. For Fiscal Years 2014 to 2016, the Cutting Hazardous Air Pollutants National Initiatives Strategy focuses on categories of sources that emit HAPs. (EPA, 2020d)

Sources subject to NESHAPs are required to perform an initial performance test to demonstrate compliance. To demonstrate continuous compliance, sources are generally required to monitor control device operating parameters which are established during the initial performance test. Sources may also be required to install and operate continuous emission monitors to demonstrate compliance. Consistent with EPA's Clean Air Act Stationary Source Compliance Monitoring Strategy, NESHAP sources that meet the Clean Air Act definition of "major source" generally receive a full compliance evaluation by the state or regional office at least once every two years. (EPA, 2020d)

B. State Regulations

1. California Clean Air Act (CCAA)

The California Clean Air Act (CCAA) establishes numerous requirements for district plans to attain state ambient air quality standards for criteria air contaminants. The CCAA mandates achievement of the maximum degree of emissions reductions possible from vehicular and other mobile sources in order to attain the State's ambient air quality standards, the California Ambient Air Quality Standards (CAAQS), by the earliest practical date. The California Air Resources Board (CARB) established the CAAQS for all pollutants for which the federal government has NAAQS and, in addition, established standards for sulfates, visibility, hydrogen sulfide, and vinyl chloride. Generally, the CAAQS are more stringent than the NAAQS. For districts with serious air pollution, its attainment plan should include the following: no net increase in emissions from new and modified stationary sources; and best available retrofit technology for existing sources. (SCAQMD, n.d.)

2. Air Toxic "Hot Spots" Information and Assessment Act

The Air Toxic "Hot Spots" Information and Assessment Act of 1987, commonly known as AB 2588, (Health & Safety Code §§ 44300, et seq.) requires facilities emitting specified quantities of pollutants to conduct risk assessments describing the health impacts to neighboring communities created by their emissions of numerous specified hazardous compounds. If the district determines the health impact to be significant, neighbors must be notified. In addition, state law requires the facility to develop and implement a plan to reduce the health impacts to below significance, generally within five years. Additional control requirements for hazardous emissions from specific industries are established by the state and enforced by districts. (SCAQMD, n.d.)

3. Air Quality Management Planning

The California Air Resources Board (CARB) and local air districts throughout the State are responsible for developing clean air plans to demonstrate how and when California will attain air quality standards established under both the CAA and CCAA. For the areas within California that have not attained air quality standards, CARB works with local air districts to develop and implement State and local attainment plans. In general,

attainment plans contain a discussion of ambient air quality data and trends; a baseline emissions inventory; future year projections of emissions, which account for growth projections and already adopted control measures; a comprehensive control strategy of additional measures needed to reach attainment; an attainment demonstration, which generally involves complex modeling; and contingency measures. Plans may also include interim milestones for progress toward attainment. Air quality planning activities undertaken by CARB also include the development of policies, guidance, and regulations related to State and federal ambient air quality standards; coordination with local agencies on transportation plans and strategies; and providing assistance to local districts and transportation agencies. (CARB, 2012)

4. California Air Resources Board Rules

The CARB enforces rules related to air pollutant emissions in the State of California. Rules with applicability to the Project include, but are not limited to, those listed below.

- CARB Rule 2480 (13 CCR 2480): Airborne Toxics Control Measure to Limit School Bus Idling and Idling at Schools, which limits nonessential idling for commercial trucks and school buses within 100 feet of a school.
- CARB Rule 2485 (13 CCR 2485): Airborne Toxic Control Measure to Limit Diesel-Fuel Commercial Vehicle Idling, which limits nonessential idling to five minutes or less for commercial trucks.
- CARB Rule 2449 (13 CCR 2449): In-Use Off-Road Diesel Idling Restricts, which limits nonessential idling to five minutes or less for diesel-powered off-road equipment.

5. South Coast Air Quality Management District Rules

The South Coast Air Quality Management District (SCAQMD) enforces rules related to air pollutant emissions in the SoCAB. Rules with applicability to the Project include, but are not limited to, those listed below.

- SCAQMD Rule 201: Permit to Construct
- SCAQMD Rule 402: Nuisance Odors
- SCAQMD Rule 403: Fugitive Dust
- SCAQMD Rule 431.2: Low Sulfur Fuel
- SCAQMD Rule 1113: Table of Standards
- SCAQMD Rule 1186: PM_{10} Emissions from Paved and Unpaved Roads, and Livestock Operations
- SCAQMD Rule 1403: Asbestos Emissions from Demolition/Renovation Activities

6. Truck & Bus Regulation

Under the Truck and Bus Regulation, adopted by CARB in 2008, all diesel truck fleets operating in California are required to adhere to an aggressive schedule for upgrading and replacing heavy-duty truck engines. Older, more polluting trucks are required to be replaced first, while trucks that already have relatively clean engines are not required to be replaced until later. Pursuant to the Truck and Bus Regulation, all pre-1994 heavy trucks (trucks with a gross vehicle weight rating greater than 26,000 pounds) were removed from service on California roads by 2015. Between 2015 and 2020, pre-2000 heavy trucks were equipped with PM filters and upgraded or replaced with an engine that meets 2010 emissions standards. The upgrades/replacements occurred on a rolling basis based on model year. By 2023, all heavy trucks operating on California roads must have engines

that meet 2010 emissions standards. Lighter trucks (those with a gross vehicle weight rating of 14,001 to 26,000 pounds) adhered to a similar schedule, and were all replaced by 2020. (CARB, n.d.)

7. Advanced Clean Truck Regulation

In June, 2020, CARB adopted a new Rule requiring truck manufacturers to transition from diesel trucks and vans to electric zero-emission trucks beginning in 2024. By 2045, every new truck sold in California will be required to be zero-emission. Manufacturers who certify Class 2b-8 chassis or complete vehicles with combustion engines would be required to sell zero-emission trucks as an increasing percentage of their annual California sales from 2024 to 2035. By 2035, zero-emission truck/chassis sales would need to be 55% of Class 2b – 3 truck sales, 75% of Class 4 – 8 straight truck sales, and 40% of truck tractor sales. CARB reports that as of 2020, most commercially-available models of zero-emission vans, trucks and buses operate less than 100 miles per day. Commercial availability of electric-powered long-haul trucks is very limited. However, as technology advances over the next 20 years, zero-emission trucks will become suitable for more applications, and several truck manufacturers have announced plans to introduce market ready zero-emission trucks in the future. (CARB, Advanced Clean Trucks Fact Sheet, 2020)

8. Senate Bill 535 – Disadvantaged Communities

Senate Bill 535 ("SB 535"; De León, Chapter 830, 2012) recognizes the potential vulnerability of low-income and disadvantaged communities to poor air quality. Disadvantaged communities in California are specifically targeted for investment of proceeds from the State's cap-and-trade program. These investments are aimed at improving public health, quality of life, and economic opportunity in California's most burdened communities while at the same time reducing pollution that causes climate change. Authorized by the California Global Warming Solutions Act of 2006 (AB 32), the State's cap-and-trade program is one of several strategies that California uses to reduce greenhouse gas emissions that cause climate change. The funds must be used for programs that further reduce emissions of greenhouse gases. SB 535 requires that 25 percent of the proceeds from the Greenhouse Gas Reduction Fund go to projects that provide a benefit to disadvantaged communities. The California Environmental Protection Agency (CalEPA) is charged with the duty to identify disadvantaged communities. CalEPA bases its identification of these communities on geographic, socioeconomic, public health, and environmental hazard criteria (Health and Safety Code, section 39711, subsection (a)). In this capacity, CalEPA currently defines a disadvantaged community, from an environmental hazard and socioeconomic standpoint, as a community that scores within the top 25 percent of the census tracts, as analyzed by the California Communities Environmental Health Screening Tool Version 3.0 (CalEnviroScreen). According to this tool, the Project site and surrounding areas are not within the top 25 percent of census tracts. (OEHHA, 2017)

9. Senate Bill 1000 – Environmental Justice in Local Land Use Planning

In an effort to address the inequitable distribution of pollution and associated health effects in low-income communities and communities of color, the Legislature passed and Governor Brown signed Senate Bill 1000 (SB 1000) in 2016, requiring local governments to identify environmental justice communities (called "disadvantaged communities") in their jurisdictions and address environmental justice in their general plans. This new law has several purposes, including to facilitate transparency and public engagement in local governments' planning and decision-making processes, reduce harmful pollutants and the associated health risks in environmental justice communities, and promote equitable access to health-inducing benefits, such as

healthy food options, housing, public facilities, and recreation. SB 1000 requires environmental justice elements to identify objectives and policies to reduce unique or compounded health risks in disadvantaged communities. Generally, environmental justice elements will include policies to reduce the community's exposure to pollution through air quality improvement. SB 1000 affirms the need to integrate environmental justice principles into the planning process to prioritize improvements and programs that address the needs of disadvantaged communities. The Riverside County General Plan Health Communities Element includes policies related to environmental justice. Please refer to EIR *Technical Appendix P* for a discussion of Project consistency with these policies. (OAG, n.d.)

10. Assembly Bill 617

Assembly Bill 617 (AB 617) was enacted into law in 2017, and relates to criteria air pollutants and toxic air contaminants from sources other than vehicles. In response to AB 617, the California Air Resources Board (CARB) established the Community Air Protection Program (CAPP or Program). The Program's focus is to reduce exposure in communities most impacted by air pollution. Communities around the State are working together to develop and implement new strategies to measure air pollution and reduce health impacts. This first-of-its-kind statewide effort includes community air monitoring and community emissions reduction programs. In addition, the Legislature appropriated funding to support early actions to address localized air pollution through targeted incentive funding to deploy cleaner technologies in these communities, as well as grants to support community participation in the AB 617 process. AB 617 also includes new requirements for accelerated retrofit of pollution controls on industrial sources, increased penalty fees, and greater transparency and availability of air quality and emissions data, which will help advance air pollution control efforts throughout the State. This new effort provides an opportunity to continue to enhance air quality planning efforts and better integrate community, regional, and State level programs to provide clean air. (CARB, n.d.)

C. Local Regulations

1. Riverside County General Plan Air Quality Element

The Riverside County General Plan Air Quality Element identifies goals, policies, and programs that are meant to balance Riverside County's actions regarding land use, circulation, and other issues with their potential effects on air quality. The Air Quality Element addresses ambient air quality standards set forth by the EPA and CARB. The Air Quality Element contains policies designed to establish a regional basis for improving air quality. The following relevant and applicable policies from Riverside County's General Plan Air Quality Element have been identified for the Project:

AQ 1.1: Promote and participate with regional and local agencies, both public and private, to protect and improve air quality.

AQ 1.4: Coordinate with the SCAQMD and [Mojave Desert Air Quality Management District (MDAQMD)] to ensure that all elements of air quality plans regarding reduction of air pollutant emissions are being enforced.

AQ 2.1: The County land use planning efforts shall assure that sensitive receptors are separated and protected from polluting point sources to the greatest extent possible.

AQ 2.2: Require site plan designs to protect people and land uses sensitive to air pollution through the use of barriers and/or distance from emissions sources when possible.

AQ 2.3: Encourage the use of pollution control measures such as landscaping, vegetation and other materials, which trap particulate matter or control pollution.

AQ 3.1: Allow the market place, as much as possible, to determine the most economical approach to relieve congestion and cut emissions.

AQ 3.3: Encourage large employers and commercial/industrial complexes to create Transportation Management Associations.

AQ 4.1: Require the use of all feasible building materials/methods which reduce emissions.

AQ 4.2: Require the use of all feasible efficient heating equipment and other appliances, such as water heaters, swimming pool heaters, cooking equipment, refrigerators, furnaces and boiler units.

AQ 4.6: Require stationary air pollution sources to comply with applicable air district rules and control measures.

AQ 4.7: To the greatest extent possible, require every project to mitigate any of its anticipated emissions which exceed allowable emissions as established by the SCAQMD, MDAQMD, SoCAB, the Environmental Protection Agency and the California Air Resources Board.

AQ 4.9: Require compliance with SCAQMD Rules 403 and 403.1, and support appropriate future measures to reduce fugitive dust emanating from construction sites.

4.3.3 Basis For Determining Significance

A. Thresholds of Significance

Section III of Appendix G to the State CEQA Guidelines addresses typical adverse effects to air quality, and includes the following threshold questions to evaluate a project's impacts due to air quality emissions (OPR, 2018a):

- Would the project conflict with or obstruct implementation of the applicable air quality plan?
- Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?
- Would the project expose sensitive receptors to substantial pollutant concentrations?
- Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Significance thresholds are set forth in Riverside County's Environmental Assessment Checklist, are derived from Section III of Appendix G to the State CEQA Guidelines (listed above), and state that the proposed Project would have a significant impact due to air quality emissions if construction and/or operation of the Project would:

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

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

c. Expose sensitive receptors, which are located within one (1) mile of the project site, to substantial pollutant concentrations; or

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

The significance thresholds set forth in Riverside County's Environmental Assessment Checklist were used to evaluate the significance of the proposed Project's impacts due to air quality emissions. Riverside County also has chosen to apply SCAQMD significance thresholds, as presented in SCAQMD's CEQA Air Quality Significance Thresholds (April 2019), to evaluate the Project's air quality impacts against the above thresholds.

Accordingly, Threshold a., which addresses Section III.a of Appendix G to the State CEQA Guidelines, evaluates whether the proposed Project would conflict with SCAQMD's 2016 Air Quality Management Plan (AQMP), which addresses State and federal requirements under the CAA. A conflict with the AQMP standards and requirements would inhibit the SCAQMD's ability to achieve State and federal standards for air quality.

Threshold b. addresses Section III.b of Appendix G to the State CEQA Guidelines, and emissions generated by a development project would be significant under Threshold b. if emissions are projected to exceed the Regional Thresholds established by the SCAQMD for criteria pollutants.

Threshold c. addresses Section III.c of Appendix G to the State CEQA Guidelines. Under this threshold, impacts would be potentially significant if emissions are projected to exceed the Localized Significance Thresholds (LSTs) established by the State of California and the SCAQMD for criteria pollutants or if the Project would cause or contribute to CO "Hot Spots."

Threshold d. evaluates Section III.d of Appendix G of the State CEQA Guidelines. SCAQMD Rule 402 ("Nuisance") and California Health & Safety Code, Division 26, Part 4, Chapter 3, Section 41700 prohibit the emission of any material which causes nuisance to a considerable number of persons or endangers the comfort, health, or safety of the public, including odors. The potential to violate Rule 402 or § 41700 is used herein as a basis to consider a project's odors or other emissions to be significant and require feasible mitigation measures.

B. Regional Thresholds

As noted above, the SCAQMD has developed Regional Thresholds of significance for other regulated pollutants, as summarized Table 4.3-5*, Maximum Daily Regional Emissions Thresholds*. The SCAQMD's CEQA Air Quality Significance Thresholds (April 2019) indicate that any projects in the SoCAB with daily emissions that exceed any of the indicated thresholds should be considered as having an individually and cumulatively-considerable significant air quality impact. (Urban Crossroads, 2021a, p. 26)

Table 4.3-5 Maximum Daily Regional Emissions Thresholds

Pollutant	Construction	Operations
NO_X	100 lbs./day	55 lbs./day
VOC	75 lbs./day	55 lbs./day
PM_{10}	150 lbs./day	150 lbs./day
$PM_{2.5}$	55 lbs./day	55 lbs./day
SO_X	150 lbs./day	150 lbs./day
CO	550 lbs./day	550 lbs./day
Pb	3 lbs./day	3 lbs./day

lbs./day = Pounds Per Day
Source: Regional Thresholds presented in this table are based on the SCAQMD Air Quality Significance Thresholds, April 2019
(Urban Crossroads, 2021a, Table 3-1)

C. *Localized Thresholds*

1. *Localized Thresholds for Construction Activity*

As described in further detail in Subsection 3.6 of the Project's AQIA (*Technical Appendix B*), the Project's construction activities could actively disturb approximately 3.5 acres per day during site preparation and 5.0 acres per day for grading activities. For the purposes of analysis, and as a conservative measure, the analysis uses the smaller area of disturbance and compares the maximum emissions, regardless of phase, to the thresholds for the smaller area. Thus, if exhaust emissions are higher during the grading phase, but fugitive dust emissions are higher during site preparation phase, the highest emissions are used to determine significance as compared to the smaller site. (Urban Crossroads, 2021a, p. 34)

The SCAQMD recommends that the nearest sensitive receptor be considered when determining the Project's potential to cause an individual and cumulatively significant impact. As such, the nearest receptor to evaluate localized impacts of PM_{10}, $PM_{2.5}$, NO_2, and CO, is an existing residential home, located approximately 141 feet (43 meters) east of the Project site. (Urban Crossroads, 2021a, p. 36)

SCAQMD's screening look-up tables are utilized in determining impacts. It should be noted that since the look-up tables identifies thresholds at only 1 acre, 2 acres, and 5 acres, linear regression has been utilized to determine localized significance thresholds for a 3.5-acre site. Consistent with SCAQMD guidance, the thresholds presented in Table 4.3-6, *Localized Thresholds for Project Construction*, were calculated by interpolating the threshold values for the Project's disturbed acreage. (Urban Crossroads, 2021a, p. 38)

Table 4.3-6 Localized Thresholds for Project Construction

Pollutant	Construction Localized Thresholds
NO_X	20 ppm
CO (1 hour)	9 ppm
CO (8 hours)	0.18 ppm
PM_{10}	10.4 µg/m^3
$PM_{2.5}$	10.4 µg/m^3

Note: ppm = parts per million; µg/m^3 = micrograms per cubic meter.
(Urban Crossroads, 2022a, Table 4)

2. Localized Threshold for Project Operations

The Project is located on an approximately 196.0 acres, which includes a total of 61.4 acres of open space and 10.5 acres of recreational areas. As noted previously, the LST Methodology provides look-up tables for sites with an area with daily disturbance of 5 acres or less. For projects that exceed 5 acres, the 5-acre LST look-up tables can be used as a screening tool to determine whether pollutants require additional detailed analysis. This approach is conservative as it assumes that all on-site emissions associated with the project would occur within a concentrated 5-acre area. This screening method would therefore over-predict potential localized impacts, because by assuming that on-site operational activities are occurring over a smaller area, the resulting concentrations of air pollutants are more highly concentrated once they reach the smaller site boundary than they would be for activities if they were spread out over a larger surface area. On a larger site, the same amount of air pollutants generated would disperse over a larger surface area and would result in a lower concentration once emissions reach the project-site boundary. The LST analysis generally includes on-site sources. The thresholds shown on Table 4.3-7*, Maximum Daily Localized Operational Emissions Thresholds*, would apply to all on-site Project-related sources. The threshold values presented in Table 4.3-7 are from the look-up tables for a 5-acre site and a 25-meter (82 feet) distance for localized NO_X, CO, PM_{10}, and $PM_{2.5}$ evaluation. (Urban Crossroads, 2021a, p. 39)

Table 4.3-7 Maximum Daily Localized Operational Emissions Thresholds

Pollutant	Construction Localized Thresholds
NO_X	0.18 ppm
CO (1 hour)	20 ppm
CO (8 hours)	9 ppm
PM_{10}	2.5 µg/m^3
$PM_{2.5}$	2.5 µg/m^3

Note: ppm = parts per million; µg/m^3 = micrograms per cubic meter.
(Urban Crossroads, 2022a, Table 4)

3. Localized Thresholds for CO Emissions

Based on the SCAQMD's CEQA Air Quality Handbook (1993), a project's localized CO emissions impacts would be significant if they exceed the following California standards for localized CO concentrations:

- 1-hour CO standard of 20.0 parts per million (ppm)
- 8-hour CO standard of 9.0 ppm

D. Methodology

1. California Emissions Estimator Model (CalEEMod)

Land uses such as the Project affect air quality through construction-source and operational source emissions. In May 2022, CAPCOA, in conjunction with the SCAQMD and other California air districts, released the latest version of the California Emissions Estimator Model (CalEEMod) Version 2022.1. The purpose of this model is to calculate construction-source and operational-source criteria pollutant (VOCs, NO_X, SO_X, CO, PM_{10}, and $PM_{2.5}$) and greenhouse gas (GHG) emissions from direct and indirect sources; and quantify applicable air quality and GHG reductions achieved from mitigation. Accordingly, the latest version of CalEEMod has been used for the Project to determine construction and operational air quality emissions. Output from the model

runs for both construction and operational activity are provided in Attachments A and B of the Project's AQIA Supplement (*Technical Appendix B2*). (Urban Crossroads, 2021a, p. 27; Urban Crossroads, 2022a, p. 1)

2. Emission Factors Model

On August 19, 2019, the EPA approved the 2017 version of the EMissions FACtor model (EMFAC) web database for use in SIP and transportation conformity analyses. EMFAC2017 is a mathematical model that was developed to calculate emission rates, fuel consumption, Vehicle Miles Traveled (VMT) from motor vehicles that operate on highways, freeways, and local roads in California and is commonly used by the CARB to project changes in future emissions from on-road mobile sources. CalEEMod, version 2022.1, incorporates EMFAC2017. Additionally, the EMFAC emission factors used in this analysis include adjustment factors for the SAFE Rule. (Urban Crossroads, 2021a, p. 27)

3. Construction Emissions

Refer to Subsection 3.4 of the Project's AQIA (*Technical Appendix B*) for a discussion of construction activities, construction duration, and construction equipment assumed as inputs in the analysis of the Project's construction-related air quality impacts. (Urban Crossroads, 2021a, pp. 27-30)

4. Operational Emissions

Refer to Subsection 3.5 of the Project's AQIA (*Technical Appendix B*) for a discussion of operational emissions sources, mobile-source emission sources, and on-site equipment-related sources that were assumed as inputs in the analysis of the Project's operational-related air quality impacts. (Urban Crossroads, 2021a, pp. 31-32, pp. 31-38)

4.3.4 IMPACT ANALYSIS

Threshold a: ***Would the Project conflict with or obstruct implementation of the applicable air quality plan?***

The Project site is located within the SoCAB, which is characterized by relatively poor air quality. The SCAQMD has jurisdiction over an approximately 10,743 square-mile area consisting of the four-county Basin and the Los Angeles County and Riverside County portions of what use to be referred to as the Southeast Desert Air Basin. In these areas, the SCAQMD is principally responsible for air pollution control, and works directly with the Southern California Association of Governments (SCAG), county transportation commissions, local governments, as well as State and federal agencies to reduce emissions from stationary, mobile, and indirect sources to meet state and federal ambient air quality standards. (Urban Crossroads, 2021a, p. 42)

Currently, these State and federal air quality standards are exceeded in most parts of the SoCAB. In response, the SCAQMD has adopted a series of AQMPs to meet the State and federal ambient air quality standards. AQMPs are updated regularly in order to more effectively reduce emissions, accommodate growth, and to minimize any negative fiscal impacts of air pollution control on the economy. (Urban Crossroads, 2021a, p. 42)

In March 2017, the AQMD released the Final 2016 AQMP. The 2016 AQMP continues to evaluate current integrated strategies and control measures to meet the NAAQS, as well as, explore new and innovative methods

to reach its goals. Some of these approaches include utilizing incentive programs, recognizing existing co-benefit programs from other sectors, and developing a strategy with fair-share reductions at the federal, State, and local levels. Similar to the 2012 AQMP, the 2016 AQMP incorporates scientific and technological information and planning assumptions, including the 2016 Regional Transportation Plan (RTP)/ Sustainable Communities Strategy (SCS), a planning document that supports the integration of land use and transportation to help the region meet the federal CAA requirements. The Project's consistency with the AQMP will be determined using the 2016 AQMP as discussed below. (Urban Crossroads, 2021a, p. 42)

Criteria for determining consistency with the AQMP are defined in Chapter 12, Section 12.2 and Section 12.3 of the SCAQMD's CEQA Air Quality Handbook (1993). These indicators are discussed below. (Urban Crossroads, 2021a, p. 42)

- ***Consistency Criterion No. 1****: The proposed Project will not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations or delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP.*

The violations that Consistency Criterion No. 1 refers to are the CAAQS and NAAQS. CAAQS and NAAQS violations would occur if regional or localized significance thresholds were exceeded (Urban Crossroads, 2021a, p. 42).

Construction Impacts – Consistency Criterion 1

Consistency Criterion No. 1 refers to violations of the CAAQS and NAAQS. CAAQS and NAAQS violations would occur if LSTs or regional significance thresholds were exceeded. As indicated under the analysis of Thresholds b. and c., below, the Project's regional and localized emissions during construction would be below the SCAQMD Regional Thresholds and LSTs. Accordingly, the proposed Project would be consistent with the AQMP for construction activities, and impacts would be less than significant. (Urban Crossroads, 2021a, p. 42; Urban Crossroads, 2022a, Table 1)

Operational Impacts – Consistency Criterion 1

As indicated under the analysis of Thresholds b. and c., below, although Project operations would not exceed any of the SCAQMD LSTs, the Project's operational emissions would exceed the SCAQMD Regional Threshold for emissions of VOCs. As such, Project operations would conflict with the AQMP with respect to this criterion. (Urban Crossroads, 2021a, p. 43)

On the basis of the preceding discussion, because the Project's operational emissions would exceed the SCAQMD Regional Thresholds for VOCs, the Project has the potential to conflict with the AQMP. This is evaluated as a potentially significant impact for which mitigation would be required.

- ***Consistency Criterion No. 2:*** *The Project will not exceed the assumptions in the AQMP based on the years of Project build-out phase.*

The 2016 AQMP demonstrates that the applicable ambient air quality standards can be achieved within the timeframes required under federal law. Growth projections from local general plans adopted by cities in the district are provided to the SCAG, which develops regional growth forecasts, which are then used to develop

future air quality forecasts for the AQMP. Development consistent with the growth projections in County of Riverside General Plan is considered to be consistent with the AQMP. (Urban Crossroads, 2021a, p. 43)

Construction Impacts – Consistency Criterion 2

Peak day emissions generated by construction activities are largely independent of land use assignments, but rather are a function of development scope and maximum area of disturbance. Irrespective of the site's land use designation, development of the site to its maximum potential would likely occur, with disturbance of the entire site occurring during construction activities. As such, the Project would not conflict with the AQMP according to this criterion. (Urban Crossroads, 2021a, p. 43)

Operational Impacts – Consistency Criterion 2

The County of Riverside General Plan designates the Project site consistent with the land use designations applied to the Project site by the adopted Keller Crossing Specific Plan (SP 380). SP 380 currently designates the Project site for 3 "Very Low Density Residential (VLDR)" dwelling units on 9.9 acres; 25 "Low Density Residential (LDR)" dwelling units on 18.3 acres; 42 "Medium Density Residential (MDR)" dwelling units on 13.9 acres; 39.5 acres of "Mixed Use," including 250 dwelling units and 250,000 square feet (s.f.) building area; 400,000 s.f. of "Commercial Retail (CR)" uses on 37.8 acres; 61.1 acres of "Open Space-Conservation (OS-C)" uses; and 20.6 acres of major circulation facilities. Based on Riverside County EIR No. 525 (SCH No. 2010011068), which was certified by Riverside County in conjunction with its original approval of SP 380 on November 5, 2013, the approved SP 380 would have generated approximately 20,317 average daily trips (ADT).

As previously stated, the proposed Project would consist of 353 single-family detached residential dwelling units, 80 attached senior housing units, a 6.4-acre sports park/active park, and 176,000 square feet of commercial retail uses. For the purposes of the calculating and evaluating a conservative trip generation, the proposed commercial retail area is evaluated as including a 50,000 square foot supermarket, 14,000 square foot pharmacy, 101,500 square feet of commercial retail uses, and 10,500 square feet of fast-food restaurant with drive-through window use. As documented in Table 4-2 of the Project's Traffic Analysis (EIR *Technical Appendix L2*), the proposed Project is expected to generate a total of 6,298 ADT. As a majority of air quality emissions associated with residential, commercial, and recreational developments are the result of vehicle traffic, and because the proposed Project would generate approximately 69.0% fewer vehicular daily vehicle trips than the land uses associated with the adopted SP 380, it can be concluded that the Project's proposed land uses would not conflict or obstruct with the goals and objectives of the AQMP. (Urban Crossroads, 2021a, p. 43; Urban Crossroads, 2021e, Table 4-2)

On the basis of the preceding discussion, the Project is determined to be consistent with the second criterion.

AQMP Consistency Conclusion

In conclusion, the determination of AQMP consistency is primarily concerned with the long-term influence of a project on air quality. The Project would result in operational emissions that would exceed the SCAQMD Regional Thresholds for NO_X, resulting in a potential conflict with Criterion 1. Thus, the Project has the potential to conflict with the SCAQMD 2016 AQMP, and impacts would be significant on both a direct and cumulatively-considerable basis. (Urban Crossroads, 2021a, p. 43)

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

❑ Construction Emissions (Regional Thresholds)

Construction activities associated with the Project would result in emissions of VOCs, NO_X, SO_X, CO, PM_{10}, and $PM_{2.5}$. Construction-related emissions are expected from the following construction activities: site preparation, grading, building construction, paving, and architectural coating. Refer to Subsection 3.4 of the Project's AQIA *(Technical Appendix B)* for a description of the modeling inputs used to estimate the Project's construction-related emissions. (Urban Crossroads, 2021a, p. 27)

CalEEMod calculates maximum daily emissions for summer and winter periods. The estimated maximum daily construction emissions without mitigation are summarized on Table 4.3-8, *Overall Construction Emissions Summary (Without Mitigation)*. Detailed construction model outputs are presented in Attachment A of the Project's AQIA Supplement (*Technical Appendix B2)*. Under the assumed scenario, emissions resulting from the Project construction would not exceed criteria pollutant thresholds established by the SCAQMD. As such, Project construction-related regional emissions would not result in a cumulatively-considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or State ambient air quality standard, and impacts would be less than significant. (Urban Crossroads, 2021a, p. 29; Urban Crossroads, 2022a, pp. 1-2)

Table 4.3-8 Overall Construction Emissions Summary (Without Mitigation)

Source	Emissions (lbs/day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Summer						
2022	4.08	29.70	51.50	0.07	5.05	2.05
2023	69.30	37.50	66.40	0.08	6.20	2.54
Winter						
2022	9.94	95.80	76.80	0.11	13.90	8.33
2023	4.32	41.10	46.20	0.07	5.05	2.86
2024	69.20	37.90	60.20	0.08	6.20	2.54
Maximum Daily Emissions	**69.30**	**95.80**	**76.80**	**0.11**	**13.90**	**8.33**
SCAQMD Regional Threshold	75	100	550	150	150	55
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

(Urban Crossroads, 2022a, Table 1)

❑ Operational Emissions (Regional Thresholds)

Operational activities associated with the Project would result in emissions of VOCs, NO_X, SO_X, CO, PM_{10}, and $PM_{2.5}$. Operational emissions would be expected from the following primary sources: area source emissions, energy source emissions, and mobile source emissions. Refer to Subsection 3.5 of the Project's AQIA (*Technical Appendix B*) for a description of modeling inputs and assumptions used to calculate the Project's operational emissions. (Urban Crossroads, 2021a, p. 31)

Operational activities for summer and winter scenarios are presented in Table 4.3-9, *Summary of Operational Emissions*. Detailed operational model outputs are presented in Attachment B of the Project's AQIA Supplement (*Technical Appendix B2).* As shown in Table 4.3-9, Project operational-source emissions would exceed the SCAQMD Regional Threshold for emissions of VOCs, which are a precursor to ozone. As such, Project operational-related regional emissions would result in a cumulatively-considerable net increase of a criteria pollutant (VOCs) for which the Project region is non-attainment under an applicable federal or State ambient air quality standard. As such, Project impacts due to operational-related VOC emissions would represent a significant impact of the proposed Project on both a direct and cumulatively-considerable basis. (Urban Crossroads, 2021a, p. 31)

Table 4.3-9 Summary of Operational Emissions

Source	Emissions (lbs/day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Summer						
Area Source	26.8	6.82	35.00	0.04	0.55	0.55
Energy Source	0.49	8.45	4.17	0.05	0.68	0.68
Mobile Source	73.40	25.30	242.00	0.61	22.10	4.27
Total Maximum Daily Emissions	**100.69**	**40.57**	**281.17**	**0.70**	**23.33**	**5.50**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**YES**	**NO**	**NO**	**NO**	**NO**	**NO**
Winter						
Area Source	23.20	6.50	2.77	0.04	0.53	0.53
Energy Source	0.49	8.45	4.17	0.05	0.68	0.68
Mobile Source	71.30	27.00	205.00	0.58	22.10	4.27
Total Maximum Daily Emissions	**94.99**	**41.95**	**211.94**	**0.67**	**23.31**	**5.48**
SCAQMD Regional Threshold	55	55	550	150	150	55
Threshold Exceeded?	**YES**	**NO**	**NO**	**NO**	**NO**	**NO**

(Urban Crossroads, 2022a, Table 2)

Threshold c: ***Would the Project expose sensitive receptors, which are located within one (1) mile of the project site, to substantial pollutant concentrations?***

During both construction and operation, the Project has the potential to expose nearby sensitive receptors to substantial pollutant concentrations. The following provides an analysis based on the applicable LSTs established by the State of California and SCAQMD, an analysis of the Project's potential to result in or contribute to CO "hot spots," and an analysis of toxic air contaminants (TACs).

❑ Construction-Source Emissions LST Analysis

In order to estimate localized pollutant concentrations resulting from Project construction, the SCAQMD-approved AERMOD dispersion model was utilized. In order to model worst-case conditions, the highest daily peak on-site emissions resulting from overlapping construction activity were modeled. Refer to the Project's AQIA Supplement (*Technical Appendix B2*) for a description of the methodology used to evaluate construction-source LST emissions. Table 4.3-10*, Project Localized Significance Summary of Construction Emissions (Without Mitigation),* identifies the localized impacts at the nearest receptor location in the vicinity of the Project. As shown in Table 4.3-10, the Project would not exceed any of the applicable LSTs during construction activities. On this basis, Project-related construction emissions would not expose sensitive receptors to substantial pollutant concentrations, and impacts would be less than significant. (Urban Crossroads, 2022a, pp. 3-5)

Table 4.3-10 Project Localized Significance Summary of Construction Emissions (Without Mitigation)

Peak Construction	CO		NO_2	PM_{10}	$PM_{2.5}$
	Averaging Time				
	1-Hour	8-Hours	1-Hour	24-Hours	24-Hours
Localized Emissions	0.02	0.01	0.02	0.66	0.36
Concentration[A]	2.6	2.4	0.06	N/A	N/A
Total Concentration	**2.62**	**2.41**	**0.08**	**0.66**	**0.36**
SCAQMD Localized Significance Threshold	20	9	0.18	10.4	10.4
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**	**NO**

[A] Highest background concentration from the last three years of available data.

Note: PM_{10} and $PM_{2.5}$ concentrations are expressed in $\mu g/m^3$. All others are expressed in ppm

(Urban Crossroads, 2022a, Table 3)

❑ Operational-Source Localized Emissions

As shown in Table 4.3-11, *Localized Significance Summary of Operations*, Project operational emissions would not exceed the LST thresholds for the nearest sensitive receptor. Therefore, on this basis Project-related operational emissions would not expose sensitive receptors to substantial pollutant concentrations, and impacts would be less than significant. (Urban Crossroads, 2021a, p. 39)

❑ CO "Hot Spot" Analysis

An adverse CO concentration, known as a "hot spot," would occur if an exceedance of the state one-hour standard of 20 ppm or the eight-hour standard of 9 ppm were to occur. At the time of the 1993 Handbook, the SoCAB was designated nonattainment under the CAAQS and NAAQS for CO. (Urban Crossroads, 2021a, p. 40)

Table 4.3-11 Localized Significance Summary of Operations

Peak Operation	CO		NO_2	PM_{10}	$PM_{2.5}$
	Averaging Time				
	1-Hour	8-Hours	1-Hour	24-Hours	24-Hours
Localized Emissions	6.72E-03	4.91E-03	1.15E-03	0.22	0.11
Concentration[A]	2.6	2.4	0.06	N/A	N/A
Total Concentration	**2.61**	**2.40**	**0.06**	**0.22**	**0.11**
SCAQMD Localized Significance Threshold	20	9	0.18	2.5	2.5
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**	**NO**

[A] Highest background concentration from the last three years of available data.

Note: PM_{10} and $PM_{2.5}$ concentrations are expressed in $\mu g/m^3$. All others are expressed in ppm

(Urban Crossroads, 2022a, Table 4)

It has long been recognized that CO hotspots are caused by vehicular emissions, primarily when idling at congested intersections. In response, vehicle emissions standards have become increasingly stringent in the last twenty years. Currently, the allowable CO emissions standard in California is a maximum of 3.4 grams/mile for passenger cars (there are requirements for certain vehicles that are more stringent). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of increasingly sophisticated and efficient emissions control technologies, CO concentration in the SoCAB is now designated as attainment, as previously shown in Table 4.3-3, *Attainment Status of Criteria Pollutants in the SoCAB.* (Urban Crossroads, 2021a, p. 40)

To establish a more accurate record of baseline CO concentrations affecting the SoCAB, a CO "hot spot" analysis was conducted in 2003 for four busy intersections in Los Angeles at the peak morning and afternoon time periods. This "hot spot" analysis did not predict any violation of CO standards, as shown on Table 3-13 of the Project's AQIA (*Technical Appendix B*). (Urban Crossroads, 2021a, p. 40)

Based on the SCAQMD's 2003 AQMP and the 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan), peak CO concentrations in the SoCAB were a result of unusual meteorological and topographical conditions and not a result of traffic volumes and congestion at a particular intersection. As evidence of this, a 9.3 ppm 8-hour CO concentration was measured at the Long Beach Boulevard and Imperial Highway intersection, which was the highest CO generating intersection within the "hot spot" analysis. However, the

SCAQMD determined that only 0.7 ppm was attributable to the traffic volumes and congestion at this intersection; the remaining 8.6 ppm were due to the ambient air measurements at the time the 2003 AQMP was prepared. In contrast, the ambient 8-hour CO concentration within the Project study area is estimated at 1.3 ppm-2.4 ppm, as previously shown in Table 4.3-4. (Urban Crossroads, 2021a, pp. 40-41)

The traffic volumes used in the 2003 AQMP "hot spot" analysis are shown on Table 3-14 of the Project's AQIA (*Technical Appendix B*). The busiest intersection evaluated for AM traffic volumes was at Wilshire Boulevard and Veteran Avenue, which had an AM traffic volume of approximately 8,062 vehicles per hour (vph). The 2003 AQMP calculated that the highest 1-hour concentration for the intersection of Wilshire Boulevard and Veteran Avenue was 4.6 ppm. This indicates that, should the hourly traffic volume increase four times to 32,250 vehicles per hour, CO concentrations (4.6 ppm x 4 = 18.4 ppm) would still not likely exceed the most stringent 1-hour CO standard (20.0 ppm). (Urban Crossroads, 2021a, p. 41)

Similar considerations are also employed by other Air Districts when evaluating potential CO concentration impacts. More specifically, the Bay Area Air Quality Management District (BAAQMD) concludes that under existing and future vehicle emission rates, a given project would have to increase traffic volumes at a single intersection by more than 44,000 vph - or 24,000 vph where vertical and/or horizontal air does not mix - in order to generate a significant CO impact. (Urban Crossroads, 2021a, p. 40)

The Project considered herein would generate up to 6,298 vehicular trips and would not produce the volume of traffic required to generate a CO "hot spot" either in the context of the 2003 Los Angeles hot spot study or based on representative BAAQMD CO threshold considerations. Therefore, CO "hot spots" are not an environmental impact of concern for the proposed Project. Localized air quality impacts related to mobile-source emissions would therefore be less than significant. (Urban Crossroads, 2021a, p. 41)

❑ Toxic Air Contaminants (TACs)

Construction Activities

During short-term construction activity, the Project also would result in some diesel particulate matter (DPM) which is a listed carcinogen and toxic air contaminant (TAC) in the State of California. The 2015 Office of Environmental Health Hazard Assessment (OEHHA) revised risk assessment guidelines suggest that construction projects as short as 2-6 months may warrant evaluation. Notwithstanding, based on Urban Crossroad's professional opinion and experience in preparing health risk assessments for development projects, given the distance of the Project from surrounding sensitive receptors, the dominant wind patterns blowing to the northwest away for receptors, and the annual $PM_{2.5}$ emissions from equipment during each year of construction, any DPM generated from construction activity would result in less than significant ground level concentrations of DPM and not result in a significant health risks and no further evaluation is required. (Urban Crossroads, 2021a, p. 44)

Furthermore, many air districts throughout the State, including the SCAQMD, are currently evaluating the applicability of age sensitivity factors and have not established CEQA guidance. More specifically in their response to comments received on SCAQMD New Source Review rule, the SCAQMD explicitly states that: (Urban Crossroads, 2021a, p. 44)

"The Proposed Amended Rules are separate from the CEQA significance thresholds. The SCAQMD staff is currently evaluating how to implement the Revised OEHHA Guidelines under CEQA. The SCAQMD staff will evaluate a variety of options on how to evaluate health risks under the Revised OEHHA Guidelines under CEQA. The SCAQMD staff will conduct public workshops to gather input before bringing recommendations to the Governing Board. In the interim, staff will continue to use the previous guidelines for CEQA determinations." (Urban Crossroads, 2021a, p. 44)

Operational Activities

TACs analysis apply to the operational phase of a proposed project, if the project includes stationary sources, or attracts mobile sources that may spend long periods queuing and idling at the site (e.g., transfer facilities and warehouse buildings). The proposed Project does not include such uses, and thus, due to the lack of significant stationary source emissions, no TAC analysis is needed for operations. (Urban Crossroads, 2021a, p. 44)

❑ Friant Ranch

In December 2018, in the case of *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502, the California Supreme Court held that an EIR's air quality analysis must meaningfully connect the identified air quality impacts to the human health consequences of those impacts, or meaningfully explain why that analysis cannot be provided.

As discussed in briefs filed in the Friant Ranch case, correlating a project's criteria air pollutant emissions to specific health impacts is challenging. Health effects caused by criteria pollutant emissions are dependent on a variety of interrelated variables. In particular, O_3 precursors (VOCs and NO_X) affect air quality on a regional scale. The SCAQMD, which has among the most sophisticated air quality modeling and health impact evaluation capability of any of the air districts in the State, and thus is uniquely situated to express an opinion on how lead agencies should correlate air quality impacts with specific health outcomes, noted that it may be "difficult to quantify health impacts for criteria pollutants."

As noted in its brief, the San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD) ties the difficulty of correlating the emission of criteria pollutants to health impacts to how O_3 and PM are formed, stating that "[b]ecause of the complexity of ozone formation, a specific tonnage amount of NO_X or VOCs emitted in a particular area does not equate to a particular concentration of ozone in that area." Similarly, the tonnage of PM "emitted does not always equate to the local PM concentration because it can be transported long distances by wind," and "[s]econdary PM, like ozone, is formed via complex chemical reactions in the atmosphere between precursor chemicals such as sulfur dioxides (SO_X) and NO_X," meaning that "the tonnage of PM-forming precursor emissions in an area does not necessarily result in an equivalent concentration of secondary PM in that area." The disconnect between the amount of precursor pollutants and the concentration of O_3 or PM formed makes it difficult to determine potential health impacts, which are related to the concentration of O_3 and PM experienced by the receptor rather than levels of NO_X, SO_X, and VOCs produced by a source.

Health effects related to O_3 are therefore the product of emissions generated by numerous sources throughout a region. SCAQMD's Brief of Amicus Curiae (Brief) goes on to state that "it takes a large amount of additional

precursor emissions (NO_X and VOCs) to cause a modeled increase in ambient ozone levels over an entire region." The SCAQMD states that based on their own modeling in the SCAQMD's 2012 AQMP, a reduction of "NO_X by 432 tons per day (157,680 tons/year) and a reduction of VOC by 187 tons per day (68,255 tons/year) would reduce ozone levels at the SCAQMD's monitor site with the highest levels by only 9 parts per billion." As such, the SCAQMD concludes that it is not currently possible "to accurately quantify ozone-related health impacts caused by NO_X or VOC emissions from relatively small projects."

Most local agencies, including Riverside County, lack the data to do their own assessment of potential health impacts from criteria air pollutant emissions, as would be required to establish customized, locally-specific thresholds of significance based on potential health impacts from an individual development project. The use of national or "generic" data to fill the gap of missing local data would not yield accurate results because such data does not capture local air patterns, local background conditions, or local population characteristics, all of which play a role in how a population experiences air pollution. Because it is impracticable to accurately isolate the exact cause of a human disease (for example, the role a particular air pollutant plays compared to the role of other allergens and genetics in causing asthma), Riverside County has determined that existing scientific tools cannot accurately estimate health impacts of the Project's air emissions without undue speculation. Instead, readers are directed to the Project's AQIA as presented above, which provides extensive information concerning the quantifiable and non-quantifiable health risks related to the Project's construction and long-term operation.

Notwithstanding, the Project's AQIA (*Technical Appendix B*) does evaluate the proposed Project's localized impact to air quality for emissions of CO, NO_X, PM_{10}, and $PM_{2.5}$ by comparing the proposed Project's on-site emissions to the SCAQMD's applicable LST thresholds. The LST analysis above determined that the Project would result in localized emissions of PM_{10} and $PM_{2.5}$ exceeding SCAQMD's LSTs, although localized PM_{10} and $PM_{2.5}$ impacts would be reduced to less-than-significant levels with the implementation of mitigation. Therefore, with mitigation, the proposed Project would not be expected to exceed the most stringent applicable federal or State ambient air quality standards for emissions of CO, NO_X, PM_{10}, and $PM_{2.5}$.

As the Project's emissions would comply with federal, State, and local air quality standards (with mitigation), the proposed Project's emissions are not sufficiently high enough to use a regional modeling program to correlate health effects on a basin-wide level, and would not provide a reliable indicator of health effects if modeled.

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

The potential for the Project to generate objectionable odors has also been considered. Land uses generally associated with odor complaints include: agricultural uses (livestock and farming), wastewater treatment plants, food processing plants, chemical plants, composting operations, refineries, landfills, dairies, and fiberglass molding facilities. (Urban Crossroads, 2021a, p. 45)

The Project would entail future residential and commercial retail development, and does not contain land uses typically associated with emitting objectionable odors. Potential odor sources associated with the proposed Project may result from construction equipment exhaust and the application of asphalt and architectural coatings during construction activities and the temporary storage of typical solid waste (refuse) associated with

the proposed Project's (long-term operational) uses. Standard construction requirements would minimize odor impacts from construction. The construction odor emissions would be temporary, short-term, and intermittent in nature and would cease upon completion of the respective phase of construction and is thus considered less than significant. It is expected that Project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with the County's solid waste regulations. The proposed Project also would be required to comply with SCAQMD Rule 402 to prevent occurrences of public nuisances. The Project also would be required to comply with California Code of Regulations (CCR), Title 13, Sections 2449(d)(3) and 2485, which minimize the idling time of construction equipment either by shutting it off when not in use or by reducing the time of idling to no more than five minutes. The Project also would also comply with the SCAQMD (Southern Coast Air Quality Management District) Regulation XI, Rule 1113 – Architectural Coating, which would minimize odor impacts from VOC emissions during architectural coating. Therefore, odors associated with the proposed Project construction and operations would be less than significant and no mitigation is required. (Urban Crossroads, 2021a, p. 44)

4.3.5 Cumulative Impact Analysis

With exception of the issue of odors, the cumulative study area for air quality includes Riverside County and the SoCAB. The SoCAB is designated as a nonattainment area for State standards of O_3, PM_{10}, and $PM_{2.5}$. The region also is designated as a nonattainment area for federal standards of O_3 and $PM_{2.5}$. Cumulative growth in population, vehicle use, and industrial activity could inhibit efforts to improve regional air quality and attain the ambient air quality standards. Thus, with exception of odors, the setting for this cumulative analysis consists of the SoCAB and associated growth and development anticipated in the air basin. For the issue of odors, the cumulative study area includes the Project site and lands in close proximity to the Project site, as odors diminish rapidly with distance from the source.

As discussed under the analysis of Threshold a., Project operational-related emissions would exceed the SCAQMD Regional Threshold for VOCs at the nearest sensitive receptor. As such, prior to mitigation, the proposed Project would not be consistent with the SCAQMD AQMP. As other cumulative developments within the SoCAB region also have the potential to conflict with the SCAQMD AQMP, the Project's impacts due to a potential conflict with the AQMP would be cumulatively considerable.

As previously shown in Table 4.3-3, the CAAQS designate the Project area as nonattainment for O_3, PM_{10}, and $PM_{2.5}$ while the NAAQS designates the Project area as nonattainment for O_3 and $PM_{2.5}$. The AQMD has published a report on how to address cumulative impacts from air pollution: *White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution.* In this report the AQMD clearly states (Page D-3): (Urban Crossroads, 2021a, p. 46)

> *...the AQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or Environmental Impact Report (EIR). The only case where the significance thresholds for project specific and cumulative impacts differ is the Hazard Index (HI) significance threshold for toxic air contaminant (TAC) emissions. The project specific (project increment) significance threshold is HI > 1.0 while the cumulative (facility-wide) is HI > 3.0. It should be noted that the HI is only one of three TAC emission significance thresholds considered (when applicable) in a CEQA analysis. The other two are the maximum individual cancer risk (MICR) and the cancer burden, both of which use the same significance*

> *thresholds (MICR of 10 in 1 million and cancer burden of 0.5) for project specific and cumulative impacts.* (Urban Crossroads, 2021a, p. 46)
>
> *Projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant.* (Urban Crossroads, 2021a, p. 46)

Therefore, this analysis assumes that individual projects that do not generate operational or construction emissions that exceed the SCAQMD's recommended daily thresholds for project specific impacts also would not cause a cumulatively considerable increase in emissions for those pollutants for which the SoCAB is in nonattainment, and, therefore, would not be considered to have a significant, adverse air quality impact. Alternatively, individual project-related construction and operational emissions that exceed SCAQMD thresholds for project-specific impacts would be considered cumulatively considerable. (Urban Crossroads, 2021a, p. 46)

The Project-specific evaluation of emissions presented in the Project's AQIA (*Technical Appendix B1*) and AQIA Supplement (*Technical Appendix B2*) and summarized herein under the analysis of Threshold b. demonstrates that Project construction-source air pollutant emissions would not exceed any of the SCAQMD Regional Thresholds. Therefore, Project regional construction source emissions would not result in a cumulatively-considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or State ambient air quality standard, and impacts would be less than significant on a cumulatively-considerable basis. (Urban Crossroads, 2021a, p. 46)

The Project-specific evaluation of regional operational emissions presented under the analysis of Threshold b. demonstrates that the Project's operational regional emissions of criteria pollutants would exceed the SCAQMD Regional Threshold for VOCs (refer to Table 4.3-9). Therefore, operation of the proposed Project would result in a cumulatively-considerable net increase of a criteria pollutant (i.e., ozone) for which the Project region is non-attainment under an applicable federal or State ambient air quality standard, and cumulatively-considerable impacts would be significant.

As indicated under the analysis of Threshold c., the Project's localized emissions during construction and long-term operation would be below the applicable SCAQMD LSTs for emissions of criteria pollutants and would not expose sensitive receptors to substantial pollutant concentrations (refer to Table 4.3-10 and Table 4.3-11). Additionally, the analysis under Threshold c. provides substantial evidence that the proposed Project would not cause or contribute to any CO "hot spots" and would not result in any impacts associated with TACs. Accordingly, Project impacts due to localized emissions during construction and long-term operation would be less than significant on a cumulatively-considerable basis.

With respect to odors, and as discussed under the analysis of Threshold d., the proposed Project would be required to comply with SCAQMD Rule 402 to prevent occurrences of public nuisances (including odors) during both construction and long-term operation, and would be subject to Riverside County's solid waste regulations. The Project also would be required to comply with CCR, Title 13, Sections 2449(d)(3) and 2485, which minimize the idling time of construction equipment either by shutting it off when not in use or by

reducing the time of idling to no more than five minutes. The Project also would also comply with the SCAQMD (Southern Coast Air Quality Management District) Regulation XI, Rule 1113 – Architectural Coating, which would minimize odor impacts from VOC emissions during architectural coating. Other developments within the cumulative study area similarly would be required to comply with SCAQMD Rule 402, CCR, Title 13, Sections 2449(d)(3) and 2485, SCAQMD Rule 1113, and the solid waste regulations of the applicable jurisdictions. Therefore, Project impacts due to other emissions (such as those leading to odors) would be less-than-cumulatively considerable.

4.3.6 Significance of Impacts Before Mitigation

Threshold a.: Significant Direct and Cumulatively-Considerable Impact. Although the proposed Project would be consistent with the growth forecasts used as inputs for the SCAQMD AQMP, the Project would result in operational-related emissions of VOCs that exceed the SCAQMD Regional Threshold for this pollutant. As such, prior to mitigation, the proposed Project has the potential to result in a conflict with the SCAQMD AQMP, which represents a significant impact on both a direct and cumulatively-considerable basis.

Threshold b: Significant Direct and Cumulatively-Considerable Impact. As indicated in Table 4.3-8, Project construction-related regional emissions would not exceed any of the SCAQMD Regional Thresholds for criteria pollutants. However, long-term operation of the proposed Project would result in emissions that exceed the SCAQMD Regional Threshold for VOCs. As such, Project regional operational-related emissions would result in a cumulatively-considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable federal or State ambient air quality standard (i.e., ozone), and impacts would be significant.

Threshold c: Less-than-Significant Impact. As indicated in Table 4.3-10 and Table 4.3-11, Project construction and operational emissions would not exceed any of the SCAQMD LSTs. In addition, the proposed Project would not cause or contribute to any CO "hot spots" and would not result in any impacts associated with TACs. Accordingly, Project-related localized air quality impacts would be less than significant.

Threshold d.: Less-than-Significant Impact. The Project does not involve land uses typically associated with emitting objectionable odors. Standard construction requirements would minimize odor impacts from construction. The construction odor emissions would be temporary, short-term, and intermittent in nature and would cease upon completion of the respective phase of construction and is thus considered less than significant. Additionally, it is expected that Project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with Riverside County's solid waste regulations. The proposed Project also would be required to comply with SCAQMD Rule 402 to prevent occurrences of public nuisances. Therefore, odors associated with the proposed Project construction and operations would be less than significant and no mitigation is required.

4.3.7 County Regulations, Design Requirements, and Mitigation

Applicable Regulations and Design Requirements

The following are applicable regulations and design requirements within Riverside County. Although these requirements technically do not meet CEQA's definition for mitigation, they are imposed herein to ensure Project compliance with applicable Riverside County regulations and design requirements.

- The Project is required to comply with the provisions of South Coast Air Quality Management District Rule 1113, *Architectural Coatings*, by requiring that all architectural coatings must consist of low VOCs (i.e., VOCs of less than 50 grams per liter [g/L]) unless otherwise specified in the SCAQMD Table of Standards.

- The Project is required to comply with applicable SCAQMD rules for construction activities on the Project site. In addition to the SCAQMD requirements listed above, additional SCAQMD rules that are currently applicable during construction activity for this Project include Rule 431.2 (Low Sulfur Fuel) and Rule 1186/1186.1 (Street Sweepers).

- The Project is required to comply with the provisions of SCAQMD Rule 402, "Nuisance" which requires that a person shall not discharge air contaminants or other materials that would cause health or safety hazards to any considerable number of persons or the public.

- In accordance with SCAQMD Rule 445, no wood burning devices shall be installed in any dwelling units.

- The Project is required to comply with the provisions of South Coast Air Quality Management District Rule 403, "Fugitive Dust" by implementing the following dust control measures during construction activities, such as earth-moving activities, grading, and equipment travel on unpaved roads. Prior to grading permit issuance, Riverside County shall verify that the following notes are included on the grading plan. Project contractors shall be required to ensure compliance with the notes and permit periodic inspection of the construction site by Riverside County staff or its designee to confirm compliance. These notes also shall be specified in bid documents issued to prospective construction contractors.
    - All clearing, grading, earth-moving, or excavation activities shall cease when winds exceed 25 miles per hour (mph) per SCAQMD guidelines in order to limit fugitive dust emissions.
    - The contractor shall ensure that all disturbed unpaved roads and disturbed areas within the Project are watered at an interval of 2.1 hours (i.e., 4 times per day) or a movable sprinkler system shall be in place to ensure minimum soil moisture of 12% is maintained for actively graded or disturbed areas. Moisture content shall be verified with use of a moisture probe by the grading contractor.
    - All access points to the Project site shall have track-out devices installed.
    - The contractor shall ensure that traffic speeds on unpaved roads and Project site areas are reduced to 15 mph or less.

Mitigation

Mitigation measures are not available to address the Project's significant operational-related impacts due to regional VOC emissions.

4.3.8 Significance of Impacts After Mitigation

Threshold a: Significant and Unavoidable Direct and Cumulatively-Considerable Impact. As shown in Table 4.3-9, Project operational emissions would exceed the SCAQMD Regional Threshold for VOCs. Mitigation measures are not available to reduce the Project's operational-related VOC emissions (refer to the discussion of Threshold b., below). Accordingly, the proposed Project would conflict with the 2016 SCAQMD AQMP, and impacts would be significant and unavoidable on both a direct and cumulatively-considerable basis.

Threshold b: Significant and Unavoidable Direct and Cumulatively-Considerable Impact. As shown in Table 4.3-9, Project operational emissions would exceed the SCAQMD Regional Threshold for VOCs. Mitigation measures are not available to reduce the Project's operational-related VOC emissions, as the majority of the Project's operational emissions (i.e., more than 72.9%) are associated with vehicular-related traffic. Mobile source emissions are regulated by standards imposed by federal and State agencies, not local governments. No other mitigation measures related to vehicle tailpipe emissions are available that are within Riverside County's jurisdictional authority and that are feasible for Riverside County to enforce and have a proportional nexus to the Project's level of impact. Additionally, the remaining Project-related operational emissions of VOCs are due to area source emissions (i.e., consumer products, such as solvents used in cleaning supplies, kitchen aerosols, cosmetics, and toiletries). As with mobile sources, consumer products cannot be regulated by the County of Riverside. CARB is primarily responsible for controlling pollution from consumer products. As such, it is concluded that operation of the Project would generate VOC emissions that would exceed the applicable SCAQMD Regional Threshold for this pollutant on a daily basis. The Project's operational-related VOC emissions would cumulatively contribute to an existing air quality violation in the SoCAB (i.e., ozone concentrations), as well as cumulatively contribute to the net increase of a criteria pollutant for which the SoCAB is non-attainment (i.e., federal and State ozone concentrations). Accordingly, the Project's long-term operational-related emissions of VOCs are concluded to result in a significant and unavoidable impact on both a direct and cumulatively-considerable basis.

4.4 BIOLOGICAL RESOURCES

The analysis in this Subsection is based, in part, on information from the report titled "Biological Technical Report for Keller Crossing Residential Development Project and Off Site Improvements" (herein, "BTR"), prepared by Glenn Lukos Associates, Inc. (herein, "GLA"), and dated July 2022 (GLA, 2022a). This report is included as *Technical Appendix C1* to this EIR. The Project's BTR addresses potential impacts associated with development of the Project as proposed, as well as potential impacts associated with off-site improvements, as described in EIR subsection 3.6.1. In addition, the Project's BTR incorporates information from a jurisdictional delineation report prepared by GLA, entitled, "Jurisdictional Delineation of the Keller Crossing Residential Development Project and Associated Off-Site Improvement Areas Located in the Community of French Valley, Riverside County, California," dated July 21, 2022, and included as *Technical Appendix C2* to this EIR (GLA, 2022b). In addition, the information in this Subsection is based in part on the Project's, "Determination of Biologically Equivalent or Superior Preservation (DBESP) Analysis for Impacts to MSHCP Riparian/Riverine Areas, Keller Crossing Residential Development Project and Off Site Improvements," also prepared by GLA, dated July 22, 2022, and included as Technical Appendix C3 to this EIR (GLA, 2022c). For purposes of discussion within this subsection, the BTR provides the results of general and focused biological surveys for the approximately 196.03-acre Keller Crossing Project site and the Project's off-site infrastructural improvements. Although the Project only would result in off-site impacts totaling 40.2 acres (as shown on EIR Figure 3-13), the Project's BTR assumes that the Project would result in full disturbance to an existing 4.7-acre parcel to the south of the Project site (Assessor's Parcel Number [APN] 476-010-009) in order to allow for future flexibility in implementing the Project's off-site drainage improvements. Accordingly, the BTR encompasses 196.04 acres on site and approximately 44.36 acres off-site, collectively totaling 240.40 acres (referred to herein as the "Study Area").

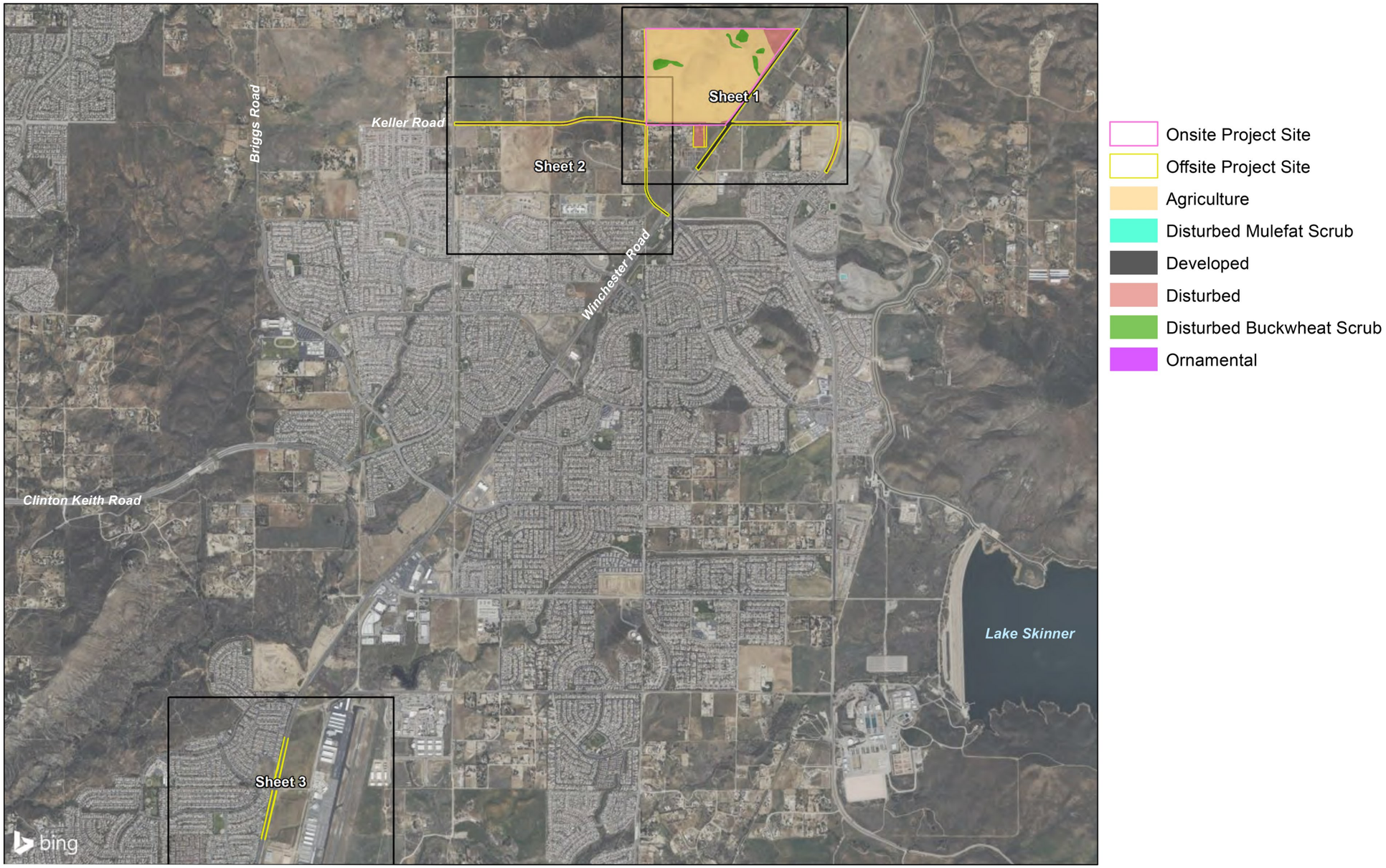
4.4.1 EXISTING CONDITIONS

Based on historical aerial photography dating back to the 1960s, the Study Area has been developed for agricultural uses resulting in extensive ground disturbances. The Study Area has mainly been utilized for agriculture and maintained by regular mowing and disking. The topography within the Project site slopes downward from the north to south from 1,587 to 1,422 feet above mean sea level (amsl). (GLA, 2022a, p. 43)

The Study Area consists of regularly maintained undeveloped land, much of which is comprised of previously graded and highly compacted soils. Due to the decades of agriculture practices and disturbances throughout the Project site, hydrology has been modified as a result. However, the topography conveys storm flows in a general west to east direction, depending on rainfall amounts, through the site towards Warm Springs Creek and eventually to Murrieta Creek. (GLA, 2022a, p. 43)

A. Vegetation Mapping

The Study Area supports the following vegetation/land cover types: agriculture, developed, disturbed, disturbed buckwheat scrub, ornamental, and disturbed mulefat scrub, as depicted on Figure 4.4-1 through Figure 4.4-4, *Vegetation Map*. Table 4.4-1, *Summary of Vegetation/Land Use Types for the Project Site*, provides a summary of the vegetation types and their corresponding acreages. Photographs depicting the Project site are shown in Exhibit 10 of the Project's BTR (*Technical Appendix C1*). (GLA, 2022a, p. 43)

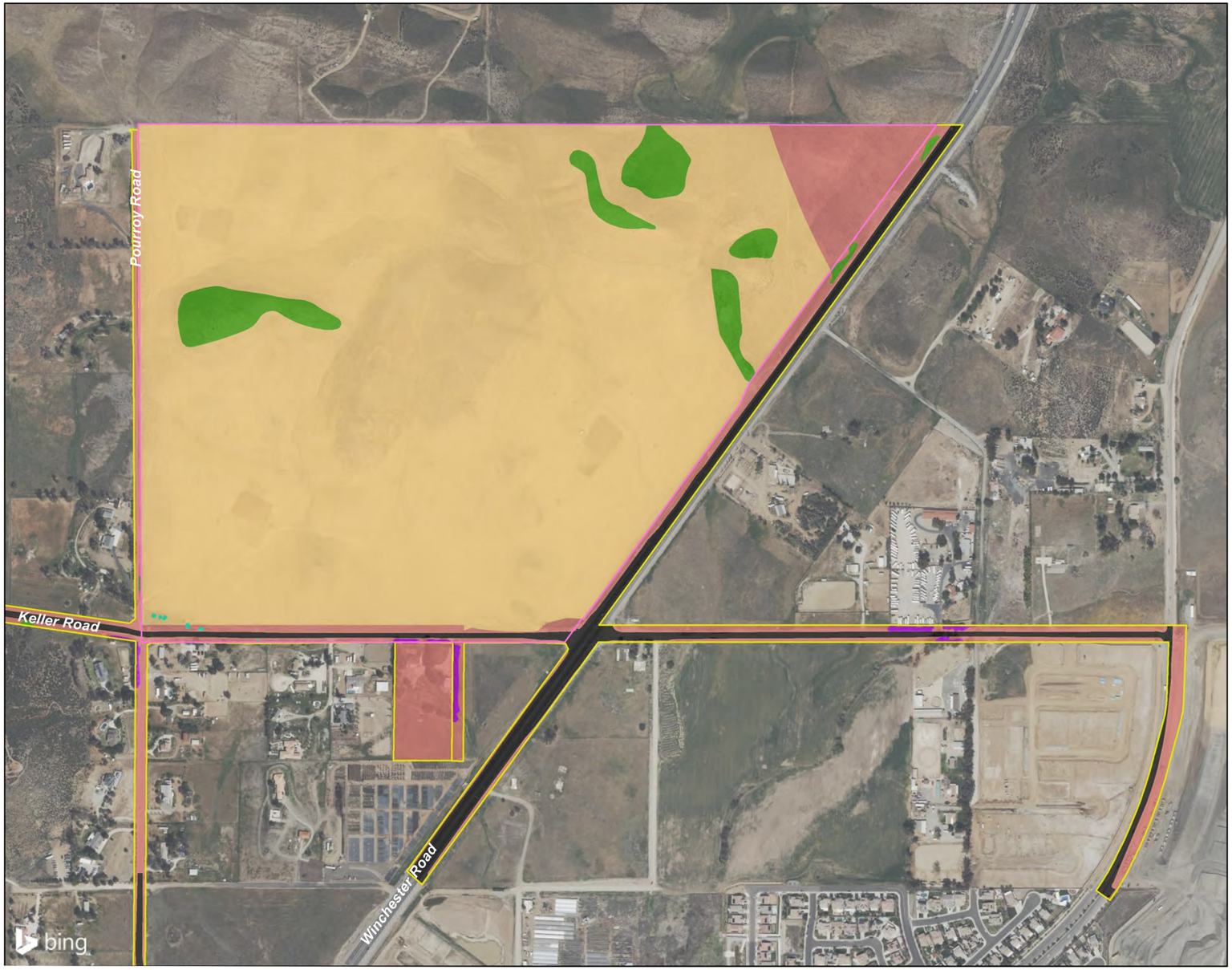


Source(s): Glenn Lukos Associates (07-22-2022)

Not to Scale

Figure 4.4-1

Vegetation Map Key Map

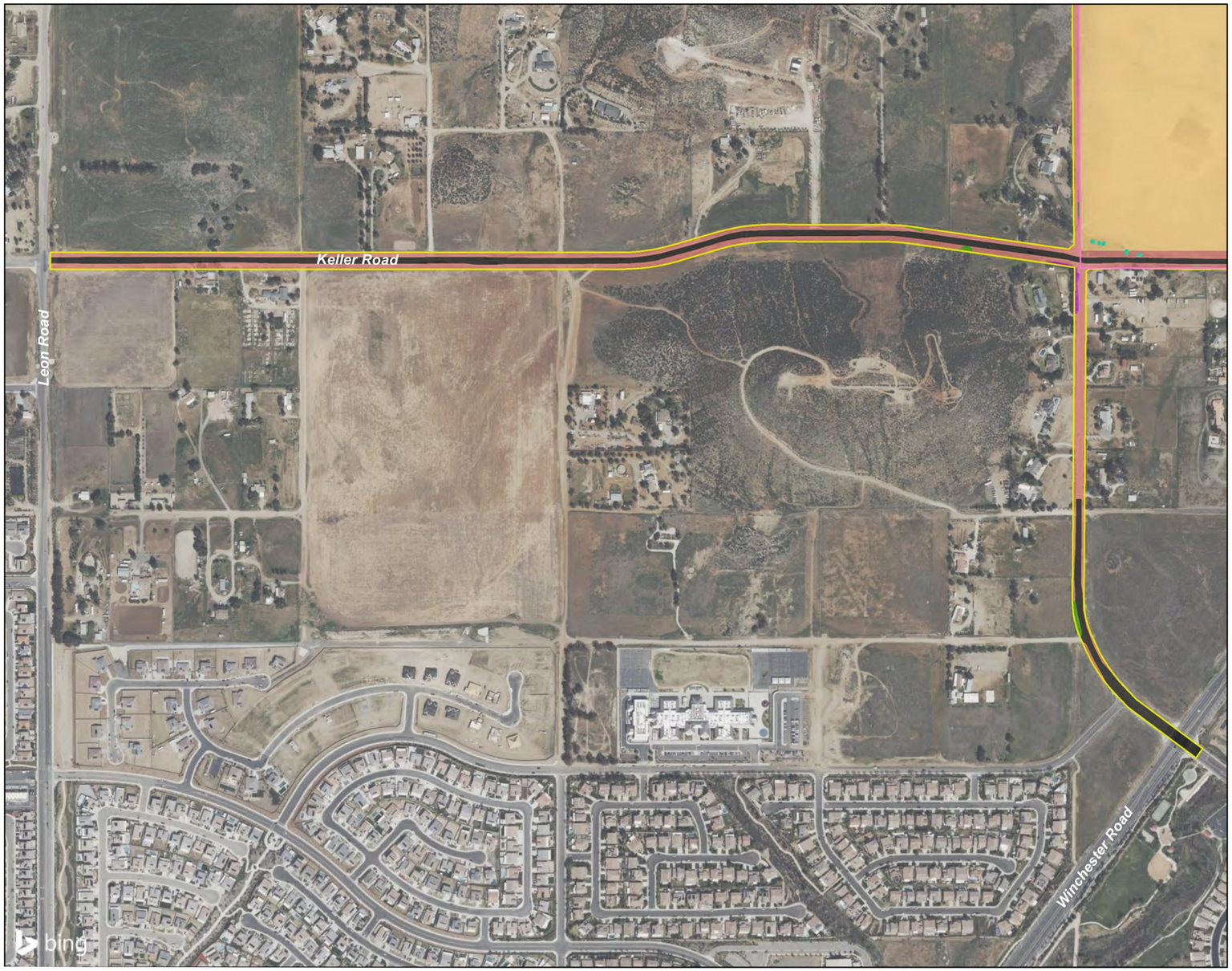


Source(s): Glenn Lukos Associates (07-22-2022)

Figure 4.4-2

Not to Scale

Vegetation Map (Sheet 1 of 3)



- Onsite Project Site
- Offsite Project Site
- Agriculture
- Disturbed Mulefat Scrub
- Developed
- Disturbed
- Disturbed Buckwheat Scrub
- Ornamental

Source(s): Glenn Lukos Associates (07-22-2022)

Figure 4.4-3

Not to Scale

Vegetation Map (Sheet 2 of 3)



Offsite Project Site
Developed
Disturbed
Disturbed Buckwheat Scrub
Ornamental

Source(s): Glenn Lukos Associates (07-22-2022)

Figure 4.4-4

Not to Scale

Vegetation Map (Sheet 3 of 3)

Table 4.4-1 Summary of Vegetation/Land Use Types for the Project Site

Vegetation/Land Use Type	On Site (Acres)	Off Site (Acres)	Total Study Area (Acres)
Agriculture	175.23	0.0	175.22
Developed	1.44	16.24	17.68
Disturbed	10.60	25.66	36.26
Disturbed Buckwheat Scrub	8.64	0.47	9.11
Ornamental	0.08	1.99	2.07
Disturbed Mulefat Scrub	0.05	0.0	0.05
Total	**196.04**	**44.36**	**240.40**

(GLA, 2022a, Table 4-1)

- **Agriculture.** The Study Area supports 175.23 acres of active agriculture. A total of 175.22 acres of agriculture occurs on site and no lands mapped agriculture occur off site. Agriculture practices have been noted on the Project site historically. (GLA, 2022a, p. 44)

- **Developed.** Approximately 17.68 acres of developed areas occur within the Study Area in the form of unpaved access roads, paved vehicular roads, and developed infrastructure such as buildings. Developed areas include 1.44 acres on site and 16.24 acres off site. These areas are routinely maintained and are primarily unvegetated. No developed areas are present on site. (GLA, 2022a, p. 44)

- **Disturbed.** Approximately 36.26 acres of disturbed areas occur within the Study Area. A total of 10.60 acres occur on site and 25.66 acres occur off site. The northeastern portion of the Project site was burned in a recent brushfire and is currently unvegetated and contains only the charred remains of vegetation. (GLA, 2022a, p. 44)

- **Disturbed Buckwheat Scrub.** Approximately 9.11 acres of disturbed buckwheat scrub in patches throughout the Study Area, with the largest area occurring along the northeastern and northwestern portion of the Project site. A total of 8.64 acres of disturbed buckwheat scrub occurs on site and a total of 0.47 acre occurs off site. While the majority of the Project site has been disturbed due to agricultural uses, these areas remained primarily undisturbed due to the steepness of the terrain. These areas are dominated with California buckwheat (*Eriogonum fasciculatum*), California sagebrush (*Artemisia californica*), brittlebush (*Encelia farinosa*), ripgut brome (*Bromus diandrus*), and red brome (*Bromus madritensis ssp. rubens*). (GLA, 2022a, p. 44)

- **Disturbed Mulefat Scrub.** The Study Area supports 0.05 acre of disturbed mulefat scrub. All 0.05 acre of disturbed mulefat scrub occurs on site. This area is primarily dominated with riparian species including arroyo willow (*Salix lasiolepis*) and mulefat (*Baccharis salicifolia*), with an understory of non-native grasses. Non-native species such as summer mustard (*Hirschfeldia incana*), foxtail barley (*foxtail barley*), and annual brome grasses are also dominant along the banks of the drainage. (GLA, 2022a, p. 44)

- **Ornamental.** The Study Area contains 2.07 acres of ornamental plantings near the intersection of La Alba Drive and Winchester Road. 0.08 acre of ornamental vegetation occurs on site and 1.99 acres occur off site. Ornamental plantings predominantly consist of non-native horticultural plants and trees,

including introduced trees, shrubs, and annual plants. Ornamental plantings area associated with residential land use adjacent to proposed off-site improvements. (GLA, 2022a, p. 44)

B. Special Status Vegetation Communities

The California Natural Diversity Database (CNDDB) identifies the following seven special-status vegetation communities for the Winchester and surrounding quadrangle maps: Desert Fan Palm Oasis Woodland, Southern Coast Live Oak Riparian Forest, Southern Cottonwood Willow Riparian Forest, Southern Interior Basalt Flow Vernal Pool, Southern Mixed Riparian Forest, Southern Riparian Scrub, Southern Sycamore Alder Riparian Woodland, Southern Willow Scrub, and Valley Needlegrass Grassland. The Study Area does not contain any special-status vegetation communities. (GLA, 2022a, p. 45)

C. Special Status Plants

As noted in Section 1.5.2 of the Project's BTR (*Technical Appendix C1*), portions of the Study Area occur within a Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Narrow Endemic Plant Species Survey Area (NEPSSA) as well as the MSHCP Criteria Area Plant Species Survey Area (CAPSSA); therefore, pursuant to the MSHCP, those target species were evaluated. Table 4-2 of *Technical Appendix C1* provides a list of special-status plants evaluated for the Study Area through general biological surveys and habitat assessments. Species were evaluated based on the following factors: 1) species identified by the CNDDB and California Native Plant Society (CNPS) as occurring (either currently or historically) on or in the vicinity of the Study Area, and 2) any other special status plants that are known to occur within the vicinity of the Study Area, or for which potentially suitable habitat occurs within the Study Area. (GLA, 2022a, p. 45)

Only one special-status plant, paniculate tarplant (*Deinandra paniculata*) (CNPS 4.2), was detected on site within the Study Area. (GLA, 2022a, p. 51)

❑ Paniculate Tarplant

GLA observed several paniculate tarplant (CNPS 4.2) individuals within the on-site portions of the Study Area, in association with the agricultural and disturbed buckwheat scrub areas. This species is a member of the aster family (Asteraceae) and is designated as a CNPS List 4.2 species. This annual herb is known to occur in vernally mesic, sometimes sandy soils in coastal scrub, valley and foothill grassland, and vernal pools from 80 to 3,085 feet (25 to 940 meters) amsl. This is known to occur from the central coast and southern California counties and is known to bloom from March through November. The population occurs in multiple discrete patches and was initially observed during the focused rare plant survey visit on May 5, 2021. (GLA, 2022a, p. 51)

D. Special Status Animals

Table 4-3 of the Project's BTR (*Technical Appendix C1*) provides a list of special-status animals evaluated for the Study Area through general biological surveys, habitat assessments, and focused surveys. Species were evaluated based on the following factors, including: 1) species identified by the CNDDB as occurring (either currently or historically) on or in the vicinity of the Study Area, 2) applicable MSHCP survey areas, and 3)

any other special-status animals that are known to occur within the vicinity of the Study Area or for which potentially suitable habitat occurs within the Study Area. (GLA, 2022a, p. 51)

The following special-status animals were detected within the Study Area: California horned lark (*Eremophila alpestris actia*, California Department of Fish and Wildlife [CDFW]-Watch List [WL]) and northern harrier (*Circus cyaneus*, CDFW-Species of Special Concern [SSC]*)*. (GLA, 2022a, p. 51)

1. Special-Status Animal Species Observed within the Study Area

❑ Northern Harrier

The northern harrier is designated by CDFW as a SSC when nesting and is a covered species under the MSHCP. The northern harrier frequents open wetlands, upland prairies, mesic grasslands, drained marshlands, croplands, shrub-steppe, meadows, grasslands, desert sinks, fresh and saltwater emergent wetlands, and is seldom found in wooded areas. Harriers nest on the ground in marshland habitats and prefer dense areas of grasses, willows, and cattails. Threats to northern harriers include conversion of native grassland to agriculture, habitat fragmentation, and loss of wetland/marsh habitats. (GLA, 2022a, p. 57)

GLA biologists observed an individual northern harrier foraging on four separate visits to the on-site portions of the Study Area in 2021. It is unknown if the same individual was observed on each occasion. This species is expected to forage on-site and is not expected to nest within the Project site due to the lack of suitable nesting habitat. A total of 222.72 acres of foraging habitat for the harrier is present. (GLA, 2022a, p. 57)

❑ California Horned Lark

The California horned lark is designated by CDFW as a WL when nesting and is a covered species under the MSHCP. This species is found in a variety of open habitats, usually where trees and large shrubs are absent. This species is found from grasslands along the coast and deserts near sea level to alpine dwarf-shrub habitat above tree line. This species nests on the ground in open habitats with low, sparse vegetation. (GLA, 2022a, p. 58)

GLA biologists observed individuals foraging on seven separate visits to the on-site portions of the Study Area in 2021. It is unknown if the same individual was observed on each occasion. This species is expected to forage and nest within the on-site portion of the Study Area. A total of 213.61 acres of foraging habitat for the horned lark is present. (GLA, 2022a, p. 58)

2. Special-Status Wildlife Species Not Observed but with a Potential to Occur at the Project Site

❑ Coast Horned Lizard

The coast horned lizard (*Phrynosoma blainvillii*) is designated by CDFW as SSC and is a covered species under the MSHCP. In California, the coast horned lizard ranges from the Transverse Ranges south to the Mexican border west of the deserts, although the taxon occurs on scattered sites along the extreme western desert slope of the Peninsular Ranges. The known elevation range of this species is from 33 feet (10 meters) to approximately 7,000 feet (2,130 meters) in the San Jacinto Mountains, in Riverside County. This species is found in a wide variety of vegetation types including coastal sage scrub, annual grassland, chaparral, oak

woodland, riparian woodland, and coniferous forest. In inland areas, this species is restricted to areas with pockets of open microhabitat, created by disturbance (*e.g.*, floods, fire, roads, grazed areas, fire breaks). Extensive habitat loss from agriculture and urbanization have been the main reasons cited for the decline of this species. This species been known to occur within the vicinity of the Project site and it has a low to moderate potential to occur within the disturbed buckwheat scrub, disturbed, agriculture, and disturbed mulefat scrub habitats. A total of 222.72 acres of habitat for the coast horned lizard is present. (GLA, 2022a, p. 58)

❑ Coastal Whiptail

The coastal whiptail (*Aspidoscelis tigris stejnegeri* (*multiscutatus*)) is designated by CDFW as SSC and is a covered species under the MSHCP. The coastal whiptail ranges through the semi-arid lowlands of coastal southern California. The coastal whiptail is often found in open areas of grassland, sage scrub, chaparral, and alluvial wash habitats. This species is known to occur in the vicinity of the Project site and has moderate potential to occur within the disturbed buckwheat scrub, agriculture, and disturbed habitats. A total of 222.72 acres of habitat for the coastal whiptail is present. (GLA, 2022a, p. 58)

❑ Orange-throat Whiptail

The orange-throat whiptail (*Aspidoscelis hyperythra*) is designated by CDFW as a WL and is a covered species under the MSHCP. This species is often found in coastal sage scrub, chaparral, non-native grassland, oak woodland, and juniper woodland. This species is known to occur in the vicinity of the Project site and has low to moderate potential to occur within the disturbed buckwheat scrub, agriculture, and disturbed habitats. A total of 222.72 acres of habitat for the orange-throat whiptail is present. (GLA, 2022a, pp. 58-59)

❑ Red-diamond Rattlesnake

The red-diamond rattlesnake (*Crotalus ruber*) is designated by CDFW as SSC and is a covered species under the MSHCP. From an ecological standpoint, this rattlesnake species has a wide tolerance for varying environments. Although this species is recorded from a number of vegetation types, it is most commonly associated with heavy brush with large rocks or boulders. Threats to this species include habitat loss due to development, fragmentation, off-road vehicle use, and the deliberate removal of individuals near residential and recreational lands. This species is known to occur in the vicinity of the Project and has a moderate potential to occur within the rock outcrops, buckwheat scrub, agriculture, and disturbed habitats. A total of 222.72 acres of habitat for the red-diamond rattlesnake is present within the Study Area. (GLA, 2022a, p. 59)

❑ Bell's Sage Sparrow

The Bell's sage sparrow (*Artemisiospiza belli*) is designated by CDFW as WL and is a covered species under the MSHCP. This species is often found in chaparral and coastal sage scrub along the coastal lowlands, inland valleys, and in the lower foothills of local mountains. This species is known to occur in the vicinity of the Project site and has moderate potential to occur within the disturbed buckwheat scrub and disturbed habitats. A total of 45.37 acres of habitat for the sage sparrow is present. (GLA, 2022a, p. 59)

❑ Golden Eagle

The golden eagle (*Aquila chrysaetos*) is designated by CDFW as State Fully Protected (SFP) and is a covered species under the MSHCP. This species is often found in grasslands, brushlands, deserts, oak savannas, open

coniferous forests, and montane valleys. This species nests on rock outcrops and ledges. This species is known to occur in the vicinity of the Project site and has low potential to forage within the Project site within the agriculture and disturbed habitats. A total of 211.49 acres of foraging habitat for the golden eagle is present. (GLA, 2022a, p. 59)

❑ **Loggerhead Shrike**

The loggerhead shrike (*Lanius ludovicianus*) is designated as a SSC when nesting and is a covered species under the MSHCP. This species is found throughout the foothills and lowlands of California as a resident. This species is known to forage over open ground within areas of short vegetation, pastures with fence rows, grasslands, riparian areas, open woodland, agricultural fields, desert washes, and desert scrub. This species commonly nests within dense, mainly thorny, vegetation and may use areas where tumbleweed has concentrated. This species is known to occur in the vicinity of the Project site and has low potential to forage and nest within the Project site. A total of 222.72 acres of habitat for the shrike is present (GLA, 2022a, p. 59)

❑ **Southern California Rufous-Crowned Sparrow**

The Southern California rufous-crowned sparrow (Aimophila *ruficeps canescens*) is designated as a WL when nesting and is a covered species under the MSHCP. This species is found in grass covered hillsides, coastal sage scrub, and chaparral. This species commonly nests on the ground at the base of a shrub. This species is known to occur in the vicinity of the Project site and has moderate potential to forage and nest within the Project site. A total of 222.72 acres of foraging habitat for the rufous-crowned sparrow is present. (GLA, 2022a, p. 60)

❑ **White-Tailed Kite**

The white-tailed kite (*Elanus leucurus*) does not have a federal or State designation; however, this species is considered locally rare when nesting and is a California Fully Protected (CFP) species, and is a covered species under the MSHCP. This species inhabits low elevation, open grasslands, savannah-like habitats, agricultural areas, wetlands, and oak woodlands. Riparian areas and forest edges adjacent to open areas are used for nesting. This species is known to occur in the vicinity of the Project site and has moderate potential to forage and nest within the Project site. A total of 222.72 acres of habitat for the kite is present. (GLA, 2022a, p. 60)

3. Special-Status Wildlife Species Confirmed Absent Through Focused Surveys at the Project Site

❑ **Burrowing Owl**

The Project site occurs within the MSHCP Burrowing Owl Survey Area; however, burrowing owl was confirmed absent from the Project site during the 2021 focused breeding season surveys. No burrowing owls were observed within the Project site, and no burrowing owl sign was detected in association with burrows. (GLA, 2022a, p. 60)

E. Raptor Use

Southern California contains a diversity of birds of prey (raptors), many species of which are in decline. For most of the declining species, foraging requirements include extensive open, undisturbed, or lightly disturbed

areas, especially grasslands. This type of habitat has declined severely in the region, affecting many species but especially raptors. A few species such as American kestrel (*Falco sparverius*) and red-tailed hawk (*Buteo jamaicensis*) are somewhat adaptable to low-level human disturbance and can be readily observed adjacent to neighborhoods and other types of development. These species still require appropriate foraging habitat and low levels of disturbance in the vicinity of nesting sites. (GLA, 2022a, p. 60)

Many of the raptors that would be expected to forage and nest within western Riverside are fully covered species under the MSHCP, with the MSHCP providing the necessary conservation of both foraging and nesting habitats. Some common raptor species (e.g., American kestrel and red-tailed hawk) are not covered by the MSHCP but are expected to be conserved with implementation of the Plan due to the parallel habitat needs with those raptors covered under the Plan. The MSHCP does not provide Fish and Game Code take coverage for raptors covered under the Plan. (GLA, 2022a, pp. 60-61)

The Project site provides suitable foraging habitat for a number of raptor species, including special-status raptors. Appendix B (faunal compendium) to the Project's BTR (*Technical Appendix C1*) provides a list of the raptors detected over the course of the field studies. The Project site lacks potential nesting habitat (e.g., mature trees, shrubs) for raptor species but is expected to provide marginal foraging habitat in the form of insects, spiders, lizards, snakes, small mammals, and other birds. (GLA, 2022a, p. 61)

F. Nesting Birds

The Project site contains immature trees, shrubs, and ground cover that provide suitable habitat for nesting migratory birds. Mortality of migratory birds (including eggs) is prohibited under California Fish and Game Code. Birds anticipated to nest on the Project site would be those that are common to disturbed areas and include species such as killdeer (*Charadrius vociferus*) and mourning dove (*Zenaida macroura*). (GLA, 2022a, p. 61)

G. Wildlife Linkages/Corridors and Nursery Sites

Habitat linkages are areas which provide a communication between two or more other habitat areas which are often larger or superior in quality to the linkage. Such linkage sites can be quite small or constricted but can be vital to the long-term health of connected habitats. Linkage values are often addressed in terms of "gene flow" between populations, with movement potentially taking many generations. (GLA, 2022a, p. 61)

Corridors are similar to linkages but provide specific opportunities for individual animals to disperse or migrate between generally extensive but otherwise partially or wholly separated regions. Adequate cover and tolerably low levels of disturbance are common requirements for corridors. Habitat in corridors may be quite different from habitat(s) in the connected areas but if used by the wildlife species of interest, the corridor will still function as desired. (GLA, 2022a, p. 61)

The Project site occurs within MSHCP Proposed Constrained Linkage 17 (Paloma Valley). Proposed Constrained Linkage 17 is located in the south-central region of the MSHCP Plan area. Proposed Extension of Existing Core 7 (Lake Skinner/Diamond Valley Lake Extension) is located to the east of this Linkage. The Linkage provides Habitat for species and also provides for movement of species. Although this Linkage is constrained by existing urban development and agricultural use along much of its length, planned land uses

surrounding the Constrained Linkage are nearly entirely rural. In addition, the Constrained Linkage has a comparatively low Perimeter to Area Ratio. Thus, Edge Effects on this Constrained Linkage may be substantially lower than for other Constrained Linkages. (GLA, 2022a, pp. 61-63)

H. Critical Habitat

The Project site does not occur within any lands mapped as Critical Habitat by the USFWS. (GLA, 2022a, p. 63)

I. Jurisdictional Waters

Potential jurisdictional features analyzed as part of the field investigation include ten ephemeral drainage features that occur within the Study Area, referred to herein as Drainages A, A-1, B, C, D, E, F, G, H, and I. Exhibits 9A through 9C of the Project's BTR (*Technical Appendix C1*) depicts the locations of these drainages within the Study Area. (GLA, 2022a, p. 63)

These features extend across the Study Area in a general southerly direction (except for Drainages B and H, which drain in a southwesterly direction). With the exception of Drainages A, A-1, H, and I, the majority of these drainages originate onsite and convey surface runoff and/or storm water runoff from the adjacent hillsides. The drainages occur on vacant agricultural land with a majority of the site being disked on a regular basis. Off-site flows are ultimately conveyed east below SR 79, southwest to Warm Springs Creek, and onward to Murrieta Creek. (GLA, 2022a, p. 64)

1. Overview of Drainages

❑ Drainage A

Drainage A is an ephemeral blue-line drainage that comprises approximately 1,407 linear feet within the Study Area. No wetlands are associated with this feature. Drainage A enters the southwestern corner of the Study Area via road runoff and nuisance flows from the surrounding areas. Drainage A meanders in a general easterly/southeasterly direction for a collective 884 linear feet onsite and 523 linear feet offsite, before exiting the Study Area southeast towards Winchester Road/SR 79. Flows from Drainage A are ultimately conveyed into the storm drain system west of SR 79, which drains southwest to Warm Springs Creek, and onward to Murrieta Creek. The channel bottom supports a sandy loam substrate and was completely dry during our field delineation despite recent rainfall events. (GLA, 2022a, p. 64)

Drainage A is dominated by upland weedy species common throughout the Project site, including black mustard (*Brassica nigra*), common barley (*Hordeum vulgare*), tocalote (*Centaurea melitensis*), ripgut brome (*Bromus diandrus*), golden crown beard (*Verbesina enceliodes*) smooth cat's ear (*Hypochaeris glabra*), Russian thistle (*Salsola ssp.*), doveweed (*Croton setiger*), and wild oat (*Avena fatua*). The westerly drainage reach contains a single arroyo willow (*Salix lasiolepis*), one palo verde (*Parkinsonia aculeata*), and a few clumps of mulefat (*Baccharis salicifolia*). (GLA, 2022a, p. 64)

❑ Drainage A-1

Drainage A-1 is an ephemeral drainage that conveys road runoff and nuisance flows through a pipe culvert south of Keller Road in the offsite portion of the Study Area. This feature extends across the offsite portion of

the Study Area in a southerly direction for approximately 331 linear feet (24 feet on site and 307 feet off site) before leaving the Study Area and continuing its flow path offsite and eventually converging with Drainage A downstream. Drainage A-1 contains non-native upland grasses and weeds and was completely dry during our field delineation. No wetlands or riparian areas are associated with this feature. (GLA, 2022a, p. 64)

❑ Drainage B

Drainage B is an ephemeral drainage that traverses the northwestern portion of the Study Area in a general southwesterly direction for approximately 1,544 linear feet (1,528 linear feet on site and 16 feet off site) before entering the storm drain system at a small pipe culvert under Pourroy Road. This feature originates in the northwestern portion of the Project site and conveys stormwater runoff from the adjacent hillsides. This feature is somewhat erosional in portions and was completely dry during the field delineation conducted by GLA. No wetlands or riparian areas are associated with this feature. Drainage B is dominated by black mustard, common barley, sparse cocklebur (*Xanthium spinosum*), ripgut brome, and vinegar weed (*Trichostema lanceolatum*). (GLA, 2022a, pp. 64-65)

❑ Drainage C

Drainage C is an ephemeral drainage that extends across the western portion of the Project site in a southerly direction for approximately 1,725 linear feet before dissipating on site as sheet flow towards a roadside pipe culvert at the southern Project boundary. This feature originates on site and conveys stormwater runoff from the adjacent hillsides. This feature is somewhat erosional in portions and was completely dry during the field delineation conducted by GLA. No wetlands or riparian areas are associated with this feature. Drainage C is dominated by black mustard, common barley, sparse cocklebur (*Xanthium spinosum*), ripgut brome, and vinegar weed (*Trichostema lanceolatum*). (GLA, 2022a, p. 65)

❑ Drainage D

Drainage D is an ephemeral drainage that extends across the west-central portion of the Project site in a southerly direction for approximately 1,205 linear feet before dissipating on site as sheet flow towards a roadside pipe culvert at the southern Project boundary. This feature originates on site and conveys stormwater runoff from the adjacent hillsides. This feature is somewhat erosional in portions and was completely dry during the field delineation conducted by GLA. No wetlands or riparian areas are associated with this feature. (GLA, 2022a, p. 65)

❑ Drainage E

Drainage E is an ephemeral drainage that extends across the central/east-central portion of the Project site in a southeasterly direction for approximately 2,723 linear feet before dissipating on site as sheet flow towards a culvert along the eastern Project boundary. This feature originates on site and conveys stormwater runoff from the adjacent hillsides. This feature is somewhat erosional in portions and completely dry during the field delineation conducted by GLA. No wetlands or riparian areas are associated with this feature. Drainage E is dominated by black mustard, common barley, sparse cocklebur (*Xanthium spinosum*), ripgut brome, and vinegar weed (*Trichostema lanceolatum*). (GLA, 2022a, p. 65)

❑ Drainage F

Drainage F is an ephemeral drainage that extends across the eastern portion of the Project site in a southerly direction for approximately 891 linear feet before dissipating on site as sheet flow. This feature originates on site and conveys stormwater runoff from the adjacent hillsides. This feature is somewhat erosional in portions and was completely dry during the field delineation conducted by GLA. No wetlands or riparian areas are associated with this feature. Drainage F is dominated by black mustard, common barley, sparse cocklebur (*Xanthium spinosum*), ripgut brome, and vinegar weed (*Trichostema lanceolatum*). (GLA, 2022a, pp. 65-66)

❑ Drainage G

Drainage G is an ephemeral drainage that enters the Project site from the northeast and extends in a southerly direction for approximately 1,009 linear feet (977 feet on site and 32 feet off site) before exiting the eastern Project boundary adjacent to SR 79. At this point, flows enter a concrete culvert beneath SR 79 and continue offsite. This feature conveys stormwater runoff from the adjacent hillsides and is somewhat erosional in portions. Drainage G was completely dry during the field delineation conducted by GLA and no wetlands are associated with this feature. Drainage G is dominated by similar vegetation with the addition of buckwheat (Eriogonum ssp.) along the banks. (GLA, 2022a, p. 66)

❑ Drainage H

Drainage H is an ephemeral drainage feature associated with the eastern offsite portion of the Study Area along Keller Road. This feature totals approximately 139 linear feet and is completely unvegetated with the exception of planted Peruvian pepper trees (*Schinus molle*) overhanging the upper banks. Drainage H was completely dry during the field delineation conducted by GLA and no wetlands or riparian areas are associated with this feature. (GLA, 2022a, p. 66)

❑ Drainage I

Drainage I is an ephemeral drainage feature located on the northwest side of Pourroy Road in the offsite portion of the Study Area. This feature conveys road runoff and totals approximately 77 linear feet. Drainage I is unvegetated and was completely dry during the field delineation conducted by GLA. No wetlands or riparian areas are associated with this feature. (GLA, 2022a, p. 66)

2. Jurisdictional Waters and Wetlands

❑ U.S. Army Corps of Engineers Jurisdictional Waters

Pursuant to 33 Code of Federal Regulations (CFR) Part 325.9, the Study Area does not contain waters of the U.S.; therefore, no United States Army Corps of Engineers (herein, "Corps") jurisdiction is associated with the Study Area. (GLA, 2022a, p. 66)

On April 21, 2020, the United States Environmental Protection Agency (EPA) and the Corps (collectively, the "agencies") published the *Navigable Waters Protection Rule* (NWPR). The NWPR became effective in 49 states and all U.S. territories on June 22, 2020. Pursuant to the NWPR, ephemeral features, including ephemeral streams, swales, gullies, rills, and pools are not considered waters of the U.S. regardless of the presence or absence of an Ordinary High Water Mark (OHWM). Tributaries must satisfy the flow conditions of the

definition described in 33 United States Code (U.S.C.) 1251 et seq. and its implementing regulations (33 CFR Part 328.3). (GLA, 2022a, p. 66)

The Study Area supports several ephemeral drainage features (Drainages A – I) that flow only in direct response to precipitation (e.g., rain). Pursuant to the NWPR, ephemeral features are not subject to Corps jurisdiction pursuant to Section 404 of the Clean Water Act (CWA). Therefore, on April 6, 2021, the Corps issued an Approved Jurisdictional Delineation (AJD) for the Project in concurrence with the NWPR. (GLA, 2022a, pp. 66-67)

The AJD is valid for a period of five years. A summary of current Corps regulations is provided in Section 3.3.1 of the Project's BTR (*Technical Appendix C1*). (GLA, 2022a, p. 67)

3. Regional Water Quality Control Board Jurisdiction (RWQCB) Jurisdictional Waters

As shown on Exhibit 9A of the Project's BTR (*Technical Appendix C1*), San Diego Regional Water Quality Control Board (herein, "Regional Board") jurisdiction associated with the Study Area totals 0.64 acre of waters the State, none of which consists of State wetlands. On-site acreage totals are 0.53 acre and off-site totals are 0.11 acre. A total of 11,051 linear feet of ephemeral stream is present, consisting of 9,957 feet on site and 1,094 feet off site. (GLA, 2022a, p. 67)

Regional Board jurisdiction is limited to ten ephemeral drainage features (Drainages A, A-1, B, C, D, E, F, G, H, and I) that convey surface water only in direct response to precipitation (e.g., rain). These features exhibit flow sign indicators as evidenced by changes in soil characteristics and incised channel banks. On April 6, 2021, the Corps issued an AJD for the Study Area in concurrence with the NWPR. Pursuant to the NWPR, ephemeral features are not subject to Corps jurisdiction pursuant to Section 404 of the CWA. Since ephemeral features are not subject to Corps jurisdiction pursuant to Section 404 of the CWA, these features also are not subject to Regional Board jurisdiction pursuant to Section 401 of the CWA. The AJD issued for the Study Area is valid for a period of five years and is provided in Appendix A to the Project's BTR (*Technical Appendix C1*). However, since these features convey surface flow with the potential to support beneficial uses, they are considered to be waters of the State that would be regulated by the Regional Board pursuant to Section 13260 of the California Water Code (CWC)/the Porter-Cologne Act. (GLA, 2022a, p. 67)

Table 4.4-2, *Summary of Regional Board Jurisdiction – Waters of the State*, summarizes Regional Board jurisdictional waters associated with the Study Area. The boundaries of Regional Board jurisdiction are depicted on Exhibit 9A of the Project's BTR (*Technical Appendix C1*). (GLA, 2022a, p. 67)

4. California Department of Fish and Wildlife (CDFW) Jurisdictional Waters

As shown on Exhibit 9B of the Project's BTR (*Technical Appendix C1*), CDFW jurisdiction associated with the Study Area totals 0.75-acre, of which 0.06-acre consists of riparian stream and 0.69-acre consists of non-riparian stream. A total of 10,900 linear feet of ephemeral stream is present. This includes 151 linear feet of riparian stream and 10,900 linear feet of non-riparian stream and includes all areas within Regional Board jurisdiction. A total of 11,051 linear feet of ephemeral stream is present consisting of 9,957 feet on site and 1,094 feet off site. (GLA, 2022a, p. 68)

Table 4.4-2 Summary of Regional Board Jurisdiction – Waters of the State

Drainage Name	Regional Board Non-Wetland Waters of the State (acres)	Regional Board State Wetlands (acres)	Total Regional Board Jurisdiction (acres)	Length (linear feet)
Drainage A	0.12	0.00	0.12	1,047
Drainage A-1	0.05	0.00	0.05	331
Drainage B	0.04	0.00	0.04	1,544
Drainage C	0.10	0.00	0.10	1,725
Drainage D	0.08	0.00	0.08	1,205
Drainage E	0.15	0.00	0.15	2,723
Drainage F	0.03	0.00	0.03	891
Drainage G	0.05	0.00	0.05	1,009
Drainage H	0.01	0.00	0.01	139
Drainage I	0.004	0.00	0.004	77
Totals*:	**0.64**	**0.00**	**0.64**	**11,051**

*Sum of individual parts may not equal sum total due to rounding error.
(GLA, 2022a, Table 4-4)

CDFW jurisdiction within the Study Area includes Drainages A, A-1, B, C, D, E, F, G, H, and I. These features exhibit defined stream flow indictors as evidenced by discernible channel banks, drainage patterns, and changes in soil characteristics. Since these features exhibit a discernable stream course, they are subject to regulation by the CDFW under Section 1602 of the Fish and Game Code. (GLA, 2022a, p. 68)

The Study Area also contains topographic features, including swales and/or erosional areas that lack a defined stream course and do not convey adequate flow sign or a discernable channel bank. As these areas lack a discernable stream course, they are not subject to regulation by the CDFW under Section 1602 of the Fish and Game Code. (GLA, 2022a, p. 68)

Table 4.4-3, *Summary of CDFW Jurisdiction*, below summarizes CDFW jurisdictional waters associated with the Project site. Drainage descriptions are provided above. The boundaries of CDFW jurisdiction are depicted on Exhibit 9B of the Project's BTR (*Technical Appendix C1*). (GLA, 2022a, p. 68)

5. MSHCP Riparian/Riverine Areas and Vernal Pools

Vegetation communities associated with riparian systems are considered special-status natural vegetation communities because, similar to coastal sage scrub, they have declined throughout southern California during past decades. In addition, they can support a large variety of special-status wildlife species. Most special-status species directly associated with MSHCP riparian/riverine resources are covered species under the MSHCP (under Section 6.1.2 of the Plan). The MSHCP has specific policies and procedures regarding the evaluation and conservation of riparian/riverine resources (including riparian vegetation) because it supports MSHCP covered species. Specifically, the MSHCP states that "riparian/riverine areas are natural lands which contain habitat dominated by trees, shrubs, persistent emergents, or emergent mosses and lichens, which occur close to or which depend upon soil moisture from a nearby fresh water source; or areas with fresh water flow during all or a portion of the year." Thus, the MSHCP classification of riparian/riverine includes both riparian (depleted natural vegetation communities) as well as ephemeral drainages that are natural in origin but may

lack riparian vegetation. For purposes of analysis, all features that qualify as State streambeds under CDFW jurisdiction also are considered MSHCP riparian/riverine resources. (GLA, 2022a, p. 69)

Table 4.4-3 Summary of CDFW Jurisdiction

Drainage Name	CDFW Non-Riparian Stream (acres)	CDFW Riparian Stream (acres)	Total CDFW Jurisdiction (acres)	Length (linear feet)
Drainage A	0.15	0.06	0.21	1,407
Drainage A-1	0.05	0.00	0.05	331
Drainage B	0.04	0.00	0.04	1,544
Drainage C	0.10	0.00	0.10	1,725
Drainage D	0.09	0.00	0.09	1,205
Drainage E	0.17	0.00	0.17	2,723
Drainage F	0.03	0.00	0.03	891
Drainage G	0.05	0.00	0.05	1,009
Drainage H	0.01	0.00	0.01	139
Drainage I	0.004	0.00	0.004	77
Total*	**0.69**	**0.06**	**0.75**	**11,051**

*Sum of individual parts may not equal sum total due to rounding error.
(GLA, 2022a, Table 4-5)

MSHCP jurisdiction associated with the Study Area totals 0.75-acre, of which 0.06-acre consists of riparian stream and 0.69-acre consists of riverine stream. A total of 11,051 linear feet of ephemeral stream is present. This includes 151 linear feet of riparian stream and 10,900 linear feet of non-riparian riverine stream and includes all areas within CDFW jurisdiction. (GLA, 2022a, p. 69)

MSHCP jurisdiction within the Study Area includes Drainages A, A-1, B, C, D, E, F, G, H, and I. These features exhibit defined stream flow indictors as evidenced by discernible channel banks, drainage patterns, and changes in soil characteristics. Since these features exhibit a discernable stream course, they are subject to regulation by Section 6.1.2 of the MSHCP. Table 4.4-4, *Summary of MSHCP Jurisdiction*, below summarizes MSHCP jurisdictional waters associated with the Study Area. Drainage descriptions are provided above. The boundaries of MSHCP jurisdiction are depicted on Exhibit 9C of the Project's BTR (*Technical Appendix C1*). (GLA, 2022a, pp. 69-70)

4.4.2 Applicable Environmental Regulations

The following is a brief description of the federal, State, and local environmental laws and related regulations governing the protection of biological resources.

A. Federal Regulations

1. Endangered Species Act (ESA)

The purpose of the federal Endangered Species Act (ESA) is to protect and recover imperiled species and the ecosystems upon which they depend. It is administered by the U.S. Fish and Wildlife Service (USFWS) and the Commerce Department's National Marine Fisheries Service (NMFS). The USFWS has primary responsibility for terrestrial and freshwater organisms, while the responsibilities of NMFS are mainly marine

Table 4.4-4 Summary of MSHCP Jurisdiction

Drainage Name	MSHCP Riverine Stream (acres)	MSHCP Riparian Stream (acres)	Total MSHCP Jurisdiction (acres)	Length (linear feet)
Drainage A	0.15	0.06	0.21	1,407
Drainage A-1	0.05	0.00	0.05	331
Drainage B	0.04	0.00	0.04	1,544
Drainage C	0.10	0.00	0.10	1,725
Drainage D	0.09	0.00	0.09	1,205
Drainage E	0.17	0.00	0.17	2,723
Drainage F	0.03	0.00	0.03	891
Drainage G	0.05	0.00	0.05	1,009
Drainage H	0.01	0.00	0.01	139
Drainage I	0.004	0.00	0.004	77
Total*	**0.69**	**0.06**	**0.75**	**11,051**

*Sum of individual parts may not equal sum total due to rounding error.
(GLA, 2022a, Table 4-6)

wildlife such as whales and anadromous fish such as salmon. Under the ESA, species may be listed as either endangered or threatened. "Endangered" means a species is in danger of extinction throughout all or a significant portion of its range. "Threatened" means a species is likely to become endangered within the foreseeable future. All species of plants and animals, except pest insects, are eligible for listing as endangered or threatened. (USFWS, 2017)

The ESA makes it unlawful for a person to take a listed animal without a permit. Take is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct." Through regulations, the term "harm" is defined as "an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering." Listed plants are not protected from take, although it is illegal to collect or maliciously harm them on federal land. Protection from commercial trade and the effects of federal actions do apply for plants. (USFWS, 2017)

Section 7 of the ESA requires federal agencies to use their legal authorities to promote the conservation purposes of the ESA and to consult with the USFWS and NMFS, as appropriate, to ensure that effects of actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of listed species. During consultation, the "action" agency receives a "biological opinion" or concurrence letter addressing the proposed action. In the relatively few cases in which the USFWS or NMFS makes a jeopardy determination, the agency offers "reasonable and prudent alternatives" about how the proposed action could be modified to avoid jeopardy. It is extremely rare that a project ends up being withdrawn or terminated because of jeopardy to a listed species. (USFWS, 2017)

Section 10 of the ESA may be used by landowners including private citizens, corporations, tribes, states, and counties who want to develop property inhabited by listed species. Landowners may receive a permit to take such species incidental to otherwise legal activities, provided they have developed an approved habitat conservation plan (HCP). HCPs include an assessment of the likely impacts on the species from the proposed action, the steps that the permit holder will take to avoid, minimize, and mitigate the impacts, and the funding available to carry out the steps. HCPs may benefit not only landowners but also species by securing and

managing important habitat and by addressing economic development with a focus on species conservation. (USFWS, 2017)

2. Clean Water Act Section 401

Clean Water Act (CWA) § 401 water quality certification provides states and authorized tribes with an effective tool to help protect water quality, by providing them an opportunity to address the aquatic resource impacts of federally issued permits and licenses. Under § 401, a federal agency cannot issue a permit or license for an activity that may result in a discharge to waters of the U.S. until the state or tribe where the discharge would originate has granted or waived § 401 certification. The central feature of CWA § 401 is the state or tribe's ability to grant, grant with conditions, deny, or waive certification. Granting certification, with or without conditions, allows the federal permit or license to be issued consistent with any conditions of the certification. Denying certification prohibits the federal permit or license from being issued. Waiver allows the permit or license to be issued without state or tribal comment. States and tribes make their decisions to deny, certify, or condition permits or licenses based in part on the proposed project's compliance with Environmental Protection Agency (EPA)-approved water quality standards. In addition, states and tribes consider whether the activity leading to the discharge will comply with any applicable effluent limitations guidelines, new source performance standards, toxic pollutant restrictions, and other appropriate requirements of state or tribal law. (EPA, 2019a)

Many states and tribes rely on § 401 certification to ensure that discharges of dredge or fill material into a water of the U.S. do not cause unacceptable environmental impacts and, more generally, as their primary regulatory tool for protecting wetlands and other aquatic resources. However, § 401 is limited in scope and application to situations involving federally-permitted or licensed activities that may result in a discharge to a water of the U.S. If a federal permit or license is not required, or would authorize impacts only to waters that are not waters of the U.S., the activity is not subject to the CWA § 401. (EPA, 2019a)

3. Clean Water Act Section 404

Section 404 of the CWA establishes a program to regulate the discharge of dredged or fill material into waters of the United States, including wetlands. Wetlands subject to Clean Water Act Section 404 are defined as "areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas." Activities in waters of the United States regulated under this program include fill for development, water resource projects (such as dams and levees), infrastructure development (such as highways and airports) and mining projects. Section 404 requires a permit before dredged or fill material may be discharged into waters of the United States, unless the activity is exempt from Section 404 regulation (e.g. certain farming and forestry activities). (EPA, n.d.)

The basic premise of the program is that no discharge of dredged or fill material may be permitted if: (1) a practicable alternative exists that is less damaging to the aquatic environment; or (2) the nation's waters would be significantly degraded. Applications for permits must, to the extent practicable: (l) demonstrate steps have been taken to avoid wetland impacts; (2) demonstrate that potential impacts on wetlands have been minimized;

and (3) provide compensation for any remaining unavoidable impacts. Proposed activities are regulated through a permit review process. (EPA, n.d.)

An individual permit is required for potentially significant impacts. Individual permits are reviewed by the U.S. Army Corps of Engineers (USACE), which evaluates applications under a public interest review, as well as the environmental criteria set forth in the CWA Section 404(b)(1) Guidelines. However, for most discharges that will have only minimal adverse effects, a general permit may be suitable. General permits are issued on a nationwide, regional, or State basis for particular categories of activities. The general permit process eliminates individual review and allows certain activities to proceed with little or no delay, provided that the general or specific conditions for the general permit are met. States also have a role in Section 404 decisions, through state program general permits, water quality certification, or program assumption. (EPA, n.d.)

The term "wetlands" (a subset of "waters of the United States") is defined at 33 CFR 328.3(b) as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support...a prevalence of vegetation typically adapted for life in saturated soil conditions." In 1987 the Corps published a manual to guide its field personnel in determining jurisdictional wetland boundaries. The methodology set forth in the 1987 Wetland Delineation Manual and the Arid West Supplement generally require that, in order to be considered a wetland, the vegetation, soils, and hydrology of an area exhibit at least minimal hydric characteristics. While the manual and Supplement provide great detail in methodology and allow for varying special conditions, a wetland should normally meet each of the following three criteria: (GLA, 2022a, p. 38)

- More than 50 percent of the dominant plant species at the site must be typical of wetlands (i.e., rated as facultative or wetter in the Arid West 2016 Regional Wetland Plant List);
- Soils must exhibit physical and/or chemical characteristics indicative of permanent or periodic saturation (e.g., a gleyed color, or mottles with a matrix of low chroma indicating a relatively consistent fluctuation between aerobic and anaerobic conditions); and
- Whereas the 1987 Manual requires that hydrologic characteristics indicate that the ground is saturated to within 12 inches of the surface for at least five percent of the growing season during a normal rainfall year, the Arid West Supplement does not include quantitative criteria with the exception for areas with "problematic hydrophytic vegetation," which require a minimum of 14 days of ponding to be considered a wetland.

4. Executive Order 11990 – Protection of Wetlands

The purpose of Executive Order (EO) 11990 is to "minimize the destruction, loss or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands." To meet these objectives, the Order requires federal agencies, in planning their actions, to consider alternatives to wetland sites and limit potential damage if an activity affecting a wetland cannot be avoided. (FEMA, 2020a) The Order applies to:

- Acquisition, management, and disposition of federal lands and facilities construction and improvement projects which are undertaken, financed, or assisted by federal agencies;
- Federal activities and programs affecting land use, including but not limited to water and related land resources planning, regulation, and licensing activities. (FEMA, 2020a)

The procedures require the determination of whether or not the proposed project will be in or will affect wetlands. If so, a wetlands assessment must be prepared that describes the alternatives considered. The procedures include a requirement for public review of assessments. (FEMA, 2020a)

5. Migratory Bird Treaty Act (16 USC Section 703-712)

The Migratory Bird Treaty Act (MBTA) makes it illegal for anyone to take, possess, import, export, transport, sell, purchase, barter, or offer for sale, purchase, or barter, any migratory bird, or the parts, nests, or eggs of such a bird except under the terms of a valid permit issued pursuant to federal regulations. The migratory bird species protected by the MBTA are listed in 50 CFR 10.13. The USFWS has statutory authority and responsibility for enforcing the MBTA (16 U.S.C. 703-712). The MBTA implements Conventions between the United States and four countries (Canada, Mexico, Japan, and Russia) for the protection of migratory birds. (USFWS, 2020a)

6. Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c), enacted in 1940, and amended several times since then, prohibits anyone, without a permit issued by the Secretary of the Interior, from "taking" bald eagles, including their parts, nests, or eggs. The Act provides criminal penalties for persons who "take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, at any time or any manner, any bald eagle ... [or any golden eagle], alive or dead, or any part, nest, or egg thereof." The Act defines "take" as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb." "Disturb" means: “to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior." (USFWS, 2020b)

B. State Regulations

1. California Endangered Species Act (CESA)

The California Endangered Species Act (CESA) states that all native species of fishes, amphibians, reptiles, birds, mammals, invertebrates, and plants, and their habitats, threatened with extinction and those experiencing a significant decline which, if not halted, would lead to a threatened or endangered designation, will be protected or preserved. The California Department of Fish and Wildlife (CDFW) works with interested persons, agencies, and organizations to protect and preserve such sensitive resources and their habitats. CESA prohibits the take of any species of wildlife designated by the California Fish and Game Commission as endangered, threatened, or candidate species. CDFW may authorize the take of any such species if certain conditions are met. (CDFW, n.d.)

Section 2081 subdivision (b) of the California Fish and Game Code (CFGC) allows CDFW to authorize take of species listed as endangered, threatened, candidate, or a rare plant, if that take is incidental to otherwise lawful activities and if certain conditions are met. These authorizations are commonly referred to as incidental take permits (ITPs). (CDFW, n.d.)

If a species is listed by both the federal ESA and CESA, CFGC Section 2080.1 allows an applicant who has obtained a federal incidental take statement (federal Section 7 consultation) or a federal incidental take permit (federal Section 10(a)(1)(B)) to request that the Director of CDFW find the federal documents consistent with CESA. If the federal documents are found to be consistent with CESA, a consistency determination (CD) is issued and no further authorization or approval is necessary under CESA. (CDFW, n.d.)

A Safe Harbor Agreement (SHA) authorizes incidental take of a species listed as endangered, threatened, candidate, or a rare plant, if implementation of the agreement is reasonably expected to provide a net conservation benefit to the species, among other provisions. SHAs are intended to encourage landowners to voluntarily manage their lands to benefit CESA-listed species. California SHAs are analogous to the federal safe harbor agreement program and CDFW has the authority to issue a consistency determination based on a federal safe harbor agreement. (CDFW, n.d.)

2. Natural Community Conservation Planning Act (NCCP)

CDFW's Natural Community Conservation Planning (NCCP) program takes a broad-based ecosystem approach to planning for the protection and perpetuation of biological diversity. The NCCP program began in 1991 as a cooperative effort to protect habitats and species. It is broader in its orientation and objectives than the California and Federal Endangered Species Acts, as these laws are designed to identify and protect individual species that have already declined in number significantly. (CDFW, n.d.)

An NCCP identifies and provides for the regional protection of plants, animals, and their habitats, while allowing compatible and appropriate economic activity. Working with landowners, environmental organizations, and other interested parties, a local agency oversees the numerous activities that compose the development of an NCCP. CDFW and the USFWS provide the necessary support, direction, and guidance to NCCP participants. (CDFW, n.d.)

There are currently 14 approved NCCPs (includes 6 subarea plans) and more than 20 NCCPs in the active planning phase (includes 10 subarea plans), which together cover more than 7 million acres and will provide conservation for nearly 400 special status species and a wide diversity of natural community types throughout California. The Western Riverside County MSHCP, as discussed below, comprises an approved NCCP. (CDFW, n.d.)

3. California Fish and Game Code, Section 1600, et seq.

CFGC section 1602 requires an entity to notify CDFW prior to commencing any activity that may do one or more of the following: (1) substantially divert or obstruct the natural flow of any river, stream, or lake; (2) substantially change or use any material from the bed, channel or bank of any river, stream, or lake; or (3) deposit debris, waste or other materials that could pass into any river, stream, or lake. The CFGC indicates that "any river, stream or lake" includes those that are episodic (they are dry for periods of time) as well as those that are perennial (they flow year-round). This includes ephemeral streams, desert washes, and watercourses with a subsurface flow. It may also apply to work undertaken within the flood plain of a body of water. (CDFW, n.d.)

CDFW requires a Lake and Streambed Alteration (LSA) Agreement when it determines that the activity, as described in a complete LSA Notification, may substantially adversely affect existing fish or wildlife resources. An LSA Agreement includes measures necessary to protect existing fish and wildlife resources. CDFW may suggest ways to modify a project that would eliminate or reduce harmful impacts to fish and wildlife resources. Before issuing an LSA Agreement, CDFW must comply with CEQA. (CDFW, n.d.)

4. Native Plant Protection Act (NPPA) of 1977

The Native Plant Protection Act (NPPA) was enacted in 1977 and allows the Fish and Game Commission to designate plants as rare or endangered. There are 64 species, subspecies, and varieties of plants that are protected as rare under the NPPA. The NPPA prohibits take of endangered or rare native plants, but includes some exceptions for agricultural and nursery operations; emergencies; and after properly notifying CDFW for vegetation removal from canals, roads, and other sites, changes in land use, and in certain other situations. (CDFW, n.d.)

5. Unlawful Take or Destruction of Nests or Eggs (CFGC Sections 3503.5-3513)

Section 3503.5 of the CFGC specifically protects birds of prey, stating: "It is unlawful to take, possess, or destroy any . . . [birds-of-prey] or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto." Section 3513 of the CFGC duplicates the federal protection of migratory birds, stating: "It is unlawful to take or possess any migratory nongame bird as designated in the Migratory Bird Treaty Act or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the Migratory Bird Treaty Act." (CA Legislative Info, n.d.)

6. Porter-Cologne Water Quality Act

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

- That the quality of all the waters of the State shall be protected;
- That all activities and factors affecting the quality of water shall be regulated to attain the highest water quality within reason; and
- That the State must be prepared to exercise its full power and jurisdiction to protect the quality of water in the State from degradation. (SWRCB, 2014)

The Porter-Cologne Act established nine Regional Water Boards (based on hydrogeologic barriers) and the State Water Board, which are charged with implementing its provisions and which have primary responsibility for protecting water quality in California. The State Water Board provides program guidance and oversight, allocates funds, and reviews Regional Water Boards decisions. In addition, the State Water Board allocates rights to the use of surface water. The Regional Water Boards have primary responsibility for individual permitting, inspection, and enforcement actions within each of nine hydrologic regions. The State Water Board

and Regional Water Boards have numerous Non-Point Source (NPS)-related responsibilities, including monitoring and assessment, planning, financial assistance, and management. (SWRCB, 2014)

The Regional Water Boards regulate discharges under the Porter-Cologne Act primarily through issuance of National Pollutant Discharge Elimination System (NPDES) permits for point source discharges and waste discharge requirements (WDRs) for NPS discharges. Anyone discharging or proposing to discharge materials that could affect water quality (other than to a community sanitary sewer system regulated by an NPDES permit) must file a report of waste discharge. The SWRCB and the RWQCBs can make their own investigations or may require dischargers to carry out water quality investigations and report on water quality issues. The Porter-Cologne Act provides several options for enforcing WDRs and other orders, including cease and desist orders, cleanup and abatement orders, administrative civil liability orders, civil court actions, and criminal prosecutions. (SWRCB, 2014)

The Porter-Cologne Act also requires adoption of water quality control plans that contain the guiding policies of water pollution management in California. A number of statewide water quality control plans have been adopted by the State Water Board. In addition, regional water quality control plans (basin plans) have been adopted by each of the Regional Water Boards and get updated as necessary and practical. These plans identify the existing and potential beneficial uses of waters of the State and establish water quality objectives to protect these uses. The basin plans also contain implementation, surveillance, and monitoring plans. Statewide and regional water quality control plans include enforceable prohibitions against certain types of discharges, including those that may pertain to nonpoint sources. Portions of water quality control plans, the water quality objectives and beneficial use designations, are subject to review by the EPA, when approved they become water quality standards under the CWA. (SWRCB, 2014)

C. Local and Regional Plans and Regulations

1. Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP)

The continued loss of habitat to new development and the cumbersome process of environmental review and habitat mitigation on a project-by-project basis led to preparation of the MSHCP. The MSHCP is a multi-jurisdictional accomplishment that provides a regional conservation solution to species and habitat issues. The primary intent of the MSHCP is to provide for the conservation of a range of plants and animals within natural communities characteristic of western Riverside County and in return, provide take coverage and mitigation for projects throughout the plan area to avoid the cost and delays of mitigating biological impacts on a project-by-project basis. (Riverside County, 2015, p. 4.8-49)

The MSHCP was adopted by Riverside County on June 17, 2003, and is a comprehensive, multijurisdictional Habitat Conservation Plan (HCP) pursuant to Section 10(a)(1)(B) of FESA, as well as an NCCP pursuant to the California Fish and Game Code. The USFWS issued a Biological Opinion and Federal ESA Section 10 permit for the MSHCP on June 22, 2004, and CDFW issued a Natural Community Conservation Planning (NCCP) Approval and Take Authorization on the same date. As long as adherence to the policies and requirements of the MSHCP is maintained, participants in the MSHCP, which include the County of Riverside and 18 cities, are allowed to authorize 'incidental take' of covered plant and wildlife species. (Riverside County, 2015, p. 4.8-49)

The MSHCP provides for the long-term survival of protected and sensitive species by designating a contiguous system of habitat to be added to existing public/quasi-public lands. The Plan includes an impact fee collected by the permittees and used in part to acquire these lands. Depending on the location of the private or public development project, certain biological studies are required for Plan compliance. These studies may identify the need for specific measures to avoid, minimize and reduce impacts to covered species and their habitat. (Riverside County, 2015, pp. 4.8-49 and 4.8-50)

The MSHCP defines two distinct consistency processes for development projects based on their location within the MSHCP's coverage area, with separate processes for projects located outside of Criteria Areas and those within a Criteria Area. Criteria Areas consist of 160-acre 'cells' with identified conservation objectives. (Riverside County, 2015, p. 4.8-50)

2. Stephens' Kangaroo Rat Habitat Conservation Plan (SKR HCP)

The Stephens' Kangaroo Rat Habitat Conservation Plan (SKR HCP) was prepared under the direction of the Riverside County Habitat Conservation Agency (RCHCA) Board of Directors, in consultation with USFWS and CDFW. The County of Riverside is a member agency of the RCHCA. The 30-year SKR HCP was designed to acquire and permanently conserve, maintain, and fund the conservation, preservation, restoration, and enhancement of Stephens' kangaroo rat-occupied habitat. The SKR HCP covers approximately 534,000 acres within the member jurisdictions and includes an estimated 30,000 acres of occupied Stephens' kangaroo rat habitat. The SKR HCP requires members to preserve and manage 15,000 acres of occupied habitat in seven Core Reserves encompassing over 41,000 acres. (Riverside County, 2015, p. 4.8-52)

On May 3, 1996, the USFWS issued a permit to the Riverside County Habitat Conservation Agency to incidentally take the federally endangered Stephens' kangaroo rat (*Dipodomys stephensi*). Similarly, the CDFW issued a California Endangered Species Act Management Authorization for Implementation of the Stephens' kangaroo rat on May 6, 1996. As of 2015, more than $50 million had been dedicated to the establishment and management of a system of regional preserves designed to ensure the survival of SKR in the plan area. This effort resulted in the permanent conservation of approximately 50% of the SKR-occupied habitat remaining in the HCP area. Through direct funding and in-kind contributions, SKR habitat in the regional reserve system is managed to ensure its continuing ability to support the species. Core reserves were deemed complete in December of 2003. (Riverside County, 2015, p. 4.8-52)

3. Riverside County Oak Tree Management Guidelines

In March 1993, the County of Riverside issued Oak Tree Management Guidelines to address the treatment of oak woodlands in areas where zoning and/or General Plan density restrictions allow the effective use of clustering. The guidelines are generally considered to be the most effective where minimum lot sizes are 2.5 acres or larger, or where oak woodlands are concentrated in a relatively small portion of a project site. The guidelines include recommendations for oak inventories, land use designs to cluster home sites in order to reduce impacts to oaks and mitigation measures for oak conservation. (Riverside County, 2015, p. 4.8-53)

4. Riverside County Ordinance No. 559 – Regulating the Removal of Trees

Riverside County Ordinance No. 559 regulates the removal of living native trees on parcels of property greater than one-half acre, located above 5,000 feet within the unincorporated area of Riverside County without first

obtaining a permit to do so. The purpose of the ordinance is to ensure that the timberlands of Riverside County are protected and the ecological balance of such timberlands is preserved. (Riverside County, 2015, p. 4.8-53)

5. Riverside County Ordinance No. 810 – Establishing an Interim Open Space Mitigation Fee

This ordinance implements the Western Riverside County MSHCP and mitigates impacts of new development in western Riverside County. It establishes a development mitigation fee in order to help finance the acquisition of lands containing species protected by the MSHCP. By preserving these habitats and assessing a fee to develop in these open space areas, the ordinance helps to limit sprawl and encourage concentrated development, thereby reducing greenhouse gas emissions that would arise from trips between wider-flung land uses.

4.4.3 Basis for Determining Significance

Section IV of Appendix G to the State CEQA Guidelines addresses typical adverse effects to biological resources, and includes the following threshold questions to evaluate the Project's impacts to biological resources (OPR, 2018a):

- Would the Project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

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

- Would the Project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

- Would the Project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

- Would the Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

- Would the Project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

Significance thresholds are set forth in Riverside County's Environmental Assessment Checklist, are derived from Section IV of Appendix G to the State CEQA Guidelines (listed above), and state that the proposed Project would have a significant impact on biological resources if construction and/or operation of the Project would:

- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state conservation plan;
- Have a substantial adverse effect, either directly or through habitat modifications, on any endangered, or threatened species, as listed in Title 14 of the California Code of Regulations (Sections 670.2 or 670.5) or in Title 50, Code of Federal Regulations (Sections 17.11 or 17.12);
- 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. Wildlife Service;
- 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;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U. S. Fish and Wildlife Service;
- Have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means; or
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- The significance thresholds set forth in Riverside County's Environmental Assessment Checklist were used to evaluate the significance of the proposed Project's impacts to biological resources.

4.4.4 IMPACT ANALYSIS

Threshold a:	***Would the Project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state conservation plan?***

The Project area is subject to two separate habitat conservation plans: the Stephens' Kangaroo Rat Habitat Conservation Plan (SKR HCP) and the Western Riverside County MSHCP. Each is discussed below.

A. Project Consistency with the SKR HCP

As previously noted, the SKR HCP was prepared under the direction of the RCHCA Board of Directors, in consultation with USFWS and CDFW. Riverside County is a member agency of the RCHCA. According to Figure S-1 of the SKR HCP, the Study Area is not located within or adjacent to any SKR core reserve areas. Additionally, the Project Applicant would be required to contribute fees towards the establishment and long-term maintenance of the SKR HCP core reserve pursuant to Riverside County Ordinance No. 663. The Project would not conflict with any provisions of the SKR HCP; thus, a less-than-significant impact would occur.

B. Project Consistency with the MSHCP

Provided below is an evaluation of the Project's consistency with MSHCP Reserve assembly requirements, Section 6.1.2 (Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools), Section 6.1.3 (Protection of Narrow Endemic Plant Species), Section 6.1.4 (Guidelines Pertaining to the Urban/Wildlands Interface), and Section 6.3.2 (Additional Survey Needs and Procedures). (GLA, 2022a, p. 83)

1. Project Relationship to MSHCP Reserve Assembly

The Project site is located within the Southwest Area Plan Subunit 5 (French Valley/Lower Sedco Hills) of the MSHCP and is included within the MSHCP Criteria Area. Portions of the off-site impact areas also are located within the Southwest Area Plan Subunit 5 (French Valley/Lower Sedco Hills) of the MSHCP and Southwest Area Plan Subunit 4 (Cactus Valley/Southwestern Riverside County Multi-Species Reserve/Johnson Ranch) of the MSHCP. (GLA, 2022a, p. 86)

Specifically, the Project site falls within all or portions of Criteria Cells 5060, 5070, 5074, 5169, 5173, 5175, and 5275 as well as Cell Group U. The off-site impact areas also are partially or wholly located in the MSHCP Criteria Area and are located within portions of Criteria Cells 5067, 5169, 5170, 5173, 5174, 5175, 5275, 5278, 5279, and 5969. The off-site impact areas also are within MSHCP Cell Groups S, U, and V. Portions of the Project site are located within the MSHCP CAPSSA, NEPSSA, and Burrowing Owl (*Athene cunicularia*) Survey Area. (GLA, 2022a, p. 86)

Pursuant to the MSHCP, the following CAPSSA target species must be evaluated through habitat assessments and focused surveys (if suitable habitat is present): Parish's brittlescale (*Atriplex parishii*), Davidson's saltscale (*Atriplex serenana* var. *davidsonii*), thread-leaved brodiaea (*Brodiaea filifolia*), round-leaved filaree (*California macrophylla*), smooth tarplant (*Centromadia pungens* ssp. *laevis*), Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri),* little mousetail (*Myosurus minimus* ssp. *apus*), and mud nama (*Nama stenocarpa*). The site occurs within or portions of NEPSSA. Pursuant to the MSHCP, the following target species must be evaluated through habitat assessments and focused surveys (if suitable habitat is present): Munz's onion (*Allium munzii*), San Diego ambrosia (*Ambrosia pumila*), many-stemmed dudleya (*Dudleya multicaulis*), spreading navarretia (*Navarretia fossalis*), California orcutt grass (*Orcuttia californica*), and Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*). According to the JPR completed for the Project (JPR 09-12-14-01), the Project site is not located within the MSHCP Invertebrate, Mammalian, or Amphibian Survey Areas, but is located within Proposed Constrained Linkage 17. (GLA, 2022a, p. 86)

The areas proposed for development on site were previously determined to be consistent with the MSHCP as part of JPR 09-12-14-01, dated February 25, 2010. This JPR required the conservation of 61.10 acres of land within the northern portion of the Project site. A HANS determination letter, HANS 1995, was also approved for the Project site. This letter determined that the RCA concurred with the partial site conservation documented in the JPR, as the land dedication is consistent with MSHCP requirements. According to the Project's JPR, the following is stated: (GLA, 2022a, pp. 86-87)

> *Proposed Constrained Linkage 17 (Paloma Valley) is located in the south-central region of the Plan Area. Proposed Extension of Existing Core 7 (Lake Skinner/Diamond Valley Lake Extension) is located to the east of this Linkage. The Linkage provides Habitat for species and also provides for movement*

of species. Although this Linkage is constrained by existing urban Development and agricultural use along much of its length, planned land uses surrounding the Constrained Linkage are nearly entirely rural. In addition, the Constrained Linkage has a comparatively low Perimeter to Area Ratio ratio. Thus, Edge Effects on this Constrained Linkage may be substantially lower than for other Constrained Linkages. (GLA, 2022a, pp. 74-75)

The JPR also has concluded the following:

- *Approximately 156.38 acres of the approximately 195-acre site is located within Cell 5173. Conservation within this Cell will contribute to assembly of Proposed Constrained Linkage 17. Conservation within this Cell will focus on chaparral habitat and agricultural land. Areas conserved within this Cell will be connected to grassland habitat proposed for conservation in Cell 5175 to the west, to chaparral and coastal sage scrub habitat proposed for conservation in Cell Group U to the north, and to chaparral habitat proposed for conservation in Cell 5169 to the east. Conservation within this Cell will range from 20% to 30% of the Cell, focusing on the northern portion of the Cell.* (GLA, 2022a, p. 75)

- *Approximately 36 acres of the 195-acre site is located in Cell 5169. Conservation within this Cell will contribute to assembly of Proposed Constrained Linkage 17. Conservation within this Cell will focus on grassland, chaparral, and coastal sage scrub habitat. Areas conserved within this Cell will be connected to chaparral habitat and agricultural land proposed for conservation in Cell 5173 to the west, to chaparral, coastal sage scrub, and grassland habitat proposed for conservation in Cell Group U to the north, and to grassland and coastal sage scrub habitat proposed for conservation in Cell Group S to the east. Conservation within this Cell will range from 25% to 35% of the Cell, focusing on the northern portion of the Cell.* (GLA, 2022a, p. 75)

- *Approximately 1 acre of the site is located in Cell 5175. Conservation within this Cell will contribute to assembly of Proposed Constrained Linkage 17. Conservation within this Cell will focus on grassland and chaparral habitat. Areas conserved within this Cell will be connected to chaparral habitat proposed for conservation in Cell 5174 to the west, to chaparral, coastal sage scrub, and grassland habitat proposed for conservation in Cell Group U to the north, and to agricultural land proposed for conservation in Cell 5173 to the east. Conservation within this Cell will range from 35% to 45% of the Cell, focusing on the northern portion of the Cell.* (GLA, 2022a, p. 75)

- *Approximately 1 acre of the site is located in Cell Group U. Conservation within this Cell Group will contribute to assembly of Proposed Constrained Linkage 17. Conservation within this Cell Group will focus on chaparral, grassland, and coastal sage scrub habitat and agricultural land. Areas conserved within this Cell Group will be connected to chaparral habitat proposed for conservation in Cell 5174 to the south, to chaparral and grassland habitat proposed for conservation in Cell 5169 and 5175 both to the south, to chaparral habitat and agricultural land proposed for conservation in Cell 5173 also to the south, and to grassland habitat proposed for conservation in Cell Group S to the east. Conservation within this Cell Group will range from 65% to 75% of the Cell Group, focusing on the eastern portion of the Cell Group.* (GLA, 2022a, pp. 75-76)

- *The project site is currently undeveloped, used for agricultural purposes, and surrounded by either rural residential or open space. The proposed project is reported to be for a residential development including retirement care facilities. The project is adjacent to State Route 79 (SR-79) and has been planned to accommodate the future expansion of SR-79. The expansion of SR-79 is not going to be implemented by the project. The property was burned in April 2008, but the major vegetation types on site are non- native grasslands and Riversidean sage scrub (disturbed and undisturbed). There is a small area (0.1 acre) of southern willow scrub on site. The majority of the site falls within Cells 5173 and 5169, both of which focus Conservation efforts on the northern portion of the Cells. The project has set aside Conservation in the northern portion of these Cells, per the Criteria and has maximized the amount of Conservation on the northwestern edge of the project site. Therefore, with the Conservation of the 61.1 acres, the project does contribute to Reserve Assembly requirements.* (GLA, 2022a, p. 76)

It is expected that amendments to the HANS and JPR may be needed to cover off-site improvements, or a new JPR and/or HANS will be required for the off-site improvement areas. It should be noted that Winchester Road, Keller Road, and Washington Street are considered "covered roads" under the MSCHP, which means that a HANS is not necessary for the off-site road improvements for each of these roads as their impact already was contemplated in the MSHCP, but a JPR would be required. Additionally, any utility improvements would be considered as covered activities pursuant to Section 7.3.9 of the MSHCP. (GLA, 2022c, p. 29)

A majority of Pourroy Road is considered a covered road under the MSHCP; therefore, improvements to Pourroy Road would not need to undergo the HANS process. Additionally, improvements to Pourroy Road would be limited to utility line installation and/or improvement, which are covered activities under the MSHCP that would need to undergo the JPR process. A copy of the JPR approval letter for the Project site is attached as Exhibit 13 of the Project's BTR (*Technical Appendix C1*). Although impacts to the MSHCP Reserve Assembly Requirements are anticipated to be less than significant, a significant impact is nonetheless identified because the off-site improvement areas may need to go through the JPR process. (GLA, 2022c, p. 29)

2. Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools

Due to proposed permanent impacts to approximately 0.48 acre of MSHCP jurisdiction (0.42 acre non-riparian streambed and 0.06-acre riparian streambed), a DBESP is required and has been prepared for the Project (refer to EIR *Technical Appendix C3*). As documented in the Project's DBESP, the riverine areas are generally unvegetated and/or contain ruderal/non-native, non-riparian vegetation that is not suitable habitat for associated Riparian/Riverine sensitive species such as least Bell's vireo, southwestern willow flycatcher, or western yellow-billed cuckoo; therefore, no impact to these species will occur as part of the Project. The riparian area is sparsely vegetated and does not support the structure for sensitive species such as least Bell's vireo, southwestern willow flycatcher, or western yellow-billed cuckoo. (GLA, 2022c, p. 34)

The Project would permanently avoid a minimum of 61.10 acres of land within the northern portion of the site which includes all or portions of Drainages B, E, F, and G, totaling 0.19 acre out of the 0.75 acre of MSHCP riparian/riverine jurisdiction present within this 61.10-acre avoidance area. This represents avoidance of approximately 25% of the on-site streambeds. The avoidance of 61.10 acres represents avoidance of 31% of the overall property for conservation purposes. (GLA, 2022c, p. 35)

There are no vernal pools, or vernal pool habitat associated with the Project site. No ponding was observed at the Project site during biological surveys, including those that occurred following periods of substantial rainfall. The site lacks the suitable topography (including localized depressions) to support prolonged inundation necessary to support fairy shrimp. In addition, the site is mapped as containing fine sand and sandy loam soils, which are generally not associated with vernal pools. Observations of the soils at the site showed a lack of clay soil components. Lastly, no plants were observed at the site that are associated with vernal pools and similar habitats that experience prolonged inundation. As a result, no impact to vernal pools or vernal pool habitat will occur as a result of the Project. (GLA, 2022c, p. 35)

Nonetheless, the Project would result in unavoidable permanent impacts to 0.48 acre of MSHCP riparian/riverine areas, which represents a conflict with MSHCP Section 6.1.2. This is evaluated as a significant impact for which mitigation would be required.

3. Protection of Narrow Endemic Plants

Volume I, Section 6.1.3 of the MSHCP requires that within identified NEPSSA areas, site-specific focused surveys for Narrow Endemic Plants Species will be required for all public and private projects where appropriate soils and habitat are present. The Study Area is located within the MSHCP CAPSSA designated Survey Area and NEPSSA designated Survey Area, which target the following species: Munz's onion, San Diego ambrosia, many-stemmed dudleya, spreading navarretia, California Orcutt grass, Wright's trichocoronis, Parish's brittlescale, Davidson's saltscale, thread-leaved brodiaea, round-leaved filaree, smooth tarplant, Coulter's goldfields, little mousetail, and mud nama. These species were confirmed absent through focused plant surveys. As such, the proposed Project would be consistent with *Volume I, Section 6.1.3* of the MSHCP. Focused plant surveys conducted in 2021 were negative for all of these species; therefore, the Project would be consistent with the MSHCP pursuant to Section 6.1.3, and impacts would be less than significant. (GLA, 2022a, p. 87)

4. Guidelines Pertaining to the Urban/Wildland Interface

The MSHCP Urban/Wildland Interface Guidelines (UWIG) are intended to address indirect effects associated with locating development in proximity to the MSHCP Conservation Area. As the MSHCP Conservation Area is assembled, development is expected to occur adjacent to the Conservation Area. Future development in proximity to the MSHCP Conservation Area may result in edge effects with the potential to adversely affect biological resources within the Conservation Area. To minimize such edge effects, the guidelines shall be implemented in conjunction with review of individual public and private development projects in proximity to the MSHCP Conservation Area and address the following: (GLA, 2022a, pp. 87-88)

- Drainage;
- Toxics;
- Lighting;
- Noise;
- Invasive species;
- Barriers;
- Grading/Land Development

Potential impacts due to a conflict with specific provisions of the UWIG are discussed below.

❑ Drainage

Proposed projects in proximity to the MSHCP Conservation Area are required to incorporate measures, including measures required through the National Pollutant Discharge Elimination System (NPDES) requirements, to ensure that the quantity and quality of runoff discharged to the MSHCP Conservation Area is not altered in an adverse way when compared with existing conditions. In particular, measures shall be put in place to avoid discharge of untreated surface runoff from developed and paved areas into the MSHCP Conservation Area. Stormwater systems shall be designed to prevent the release of toxins, chemicals, petroleum products, exotic plant materials or other elements that might degrade or harm biological resources or ecosystem processes within the MSHCP Conservation Area. This can be accomplished using a variety of methods including natural detention basins, grass swales or mechanical trapping devices. Regular maintenance shall occur to ensure effective operations of runoff control systems. (GLA, 2022a, p. 80)

The Project's contractor would be required to develop a Stormwater Pollution Prevention Plan (SWPPP) to address runoff and water quality during construction. Following the completion of construction activities, areas proposed for development as part of the Project would consist of buildings and other impervious surfaces, along with areas proposed for ornamental landscaping. As discussed in further detail in EIR Subsection 4.10, *Hydrology and Water Quality*, the Project has been designed to detain runoff generated on the Project site such that there would be no increase in developed storm flows as compared to existing drainage conditions. Additionally, the Project would be subject to compliance with a Project-specific Water Quality Management Plan (WQMP), which would specify measures that must be undertaken to ensure long-term maintenance of the water quality and detention features. As such, the Project would not in any way result in increased drainage or affect the water quality of the river to Warm Springs Creek or Murrieta Creek. Mandatory compliance with the future-required SWPPP during construction and the Project's WQMP under long-term operations would ensure that the Project does not conflict with the MSHCP provisions related to indirect drainage impacts. Accordingly, impacts would be less than significant. (GLA, 2022a, p. 80)

❑ Toxics

Land uses proposed in proximity to the MSHCP Conservation Area that use chemicals or generate bioproducts such as manure that are potentially toxic or may adversely affect wildlife species, habitat, or water quality shall incorporate measures to ensure that application of such chemicals does not result in discharge to the MSHCP Conservation Area. Measures such as those employed to address drainage issues shall be implemented. As noted above, near-term construction activities would be subject to compliance with a SWPPP and long-term operations would be subject to compliance with the Project's WQMP, both of which would preclude the discharge of toxics from the Project site that could adversely affect the MSHCP Conservation Area. Additionally, the Project's proposed land uses (residential and commercial) are not associated with the generation of substantial amounts of toxic substances, as more fully discussed in EIR Subsection 4.9, *Hazards and Hazardous Materials*. As such, the Project would not conflict with the MSHCP provisions related to toxics, and impacts would be less than significant. (GLA, 2022a, p. 80)

❑ Lighting

Night lighting is required to be directed away from the MSHCP Conservation Area to protect species within the MSHCP Conservation. Construction activities associated with the Project would be subject to compliance with Riverside County Ordinance No. 847, which prohibits construction activities that make loud noise from occurring between 6:00 p.m. and 6:00 a.m. during the months of June through September, and between 6:00 p.m. and 7:00 a.m. during the months of October through May, and on Sundays and Federal holidays. With mandatory compliance with Ordinance No. 847, construction activities would not occur during nighttime hours, and impacts due to a conflict with the MSHCP UWIG provisions related to lighting would be less than significant. (GLA, 2022a, p. 81)

Under long-term operating conditions, future development on site would be subject to compliance with Riverside County Ordinance No. 655 (Mt. Palomar Observatory), Riverside County Ordinance No. 915 (Regulating Outdoor Lighting), and the lighting requirements of the proposed Keller Crossing Specific Plan (SP 380A1). In particular, Section 5 of Riverside County Ordinance No. 915 requires that "[a]ll outdoor luminaires in shall be located, adequately shielded, and directed such that no direct light falls outside the parcel of origin, or onto the public right-of-way." Riverside County would review future implementing projects (i.e., plot plans, building permits, etc.) to ensure compliance with Riverside County Ordinance Nos. 655 and 915 and the lighting provisions of the proposed Keller Crossing Specific Plan, which would ensure that long-term operational lighting does not adversely affect the MSHCP Conservation Area. As such, under long-term conditions the Project would not conflict with the lighting provisions of the MSHCP, and impacts would be less than significant. (GLA, 2022a, p. 81)

❑ Noise

Proposed noise-generating land uses affecting the MSHCP Conservation Area shall incorporate setbacks, berms, or walls to minimize the effects of noise on MSHCP Conservation Area resources pursuant to applicable rules, regulations and guidelines related to land use noise standards. For planning purposes, wildlife within the MSHCP Conservation Area should not be subject to noise that would exceed residential noise standards (i.e., 65 dBA CNEL). A majority of the Project site would be developed with residential, recreational, and open space land uses, which would not have the potential for exposing on- or off-site conservation areas to noise levels exceeding 65 dBA CNEL. The only component of the Project with the potential for resulting in operational noise impacts is the proposed commercial retail land use. However, the commercial land uses would be shielded from proposed conservation areas by residential development proposed within Planning Areas 5 and 6 of SP 380A1, and thus would not have the potential to expose the conservation areas to noise levels exceeding 65 dBA CNEL. (GLA, 2022a, p. 81)

❑ Invasive Species

Projects adjacent to the MSHCP Conservation Area shall avoid the use of invasive plant species in landscaping, including invasive, non-native plant species listed in Volume I, *Table 6-2* of the MSHCP. Future development on site would be subject to compliance with the proposed Keller Crossing Specific Plan (SP 380A1). Chapter 4 of proposed SP 380A1 addresses prohibited plants, and includes a listing of prohibited plant species within Table 4-3, *Prohibited Plant Species*. Table 4-3 was added to SP 380A1 to specifically address the list of prohibited plant species included in MSHCP Volume I, Table 6-2. Riverside County would review future implementing developments (i.e., plot plans, building permits) to ensure compliance with all applicable

provisions of proposed SP 380A1, thereby ensuring that future landscaping on site does not include any of the prohibited plant species listed in Volume I, Table 6-2 of the MSHCP. Accordingly, indirect impacts due to invasive species would be less than significant. (GLA, 2022a, pp. 81-82)

❑ Barriers

Proposed land uses adjacent to the MSHCP Conservation Area shall incorporate barriers, where appropriate in individual project designs to minimize unauthorized public access, domestic animal predation, illegal trespass or dumping in the MSHCP Conservation Area. Such barriers may include native landscaping, rocks/boulders, fencing, walls, signage and/or other appropriate mechanisms. Proposed SP 380A1 includes a conceptual wall and fence plan, which requires the installation of tubular steel fencing or steel rod fencing along all proposed open space areas on site, including areas proposed to be added to the MSHCP Conservation Area. Riverside County would review future implementing developments (i.e., plot plans, building permits, etc.) to ensure compliance with all applicable provisions of proposed SP 380A1, including the requirement to provide fencing along the MSHCP Conservation Area. As such, the Project would not conflict with the MSHCP requirements related to barriers, and impacts would be less than significant. (GLA, 2022a, p. 82)

❑ Grading/Land Development

The MSHCP states that manufactured slopes associated with development shall not extend into the MSHCP Conservation Area. (GLA, 2022a, p. 82) Proposed SP 380A1 includes a conceptual grading plan, which was previously depicted on EIR Figure 3-10. In addition, proposed TTM 38163 includes a grading plan, as previously shown on EIR Figure 3-12. As shown on EIR Figure 3-10 and 3-12, no grading is proposed within areas proposed to be dedicated to the MSHCP Conservation Area. Riverside County would review future implementing developments (i.e., plot plans, building permits) to ensure compliance with all applicable provisions of proposed SP 380A1 and TTM 38163, including compliance with the conceptual grading plans associated with SP 380A1 and TTM 38163. As such, the Project would not conflict with the MSHCP requirements related to grading and land development, and impacts would be less than significant.

5. Additional Survey Needs and Procedures

Focused burrowing owl surveys were conducted for the Survey Area and no burrowing owl was detected. As the Study Area occurs within CAPSSA and NEPSSA survey areas, focused plant surveys were conducted and no CAPSSA or NEPSSA target species were observed. The Study Area does not occur within invertebrate, amphibian, and/or mammal survey areas; therefore, no Invertebrate (Delhi Sands Flower-Loving Fly), Amphibian, and/or Mammal surveys are required. (GLA, 2022a, p. 88)

Although focused surveys determined that the burrowing owl is absent from the Study Area, there is nonetheless a potential for the site to become occupied with burrowing owls prior to construction activities. This is evaluated as a potentially significant impact for which mitigation, in the form of pre-construction burrowing owl surveys, would be required.

Threshold b: ***Would the Project have a substantial adverse effect, either directly or through habitat modifications, on any endangered, or threatened species, as listed in Title 14 of the***

California Code of Regulations (Sections 670.2 or 670.5) or in Title 50, Code of Federal Regulations (Sections 17.11 or 17.12)?

Threshold c: ***Would the Project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U. S. Wildlife Service?***

The following discussion examines the potential impacts to plant and wildlife resources that would occur as a result of the proposed Project.

A. Impacts to Special Status Plants

The proposed Project would result in impacts to paniculate tarplant. However, impacts to paniculate tarplant occurring as a result of the proposed Project would be less than significant under CEQA. The portions of the Project site proposed for development are heavily disturbed and the onsite population of paniculate tarplant is relatively small. Therefore, given the low sensitivity of this species (CNPS 4.2), the proposed Project would not have a substantial adverse effect on the survivorship of paniculate tarplant. Additionally, while paniculate tarplant is classified as a rare plant by CNPS, it is not a federally or State-listed species. Furthermore, there are no survey or preservation requirements for this species pursuant to any resource agency or HCP, including the MSHCP. The Project would not result in impacts to any other special-status plants. Accordingly, impacts to special-status plants would be less than significant. (GLA, 2022a, p. 73)

B. Impacts to Special-Status Animals

Development of the Project as proposed would result in the loss of habitat that supports special-status species within the areas planned for development, including the following: coast horned lizard, coastal whiptail, orange-throat whiptail, red-diamond rattlesnake, bell's sage sparrow, burrowing owl, golden eagle, loggerhead shrike, southern California rufous-crowned sparrow, white-tailed kite, California horned lark, and northern harrier. Impacts to these species may be significant under CEQA; however, each of these species is covered under the MSHCP conservation goals and, therefore, Project impacts to suitable habitat are addressed through consistency with, and participation in, the MSHCP. With implementation and coverage of the Project under the MSHCP conservation goals, the Project would not have a significant impact on special-status animal species. Therefore, impacts would be less than significant. (GLA, 2022a, p. 73)

However, the Study Area contains vegetation with the potential to support native nesting birds. The California Fish and Game Code prohibits mortality of native birds, including eggs. Thus, a significant impact could occur to nesting birds if grading or development were to occur during the nesting season (February 1 to August 31). Additionally, although not observed during focus surveys within the Study Area, the Study Area nonetheless contains suitable habitat for burrowing owls. MSHCP Objective 6 for burrowing owls requires that pre-construction surveys occur prior to site grading. Accordingly, prior to mitigation requiring pre-construction surveys, the Project has the potential to result in significant impacts to the burrowing owl. (GLA, 2022a, p. 83)

Threshold d: ***Would the Project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?***

The Project Applicant is proposing to conserve a minimum of 61.10 acres of land within the northern portions of the Project site to assist with the assembly of MSHCP Proposed Constrained Linkage 17. This land dedication is consistent with MSHCP requirements and has been approved by the RCA through the JPR and HANS processes. Refer to the analysis of Threshold a. for a discussion of the results of the Project's JPR. (GLA, 2022a, p. 74)

Based on the Project's JPR, the Project would contribute to the establishment of Proposed Constrained Linkage 17, thereby providing for localized wildlife movement in the local area and ensuring that Project impacts to wildlife movement in the local area would be less than significant. (GLA, 2022a, p. 74)

The off-site impact areas primarily are limited to utility and/or road improvements within either existing or covered roads, or are utility improvements within these roads, which would have no further effect on wildlife movement than exists today. (GLA, 2022a, p. 76)

Temporary disturbances to wildlife movement may occur during construction; however, these disturbances would be limited to day-time hours during construction activities and would not interfere significantly with wildlife movement on a landscape level. The Project's consistency with the MSHCP would reduce impacts to wildlife movement to a level of less than significant under CEQA. Additionally, no native wildlife nursery sites were observed within the Project area and therefore, no significant impacts to wildlife nursery sites would occur. (GLA, 2022a, p. 76)

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

Table 4.4-5, *Summary of Vegetation/Land Use Impacts*, provides a summary of the proposed Project's on- and off-site impacts to vegetation/land use types. The proposed Project would permanently impact 0.05-acre of Disturbed Mulefat Scrub. Although this is not considered a sensitive plant community, it has components similar to the Southern Riparian Scrub plant community (Classified as G3-Vunerable by the CNDDB) during construction (refer to Exhibit 12 of the Project's BTR, included as EIR *Technical Appendix C1*). The loss of mulefat/riparian habitat must be mitigated pursuant to *Volume I, Section 6.1.2* of the MSHCP. Accordingly, impacts to 0.05 acre of Disturbed Mulefat Scrub would be potentially significant prior to mitigation. None of the other vegetation communities to be impacted by Project are considered sensitive vegetation communities under CEQA, and impacts to these vegetation communities would be less than significant. (GLA, 2022a, p. 73)

Table 4.4-5 Summary of Vegetation/Land Use Impacts

Vegetation/Land Use Type	Onsite Impacts (acres)	Offsite Impacts (acres)	Total Impacts (acres)	Avoided Areas (acres)
Agriculture	127.44	0.00	127.44	47.79
Developed	1.44	16.24	17.68	0.0
Disturbed	2.80	25.66	28.46	7.80
Disturbed Buckwheat Scrub	2.81	0.47	3.28	5.83
Ornamental	0.08	1.99	2.07	0.0
Disturbed Mulefat Scrub	0.05	0.00	0.05	0.0
Total:	**134.62**	**44.36**	**178.98**	**61.42**

(GLA, 2022a, Table 5-1)

Threshold f: ***Would the Project have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?***

A. Project Impacts to Wetlands

The Study Area does not contain any State- or federally-protected wetlands; therefore, no impacts to State- or federally-protected wetlands would occur as a result of construction of the proposed Project. (GLA, 2022a, p. 74)

B. Project Impacts to Jurisdictional Waters

1. Impacts to Corps Jurisdiction

No Corps jurisdiction is present within the Study Area. Therefore, the proposed Project would not impact any areas subject to Corps jurisdiction. (GLA, 2022a, p. 77)

2. Impacts to Regional Board Jurisdiction

Table 4.4-6, *Summary of Regional Board Jurisdictional Impacts*, summarizes the Project's impacts to jurisdictional features subject to regulation by the Regional Board. As shown, the Project would permanently impact a total of 0.38 acre of State waters under Regional Board jurisdiction (all non-wetland waters), as depicted on Exhibit 13A (Regional Board Jurisdiction Impact Map) of the Project's BTR (*Technical Appendix C1*). A total of 6,014 linear feet of streambed under Regional Board jurisdiction would be permanently impacted. Project impacts to jurisdictional features subject to regulation by the Regional Board represent a significant impact of the Project for which mitigation would be required. (GLA, 2022a, p. 77)

3. Impacts to CDFW Jurisdiction

Table 4.4-7, *Summary of CDFW Jurisdictional Impacts*, summarizes the Project's impacts to jurisdictional features subject to regulation by the CDFW. As shown, with implementation of the Project a total of 0.48-acre of CDFW jurisdiction would be permanently impacted (0.42-acre non-riparian streambed and 0.06-acre riparian streambed), as depicted on Exhibit 13B (CDFW Jurisdiction Impact Map) of the Project's BTR (*Technical Appendix C1*). Project impacts to jurisdictional features subject to regulation by the CDFW represent a significant impact of the Project for which mitigation would be required. (GLA, 2022a, p. 78)

Table 4.4-6 Summary of Regional Board Jurisdictional Impacts

Drainage Name	Regional Board Impacts Non-Wetland Waters (Acres)	Regional Board Impacts State Wetland Waters (Acres)	Total Regional Board Impacts (Acres)	Total Regional Board Impacts (Linear Feet)
Drainage A	0.08	0	0.08	1,047
Drainage A-1	0.004	0	0.004	24
Drainage B	0.001	0	0.001	16
Drainage C	0.10	0	0.10	1,725
Drainage D	0.08	0	0.08	1,205
Drainage E	0.09	0	0.09	1,703
Drainage F	0.002	0	0.002	46
Drainage G	0.001	0	0.001	32
Drainage H	0.01	0	0.01	139
Drainage I	0.004	0	0.004	77
Total*:	**0.38 (Rounded)**	**0**	**0.38 (Rounded)**	**6,014**

(GLA, 2022a, Table 5-2)

Table 4.4-7 Summary of CDFW Jurisdictional Impacts

Drainage Name	CDFW Impacts Non-Riparian Stream (Acres)	CDFW Impacts Riparian Stream (Acres)	Total CDFW Impacts (Acres)	Total CDFW Impacts (Linear Feet)
Drainage A	0.10	0.06	0.16	1,047
Drainage A-1	0.004	0	0.004	24
Drainage B	0.001	0	0.001	16
Drainage C	0.10	0	0.10	1,725
Drainage D	0.09	0	0.09	1,205
Drainage E	0.10	0	0.10	1,703
Drainage F	0.002	0	0.002	46
Drainage G	0.001	0	0.001	32
Drainage H	0.01	0	0.01	139
Drainage I	0.004	0	0.004	77
Total*:	**0.42 (Rounded)**	**0.06**	**0.48 (Rounded)**	**6,014**

(GLA, 2022a, Table 5-3)

4. Impacts to MSHCP Riparian/Riverine Areas

Table 4.4-8, *Summary of MSHCP Jurisdictional Impacts*, summarizes the Project's impacts to jurisdictional features that are considered riparian/riverine areas under the MSHCP. As shown, the proposed Project would permanently impact a total of 0.48-acre of MSHCP jurisdiction (0.42-acre non-riparian streambed and 0.06-acre riparian streambed), as shown on Exhibit 13C (MSHCP Riparian/Riverine Areas Impact Map) of the Project's BTR (*Technical Appendix C1*). Project impacts to MSHCP riparian/riverine areas represent a significant impact of the Project for which mitigation would be required. Pursuant to Volume I, Section 6.1.2 of the MSHCP, projects must consider alternatives providing for 100% percent avoidance of riparian/riverine areas. If avoidance is infeasible, then the unavoidable impacts must be mitigated and a Determination of Biologically Equivalent or Superior Preservation (DBESP) is required. In compliance with MSHCP requirements, a DBESP has been prepared for the Project and is included as EIR *Technical Appendix C3*.

Notwithstanding, a significant impact would occur if the Project were to fail to implement mitigation measures for Project impacts to 0.48 acre of MSHCP jurisdiction. (GLA, 2022a, pp. 78-79)

Table 4.4-8 Summary of MSHCP Jurisdictional Impacts

Drainage Name	MSHCP Impacts Non-Riparian Stream (Acres)	MSHCP Impacts Riparian Stream (Acres)	Total MSHCP Impacts (Acres)	Total MSHCP Impacts (Linear Feet)
Drainage A	0.10	0.06	0.16	1,047
Drainage A-1	0.004	0	0.004	24
Drainage B	0.001	0	0.001	16
Drainage C	0.10	0	0.10	1,725
Drainage D	0.09	0	0.09	1,205
Drainage E	0.10	0	0.10	1,703
Drainage F	0.002	0	0.002	46
Drainage G	0.001	0	0.001	32
Drainage H	0.01	0	0.01	139
Drainage I	0.004	0	0.004	77
Total*:	**0.42 (Rounded)**	**0.06**	**0.48 (Rounded)**	**6,014**

(GLA, 2022a, Table 5-4)

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

Aside from the SKR HCP and the MSHCP, which are addressed under the analysis of Threshold a., the only other local policies or ordinances protecting biological resources are the Riverside County Oak Tree Management Guidelines and Riverside County Ordinance No. 559 (Regulating the Removal of Trees). As previously indicated in Table 4.4-1, there are no oak trees or vegetation communities containing oak trees within the Study Area. As such, the Project has no potential to result in a conflict with the County's Oak Tree Management Guidelines. Additionally, Riverside County Ordinance No. 559 applies to properties located above 5,000 feet amsl in elevation, while the maximum elevation at the Project site is approximately 1,587 feet amsl; thus, Riverside County Ordinance No. 559 is not applicable to the proposed Project. Accordingly, and aside from potential impacts due to a conflict with the MSHCP (as addressed under the analysis of Threshold a.), the Project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, and no impact would occur.

4.4.5 Cumulative Impact Analysis

The cumulative impact analysis considers development of the Project in conjunction with other development projects located within the purview of the Western Riverside County MSHCP. This study area for cumulatively-considerable impacts to biological resources is appropriate because the MSHCP encompasses a large area surrounding the Project site, and provides for the long-term protection of sensitive plant, animal, and plant communities throughout the MSHCP area. Additionally, most cumulative development projects within the Project vicinity would be subject to the provisions of the MSHCP, and the general range of habitats, species, climate, etc. are fairly consistent throughout the MSHCP.

As discussed under the analysis of Threshold a., the Project would be subject to payment of fees pursuant to Riverside County Ordinance No. 663, which would ensure Project consistency with the SKR HCP. As other cumulative developments also would be subject to compliance with the SKR HCP, Project impacts due to a conflict with the SKR HCP would be less than significant on a cumulatively-considerable basis. The Project would entail the dedication of a minimum of 61.1 acres of land within the northern portions of the Project site to the MSHCP reserve system, which was previously determined to be consistent with the MSHCP Reserve Assembly requirements that apply to the Project site. Although impacts to the MSHCP Reserve Assembly Requirements are anticipated to be less than significant, a significant impact is nonetheless identified because the off-site improvement areas would need to go through the JPR process. As other cumulative developments have the potential to conflict with areas designated for conservation by the MSHCP, the Project's potential impacts due to a conflict with the MSHCP Reserve Assembly requirements would be significant on a cumulatively-considerable basis. The Project would result in impacts to approximately 0.42-acre of riverine and 0.06-acre of riparian areas (a total of 0.48-acre). As other cumulative developments have the potential to result in impacts to riparian/riverine habitat, Project impacts to 0.48-acre of riparian/riverine habitat would be cumulatively considerable. Focused surveys confirmed that MSHCP target NEPSSA and CAPSSA species are absent from the Study Area; thus, Project impacts to narrow endemic plants would be less than significant. The Project would be consistent with the MSHCP UWIG requirements related to drainage, toxics, lighting, noise, invasive species, barriers, and grading/land development; thus, because other cumulative developments also would be required to comply with the UWIG requirements of the MSHCP, impacts due to a conflict with the UWIG would be less than significant on a cumulatively-considerable basis. Although focused surveys determined that the burrowing owl is absent from the Study Area, there is nonetheless a potential for the site to become occupied with burrowing owls prior to construction activities. Other cumulative developments would similarly have the potential to result in impacts to the burrowing owl; thus, Project impacts to the burrowing owl represent a cumulatively-considerable impact prior to mitigation.

As discussed under the analysis of Thresholds b. and c., the Project would not result in any impacts to any special-status plants, and cumulatively-considerable impacts would not occur. Although the Project would result in less-than-significant impacts to most special status animals observed within the Study Area, there is a potential that the site may be occupied by nesting birds prior to the commencement of construction, resulting in potentially significant impacts if construction activities were to occur during the nesting season (February 1 through August 31). Additionally, although not observed during focus surveys within the Study Area, the Study Area nonetheless contains suitable habitat for burrowing owls. MSHCP Objective 6 for burrowing owls requires that pre-construction surveys occur prior to site grading. Thus, the Project has the potential to result in impacts to the burrowing owl. As other cumulative developments within the region also have the potential to result in impacts to nesting birds and the burrowing owl, the Project's impacts would be cumulatively considerable.

As indicated under the analysis of Threshold d., the Study Area does not contain any wildlife nursery sites; thus, cumulatively-considerable impacts to wildlife nursery sites would not occur. The Project Applicant is proposing to conserve a minimum of 61.10 acres of land within the northern portions of the Project site to assist with the assembly of MSHCP Proposed Constrained Linkage 17. This land dedication is consistent with MSHCP requirements and has been approved by the RCA through the JPR and HANS processes. As such, the Project would contribute to the establishment of Proposed Constrained Linkage 17, thereby providing for localized wildlife movement in the local area. Other cumulative developments would similarly be required to

comply with the MSHCP, including the MSHCP Reserve Assembly requirements. Accordingly, Project impacts to wildlife movement corridors would be less-than-cumulatively considerable.

As discussed under the analysis of Threshold e., the proposed Project would permanently impact 0.05-acre of Disturbed Mulefat Scrub. Although this is not considered a sensitive plant community, it has components similar to the Southern Riparian Scrub plant community (Classified as G3-Vunerable by the CNDDB) during construction. The loss of mulefat/riparian habitat must be mitigated pursuant to *Volume I, Section 6.1.2* of the MSHCP. Accordingly, Project impacts to 0.05-acre of Disturbed Mulefat Scrub represent a cumulatively-considerable impact for which mitigation would be required. None of the other vegetation communities to be impacted by Project are considered sensitive vegetation communities under CEQA, and impacts to these vegetation communities would be less than significant on a cumulatively-considerable basis.

As indicated in the analysis of Threshold f., the Project would impact 0.38-acre of Waters of the State under Regional Board jurisdiction, a total of 0.48-acre of CDFW jurisdiction, and a total of 0.48-acres of MSHCP Riparian/Riverine areas. As other cumulative developments within the region also have the potential to impact Regional Board jurisdictional areas, CDFW jurisdictional areas, and/or MSHCP Riparian/Riverine areas, the Project's impacts to jurisdictional areas would be cumulatively considerable.

As indicated under the analysis of Threshold g., aside from the SKR HCP and the MSHCP (which are addressed under the analysis of Threshold a.), the only other local policies or ordinances protecting biological resources are the Riverside County Oak Tree Management Guidelines and Riverside County Ordinance No. 559 (Regulating the Removal of Trees). However, the Study Area does not contain any oak trees that would be subject to the County's Oak Tree Management Guidelines, and Riverside County Ordinance No. 559 applies only to properties located above 5,000 feet amsl. Accordingly, Project impacts due to a conflict with local policies or ordinances protecting biological resources would be less-than-cumulatively considerable.

4.4.6 Significance of Impact Before Mitigation

Threshold a.: Significant Direct and Cumulatively-Considerable Impact. The Project would not conflict with the SKR HCP, and impacts would be less than significant. The Project would not result in a conflict with the MSHCP Reserve Assembly requirements; however, a significant impact is identified because the Project's off-site improvements would be required to go through the JPR process. Project impacts to 0.48 acre of MSCHP riparian/riverine habitat (0.42-acre non-riparian streambed and 0.06-acre riparian streambed) would represent a potential conflict with Section 6.1.2 of the MSHCP, and impacts would therefore be significant. The Project would not result in impacts to narrow endemic plants, and thus would be consistent with Volume I, Section 6.1.3 of the MSHCP. The Project also would be consistent with the MSHCP UWIG requirements related to drainage, toxics, lighting, noise, invasive species, barriers, and grading/land development. Although the Project would not result in impacts to CAPSSA or NEPSSA plant species, and the Study Area does not occur within invertebrate, amphibian, and/or mammal survey areas, there is nonetheless a potential for the site to become occupied with burrowing owls prior to construction activities. This is evaluated as a potentially significant impact for which mitigation, in the form of pre-construction burrowing owl surveys, would be required. Project impacts due to a potential conflict with the MSHCP would be significant on both a direct and cumulatively-considerable basis.

Thresholds b. and c.: Significant Direct and Cumulatively-Considerable Impact. Although the proposed Project would result in impacts to paniculate tarplant, impacts would be less than significant due to the low sensitivity of this species (CNPS 4.2) and because the portions of the Project site proposed for development are heavily disturbed and the onsite population of paniculate tarplant is relatively small. With implementation and coverage of the Project under the MSHCP conservation goals, the Project would not have a significant impact on special-status animal species and impacts would be less than significant. However, the Study Area contains vegetation with the potential to support native nesting birds. The California Fish and Game Code prohibits mortality of native birds, including eggs. Thus, a significant impact could occur to nesting birds if grading or development were to occur during the nesting season (February 1 to August 31). Additionally, although not observed during focus surveys within the Study Area, the Study Area nonetheless contains suitable habitat for burrowing owls. MSHCP Objective 6 for burrowing owls requires that pre-construction surveys occur prior to site grading. Accordingly, prior to mitigation requiring pre-construction surveys, the Project has the potential to result in significant impacts to the burrowing owl.

Threshold d.: Less-than-Significant Impact. The Project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites, and impacts would be less than significant.

Threshold e.: Significant Direct and Cumulatively-Considerable Impact. Implementation of the Project would result in impacts to 0.05-acre of Disturbed Mulefat Scrub, which has components similar to the Southern Riparian Scrub plant community, and is the only sensitive natural community that occurs within the Project site; thus, Project impacts to 0.05 acre of Disturbed Mulefat Scrub would be significant prior to mitigation.

Threshold f.: Significant Direct and Cumulatively-Considerable Impact. The Project would impact 0.38-acre of Waters of the State under Regional Board jurisdiction, 0.48-acre of CDFW jurisdiction, and a total of 0.48-acres of MSHCP Riparian/Riverine areas. Project impacts to jurisdictional areas within the Study Area would be significant prior to mitigation.

Threshold g.: No Impact. Aside from the MSHCP, which is addressed under the analysis of Threshold a., the only other local policies or ordinances protecting biological resources are the Riverside County Oak Tree Management Guidelines and Riverside County Ordinance No. 559 (Regulating the Removal of Trees). However, the Project site does not contain any oak trees subject to the Riverside County Oak Tree Management Guidelines. Additionally, the Project site does not occur at an elevation exceeding 5,000 feet amsl; thus, Riverside County Ordinance No. 559 is not applicable to the proposed Project. Therefore, and aside from potential impacts due to a conflict with the MSHCP (as addressed under the analysis of Threshold a.), the Project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, and no impact would occur.

4.4.7 County Regulations, Design Requirements, and Mitigation

Applicable Regulations and Design Requirements

The following are applicable regulations and design requirements within Riverside County. Although these requirements technically do not meet CEQA's definition for mitigation, they are imposed herein to ensure Project compliance with applicable County regulations and design requirements.

- Prior to issuance of grading permits, the Project Applicant shall make payment of Western Riverside County MSHCP fees pursuant to Riverside County Ordinance No. 810, *Establishing an Interim Open Space Mitigation Fee.*

- Prior to issuance of grading permits, the Project Applicant shall make payment of fees pursuant to the Stephen's Kangaroo Rat Habitat Conservation Plan and Riverside County Ordinance No. 663, *Establishing the Riverside County Stephens' Kangaroo Rat Habitat Conservation Plan and Setting Mitigation Fees*.

- Pursuant to JPR 09-12-14-01 and HANS determination letter HANS 1995, prior to final building inspection the Project Applicant shall provide the Western Riverside County Regional Conservation Authority (RCA) with fee title/ownership and management responsibilities for 61.1 acres of proposed Conservation Area located within Planning Area 10 of proposed Specific Plan No. 380, Amendment No. 1.

Mitigation Measures

MM 4.4-1 Prior to issuance of grading permits or other permits authorizing ground disturbance (e.g., vegetation clearing, clearing and grubbing, tree removal, site watering, equipment staging), the Project Applicant shall provide evidence to Riverside County that impacts to 0.38-acre of Regional Board Waters of the State and 0.48-acre of CDFW jurisdiction and MSHCP Riparian/Riverine areas (inclusive of impacts to 0.05 acre of Disturbed Mulefat Scrub), have been mitigated in accordance with the Project's Determination of Biologically Equivalent or Superior Mitigation (DBESP), dated March 22, 2022 and included as *Technical Appendix C2* to this EIR. The Project's DBESP requires mitigation for impacts to 0.38-acre of Regional Board jurisdiction and 0.48-acre of CDFW jurisdiction and MSHCP Riparian/Riverine areas at a minimum 3:1 ratio (mitigation:impact) as follows:

- The purchase of 0.76-acre of re-establishment credits at the San Luis Rey Mitigation Bank (for Regional Board impacts only);
- The purchase of 0.48-acre of preservation credits at the Barry Jones Mitigation Bank (for both Regional Board and CDFW impacts);
- The purchase of 0.48-acre of rehabilitation credits at the Riverpark Mitigation Bank (for CDFW impacts only); and
- The purchase of 0.48 acre of re-establishment credits at the Riverpark Mitigation Bank (for CDFW impacts only).

Should compensatory mitigation credits be unavailable at the Riverpark Mitigation Bank, San Luis Rey Mitigation Bank, and/or Barry Jones/Skunk Hollow Mitigation Bank, the Project Applicant shall coordinate with the regulatory agencies, Riverside County, and MSHCP Wildlife Agencies to secure alternate mitigation totaling a minimum of 2.2 acres at another approved mitigation bank or in-lieu fee program.

MM 4.4-2 In accordance with MSHCP Objective 6, prior to issuance of grading permits or other permits authorizing ground disturbance (e.g., vegetation clearing, clearing and grubbing, tree removal, site watering, equipment staging), the Project Applicant shall retain a qualified biologist to perform a burrowing owl survey at all potentially suitable habitat sites within the Project's limits of disturbance within 30 days of the commencement of any ground-disturbing activities at the Project site, as discussed below.

- Pre-Construction Survey: The pre-construction survey shall be performed by a qualified biologist that will survey the site for the presence/absence of burrowing owls within 30 days prior to commencement of ground-disturbing activities at the Project site. If burrowing owls are detected on-site during the pre-construction survey, the owls shall be relocated/excluded from the site outside of the breeding season following accepted protocols, and subject to the approval of the RCA and Wildlife Agencies (i.e., CDFW and/or USFWS).
- Burrowing Owl Management Plan: In the event that burrowing owl is determined to be present, or in the event that an assumption is made that the burrowing owl occurs on-site, a burrowing owl management plan shall be prepared and implemented in coordination with the Western Riverside County Regional Conservation Authority (RCA) and CDFW that shall detail the relocation of owls from the Project site, passively and/or actively. If additional site visits determine the species is absent, then the pre-construction survey (as discussed above) shall instead be implemented.

A copy of the results of the pre-construction survey (and all additional surveys), as well as copies of the Burrowing Owl Management Plan, if required, shall be provided to the County of Riverside Planning Department for review and approval (in the case of the Burrowing Owl Management Plan) prior to any vegetation clearing and ground disturbance activities.

MM 4.4-3 Prior to the issuance of grading permits, Riverside County shall ensure that the following note is included on the Project's grading plans. Project contractors shall be required to ensure compliance with this note and permit periodic inspection of the construction site by Riverside County staff or its designee to confirm compliance. This note also shall be specified in bid documents issued to prospective construction contractors.

> *"Vegetation clearing shall be conducted outside of the bird nesting season (February 1 to August 31) to the extent feasible. If avoidance of the nesting season is not feasible, a nesting bird survey shall be conducted by a qualified biologist within no more than 72 hours of such scheduled disturbance, to determine the presence of nests or nesting birds. If active nests are identified, the biologist shall establish appropriate buffers around the vegetation (typically 500 feet for raptors and sensitive species, 300 feet for non-raptors/non-sensitive species). All work within these buffers shall be halted until the nesting effort is finished (i.e., the juveniles are surviving independent from the nest). The biologist shall review and verify compliance with these nesting boundaries and shall verify the nesting effort has finished. Work may resume within the buffer area*

when no other active nests are found. Alternatively, a qualified biologist may determine that construction can be permitted within the buffer areas and would develop a monitoring plan to prevent any impacts while the nest continues to be active (eggs, chicks, etc.). Upon completion of the survey and any follow-up construction avoidance management, a report shall be prepared and submitted to Riverside County for mitigation monitoring compliance record keeping. If vegetation removal is not completed within 72 hours of a negative survey during nesting season, the nesting survey must be repeated to confirm the absence of nesting birds."

MM 4.4-4 Prior to approval of improvement plans for Project-related off-site improvements, the Project Applicant shall provide a copy of the approved MSHCP-required Joint Project Review (JPR). If it is determined that a JPR is not required for Project-related off-site improvements, the Project Applicant shall provide proof that the Regional Conservation Authority has determined that a JPR is not required.

4.4.8 Significance of Impacts After Mitigation

Threshold a.: Less-than-Significant Impact with Mitigation Incorporated. Implementation of Mitigation Measure MM 4.4-4 would ensure that Project-related off-site improvements are subject to the JPR process, if required. Implementation of Mitigation Measure MM 4.4-1 would require compensatory mitigation for Project impacts to 0.48 acres of MSCHP Riparian/Riverine habitat at a minimum 3:1 ratio, which would ensure Project consistency with Section 6.1.2 of the MSHCP. In addition, implementation of Mitigation Measure MM 4.4-2 would ensure that appropriate pre-construction surveys are conducted prior to ground disturbing activities, in accordance with MSHCP Objective 6 for the burrowing owl. With implementation of the required mitigation, the Project would be fully consistent with all applicable MSHCP requirements, and impacts would be reduced to below a level of significance.

Thresholds b. and c.: Less-than-Significant Impact with Mitigation Incorporated. In the event that Project construction activities occur during the nesting season for birds (February 1 to August 31), Mitigation Measure MM 4.4-3 would ensure pre-construction nesting surveys are conducted prior to commencement of construction activities, and further requires appropriate avoidance of any active nests that may be identified. Implementation of the required mitigation would reduce Project impacts to nesting birds to below a level of significance. In addition, implementation of Mitigation Measure MM 4.4-2 would ensure that appropriate pre-construction surveys are conducted prior to ground disturbing activities, in accordance with MSHCP Objective 6 for the burrowing owl. With implementation of the required mitigation, Project impacts to the burrowing owl would be reduced to below a level of significance.

Threshold e.: Less-than-Significant Impact with Mitigation Incorporated. Implementation of Mitigation Measure MM 4.4-1 would require compensatory mitigation for Project impacts to 0.05 acre of Disturbed Mulefat Scrub at a minimum 3:1 ratio, and would reduce Project impacts to below a level of significance.

Threshold f.: Less-than-Significant Impact with Mitigation Incorporated. Implementation of Mitigation Measures MM 4.4-1 and MM 4.4-4 would require compensatory mitigation at a minimum 3:1 ratio for Project impacts to 0.48 acre of CDFW jurisdiction, 0.48 acre of MSHCP Riparian/Riverine areas, and 0.38 acre of

Waters of the State under Regional Board jurisdiction. Implementation of the required mitigation would reduce Project impacts to below a level of significance.

4.5 CULTURAL RESOURCES

The analysis in this subsection is based on a site-specific Cultural Resources Assessment (herein, "CRA") prepared by Brian F. Smith and Associates ("BFSA"), entitled "A Phase I Cultural Resources Assessment for the Renaissance Ranch Project," dated November 3, 2021, and included as *Technical Appendix D* to this EIR (BFSA, 2021a). All references used in this Subsection are included in EIR Section 7.0, *References*. It should be noted that confidential information has been redacted from *Technical Appendix D* for purposes of public review. In addition, much of the written and oral communication between Native American tribes, the County of Riverside, and BFSA is considered confidential in respect to places that have traditional tribal cultural significance (Gov. Code § 65352.4), and although relied upon in part to inform the preparation of this EIR Subsection, those communications are treated as confidential and are not available for public review. Under existing law, environmental documents must not include information about the location of archeological sites or sacred lands or any other information that is exempt from public disclosure pursuant to the Public Records Act (Cal. Code Regs. § 15120(d)).

4.5.1 EXISTING CONDITIONS

A. *Prehistoric and Historic Setting*

Paleo Indian, Archaic Period Milling Stone Horizon, and the Late Prehistoric Takic groups are the three general cultural periods represented in Riverside County. The following discussion of the cultural history of Riverside County references the San Dieguito Complex, Encinitas Tradition, Milling Stone Horizon, La Jolla Complex, Pauma Complex, and San Luis Rey Complex, since these culture sequences have been used to describe archaeological manifestations in the region. The Late Prehistoric component present in the Riverside County area was primarily represented by the Cahuilla, Gabrielino, and Luiseño Indians. (BFSA, 2021a, p. 2.0-8)

1. Paleo Indian Period (Late Pleistocene)

Archaeologically, the Paleo Indian Period is associated with the terminus of the late Pleistocene (12,000 to 10,000 Years Before Present [YBP]). The environment during the late Pleistocene was cool and moist, which allowed for glaciation in the mountains and the formation of deep, pluvial lakes in the deserts and basin lands. However, by the terminus of the late Pleistocene, the climate became warmer, which caused the glaciers to melt, sea levels to rise, greater coastal erosion, large lakes to recede and evaporate, extinction of Pleistocene megafauna, and major vegetation changes. The coastal shoreline at 10,000 YBP, depending upon the particular area of the coast, was near the 30-meter isobath, or two to six kilometers further west than its present location. (BFSA, 2021a, p. 2.0-8)

Paleo Indians were likely attracted to multiple habitat types, including mountains, marshlands, estuaries, and lakeshores. These people likely subsisted using a more generalized hunting, gathering, and collecting adaptation utilizing a variety of resources including birds, mollusks, and both large and small mammals. (BFSA, 2021a, p. 2.0-8)

2. Archaic Period (Early and Middle Holocene: circa 9,000 to 1,300 YBP)

Archaeological data indicates that between 9,000 and 8,000 YBP, a widespread complex was established in the southern California region, primarily along the coast. This complex is locally known as the La Jolla Complex, which is regionally associated with the Encinitas Tradition and shares cultural components with the

widespread Milling Stone Horizon. The coastal expression of this complex appeared in southern California coastal areas and focused upon coastal resources and the development of deeply stratified shell middens that were primarily located around bays and lagoons. The older sites associated with this expression are located at Topanga Canyon, Newport Bay, Agua Hedionda Lagoon, and some of the Channel Islands. Radiocarbon dates from sites attributed to this complex span a period of over 7,000 years in this region, beginning over 9,000 YBP. (BFSA, 2021a, pp. 2.0-8 to 2.0-9)

The Encinitas Tradition is best recognized for its pattern of large coastal sites characterized by shell middens, grinding tools that are closely associated with the marine resources of the area, cobble-based tools, and flexed human burials. While ground stone tools and scrapers are the most recognized tool types, coastal Encinitas Tradition sites also contain numerous utilized flakes, which may have been used to pry open shellfish. Artifact assemblages at coastal sites indicate a subsistence pattern focused upon shellfish collection and nearshore fishing. This suggests an incipient maritime adaptation with regional similarities to more northern sites of the same period. Other artifacts associated with Encinitas Tradition sites include stone bowls, doughnut stones, discoidals, stone balls, and stone, bone, and shell beads. (BFSA, 2021a, p. 2.0-9)

The coastal lagoons in southern California supported large Milling Stone Horizon populations circa 6,000 YBP, as is shown by numerous radiocarbon dates from the many sites adjacent to the lagoons. The ensuing millennia were not stable environmentally, and by 3,000 YBP, many of the coastal sites in central San Diego County had been abandoned. The abandonment of the area is usually attributed to the sedimentation of coastal lagoons and the resulting deterioration of fish and mollusk habitat. This is a well-documented situation at Batiquitos Lagoon, where over a two-thousand-year period, dominant mollusk species occurring in archaeological middens shift from deep-water mollusks (*Argopecten* sp.) to species tolerant of tidal flat conditions (*Chione* sp.), indicating water depth and temperature changes. (BFSA, 2021a, p. 2.0-9)

This situation likely occurred for other small drainages (Buena Vista, Agua Hedionda, San Marcos, and Escondido creeks) along the central San Diego coast where low flow rates did not produce sufficient discharge to flush the lagoons they fed (Buena Vista, Agua Hedionda, Batiquitos, and San Elijo lagoons). Drainages along the northern and southern San Diego coastline were larger and flushed the coastal hydrological features they fed, keeping them open to the ocean and allowing for continued human exploitation. Peñasquitos Lagoon exhibits dates as late as 2,355 YBP and San Diego Bay showed continuous occupation until the close of the Milling Stone Horizon. Additionally, data from several drainages in Camp Pendleton indicate a continued occupation of shell midden sites until the close of the period, indicating that coastal sites were not entirely abandoned during this time. (BFSA, 2021a, p. 2.0-9)

By 5,000 YBP, an inland expression of the La Jolla Complex is evident in the archaeological record, exhibiting influences from the Campbell Tradition from the north. These inland Milling Stone Horizon sites have been termed “Pauma Complex.” By definition, Pauma Complex sites share a predominance of grinding implements (manos and metates), lack mollusk remains, have greater tool variety (including atlatl dart points, quarry-based tools, and crescentics), and seem to express a more sedentary lifestyle with a subsistence economy based upon the use of a broad variety of terrestrial resources. Although originally viewed as a separate culture from the coastal La Jolla Complex, it appears that these inland sites may be part of a subsistence and settlement system utilized by the coastal peoples. Evidence from the 4S Project in inland San Diego County suggests that these inland sites may represent seasonal components within an annual subsistence round by La Jolla Complex

populations. Including both coastal and inland sites of this time period in discussions of the Encinitas Tradition, therefore, provides a more complete appraisal of the settlement and subsistence system exhibited by this cultural complex. (BFSA, 2021a, p. 2.0-10)

Refer to subsection 2.3.3 of EIR *Technical Appendix D* for a complete description of the Archaic Period.

3. Late Prehistoric Period (Late Holocene: 1,300 YBP to 1790)

Many Luiseño hold the world view that as a population they were created in southern California. Archaeological and anthropological data, however, proposes a scientific/archaeological perspective, suggesting that at approximately 1,350 YBP, Takic-speaking groups from the Great Basin region moved into Riverside County, marking the transition to the Late Prehistoric Period. An analysis of the Takic expansion indicates that inland southern California was occupied by "proto-Yuman" populations before 1,000 YBP. As a result, it is believed that Takic expansion occurred starting around 3,500 YBP moving toward southern California, with the Gabrielino language diffusing south into neighboring Yuman (Hokan) groups around 1,500 to 1,000 YBP, possibly resulting in the Luiseño dialect. (BFSA, 2021a, p. 2.0-11)

The final Takic expansion would not have occurred until about 1,000 YBP, resulting in Vanyume, Serrano, Cahuilla, and Cupeño dialects. Evidence suggests that the Luiseño did not simply replace Hokan speakers, but were rather a northern San Diego County/southern Riverside County Yuman population who adopted the Takic language. This period is characterized by higher population densities and elaborations in social, political, and technological systems. Economic systems diversified and intensified during this period with the continued elaboration of trade networks, the use of shell-bead currency, and the appearance of more labor-intensive, yet effective, technological innovations. Technological developments during this period included the introduction of the bow and arrow between A.D. 400 and 600 and the introduction of ceramics. Atlatl darts were replaced by smaller arrow darts, including Cottonwood series points. Other hallmarks of the Late Prehistoric Period include extensive trade networks as far-reaching as the Colorado River Basin and cremation of the dead. (BFSA, 2021a, pp. 2.0-11 to 2.0-12)

4. Protohistoric Period (Late Holocene: 1790 to Present)

Ethnohistoric and ethnographic evidence indicates that three Takic-speaking groups occupied portions of Riverside County: the Cahuilla, the Gabrielino, and the Luiseño. The geographic boundaries between these groups in pre- and proto-historic times are difficult to place, but the Project site is located well within the borders of ethnographic Luiseño territory. This group was a seasonal hunting and gathering people with cultural elements that were very distinct from Archaic Period peoples. These distinctions include cremation of the dead, the use of the bow and arrow, and exploitation of the acorn as a main food staple. Along the coast, the Luiseño made use of available marine resources by fishing and collecting mollusks for food. Seasonally available terrestrial resources, including acorns and game, also were sources of nourishment for Luiseño groups. Elaborate kinship and clan systems between the Luiseño and other groups facilitated a wide-reaching trade network that included trade of Obsidian Butte obsidian and other resources from the eastern deserts, as well as steatite from the Channel Islands. (BFSA, 2021a, p. 2.0-12)

The primary settlements of Late Prehistoric Luiseño Indians in the San Jacinto Plain were represented by Ivah and Soboba near Soboba Springs, Jusipah near the town of San Jacinto, Ararah in Webster's Canyon en route to Idyllwild, Pahsitha near Big Springs Ranch southeast of Hemet, and Corova in Castillo Canyon. These

locations share features such as the availability of food and water resources. Features of this land use include petroglyphs and pictographs, as well as widespread milling, which is evident in bedrock and portable implements. Groups in the vicinity of the project, neighboring the Luiseño, include the Cahuilla and the Gabrielino. Ethnographic data for the three groups is presented in subsection 2.3.5 of the Project's CRA (*Technical Appendix D*). (BFSA, 2021a, p. 2.0-12)

5. Ethnohistoric Period (1769 to Present)

Traditionally, the history of the state of California has been divided into three general periods: the Spanish Period (1769 to 1821), the Mexican Period (1822 to 1846), and the American Period (1848 to present). The American Period is often further subdivided into additional phases: the nineteenth century (1848 to 1900), the early twentieth century (1900 to 1950), and the Modern Period (1950 to present). From an archaeological standpoint, all of these phases can be referred to together as the Ethnohistoric Period. This provides a valuable tool for archaeologists, as ethnohistory is directly concerned with the study of indigenous or non-Western peoples from a combined historical/anthropological viewpoint, which employs written documents, oral narrative, material culture, and ethnographic data for analysis. (BFSA, 2021a, p. 2.0-19)

European exploration along the California coast began in 1542 with the landing of Juan Rodriguez Cabrillo and his men at San Diego Bay. Sixty years after the Cabrillo expeditions, an expedition under Sebastian Viscaíno made an extensive and thorough exploration of the Pacific coast. Although the voyage did not extend beyond the northern limits of the Cabrillo track, Viscaíno had the most lasting effect upon the nomenclature of the coast. Many of his place names have survived, whereas practically every one of the names created by Cabrillo have faded from use. For instance, Cabrillo named the first (now) United States port he stopped at "San Miguel"; 60 years later, Viscaíno changed it to "San Diego." The early European voyages observed Native Americans living in villages along the coast but did not make any substantial, long-lasting impact. At the time of contact, the Luiseño population was estimated to have ranged from 4,000 to as many as 10,000 individuals. (BFSA, 2021a, p. 2.0-19)

Up until this time, the only known way to feasibly travel from Sonora to Alta California was by sea. In 1774, Juan Bautista de Anza, an army captain at Tubac, requested and was given permission by the governor of the Mexican State of Sonora to establish an overland route from Sonora to Monterey. In doing so, Juan Bautista de Anza passed through Riverside County and described the area in writing for the first time. In 1797, Father Presidente Lausen (of Mission San Diego de Alcalá), Father Norberto de Santiago, and Corporal Pedro Lisalde (of Mission San Juan Capistrano) led an expedition through southwestern Riverside County in search of a new mission site to establish a presence between San Diego and San Juan Capistrano. Their efforts ultimately resulted in the establishment of Mission San Luis Rey in Oceanside, California. (BFSA, 2021a, p. 2.0-19)

These early colonization efforts were followed by the establishment of estancias at Puente (circa 1816) and San Bernardino (circa 1819) near Guachama. These efforts were soon mirrored by the Spaniards from Mission San Luis Rey, who in turn established a presence in what is now Lake Elsinore, Temecula, and Murrieta. The indigenous groups who occupied these lands were recruited by missionaries, converted, and put to work in the missions. Throughout this period, the Native American populations were decimated by introduced diseases, a drastic shift in diet resulting in poor nutrition, and social conflicts due to the introduction of an entirely new social order. (BFSA, 2021a, p. 2.0-20)

Mexico achieved independence from Spain in 1822 and became a federal republic in 1824. As a result, both Baja and Alta California became classified as territories. Shortly thereafter, the Mexican Republic sought to grant large tracts of private land to its citizens to begin to encourage immigration to California and to establish its presence in the region. Part of the establishment of power and control included the desecularization of the missions circa 1832. These same missions were also located on some of the most fertile land in California and, as a result, were considered highly valuable. The resulting land grants, known as "ranchos," covered expansive portions of California and by 1846, more than 600 land grants had been issued by the Mexican government. Rancho Jurupa was the first rancho to be established and was issued to Juan Bandini in 1838. Although Bandini primarily resided in San Diego, Rancho Jurupa was located in what is now Riverside County. A review of Riverside County place names quickly illustrates that many of the ranchos in Riverside County lent their names to present-day locations, including Jurupa, El Rincon, La Sierra, El Sobrante de San Jacinto, La Laguna (Lake Elsinore), Santa Rosa, Temecula, Pauba, San Jacinto Nuevo y Potrero, and San Jacinto Viejo. As was typical of many ranchos, these were all located in the valley environments within western Riverside County. (BFSA, 2021a, p. 2.0-20)

Native American culture had been disrupted to the point where they could no longer rely upon prehistoric subsistence and social patterns. Not only does this illustrate how dependent the Native Americans had become upon the missionaries, but it also indicates a marked contrast in the way the Spanish treated the Native Americans compared to the Mexican and United States ranchers. Spanish colonialism (missions) is based upon utilizing human resources while integrating them into their society. The Mexican and American ranchers did not accept Native Americans into their social order and used them specifically for the extraction of labor, resources, and profit. Rather than being incorporated, they were either subjugated or exterminated. (BFSA, 2021a, p. 2.0-21)

By 1846, tensions between the United States and Mexico had escalated to the point of war. In order to reach a peaceful agreement, the Treaty of Guadalupe Hidalgo was put into effect in 1848, which resulted in the annexation of California to the United States. Once California opened to the United States, waves of settlers moved in searching for gold mines, business opportunities, political opportunities, religious freedom, and adventure. By 1850, California had become a state and was eventually divided into 27 separate counties. While a much larger population was now settling in California, this was primarily in the central valley, San Francisco, and the Gold Rush region of the Sierra Nevada mountain range. During this time, southern California grew at a much slower pace than northern California and was still dominated by the cattle industry that was established during the earlier rancho period. However, by 1859, the first United States Post Office in what would eventually become Riverside County was set up at John Magee's store on the Temecula Rancho. (BFSA, 2021a, p. 2.0-21)

With the completion of the Southern Pacific Railroad in 1869, southern California saw its first major population expansion. The population boom continued circa 1874 with the completion of connections between the Southern Pacific Railroad in Sacramento to the transcontinental Central Pacific Railroad in Los Angeles. The population influx brought farmers, land speculators, and prospective developers to the region. As the Jurupa area became more and more populated, circa 1870, Judge John Wesley North and a group of associates founded the city of Riverside on part of the former rancho. (BFSA, 2021a, p. 2.0-22)

Although the first orange trees were planted in Riverside County circa 1871, it was not until a few years later when a small number of Brazilian navel orange trees were established that the citrus industry truly began in the region. The Brazilian navel orange was well suited to the climate of Riverside County and thrived with assistance from several extensive irrigation projects. At the close of 1882, an estimated half a million citrus trees were present in California. It is estimated that nearly half of that population was in Riverside County. Population growth and 1880s tax revenue from the booming citrus industry prompted the official formation of Riverside County in 1893 out of portions of what was once San Bernardino County. (BFSA, 2021a, p. 2.0-22)

Shortly thereafter, with the start of World War I, the United States began to develop a military presence in Riverside County with the construction of March Air Reserve Base. During World War II, Camp Haan and Camp Anza were constructed in what is now the current location of the National Veteran's Cemetery. In the decades that followed, populations spread throughout the county into Lake Elsinore, Corona, Norco, Murrieta, and Wildomar. However, a significant portion of the county remained largely agricultural well into the 1970s. Following the 1970s, Riverside saw a period of dramatic population increase as the result of new development, more than doubling the population of the county with a population of over 1.3 million residents. (BFSA, 2021a, p. 2.0-22)

B. Methods

The archaeological program for the proposed Project consisted of institutional records searches, intensive pedestrian surveys of the on-site Project area and off-site improvement locations by qualified archaeologists, and preparation of a technical report. The Project's archaeological study conforms to the Riverside County Cultural Resource Guidelines (Draft) and the statutory requirements of CEQA. Specific definitions for archaeological resource type(s) used in this report are those established by the State Historic Preservation Office (SHPO). (BFSA, 2021a, p. 3.0-1)

C. Results

Provided below is a summary of the results of the Project's CRA (*Technical Appendix D*). Refer to Section 4.0 of the CRA for a complete description of the results of the cultural resources investigation.

1. Archaeological Records Search Result

An archaeological records search for the on-site and off-site Project areas and the surrounding area was requested from the Eastern Information Center (EIC) at the University of California, Riverside (UCR) on March 26 and May 3, 2021 (Appendix C of the Project's CRA, included as EIR *Technical Appendix D*). However, due to the limitations imposed by the evolving circumstances related to the COVID-19 pandemic, records search access has become limited and the results are only partially complete. Further limited records search data for the project was also gleaned from previous studies conducted by PCR Services Corporation (PCR). (BFSA, 2021a, p. 4.0-1)

The search results identified 16 cultural resources surrounding the on-site and off-site Project areas, one of which (P-33-011258) partially overlaps the Project site (refer also to Table 4.1–1 of the Project's CRA, included as EIR *Technical Appendix D*). In total these resources include two historic sites (site forms not provided by EIC), one historic refuse scatter, two historic single-family residences, two historic road segments,

five prehistoric sites (site forms not provided by EIC), two prehistoric bedrock milling feature sites, one historic prospect pit, and one historic culvert. (BFSA, 2021a, p. 4.0-1)

The records search results also indicate that 55 studies have been conducted surrounding the on-site and off-site Project areas (see Table 4.1–2 in Appendix E of the Project's CRA, included as EIR *Technical Appendix D*). The primary reports concerning the property are the studies conducted by PRC in 2009 and 2010. As the text from these studies was available, it was used to help facilitate more accurate records search results. (BFSA, 2021a, p. 4.0-2)

PRC indicates that in 2009, 21 cultural resource studies had been conducted within a one-mile radius of the Project area. These studies were conducted from 1978 to 2005 and encompassed approximately 50 percent of the one-mile search radius around the Project site. In addition, PCR indicates that in 2009, 33 cultural sites had been recorded within the one-mile radius of the Project, including 26 prehistoric sites, one prehistoric isolate, and six historic-period sites. The 26 prehistoric sites were noted as being mainly comprised of bedrock milling features, but also include a quarry, lithic scatters, a prehistoric isolate, and prehistoric rock features. The historic-period sites include a single-family residence, wall/fence/cistern/structural pads, a shack, a refuse scatter, and a prospect pit. One of these sites, P-33-011258 (a historic refuse scatter) was previously recorded within the current on-site Project area. Review of historic aerial imagery and historic United States Geologic Service (USGS) maps revealed that the Project site and vicinity remained relatively undeveloped through the historic period. (BFSA, 2021a, p. 4.0-2)

PRC indicates that in 2010, 40 cultural resource studies had been conducted within a one-mile radius of the current off-site improvement areas. Many of these reports likely overlap studies identified in the 2009 records search. An additional 60 resources (prehistoric and historic) were identified within a one-mile radius of the off-site areas, many of which likely overlap with the 2009 data. The 2010 PRC study identified Site P-33-017628 (two isolate metate fragments) within the off-site improvement areas in close proximity to Pourroy Road; however, this offsite improvement is no longer part of the proposed Project. The PRC records search also identified Site P-33-014370, a prehistoric archaeological district, that was recorded as partially overlapping the offsite roadway improvement area at the intersection of Winchester Road (SR 79) and Domenigoni Parkway. (BFSA, 2021a, p. 4.0-2)

BFSA also reviewed the following sources to help facilitate a better understanding of the historic use of the property: (BFSA, 2021a, p. 4.0-2)

- The National Register of Historic Places (NRHP) index
- Historic USGS data
- Historic aerial photographs (1938, 1967, 1978, 1996, 2002, and 2005)

These sources did not indicate the presence of any additional archaeological resources within the Project site or off-site improvement areas. However, for background research, the absence of positive results does not necessarily indicate the absence of resources. When available, the EIC records search may still indicate the presence of additional recorded sites within or in the vicinity of the Project. (BFSA, 2021a, p. 4.0-2)

BFSA also requested a Sacred Lands File (SLF) search from the Native American Heritage Commission (NAHC) to determine if any recorded Native American sacred sites or locations of religious or ceremonial importance are present within one mile of the Project site. The NAHC SLF search did not indicate the presence of sacred sites or locations of religious or ceremonial importance within the search radius. In accordance with the recommendations of the NAHC, BFSA contacted all Native American consultants listed in the NAHC response letter at least two weeks prior to the initiation of the field survey. (BFSA, 2021a, pp. 4.0-2 to 4.0-3)

A response was received from the Cahuilla Band of Indians during the two-week interim period, who requested that a tribal monitor be present for all ground-disturbing activities, including the survey, and to be notified of Project updates. BFSA directly contacted BobbyRay Esparza, Cultural Coordinator for the Cahuilla Band and a representative from the tribe, who was invited to voluntarily participate in the survey of the property. (BFSA, 2021a, p. 4.0-3)

After the two-week interim period, responses were received from the Quechan Historic Preservation Officer, who defers to other tribes in the area; the Rincon Band of Luiseño Indians, who indicated that although they do not have knowledge of cultural resources in the Project area, they recommended that an archaeological records search be conducted and that a copy of the results be provided to the Rincon Band; and the Agua Caliente Band of Cahuilla Indians, who indicated that the Project area is not located within the boundaries of their reservation, but it is within their Traditional Use Area. Agua Caliente did not indicate, however, if they had any knowledge of sites within the project. All correspondence is provided in Appendix D of the Project's CRA, included as EIR *Technical Appendix D*. (BFSA, 2021a, p. 4.0-3)

2. Results of the Field Survey

An archaeological survey of the Project site and the Project's proposed off-site improvement areas was completed on April 13, May 10, and October 22, 2021 by BFSA. Aerial photographs, maps, and a compass permitted orientation and location of Project boundaries. The entire property, including the off-site areas, were surveyed in five- to 15-meter spaced transects. A survey form, field notes, and photographs documented the survey work undertaken. (BFSA, 2021a, p. 4.0-3)

❑ On-Site Survey Results

The archaeological survey for the on-site portion of the Project was conducted on April 13, 2021. The Project site is characterized as rural agricultural land crossed by dirt access roads, with rolling hills and higher elevations in the northeast, east, and north-central areas. Historically, the majority of the Project site has been utilized for dry wheat farming, with the remainder supporting native/naturalized vegetation. Currently a high frequency of non-native grassland and Riversidean sage scrub occurs in the northeastern portion of the property, with smaller patches surrounding the on-site knolls. Two small patches of mulefat scrub occur in the southwest corner and small pockets of herbaceous wetland occur along a drainage in the northeast portion. (BFSA, 2021a, p. 4.0-3)

During the survey, previously recorded historic Site P-33-011258 was relocated and a historic concrete wildlife guzzler (Temp-1) was identified within the Project site. Site P-33-011258 was recorded in 2001 as a concentration of miscellaneous historic objects covering an area measuring approximately 10 meters in diameter. Cultural materials identified as part of the refuse scatter included graniteware, a wash basin, cans,

glass, sheet metal, fencing, wire, and farm machinery. Given the low frequency of materials, the site appears to be a single-episode dumping location. Further analysis of Site P-33-011258 in 2009 evaluated the resource as not significant and not eligible for listing on the California Register of Historical Resources (CRHR). The current surface review of P-33-011258 indicates that little has changed since the initial recording of the site. (BFSA, 2021a, p. 4.0-6)

Site Temp-1 was identified as a historic concrete wildlife guzzler constructed between 1938 and 1967 (based upon historic aerial photographs). In general, a "guzzler" is a term used for artificial water catchments for terrestrial wildlife. The term was originally coined in 1943 as "gallinaceous guzzler" by Ben Glading, who, at the time, was head of the California Department of Fish and Game (now the California Department of Fish and Wildlife [CDFW]). The guzzler was seen as a solution to the absence of available surface water for small game species in many parts of California. At the time, the CDFW made a major effort to develop water for gallinaceous birds, especially California quail (*Lophortyx californica*), mourning dove (*Zenaidura macroura*), and the introduced chukar partridge (*Alectoris chukar*). The CDFW would continue to do so over the next several decades. Across private property, guzzlers were often used to make up for the loss of available surface water caused by the presence of livestock. In general, a guzzler consists of an apron for collecting precipitation, a tank to store it in, and access to the water by different-sized wildlife species. Smaller guzzlers, such as the one identified at Temp-1, were often constructed to primarily serve wild avian populations. (BFSA, 2021a, p. 4.0-6)

The guzzler identified at Temp-1 is largely intact and consists of a shallow concrete water catchment basin that feeds directly into a concrete cistern with a domed roof. A small entry point can be seen on the southern portion of the cistern with vertical metal bars to prevent access by larger predators. The guzzler itself consists of a cylindrical cement tank that partially extends underground. The top of the tank is slightly convex and measures three by six feet. The opening to the north, which would allow wildlife to access the water reserves, measures approximately four feet wide and one foot high at its highest point. A fractured concrete pad that serves as a means of water collection for the guzzler connects to the tank at the west corner and measures 22 feet north/south and 23 feet east/west. No visible markings are present on the guzzler that might suggest age of construction, although the top is marked "E-71." However, this is not likely a construction date since historic aerial photographs indicate the presence of the guzzler prior to 1967. (BFSA, 2021a, p. 4.0-6)

Due to the nature of the historic feature associated with Site Temp-1 and the lack of additional cultural constituents related to the feature, no subsurface testing was conducted at the site. The documentation of this site has exhausted any further research potential. Site Temp-1 contains no additional research value, has no associated cultural materials, is not clearly associated with any historically noteworthy individuals or events, and, therefore, does not meet the significance criteria thresholds provided in CEQA and is not considered eligible for listing on the CRHR. No additional archaeological study is recommended for the resources within the Project site. (BFSA, 2021a, p. 4.0-9)

❑ Off-Site Survey Results

The archaeological survey for the off-site portion of the project was conducted on May 10 and October 22, 2021. The off-site survey areas included locations for archaeological review along Keller Road between Leon Road and Washington Street; a portion of Winchester Road (SR 79) between Scott Road and Keller Road; a portion of Pourroy Road between Winchester Road (SR 79) and Via Curtidor; and a small section of

Winchester Road (SR 79) at La Alba Drive. Based upon the 2009 and 2010 PCR studies and records search data, no cultural resources were previously identified within the off-site project area alignments. Further, no additional resources were identified as a result of the survey program for the proposed off-site improvement areas. (BFSA, 2021a, pp. 4.0-9 to 4.0-10)

4.5.2 Applicable Environmental Regulations

A. Federal Regulations

1. National Register of Historic Places (NRHP)

The National Register of Historic Places is the official list of the Nation's historic places worthy of preservation. Authorized by the NHPA of 1966, the NPS's National Register of Historic Places (NRHP) is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect America's historic and archaeological resources. (NPS, n.d.)

To be considered eligible, a property must meet the National Register Criteria for Evaluation. This involves examining the property's age, integrity, and significance, as follows:

- Age and Integrity. Is the property old enough to be considered historic (generally at least 50 years old) and does it still look much the way it did in the past?

- Significance. Is the property associated with events, activities, or developments that were important in the past? With the lives of people who were important in the past? With significant architectural history, landscape history, or engineering achievements? Does it have the potential to yield information through archaeological investigation about our past? (NPS, n.d.)

Nominations can be submitted to a SHPO from property owners, historical societies, preservation organizations, governmental agencies, and other individuals or groups. The SHPO notifies affected property owners and local governments and solicits public comment. If the owner (or a majority of owners for a district nomination) objects, the property cannot be listed but may be forwarded to the NPS for a Determination of Eligibility (DOE). Listing in the NRHP provides formal recognition of a property's historical, architectural, or archaeological significance based on national standards used by every state. (NPS, n.d.)

Under Federal Law, the listing of a property in the National Register places no restrictions on what a non-federal owner may do with their property up to and including destruction, unless the property is involved in a project that receives Federal assistance, usually funding or licensing/permitting. National Register listing does not lead to public acquisition or require public access. (NPS, n.d.)

2. National Historic Landmarks Program

National Historic Landmarks (NHLs) are nationally significant historic places designated by the Secretary of the Interior because they possess exceptional value or quality in illustrating or interpreting the heritage of the United States. Today, over 2,600 historic places bear this national distinction. Working with citizens throughout the nation, the NHL Program draws upon the expertise of NPS staff who guide the nomination process for new Landmarks and provide assistance to existing Landmarks. (NPS, n.d.)

3. *American Indian Religious Freedom Act*

The American Indian Religious Freedom Act (AIRFA) requires each executive branch agency with statutory or administrative responsibility for the management of Federal lands, to the extent practicable, permitted by law, and not clearly inconsistent with essential agency functions, to accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners and avoid adversely affecting the physical integrity of such sacred sites. Where appropriate, agencies are also required to maintain the confidentiality of sacred sites. Each executive branch agency with statutory or administrative responsibility for the management of Federal lands are required to implement procedures to ensure reasonable notice is provided of proposed actions or land management policies that may restrict future access to or ceremonial use of, or adversely affect the physical integrity of, sacred sites. (NOAA, n.d.)

4. *Federal Antiquities Act*

The Antiquities Act is the first law to establish that archaeological sites on public lands are important public resources. It obligates federal agencies that manage the public lands to preserve for present and future generations the historic, scientific, commemorative, and cultural values of the archaeological and historic sites and structures on these lands. It also authorizes the President to protect landmarks, structures, and objects of historic or scientific interest by designating them as National Monuments. (NPS, 2021d)

B. *State Regulations*

1. *California Administrative Code, Title 14, Section 4308*

Section 4308, *Archaeological Features*, of Title 14 of the California Administrative Code provides that: "No person shall remove, injure, disfigure, deface, or destroy any object of archaeological, or historical interest or value." (NPS, n.d.)

2. *California Code of Regulations Title 14, Section 1427*

California Code of Regulations Title 14, Section 1427 provides that: "No person shall collect or remove any object or thing of archaeological or historical interest or value, nor shall any person injure, disfigure, deface or destroy the physical site, location or context in which the object or thing of archaeological or historical interest or value is found." (NAHC, n.d.)

3. *California Register of Historic Resources*

The State Historical Resources Commission has designed this program for use by state and local agencies, private groups, and citizens to identify, evaluate, register, and protect California's historical resources. The Register is the authoritative guide to the state's significant historical and archaeological resources. The California Register program encourages public recognition and protection of resources of architectural, historical, archaeological, and cultural significance; identifies historical resources for state and local planning purposes; determines eligibility for state historic preservation grant funding; and affords certain protections under CEQA. (OHP, n.d.)

In order for a resource to be included on the Register of Historic Resources, the resources must meet one of the following criteria:

- Associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States (Criterion 1).
- Associated with the lives of persons important to local, California or national history (Criterion 2).
- 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 (Criterion 3).
- Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation (Criterion 4). (OHP, n.d.)

For resources included on the Register of Historic Resources, environmental review may be required under CEQA if property is threatened by a project. Additionally, local building inspectors must grant code alternatives provided under State Historical Building Code. Further, the local assessor may enter into contract with property owner for property tax reduction pursuant to the Mills Act. A property owner also may place his or her own plaque or marker at the site of the resource. (OHP, n.d.)

Consent of owner is not required, but a resource cannot be listed over an owner's objections. The State Historical Resources Commission (SHRC) can, however, formally determine a property eligible for the California Register if the resource owner objects. (OHP, n.d.)

4. Traditional Tribal Cultural Places Act (Senate Bill 18, "SB 18")

Senate Bill 18 (SB 18) requires local (city and county) governments to consult with California Native American tribes to aid in the protection of traditional tribal cultural places ("cultural places") through local land use planning. SB 18 also requires the Governor's Office of Planning and Research (OPR) to include in the General Plan Guidelines advice to local governments for how to conduct these consultations. (OPR, 2005)

The intent of SB 18 is to provide California Native American tribes an opportunity to participate in local land use decisions at an early planning stage, for the purpose of protecting, or mitigating impacts to, cultural places. The purpose of involving tribes at these early planning stages is to allow consideration of cultural places in the context of broad local land use policy, before individual site-specific, project-level land use decisions are made by a local government. (OPR, 2005)

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 adoption and amendment of both general plans (defined in Government Code § 65300 et seq.) and specific plans (defined in Government Code § 65450 et seq.). Although SB 18 does not specifically mention consultation or notice requirements for adoption or amendment of specific plans, existing state planning law requires local governments to use the same processes for adoption and amendment of specific plans as for general plans (see Government Code § 65453). Therefore, where SB 18 requires consultation and/or notice for a general plan adoption or amendment, the requirement extends also to a specific plan adoption or amendment. (OPR, 2005)

5. Assembly Bill 52 (AB 52)

California Assembly Bill 52 (AB 52) (2014) Chapter 532 amended Section 5097.94 of, and added Sections 21073, 21074, 21080.3.1, 21080.3.2, 21802.3, 21083.09, 21084.2 and 21084.3 to the California Public Resources Code, relating to Native Americans. AB 52 was approved on September 25, 2014. By including tribal cultural resources early in the CEQA process, the legislature intended to ensure that local and Tribal governments, public agencies, and project proponents would have information available, early in the project planning process, to identify and address potential adverse impacts to tribal cultural resources. By taking this proactive approach, the legislature also intended to reduce the potential for delay and conflicts in the environmental review process. (OPR, 2017a)

The Public Resources Code now establishes that "[a] project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment." (Pub. Resources Code, § 21084.2.) To help determine whether a project may have such an effect, the Public Resources Code requires a lead agency to consult with any California Native American tribe that requests consultation and is traditionally and culturally affiliated with the geographic area of a proposed project. That consultation must take place prior to the determination of whether a negative declaration, mitigated negative declaration, or environmental impact report is required for a project. (Pub. Resources Code, § 21080.3.1.) (OPR, 2017a)

If a lead agency determines that a project may cause a substantial adverse change to tribal cultural resources, the lead agency must consider measures to mitigate that impact. Public Resources Code § 20184.3 (b)(2) provides examples of mitigation measures that lead agencies may consider to avoid or minimize impacts to tribal cultural resources. These rules apply to projects that have a notice of preparation for an environmental impact report or negative declaration or mitigated negative declaration filed on or after July 1, 2015. (OPR, 2017a)

§ 21074 of the Public Resources Code defines "tribal cultural resources." In brief, in order to be considered a "tribal cultural resource," a resource must be either:

(1) listed, or determined to be eligible for listing, on the national, state, or local register of historic resources, or

(2) a resource that the lead agency chooses, in its discretion, to treat as a tribal cultural resource. (OPR, 2017a)

In the latter instance, the lead agency must determine that the resource meets the criteria for listing in the state register of historic resources. In applying those criteria, a lead agency must consider the value of the resource to the tribe. (OPR, 2017a)

6. State Health and Safety Code

California Health and Safety Code (HSC) § 7050.5(b) requires that excavation and disturbance activities must cease "In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery…" until the coroner can determine regarding the circumstances, manner, and cause of any death.

The coroner is then required to make recommendations concerning the treatment and disposition of the human remains. Further, this section of the code makes it a misdemeanor to intentionally disturb, mutilate or remove interred human remains. HSC § 7051 specifies that the removal of human remains from "internment or a place of storage while awaiting internment" with the intent to sell them or to dissect them with "malice or wantonness" is a public offense punishable by imprisonment in a state prison. Lastly, HSC §§ 8010-8011 establish the California Native American Graves Protection and Repatriation Act consistent with the federal law addressing the same. The Act stresses that "all California Indian human remains and cultural items are to be treated with dignity and respect." It encourages voluntary disclosure and return of remains and cultural items by publicly funded agencies and museums in California. It also outlines the need for aiding California Indian tribes, including non-federally recognized tribes, in filing repatriation claims. (CA Legislative Info, n.d.)

California Health and Safety Code, Section 5097.98 states that whenever the commission receives notification of a discovery of Native American human remains pursuant to HSC subdivision (c) of Section 7050.5, it shall immediately notify those persons that are the most likely descendants. The descendants may inspect the site and make recommendations to the landowner as to the treatment of the human remains. The landowner shall ensure that the immediate vicinity around the remains is not damaged or disturbed by further development activity until coordination has occurred with the descendants regarding their recommendations for treatment, taking into account the possibility of multiple human remains. The descendants shall complete their inspection and make recommendations within 48 hours of being granted access to the site. (CA Legislative Info, n.d.)

7. California Code of Regulations Section 15064.5

The California Code of Regulations, Title 14, Chapter 3, § 15064.5 (the State CEQA Guidelines) establishes the procedure for determining the significance of impacts to archaeological and historical resources, as well as classifying the type of resource. Cultural resources are aspects of the environment that require identification and assessment for potential significance. The evaluation of cultural resources under CEQA is based upon the definitions of resources provided in State CEQA Guidelines § 15064.5, as follows: (OPR, 2018a)

- *A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (Pub. Res. Code § 5024.1, Title 14 CCR, Section 4850 et seq.).*
- *A resource included in a local register of historical resources, as defined in section 5020.1(k) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.*
- *Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to*

be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources (Pub. Res. Code § 5024.1, Title 14 CCR, Section 4852) including the following:

- *Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;*
- *Is associated with the lives of persons important in our past;*
- *Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or*
- *Has yielded, or may be likely to yield, information important in prehistory or history.*

- *The fact that a resource is not listed in, or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to section 5020.1(k) of the Public Resources Code), or identified in an historical resources survey (meeting the criteria in section 5024.1(g) of the Public Resources Code) does not preclude a lead agency from determining that the resource may be an historical resource as defined in Public Resources Code sections 5020.1(j) or 5024.1.*

C. Local Regulations

1. Ordinance No. 578 - Establishment of Historic Preservation Districts

This ordinance is intended to facilitate the preservation of areas deemed historically important to the County of Riverside. The ordinance specifies that a Historic Preservation District may be established if the Riverside County Board of Supervisors adopts a resolution that includes the boundaries of the Historic Preservation District and finds that the proposed Historic Preservation District is in conformity with the Cultural and Paleontological section of the Multipurpose Open Space Element of the Riverside County General Plan. It must also find that, for the county, state or nation: the area exemplifies or reflects significant aspects of the cultural, political, economic or social history; the area is identified with historic personages or with important events in history; or, that the area embodies the distinguishing characteristics of a significant architectural period which is inherently valuable for the study of architecture unique to the history of the county, state or nation. (Riverside County, 2015, p. 4.9-25)

Under this ordinance, no building or structure within the boundaries of an adopted Historic Preservation District can be constructed or altered, except in strict compliance with the plans approved in conjunction with the issuance of a Historic District Alteration Permit by the Riverside County Planning Director. The ordinance also outlines how such certificates are to be reviewed and processed in order to preserve the "historical significance and related construction theme" of the Historic District. (Riverside County, 2015, p. 4.9-26)

2. Riverside County Historic Preservation Commission

The Riverside County Historical Commission was established in 2005 to advise the Board of Supervisors on historical preservation matters. It is tasked with working to discover and identify persons, events and places of historical importance within Riverside County, and to make recommendations relating to the preservation of appropriate historic sites and structures. To accomplish this, the Commission established criteria and procedures to identify and recognize historic landmarks in Riverside County. These criteria should be used

when reviewing a potentially historically or culturally significant site that could be affected by the proposed development. Such resources are noted in the countywide list provided in Table 4.9-A of Riverside County EIR No. 521. (Riverside County, 2015, p. 4.9-26)

3. Riverside County Planning Department Procedures

The Riverside County Archeologist reviews all proposed land use projects subject to CEQA and not otherwise deemed categorically exempt. The Riverside County Archeologist reviews various internal databases for information that might pertain to the age of any buildings found on site, grading permits, ground disturbance activities and building permits. Where buildings are 45 years or older, the project applicant is required to perform an architectural history evaluation to assess potential historic value as part of a Phase I Cultural Resources study. When the study is completed, and if historic-period resources were identified during a survey, a copy of the report is transmitted to the Riverside County Historic Preservation Officer (CHPO) for review and comment. The CHPO sends relevant comments back to the Riverside County Archeologist. (Riverside County, 2015, p. 4.9-26)

Vacant parcels within areas known to have prehistoric or historic resources trigger a Phase I Cultural Resources study. Similarly, any parcels with environmental, geomorphological or vegetative features known to increase the likelihood of cultural resources being present trigger a "Phase I" cultural resources study. Such studies are required to follow the reporting formula found on the Riverside County Planning Department's website which mirror the recommendations published by the State Historic Preservation Office (SHPO) in 1987. (Riverside County, 2015, p. 4.9-26)

The Riverside County Archeologist reviews all Phase I cultural resources studies for completeness and reasonable conclusions based on current industry standards in archeology. The Phase I study serves to advise the Riverside County Archeologist on matters relating to any identified prehistoric or historic resources, provide the requisite information to complete the project-related CEQA analysis and guide the Riverside County Archeologist in determining which land use conditions of approval and/or mitigation measures apply to the proposed project. (Riverside County, 2015, p. 4.9-26)

Copies of studies are provided to tribes, upon their request, as a confidential document. If a proposed project is subject to the requirements of the Traditional Tribal Places Act (commonly referred to as Senate Bill 18), a Phase 1 report is forwarded to tribes who request it as part of consultation under SB 18. Typically, official tribal consultations are scheduled after the report has been sent to the tribe(s) to maximize consultation efforts. (Riverside County, 2015, p. 4.9-26)

4.5.3 Basis for Determining Significance

Section V of Appendix G to the State CEQA Guidelines addresses typical adverse effects to cultural resources, and includes the following threshold questions to evaluate the Project's impacts on cultural resources. (OPR, 2018a)

- *Would the Project cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?*

- *Would the Project cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?*
- *Would the Project disturb any human remains, including those interred outside of formal cemeteries?*

Significance thresholds set forth in Riverside County's Environmental Assessment Checklist, are derived from Section V of Appendix G to the State CEQA Guidelines (listed above), and state that the proposed Project would have a significant impact on cultural resources if construction and/or operation of the Project would:

a. *Alter or destroy an historic site;*
b. *Cause a substantial adverse change in the significance of a historical resource as defined in California Code of Regulations, § 15064.5;*
c. *Alter or destroy an archaeological site;*
d. *Cause a substantial adverse change in the significance of an archaeological resource, pursuant to California Code of Regulations, § 15064.5;*
e. *Disturb any human remains, including those interred outside of formal cemeteries.*

The significance thresholds set forth in the Riverside County's Environmental Assessment Checklist form, as modified by the 2018 updates to the State CEQA Guidelines, were used to evaluate the significance of the proposed Project's impacts on cultural resources.

4.5.4 Impact Analysis

Threshold a:	***Would the Project alter or destroy an historic site?***
Threshold b:	***Would the Project cause a substantial adverse change in the significance of a historical resource as defined in California Code of Regulations, Section 15064.5?***

Under existing conditions, the Project site is undeveloped and there are no structures located on-site. Based on the results of the Project's CRA (*Technical Appendix D*), the Project site includes one historic feature (Temp-1) and one previously recorded resource (P-33-011258), while no resources were identified in the off-site impact areas.

Based upon the Project's proposed impact limits, Site P-33-011258 may be directly impacted by the proposed development. Site P-33-011258 is a previously-recorded historic site that consists of a concentration of miscellaneous historic objects covering an area measuring approximately 10 meters in diameter. Cultural materials identified as part of the refuse scatter included graniteware, a wash basin, cans, glass, sheet metal, fencing, wire, and farm machinery. Given the low frequency of materials, the site appears to be a single-episode dumping location. Further analysis of Site P-33-011258 in 2009 evaluated the resource as not significant and not eligible for listing on the CRHR. Because Site P-33-011258 has been previously evaluated as not significant, Project impacts to Site P-33-011258 would be less than significant. (BFSA, 2021a, pp. 4.0-6 and 4.0-9)

Site Temp-1 was identified as a historic concrete wildlife guzzler constructed between 1938 and 1967 (based upon historic aerial photographs). Due to the nature of the historic feature associated with Site Temp-1 and the lack of additional cultural constituents related to the feature, no subsurface testing was conducted at the site and the documentation of this site has exhausted any further research potential. Site Temp-1 contains no additional research value, has no associated cultural materials, is not clearly associated with any historically noteworthy individuals or events, and, therefore, does not meet the significance criteria thresholds provided in CEQA and is not considered eligible for listing on the CRHR. No additional archaeological study is recommended for the resource. Furthermore, Site Temp-1 occurs within areas planned for open space as part of the Project, and no direct impacts to Site Temp-1 would occur with implementation of the Project. Accordingly, Project impacts to Site Temp-1 would be less than significant. (BFSA, 2021a, pp. 4.0-3 through 4.0-6 and 5.0-1)

Accordingly, and based on the analysis presented in the Project's CRA, implementation of the proposed Project would not alter or destroy a historic site or cause a substantial adverse change in the significance of a historical resource pursuant to California Code of Regulations Section 15064.5, either on site or off site within proposed off-site improvement areas. However, the potential for the Project area to contain unidentified subsurface resources is considered high. Thus, there is a potential that historical resources may be uncovered during on- or off-site grading or ground-disturbing activities. This is evaluated as a potentially significant impact for which mitigation would be required.

Threshold c:	***Would the Project alter or destroy an archaeological site?***
Threshold d:	***Would the Project cause a substantial adverse change in the significance of an archaeological resource pursuant to California Code of Regulations, Section 15064.5?***

As previously indicated, there were no prehistoric archaeological resources identified on the Project site or within the off-site improvement areas. As such, the Project would not result in any impacts to known archaeological resources. In addition, although no archaeological sites or resources are anticipated to be discovered during site grading activities and no impacts are expected to occur, the Project would be subject to the mitigation measures identified in subsection 4.5.7 to address potential impacts to historical resources, which includes provisions for archaeological monitoring during grading activities and the appropriate treatment of any resources that may be uncovered. Accordingly, Project impacts to archaeological sites and resources would be less than significant. .

Threshold e:	***Would the Project disturb any human remains, including those interred outside of formal cemeteries?***

The Project site does not contain a cemetery and no known cemeteries are located within the immediate site vicinity. Field surveys conducted on the Project site by BFSA did not identify the presence of any human remains and no human remains are known to exist beneath the surface of the site. Nevertheless, the remote potential exists that human remains may be unearthed during grading and excavation activities associated with Project construction.

If human remains are unearthed during Project construction, the construction contractor would be required by law to comply with California Health and Safety Code, § 7050.5, "Disturbance of Human Remains."

According to § 7050.5(b) and (c), if human remains are discovered, the County Coroner must be contacted 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, the Coroner is required to contact the Native American Heritage Commission (NAHC) by telephone within 24 hours. Pursuant to California Public Resources Code § 5097.98, whenever the NAHC receives notification of a discovery of Native American human remains from a county coroner, the NAHC is required to immediately notify those persons it believes to be most likely descended from the deceased Native American. The descendants may, with the permission of the owner of the land, or his or her authorized representative, inspect the site of the discovery of the Native American human remains and may recommend to the owner or the person responsible for the excavation work means for treatment or disposition, with appropriate dignity, of the human remains and any associated grave goods. The descendants shall complete their inspection and make recommendations or preferences for treatment within 48 hours of being granted access to the site. According to Public Resources Code § 5097.94(k), the NAHC is authorized to mediate disputes arising between landowners and known descendants relating to the treatment and disposition of Native American human burials, skeletal remains, and items associated with Native American burials. Mandatory compliance with the applicable provisions of California Health and Safety Code § 7050.5 and California Public Resources Code § 5097 et. seq. would ensure that Project impacts to human remains would be less than significant.

4.5.5 Cumulative Impact Analysis

This cumulative impact analysis considers development of the proposed Project in conjunction with other development projects and planned development within western Riverside County. This study area was selected for evaluation because it encompasses a broad region with similar geological, biological, and climatic conditions.

As noted above under Thresholds a. and b., the Project site includes two historical sites (Site P-33-011258 and Site Temp-1), with no resources identified in the off-site improvement areas. However, none of these resources are considered eligible for listing in the CRHR. As such, Project impacts to previously-identified cultural resources would be less than significant on a cumulatively-considerable basis. However, there is a possibility that previously-undiscovered subsurface historical resources may be impacted by development of the Project as proposed. Other developments envisioned with buildout of the Riverside County General Plan and the general plans of cities within the County also have the potential to result in impacts to historical sites or resources, including sites or resources that may be buried beneath the ground surface. As such, the Project's potential impacts to previously-undiscovered historical resources on the Project site and off-site improvement areas would be cumulatively considerable prior to mitigation.

As discussed under the analysis of Thresholds c. and d., the Project's CRA (*Technical Appendix D*) did not identify any potentially significant archaeological resources or sites within the Project site or off-site improvement areas. In addition, the Project would be subject to the mitigation measures identified in subsection 4.5.7 to address potential impacts to historical resources, which includes provisions for archaeological monitoring during grading activities and the appropriate treatment of any resources that may be uncovered. Accordingly, Project impacts to archaeological sites and resources would be less than significant on a cumulatively-considerable basis.

As discussed under Threshold e., the Project and other cumulative developments would be subject to compliance with the provisions of California Health and Safety Code § 7050.5 as well as Public Resources Code § 5097 et. seq., which require the appropriate treatment of human remains. Mandatory compliance with State law would ensure that Project impacts to human remains would be less than significant on a cumulatively-considerable basis.

4.5.6 Significance of Impacts Before Mitigation

Thresholds a. & b.: Significant Direct and Cumulatively-Considerable Impact. Although no significant historical resources, as defined by the CRHR and CEQA, were identified as part of the Project's CRA on site or within the Project's off-site improvement areas, there is a potential for previously-undiscovered historical resources to occur beneath the surface of areas planned for physical impact (i.e., grading) as part of the Project. Potential impacts to previously-undiscovered historical resources on site or within the off-site improvement areas would be significant on both a direct and cumulatively-considerable basis prior to mitigation.

Threshold c. & d.: Less-than-Significant Impact. Based on the results of the Project's CRA, the Project site and off-site improvement areas do not contain any known archaeological sites or resources. In addition, although no archaeological sites or resources are anticipated to be discovered during site grading activities and no impacts are expected to occur, the Project would be subject to the mitigation measures identified in subsection 4.5.7 to address potential impacts to historical resources, which includes provisions for archaeological monitoring during grading activities and the appropriate treatment of any resources that may be uncovered. Accordingly, Project impacts to archaeological sites and resources would be less than significant.

Threshold e.: Less-than-Significant Impact. The Project site and off-site improvement areas do not contain a cemetery and no known cemeteries are located within the immediate site vicinity. Additionally, the Project Applicant would be required to comply with the applicable provisions of California Health and Safety Code § 7050.5 and California Public Resources Code § 5097 et. seq., which would ensure that any human remains discovered on site are appropriately treated. Mandatory compliance with State law would ensure that Project impacts to human remains would be less than significant.

4.5.7 County Regulations, Design Requirements, and Mitigation

Applicable County Regulations and Design Requirements

The following are applicable regulations and design requirements within Riverside County. Although these requirements technically do not meet CEQA's definition for mitigation, they are imposed herein to ensure Project compliance with applicable County regulations and design requirements.

- Unless otherwise required by law, the site of any reburial of Native American human remains or associated grave goods shall not be disclosed and shall not be governed by public disclosure requirements of the California Public Records Act. The Coroner, pursuant to the specific exemption set forth in California Government Code Section 6254 (r), parties, and Lead Agencies, will be asked to withhold public disclosure information related to such reburial, pursuant to the specific exemption set forth in California Government Code 6254 (r).

- In the event that human remains are encountered during ground-disturbing construction activities on site or within the Project's off-site improvement areas, compliance with California Health and Safety Code § 7050.5 and Public Resources Code § 5097 et. seq. shall be required. State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the Riverside County Coroner has made the necessary findings as to origin. Further, pursuant to Public Resource Code Section 5097.98(b) remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. The County Coroner shall determine that no investigation of the cause of death is required, and determine if the remains are of Native American origin. In the event that the remains are determined to be of Native American origin, the Native American Heritage Commission (NAHC) shall be contacted within the period specified by law (24 hours). Subsequently, the Native American Heritage Commission shall identify the "Most Likely Descendant." The Most Likely Descendant shall then make recommendations and engage in consultation concerning the treatment of the remains as provided in Public Resources Code Section 5097.98. If the NAHC is unable to identify a Most Likely Descendant, or if the Most Likely Descendant failed to make a recommendation within 48 hours after being notified by the NAHC, or the Project Applicant rejects the recommendation of the Most Likely Descendent, the Project Applicant shall rebury the Native American human remains and associated grave goods on the property in a location not subject to further ground disturbance.

Mitigation

MM 4.5-1 **Retain a Qualified Archaeologist:** Prior the issuance of a grading permit, the Developer/Permit Applicant shall retain and enter into a monitoring and mitigation service contract with a qualified Archaeologist ("Archaeological Monitor") for mitigation monitoring services, and to implement a Cultural Resource Monitoring Program (CRMP). At least 30 days prior to issuance of grading permits, copy of the agreement between the developer/permit applicant and the Archaeological Monitor shall be submitted to the County Planning Department.

MM 4.5-2 **Native American Monitor:** Prior to the issuance of grading permits, the Developer/Permit Applicant shall enter into an agreement with the consulting tribe(s) for a Native American Monitor. In conjunction with the Archaeological Monitor(s), the Native American Monitor(s) shall attend a pre-grading meeting with the contractors to provide Cultural Sensitivity Training for all construction personnel. In addition, the Native American Monitor(s) shall be on-site during all initial ground disturbing activities and excavation of each portion of the Project site including clearing, grubbing, tree removals, grading and trenching. In conjunction with the Archaeological Monitor(s), the Native American Monitor(s) have the authority to temporarily divert, redirect, or halt the ground disturbance activities to allow identification, evaluation, and potential recovery of cultural resources. The Developer/Permit Applicant shall submit a fully executed copy of the agreement to the County Archaeologist to ensure compliance with this requirement. Upon verification, the Archaeologist shall clear this condition. This agreement shall not modify any condition of approval or mitigation measure.

MM 4.5-3 **Preparation of a CRMP**: The Archaeological Monitor required pursuant to Mitigation Measure MM 4.5-1 shall prepare a Cultural Resources Monitoring Plan (CRMP) to guide the procedures and protocols of an archaeological mitigation monitoring program that shall be implemented during all onsite and offsite ground-disturbing activities. The CRMP shall include, but not be limited to, the Project grading and development schedule; approved Project cultural resources mitigation measures and conditions of approval; monitoring procedures; protocols for the identification, assessment, collection, and analysis of any resource(s) observed during grading; curation guidelines; and coordination with project personnel, County staff, and any participating Native American tribe(s). The final CRMP shall be submitted to the County Project planner and/or inspector, the appropriate Project supervisor/engineer/etc., and monitoring Native American tribe(s), if any.

MM 4.5-4 **Preconstruction Meeting**: The Archaeological Monitor shall be invited to a preconstruction meeting with construction personnel and County and tribal representatives. The attending archaeologist shall review the provisions of the CRMP and answer any applicable questions.

MM 4.5-5 **Construction Monitoring**: Full-time monitoring shall occur throughout the entire Project area, including all off-site improvement areas, during ground-disturbing activities. Full-time monitoring shall continue until the Archaeological Monitor required pursuant to Mitigation Measure MM 4.5-1 determines that the overall sensitivity of the Project area has been reduced from high to low as a result of mitigation monitoring. Should the monitor(s) determine that there are no cultural resources within the Project site or off-site improvement areas, or should the sensitivity be reduced to low during monitoring, all monitoring shall cease.

MM 4.5-6 **Unanticipated Discoveries**: If subsurface cultural resources are encountered during construction, if evidence of an archaeological/historical site is observed, or if other suspected historic resources are encountered, all ground-disturbing activity shall cease within 100 feet of the resource and no further grading shall occur in the area of the discovery. In such a case, the County Archaeologist shall be immediately notified. A meeting shall be convened between the developer, the Archaeological Monitor (as required by Mitigation Measure MM 4.5-1), the Native American tribal representative (or other appropriate ethnic/cultural group representative) required pursuant to Mitigation Measure MM 4.5-2, and the County Archaeologist to discuss the significance of the find. Potentially significant cultural resources could consist of, but are not limited to: stone, bone, fossils, wood, or shell artifacts or features, including structural remains, historic dumpsites, hearths, and middens. Midden features are characterized by darkened soil and could conceal material remains, including worked stone, fired clay vessels, faunal bone, hearths, storage pits, or burials and special attention should always be paid to uncharacteristic soil color changes. Any previously undiscovered resources found during construction shall be recorded on appropriate Department of Parks and Recreation (DPR) forms and evaluated for significance under all applicable regulatory criteria. At the meeting with the aforementioned parties, a decision is to be made, with the concurrence of the County Archaeologist, as to whether the identified resource comprises a unique historic resource as defined under § 15064.5 of the State CEQA Guidelines, and as to the appropriate

treatment (documentation, recovery, avoidance, etc.) for the identified cultural resource. Resource evaluations shall be limited to nondestructive analysis. Further ground disturbance shall not resume within the area of the discovery until the appropriate treatment has been accomplished.

MM 4.5-7 **Curation**: Any archaeological artifacts recovered as a result of mitigation, excluding items covered by the provisions of applicable Treatment Plans or Agreements, shall be donated to the Western Science Center in Hemet or as directed by the County Archaeologist, where they would be afforded long-term preservation. The Developer/Applicant is responsible for all costs and fees associated with curation of the artifacts.

MM 4.5-8 **Final Phase IV Report**: The results of the mitigation monitoring program shall be incorporated into a final report and submitted to the Riverside County Planning Department for review and approval. Upon approval by the Lead Agency, the final report, including any associated DPR 523 Forms, shall be submitted to the Developer/land Owner, the EIC, and the monitoring tribe(s), if any.

4.5.8 Significance of Impacts After Mitigation

Thresholds a. and b.: Less-than-Significant Impact with Mitigation. Implementation of Mitigation Measures MM 4.5-1 through MM 4.5-8 would ensure that any historical resources identified on site or within the Project's off-site improvement areas during ground-disturbing activities are appropriately treated, including if necessary curation of the historical artifact(s) at the Western Science Center in Hemet or as directed by the County Archaeologist. Implementation of the required mitigation would ensure that any potential impacts to subsurface historical sites or resources would be reduced to less-than-significant levels.

4.6 ENERGY

This Subsection is based in part on the information contained in the Project's Energy Analysis Report, titled "Keller Crossing Specific Plan Energy Analysis," dated October 15, 2021, and appended to this EIR as *Technical Appendix E* (Urban Crossroads, 2021b). It should be noted that the Project's Energy Analysis assumes the Project site would be developed with 436 dwelling units, while only 433 dwelling units are proposed; thus, the analysis in *Technical Appendix E* provides a "worst case" analysis of the Project's potential impacts due to energy consumption. Refer to Section 7.0, *References*, for a complete list of reference sources.

4.6.1 EXISTING CONDITIONS

A. Overview

The most recent data for California's estimated total energy consumption and natural gas consumption is from 2018, released by the United States (U.S.) Energy Information Administration's (EIA) California State Profile and Energy Estimates in 2020 and indicated (Urban Crossroads, 2021b, p. 7):

- Approximately 7,900 trillion British Thermal Unit (BTU) of energy was consumed;
- Approximately 3,444 trillion BTU of petroleum;
- Approximately 2,210 trillion BTU of natural gas; and
- Approximately 33.3 trillion BTU coal.

The California Energy Commission's (CEC) Transportation Energy Demand Forecast 2018-2030 was released in order to support the 2017 Integrated Energy Policy Report. The Transportation energy Demand Forecast 2018-2030 lays out graphs and data supporting their projections of California's future transportation energy demand. The projected inputs consider expected variable changes in fuel prices, income, population, and other variables. Predictions regarding fuel demand included: (Urban Crossroads, 2021b, p. 7)

- Gasoline demand in the transportation sector is expected to decline from approximately 15.8 billion gallons in 2017 to between 12.3 billion and 12.7 billion gallons in 2030.
- Diesel demand in the transportation sector is expected to rise, increasing from approximately 3.7 billion diesel gallons in 2015 to approximately 4.7 billion in 2030.
    - Data from the Department of Energy states that approximately 3.9 billion gallons of diesel fuel were consumed in 2017.

The most recent data provided by the EIA for energy use in California by demand sector is from 2018 and is reported as follows (Urban Crossroads, 2021b, p. 7):

- Approximately 39.1% transportation;
- Approximately 23.5% industrial;
- Approximately 18.3% residential; and
- Approximately 19.2% commercial.

In 2020, total system electric generation for California was 277,704 gigawatt hours (GWh). California's massive electricity in-state generation system generated approximately 200,475 GWh which accounted for approximately 72.2% of the electricity it uses; the rest was imported from the Pacific Northwest (8.6%) and the U.S. Southwest (19.2%). Natural gas is the main source for electricity generation at 34.23% of the total in-state electric generation system power as shown in Table 4.6-1, *Total Electricity System Power (California 2020).* Renewables account for 31.7% of the total electrical system power. (Urban Crossroads, 2021b, p. 7)

Table 4.6-1 Total Electricity System Power (California 2020)

Fuel Type	California In-State Generation (GWh)	Percent of California In-State Generation	Northwest Imports (GWh)	Southwest Imports (GWh)	Total California Energy Mix (GWh)	Total California Power Mix
Coal	248	0.12%	219	7,765	8,233	2.96%
Natural Gas	86,136	42.97%	62	8,859	95,057	34.23%
Oil	36	0.02%	0	0	36	0.01%
Other	411	0.20%	0	11	422	0.15%
Nuclear	16,163	8.06%	39	8,743	24,945	8.98%
Large Hydro	33,145	16.53%	6,387	1,071	40,603	14.62%
Unspecified	0	0.00%	6,609	13,767	20,376	7.34%
Non-Renewables and Unspecified Totals	136,139	67.91%	13,315	40,218	189,672	68.30%
Biomass	5,851	2.92%	903	33	6,787	2.44%
Geothermal	10,943	5.46%	99	2,218	13,260	4.77%
Small Hydro	5,349	2.67%	292	4	5,646	2.03%
Solar	28,513	14.22%	282	5,295	34,090	12.28%
Wind	13,680	6.82%	9,038	5,531	28,249	10.17%
Renewables Totals	64,336	32.09%	10,615	13,081	88,032	31.70%
Total	200,475	100.00%	23,930	53,299	277,704	100.00%

(Urban Crossroads, 2021b, Table 2-1)

An updated summary of, and context for, energy consumption and energy demands within the State is presented in "U.S. Energy Information Administration, California State Profile and Energy Estimates, Quick Facts" excerpted below (Urban Crossroads, 2021b, p. 8, pp. 8-9):

- California was the seventh-largest producer of crude oil among the 50 states in 2018, and, as of January 2019, it ranked third in oil refining capacity.
- California is the largest consumer of jet fuel among the 50 states and accounted for one-fifth of the nation's jet fuel consumption in 2018.

- California's total energy consumption is second highest in the nation, but, in 2018, the state's per capita energy consumption was the fourth lowest, due in part to its mild climate and its energy efficiency programs.
- In 2018, California ranked first in the nation as a producer of electricity from solar, geothermal, and biomass resources and fourth in the nation in conventional hydroelectric power generation.
- In 2018, large- and small-scale solar photovoltaic (PV) and solar thermal installations provided 19% of California's net electricity generation.

As indicated above, California is one of the nation's leading energy-producing states, and California's per capita energy use is among the nation's most efficient. The remainder of this discussion will focus on the three sources of energy that are most relevant to the Project – namely, electricity, natural gas, and transportation fuel for vehicle trips associated with the uses planned for the Project. (Urban Crossroads, 2021b, pp. 8-9)

B. Electricity

The usage associated with electricity use were calculated using the California Emissions Estimator Model (CalEEMod) Version 2020.4.0. The Southern California region's electricity reliability has been of concern for the past several years due to the planned retirement of aging facilities that depend upon once-through cooling technologies, as well as the June 2013 retirement of the San Onofre Nuclear Generating Station (San Onofre). While the once-through cooling phase-out has been ongoing since the May 2010 adoption of the State Water Resources Control Board's once-through cooling policy, the retirement of San Onofre complicated the situation. California ISO studies revealed the extent to which the South California Air Basin (SoCAB) and the San Diego Air Basin (SDAB) region were vulnerable to low-voltage and post-transient voltage instability concerns. A preliminary plan to address these issues was detailed in the 2013 Integrative Energy Policy Report (IEPR) after a collaborative process with other energy agencies, utilities, and air districts. Similarly, the subsequent 2018 and 2019 IEPR's identify broad strategies that are aimed at maintaining electricity system reliability. (Urban Crossroads, 2021b, p. 9)

Electricity is currently provided to the Project area by Southern California Edison (SCE). SCE provides electric power to more than 15 million persons in 15 counties and in 180 incorporated cities, within a service area encompassing approximately 50,000 square miles. Based on SCE's 2018 Power Content Label Mix, SCE derives electricity from varied energy resources including: fossil fuels, hydroelectric generators, nuclear power plants, geothermal power plants, solar power generation, and wind farms. SCE also purchases from independent power producers and utilities, including out-of-state suppliers. (Urban Crossroads, 2021b, p. 9)

California's electricity industry is an organization of traditional utilities, private generating companies, and State agencies, each with a variety of roles and responsibilities to ensure that electrical power is provided to consumers. The California Independent Service Operator (ISO) is a nonprofit public benefit corporation and is the impartial operator of the State's wholesale power grid and is charged with maintaining grid reliability, and to direct uninterrupted electrical energy supplies to California's homes and communities. While utilities still own transmission assets, the ISO routes electrical power along these assets, maximizing the use of the transmission system and its power generation resources. The ISO matches buyers and sellers of electricity to ensure that enough power is available to meet demand. To these ends, every five minutes the ISO forecasts

electrical demands, accounts for operating reserves, and assigns the lowest cost power plant unit to meet demands while ensuring adequate system transmission capacities and capabilities. (Urban Crossroads, 2021b, p. 9)

Part of the ISO's charge is to plan and coordinate grid enhancements to ensure that electrical power is provided to California consumers. To this end, annual transmission expansion/modification plans are filed to accommodate the State's growing electrical needs. The ISO reviews and either approves or denies the proposed additions. In addition, and perhaps most importantly, the ISO works with other areas in the western United States electrical grid to ensure that adequate power supplies are available to the State. In this manner, continuing reliable and affordable electrical power is assured to existing and new consumers throughout the State. (Urban Crossroads, 2021b, pp. 9-10)

Table 4.6-2, *SCE 2019 Power Content Mix,* identifies SCE's specific proportional shares of electricity sources in 2019. As indicated in Table 4.6-2, the 2019 SCE Power Mix has renewable energy at 35.1% of the overall energy resources. Geothermal resources are at 5.9%, wind power is at 11.5%, large hydroelectric sources are at 7.9%, solar energy is at 16%, and coal is at 0%. (Urban Crossroads, 2021b, p. 10)

Table 4.6-2 SCE 2019 Power Content Mix

Energy Resources	2019 SCE Power Mix
Eligible Renewable	**35.1%**
Biomass & waste	0.6%
Geothermal	5.9%
Small Hydroelectric	1.0%
Solar	16.0%
Wind	11.5%
Coal	**0%**
Large Hydroelectric	**7.9%**
Natural Gas	**16.1%**
Nuclear	**8.2%**
Other	**0.1%**
Unspecified Sources of power*	32.6%
Total	**100%**

(Urban Crossroads, 2021b, Table 2-2)

C. *Natural Gas*

The following summary of natural gas customers & volumes, supplies, delivery of supplies, storage, service options, and operations is excerpted from information provided by the California Public Utilities Commission (CPUC) (Urban Crossroads, 2021b, pp. 10-13):

> *"The CPUC regulates natural gas utility service for approximately 10.8 million customers that receive natural gas from Pacific Gas and Electric (PG&E), Southern California Gas (SoCalGas), San Diego Gas & Electric (SDG&E), Southwest Gas, and several smaller natural gas utilities. The CPUC also regulates independent storage operators: Lodi Gas Storage, Wild Goose Storage, Central Valley Storage and Gill Ranch Storage.*
>
> *California's natural gas utilities provide service to over 11 million gas meters. SoCalGas and PG&E provide service to about 5.9 million and 4.3 million customers, respectively, while SDG&E provides service to over 800, 000 customers. In 2018, California gas utilities forecasted that they would deliver about 4740 million cubic feet per day (MMcfd) of gas to their customers, on average, under normal weather conditions.*
>
> *The overwhelming majority of natural gas utility customers in California are residential and small commercials customers, referred to as "core" customers. Larger volume gas customers, like electric generators and industrial customers, are called "noncore" customers. Although very small in number relative to core customers, noncore customers consume about 65% of the natural gas delivered by the state's natural gas utilities, while core customers consume about 35%.*
>
> *A significant amount of gas (about 19%, or 1131 MMcfd, of the total forecasted California consumption in 2018) is also directly delivered to some California large volume consumers, without being transported over the regulated utility pipeline system. Those customers, referred to as "bypass" customers, take service directly from interstate pipelines or directly from California producers.*
>
> *SDG&E and Southwest Gas' southern division are wholesale customers of SoCalGas, i.e., they receive deliveries of gas from SoCalGas and in turn deliver that gas to their own customers. (Southwest Gas also provides natural gas distribution service in the Lake Tahoe area.) Similarly, West Coast Gas, a small gas utility, is a wholesale customer of PG&E. Some other wholesale customers are municipalities like the cities of Palo Alto, Long Beach, and Vernon, which are not regulated by the CPUC.*
>
> *Natural gas from out-of-state production basins is delivered into California via the interstate natural gas pipeline system. The major interstate pipelines that deliver out-of-state natural gas to California gas utilities are Gas Transmission Northwest Pipeline, Kern River Pipeline, Transwestern Pipeline, El Paso Pipeline, Ruby Pipeline, Mojave Pipeline, and Tuscarora. Another pipeline, the North Baja - Baja Norte Pipeline takes gas off the El Paso Pipeline at the California/Arizona border, and delivers that gas through California into Mexico. While the Federal Energy Regulatory Commission (FERC) regulates the transportation of natural gas on the interstate pipelines, and authorizes rates for that service, the California Public Utilities Commission may participate in FERC regulatory proceedings to represent the interests of California natural gas consumers.*

The gas transported to California gas utilities via the interstate pipelines, as well as some of the California-produced gas, is delivered into the PG&E and SoCalGas intrastate natural gas transmission pipelines systems (commonly referred to as California's "backbone" pipeline system). Natural gas on the utilities' backbone pipeline systems is then delivered to the local transmission and distribution pipeline systems, or to natural gas storage fields. Some large volume noncore customers take natural gas delivery directly off the high-pressure backbone and local transmission pipeline systems, while core customers and other noncore customers take delivery off the utilities' distribution pipeline systems. The state's natural gas utilities operate over 100,000 miles of transmission and distribution pipelines, and thousands more miles of service lines.

Bypass customers take most of their deliveries directly off the Kern/Mojave pipeline system, but they also take a significant amount of gas from California production. PG&E and SoCalGas own and operate several natural gas storage fields that are located within their service territories in northern and southern California, respectively. These storage fields, and four independently owned storage utilities - Lodi Gas Storage, Wild Goose Storage, Central Valley Storage, and Gill Ranch Storage - help meet peak seasonal

and daily natural gas demand and allow California natural gas customers to secure natural gas supplies more efficiently. PG&E is a 25% owner of the Gill Ranch Storage field. These storage fields provide a significant amount of infrastructure capacity to help meet California's natural gas requirements, and without these storage fields, California would need much more pipeline capacity in order to meet peak gas requirements. Prior to the late 1980s, California regulated utilities provided virtually all natural gas services to all their customers. Since then, the Commission has gradually restructured the California gas industry in order to give customers more options while assuring regulatory protections for those customers that wish to, or are required to, continue receiving utility provided services.

The option to purchase natural gas from independent suppliers is one of the results of this restructuring process. Although the regulated utilities procure natural gas supplies for most core customers, core customers have the option to purchase natural gas from independent natural gas marketers, called "core transport agents" (CTA). Contact information for core transport agents can be found on the utilities' web sites. Noncore customers, on the other hand, make natural gas supply arrangements directly with producers or with marketers.

Another option resulting from the restructuring process occurred in 1993, when the Commission removed the utilities' storage service responsibility for noncore customers, along with the cost of this service from noncore customers' transportation rates. The Commission also encouraged the development of independent storage fields, and in subsequent years, all the independent storage fields in California were established. Noncore customers and marketers may now take storage service from the utility or from an independent storage provider (if available), and pay for that service, or may opt to take no storage service at all. For core customers, the Commission assures that the utility has adequate storage capacity set aside to meet core requirements, and core customers pay for that service.

In a 1997 decision, the Commission adopted PG&E's "Gas Accord", which unbundled PG&E's backbone transmission costs from noncore transportation rates. This decision gave customers and marketers the opportunity to obtain pipeline capacity rights on PG&E's backbone transmission pipeline system, if desired, and pay for that service at rates authorized by the Commission. The Gas Accord also required PG&E to set aside a certain amount of backbone transmission capacity in order to deliver gas to its core customers. Subsequent Commission decisions modified and extended the initial terms of the Gas Accord. The "Gas Accord" framework is still in place today for PG&E's backbone and storage rates and services and is now simply referred to as PG&E Gas Transmission and Storage (GT&S).

In a 2006 decision, the Commission adopted a similar gas transmission framework for Southern California, called the "firm access rights" system. SoCalGas and SDG&E implemented the firm access rights (FAR) system in 2008, and it is now referred to as the backbone transmission system (BTS) framework. As under the PG&E backbone transmission system, SoCalGas backbone transmission costs are unbundled from noncore transportation rates. Noncore customers and marketers may obtain, and pay for, firm backbone transmission capacity at various receipt points on the SoCalGas system. A certain amount of backbone transmission capacity is obtained for core customers to assure meeting their requirements.

Many if not most noncore customers now use a marketer to provide for several of the services formerly provided by the utility. That is, a noncore customer may simply arrange for a marketer to procure its supplies, and obtain any needed storage and backbone transmission capacity, in order to assure that it will receive its needed deliveries of natural gas supplies. Core customers still mainly rely on the utilities for procurement service, but they have the option to take procurement service from a CTA. Backbone transmission and storage capacity is either set aside or obtained for core customers in amounts to assure very high levels of service.

In order properly operate their natural gas transmission pipeline and storage systems, PG&E and SoCalGas must balance the amount of gas received into the pipeline system and delivered to customers or to storage fields. Some of these utilities' storage capacity is dedicated to this service, and under most circumstances, customers do not need to precisely match their deliveries with their consumption. However, when too much or too little gas is expected to be delivered into the utilities' systems, relative to the amount being consumed, the utilities require customers to more precisely match up their deliveries with their consumption. And, if customers do not meet certain delivery requirements, they could face financial penalties. The utilities do not profit from these financial penalties - the amounts are then returned to customers as a whole. If the utilities find that they are unable to deliver all the gas that is expected to be consumed, they may even call for a curtailment of some gas deliveries. These curtailments are typically required for just the largest, noncore customers. It has been many years since there has been a significant curtailment of core customers in California."

As indicated in the preceding discussions, natural gas is available from a variety of in-State and out-of-State sources and is provided throughout the state in response to market supply and demand. Complementing

available natural gas resources, biogas may soon be available via existing delivery systems, thereby increasing the availability and reliability of resources in total. The CPUC oversees utility purchases and transmission of natural gas to ensure reliable and affordable natural gas deliveries to existing and new consumers throughout the State. (Urban Crossroads, 2021b, p. 13)

D. Transportation Energy Resources

In March 2019, the Department of Motor Vehicles (DMV) identified 36.4 million registered vehicles in California, and those vehicles consume an estimated 17.8 billion gallons of fuel each year. Gasoline (and other vehicle fuels) are commercially provided commodities and are available in the Project area via commercial outlets. (Urban Crossroads, 2021b, p. 14)

California's on-road transportation system includes 394,383 land miles, more than 27.5 million passenger vehicles and light trucks, and almost 8.1 million medium- and heavy-duty vehicles. While gasoline consumption has been declining since 2008 it is still by far the dominant fuel. Petroleum comprises about 91% of all transportation energy use, excluding fuel consumed for aviation and most marine vessels. Nearly 17.8 billion gallons of on-highway fuel are burned each year, including 14.6 billion gallons of gasoline (including ethanol) and 3.2 billion gallons of diesel fuel (including biodiesel and renewable diesel). In 2019, Californians also used 194 million cubic feet of natural gas as a transportation fuel, or the equivalent of 183 billion gallons of gasoline. (Urban Crossroads, 2021b, p. 14)

4.6.2 Applicable Environmental Regulations

The following is a brief description of the federal, State, and local environmental laws and related regulations related to energy use and conservation.

A. Federal Regulations

1. Intermodal Surface Transportation Efficiency Act (ISTEA)

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) promoted the development of inter-modal transportation systems to maximize mobility as well as address national and local interests in air quality and energy. ISTEA contained factors that Metropolitan Planning Organizations (MPOs) were to address in developing transportation plans and programs, including some energy-related factors. To meet the new ISTEA requirements, MPOs adopted explicit policies defining the social, economic, energy, and environmental values guiding transportation decisions. The applicable MPO for Riverside County is the Southern California Association of Governments (SCAG). SCAG's Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) is the applicable planning document for the area. (FHWA, n.d.)

2. Transportation Equity Act for the 21st Century (TEA-21)

The Transportation Equity Act for the 21st Century (TEA-21) authorizes over $200 billion to improve the Nation's transportation infrastructure, enhance economic growth and protect the environment. TEA-21 creates new opportunities to improve air and water quality, restore wetlands and natural habitat, and rejuvenate urban areas through transportation redevelopment, increased transit and sustainable alternatives to urban sprawl. Several provisions of TEA-21 create new opportunities for water quality improvements.

B. State Regulations

1. Integrated Energy Policy Report

Senate Bill 1389 (Bowen, Chapter 568, Statutes of 2002) requires the California Energy Commission (CEC) to prepare a biennial integrated energy policy report that assesses major energy trends and issues facing California's electricity, natural gas, and transportation fuel sectors and provides policy recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the State's economy; and protect public health and safety (Public Resources Code § 25301a). The CEC prepares these assessments and associated policy recommendations every two years, with updates on alternate years, as part of the Integrated Energy Policy Report (IEPR). (CEC, n.d.)

The 2019 IEPR focuses on changes in its energy system to address climate change and improve air quality in order to ensure that all Californians share in the benefit of the state's clean energy future. The report provides an analysis of electricity sector trends, building decarbonization and energy efficiency, zero-emission vehicles, energy equity, climate change adaptation, electricity reliability in Southern California, natural gas technologies, and electricity, natural gas, and transportation energy demand forecasts. In response to SB 100, which calls for California's electricity system to become 100 percent zero-carbon by 2045, the CEC, California Public Utilities Commission (CPUC) and the California Air Resources Board (CARB) are leading the way to identify pathways to remove carbon from the state's electricity system. The goal is to utilize the clean electricity system to eliminate the carbon from other portions of California's energy system. (CEC, n.d.)

2. California Code Title 24, Part 6, Energy Efficiency Standards

California Code Title 24, Part 6 (also referred to as the California Energy Code) was promulgated by the CEC in 1978 in response to a legislative mandate to create uniform building codes to reduce California's energy consumption. To these ends, the California Energy Code provides energy efficiency standards for residential and nonresidential buildings. California's building efficiency standards are updated on an approximately three-year cycle. The 2019 Standards for building construction, which went into effect on January 1, 2020, improved upon the former 2016 Standards for residential and nonresidential buildings. The CEC anticipates that single-family homes built with the 2019 standards will use approximately 7% less energy compared to the residential homes built under the 2016 standards. Additionally, after implementation of solar PV systems, homes built under the 2019 standards will about 53% less energy than homes built under the 2016 standards. Nonresidential buildings will use approximately 30% less energy due to lighting upgrades compared to the prior code. (CEC, n.d.)

3. California Renewable Portfolio Standards (RPS)

The California Energy Commission (CEC) implements and administers portions of California's Renewables Portfolio Standard (RPS). Under the existing RPS, 25% of retail sales are required to be from renewable sources by December 31, 2016, 33% by December 31, 2020, 40% by December 31, 2024, 45% by December 31, 2027, and 50% by December 31, 2030. SB 100 raises California's RPS requirement to 50% renewable resources target by December 31, 2026, and to achieve a 60% target by December 31, 2030. SB 100 also requires that retail sellers and local publicly owned electric utilities procure a minimum quantity of electricity products from eligible renewable energy resources so that the total kilowatt hours (kWh) of those products

sold to their retail end-use customers achieve 44% of retail sales by December 31, 2024, 52% by December 31, 2027, and 60% by December 31, 2030. In addition to targets under AB 32 and SB 32, Executive Order B-55-18 establishes a carbon neutrality goal for the state of California by 2045; and sets a goal to maintain net negative emissions thereafter. The Executive Order directs the California Natural Resources Agency (CNRA), California Environmental Protection Agency (CalEPA), the Department of Food and Agriculture (CDFA), and California Air Resources Board (CARB) to include sequestration targets in the Natural and Working Lands Climate Change Implementation Plan consistent with the carbon neutrality goal. (CDC, n.d.)

4. Pavley Fuel Efficiency Standards (AB 1493)

In California, AB 1493 establishes fuel efficiency ratings for model year 2009-2016 passenger cars and light trucks. (CARB, n.d.)

5. Senate Bill 350 (SB 350) – Clean Energy and Pollution Reduction Act of 2015

In October 2015, the legislature approved, and the Governor signed, SB 350, which reaffirms California's commitment to reducing its GHG emissions and addressing climate change. Key provisions include an increase in the renewables portfolio standard (RPS), higher energy efficiency requirements for buildings, initial strategies towards a regional electricity grid, and improved infrastructure for electric vehicle charging stations. Specifically, SB 350 requires the following to reduce statewide GHG emissions: (CA Legislative Info, n.d.)

- Increase the amount of electricity procured from renewable energy sources from 33 percent to 50 percent by 2030, with interim targets of 40 percent by 2024, and 25 percent by 2027.
- Double the energy efficiency in existing buildings by 2030. This target will be achieved through the California Public Utility Commission (CPUC), the CEC, and local publicly owned utilities.
- Reorganize the Independent System Operator (ISO) to develop more regional electrify transmission markets and to improve accessibility in these markets, which will facilitate the growth of renewable energy markets in the western United States.

6. State of California Energy Plan

The State Energy Plan, drafted by the CEC, identifies emerging trends in energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The plan recommends reductions in congestion and increased efficiency in the use of fuel supplies. The plan also encourages urban designs that reduce vehicle miles traveled (VMT) and promote pedestrian and bicycle access.

C. Local Regulations

1. Riverside County Climate Action Plan

The County of Riverside's most current Climate Action Plan, updated in November 2019 uses several methods to promote renewable energy and energy efficiency. The regulation most relevant to the project is R2-CE1: Clean Energy, which states:

- *Clean energy includes energy efficiency and clean energy supply options such as highly efficient combined heat and power as well as renewable energy sources. Installing solar photovoltaics panels on residential and commercial building rooftops is an effective way to produce renewable energy on-site. Moreover, when combined with energy storage systems, solar panels could continuously meet residential and commercial energy demand. The Riverside County Settlement Agreement requires that on-site renewable energy production (including but not limited to solar) shall apply to any tentative tract map, plot plan, or conditional use permit that proposes to add more than 75 new dwelling units of residential development or one or more new buildings totaling more than 100,000 gross square feet of commercial, office, industrial, or manufacturing development. Renewable energy production shall be onsite generation of at least 20 percent of energy demand for commercial, office, industrial or manufacturing development, meet or exceed 20 percent of energy demand for multi-family residential development, and meet or exceed 30 percent of energy demand for single-family residential development. These renewable energy requirements should be updated with every CAP Update by the County based on most recent technology advancements.* (Riverside County, 2019a, pp. 4-11 and 4-12)

The County of Riverside also has several other non-mandatory regulations that would serve to benefit the Project. For example, CAP measure R2-L1, *Tree Planting for Shading and Energy Saving*, encourages residents and developers to plant trees to lower outdoor summer temperatures. CAP measure R2-L2, *Light Reflecting Surfaces for Energy Saving*, advocates for coating surfaces such as roofs and asphalt with substances that reflect sunlight, for example by painting them white or installing rooftop gardens.

4.6.3 Basis for Determining Significance

Section VI of Appendix G to the California Environmental Quality Act (CEQA) Guidelines addresses typical adverse effects due to energy consumption, and includes the following threshold questions to evaluate a project's impacts on energy resources (OPR, 2018a).

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

- Would the project conflict with or obstruct a State or local plan for renewable energy or energy efficiency?

The following thresholds are derived directly from Section VI of Appendix G to the State CEQA Guidelines and the County's Environmental Assessment form. The proposed Project would have a significant impact on energy resources if construction and/or operation of the Project would:

a. *Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation; or*

b. *Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.*

4.6.4 IMPACT ANALYSIS

A. *Methodology for Calculating Project Energy Demands*

Information from the CalEEMod Version 2020.4.0 outputs for the Project's Greenhouse Gas Analysis ("GHGA"; EIR *Technical Appendix G*) and the Project's Air Quality Impact Analysis ("AQIA"; EIR *Technical Appendix B*) was utilized in this analysis, detailing Project-related construction equipment, transportation energy demands, and facility energy demands. (Urban Crossroads, 2021b, p. 19)

The California Air Pollution Control Officers Association (CAPCOA) in association with the California air districts, released the latest version of the CalEEMod Version 2020.4.0. The purpose of this model is to calculate construction-source and operational-source criteria pollutants and GHG emissions from direct and indirect sources as well as energy usage. Accordingly, the latest version of CalEEMod has been used to determine the proposed Project's anticipated transportation and facility energy demands. Output from the annual CalEEMod runs is provided in Appendix 4.1 of the Energy Analysis prepared for the Project *(Technical Appendix E)* (Urban Crossroads, 2021b, p. 19)

On August 19, 2019, the EPA approved the 2017 version of the EMissions FACtor model (EMFAC) web database for use in State Implementation Plan (SIP) and transportation conformity analyses. EMFAC2017 is a mathematical model that was developed to calculate emission rates, fuel consumption, Vehicle Miles Traveled (VMT) from motor vehicles that operate on highways, freeways, and local roads in California and is commonly used by the CARB to project changes in future emissions from on road mobile sources. The Project's Energy Analysis (*Technical Appendix E*) utilizes the different fuel types for each vehicle class from the annual EMFAC2017 emission inventory in order to derive the average vehicle fuel economy which is then used to determine the estimated annual fuel consumption associated with vehicle usage during Project construction and operational activities. For purposes of analysis, the 2022 and 2023 analysis years were utilized to determine the average vehicle fuel economy used for construction and operation of the Project. (Urban Crossroads, 2021b, pp. 19-20)

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

A. *Construction Energy Demands*

1. *Construction Power Cost and Electricity Usage*

The focus within this subsection is the energy implications of the construction process, specifically the power cost from on-site electricity consumption during construction of the proposed Project (Urban Crossroads, 2021b, p. 20).

Construction is expected to commence in November 2022 and would last through December 2024. The construction schedule utilized in the analysis, shown in Table 4-1 of the Project's Energy Analysis *(Technical Appendix E),* represents a "worst-case" analysis scenario. Should construction occur any time after the respective dates, impacts would be reduced since emission factors for construction decrease as time passes and

fuel efficiency increases due to emission regulations becoming more stringent[1]. The duration of construction activity and associated equipment represents a reasonable approximation of the expected construction fleet. The duration of construction activity was based on the 2023 opening year. While construction would continue into 2024, to be conservative, all operations are modeled in the year 2023. (Urban Crossroads, 2021b, p. 20)

Based on the 2021 National Construction Estimator, Richard Pray (2021), the typical power cost per 1,000 s.f. of construction per month is estimated to be $2.37. The proposed Project includes the development of approximately 648,800 s.f. of residential land uses[2], 176,000 s.f. of commercial retail land uses, and up to 283,140 s.f. of active park space[3]. Based on information provided in the Project's AQIA (*Technical Appendix B*), construction activities are anticipated to occur over the course of 25 months. Based on Table 4.6-3, *Construction Power Cost,* the total power cost of the on-site electricity usage during the construction of the Project is estimated to be approximately $69,911.45. (Urban Crossroads, 2021b, p. 20)

Table 4.6-3 Construction Power Cost

Land Use	Power Cost (per 1,000 SF of building per month of construction)	Total Building Size (1,000 SF)	Construction Duration (months)	Total Project Construction Power Cost
Single Family Residential	$2.37	640.800	25	$37,967.40
Age Restricted Units	$2.37	80.000	25	$4,740.00
Super Market	$2.37	50.000	25	$2,962.50
Pharmacy	$2.37	14.000	25	$829.50
Retail	$2.37	101.500	25	$6,013.88
Fast-Food Restaurant	$2.37	10.500	25	$622.13
Park	$2.37	283.140	25	$16,776.05
		TOTAL PROJECT CONSTRUCTION COST		*$69,911.45*

(Urban Crossroads, 2021b, Table 4-2)

The SCE's general service rate schedule were used to determine the Project's electrical usage. As of June 1, 2020, SCE's general service rate is $0.11 per kilowatt hours (kWh) of electricity for residential services. As shown on Table 4.6-4, *Construction Electricity Usage,* the total electricity usage from on-site Project

[1] As shown in the CalEEMod User's Guide Version 2020.4.0, Section 4.3 "OFFROAD Equipment" as the analysis year increases, emission factors for the same equipment pieces decrease due to the natural turnover of older equipment being replaced by newer less polluting equipment and new regulatory requirements.

[2] Based on CalEEMod output, see Appendix 3.1 to the Project's Energy Analysis (*Technical Appendix E*). CalEEMod assumes each single-family residence to be 1,800 s.f. and each senior housing unit to be 1,000 s.f. ((356*1,800 = 640,800) + (80*1000 = 80,000)). As previously noted, the Project's Energy Analysis assumes development of the Project site with 356 single-family homes (436 total dwelling units), while only 353 single-family dwelling units are proposed (433 total dwelling units).

[3] It should be noted that while active park uses would comprise only 6.4 acres, the Project's Energy Analysis conservatively assumes that the active park uses would comprise 6.5 acres in size.

construction related activities is estimated to be approximately 635,559 kWh. (Urban Crossroads, 2021b, p. 21)

Table 4.6-4 Construction Electricity Usage

Land Use	Cost per kWh	Total Project Construction Electricity Usage (kWh)
Single Family Residential	$0.11	345,158
Age Restricted Units	$0.11	43,091
Super Market	$0.11	26,932
Pharmacy	$0.11	7,541
Retail	$0.11	54,672
Fast-Food Restaurant	$0.11	5,656
Park	$0.11	152,510
TOTAL PROJECT CONSTRUCTION ELECTRICTY USAGE (kWh)		*635,559*

(Urban Crossroads, 2021b, Table 4-3)

2. Construction Equipment Fuel Estimates

Fuel consumed by construction equipment would be the primary energy resource expended over the course of Project construction. Project construction activity timeline estimates, construction equipment schedules, equipment power ratings, load factors, and associated fuel consumption estimates are presented in Table 4.6-5, *Construction Equipment Fuel Consumption Estimates.* Eight-hour daily use of all equipment is assumed. The aggregate fuel consumption rate for all equipment is estimated at 18.5 horsepower hour per gallon (hp-hr-gal.), obtained from CARB 2018 Emissions Factors Tables and cited fuel consumption rate factors presented in Table D-24 of the Moyer guidelines. (Urban Crossroads, 2021b, pp. 21-22)

For the purposes of analysis, the calculations are based on all construction equipment being diesel-powered which is consistent with industry standards. Diesel fuel would be supplied by existing commercial fuel providers serving the County and region. As presented in Table 4.6-5, Project construction activities would consume an estimated 85,245.5 gallons of diesel fuel. Project construction would represent a "single-event" diesel fuel demand and would not require ongoing or permanent commitment of diesel fuel resources for this purpose. (Urban Crossroads, 2021b, p. 22)

3. Construction Trips and Vehicle Miles Traveled (VMT)

Based on the CalEEMod, the Trip and VMT are the number and length (in terms VMT) of on-road vehicle trips for workers and vendors for each construction phase. The trips identified in Table 4-6 of the Project's Energy Analysis (*Technical Appendix E)* are based on information provided by the Project Applicant and adjusted to the overall length of each phase with an opening year of 2023. (Urban Crossroads, 2021b, p. 24)

Table 4.6-5 Construction Equipment Fuel Consumption Estimates

Activity/Duration	Duration (Days)	Equipment	HP Rating	Quantity	Usage Hours	Load Factor	HP-hrs/day	Total Fuel Consumption (gal. diesel fuel)
Site Preparation	34	Crawler Tractors	97	4	8	0.37	1,148.48	788.9
		Rubber Tired Dozers	247	3	8	0.40	2,371.20	1,628.7
Grading	58	Excavators	97	2	8	0.37	574.24	672.8
		Graders	158	2	8	0.38	960.64	1,125.6
		Rubber Tired Dozers	187	1	8	0.41	613.36	718.7
		Scrapers	247	1	8	0.40	790.40	926.1
Building Construction	495	Cranes	367	2	8	0.48	2,818.56	28,185.6
		Forklifts	231	2	8	0.29	1,071.84	10,718.4
		Tractors/Loaders/Backhoes	89	6	8	0.20	854.40	8,544.0
		Generator Sets	84	2	8	0.74	994.56	9,945.6
		Welders	97	6	8	0.37	1,722.72	17,227.2
Paving	120	Pavers	46	2	8	0.45	331.20	802.9
		Paving Equipment	130	2	8	0.42	873.60	2,117.8
		Rollers	132	2	8	0.36	760.32	1,843.2
Architectural Coating	120	Air Compressors	80	2	8	0.38	486.40	1,179.2
							CONSTRUCTION FUEL DEMAND (GALLONS DIESEL FUEL)	***85,245.5***

(Urban Crossroads, 2021b, Table 4-5)

4. Construction Worker Fuel Estimates

With respect to estimated VMT for the Project, the construction worker trips would generate an estimated 9,581,313 VMT during the 25 months of construction. Based on CalEEMod methodology, emissions from construction worker trips are generated by light-duty-auto vehicles (LDA), light-duty-trucks 1 (LDT1[4]), and light-duty-trucks 2 (LDT2[5]). Based on EMFAC2017 vehicle population data for Year 2022, 70.9% of these vehicles would be LDA, 7.2% would be LDT1, and 21.9% would be LDT2. Data regarding Project related construction worker trips were based on EMFAC2017 inputs utilized within the Project's AQIA (*Technical Appendix B* to this EIR). (Urban Crossroads, 2021b, p. 24)

Vehicle fuel efficiencies for LDA, LDT1, and LDT2 were estimated using information generated within the 2017 version of the EMFAC developed by CARB. EMFAC2017 is a mathematical model that was developed to calculate emission rates, fuel consumption, and VMT from motor vehicles that operate on highways, freeways, and local roads in California and is commonly used by the CARB to project changes in future emissions from on-road mobile sources. EMFAC2017 was run for the LDA, LDT1, and LDT2 vehicle class within the California sub-area for the 2022 calendar year. Data from EMFAC2017 is shown in Appendix 4.2 to the Project's Energy Analysis *(Technical Appendix E).* Using the static year 2022 is considered conservative for estimating fuel consumption as it does not account for fuel efficiency improvements each subsequent year. (Urban Crossroads, 2021b, p. 24)

As generated by EMFAC2017, an aggregated fuel economy of LDAs ranging from model year 1974 to model year 2022 are estimated to have a fuel efficiency of 32.77 miles per gallon (mpg). Table 4.6-6, *Construction Worker Fuel Consumption Estimates (LDA)***,** provides an estimated annual fuel consumption resulting from LDAs related to the Project construction worker trips. Based on Table 4.6-6, it is estimated that 207,004 gallons of fuel would be consumed related to construction worker trips during full construction of the Project. (Urban Crossroads, 2021b, pp. 24-25)

Table 4.6-6 Construction Worker Fuel Consumption Estimates (LDA)

Construction Activity	Duration (Days)	Worker LDA Trips / Day	Trip Length (miles)	Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
Site Preparation	34	13	14.7	6,497	32.77	198
Grading	58	15	14.7	12,789	32.77	390
Building Construction	495	884	14.7	6,432,426	32.77	196,295
Paving	120	11	14.7	19,404	32.77	592
Architectural Coating	120	177	14.7	312,228	32.77	9,528
TOTAL CONSTRUCTION WORKER (LDA) FUEL CONSUMPTION						***207,004***

(Urban Crossroads, 2021b, Table 4-7)

4 Vehicles under the LDT1 category have a gross vehicle weight rating (GVWR) of less than 6,000 lbs. and equivalent test weight (ETW) of less than or equal to 3,750 lbs.
5 Vehicles under the LDT2 category have a GVWR of less than 6,000 lbs. and ETW between 3,751 lbs. and 5,750 lbs.

The EMFAC2017 aggregated fuel economy of LDT1s ranging from model year 1974 to model year 2022 are estimated to have a fuel efficiency 27.55 mpg. Table 4.6-7, *Construction Worker Fuel Consumption Estimates (LTD1),* provides an estimated annual fuel consumption resulting from LDT1s related to the Project construction worker trips. Based on Table 4.6-7, it is estimated that 25,184 gallons of fuel would be consumed related to construction worker trips during full construction of the Project. (Urban Crossroads, 2021b, p. 25)

Table 4.6-7 Construction Worker Fuel Consumption Estimates (LTD1)

Construction Activity	Duration (Days)	Worker LDT1 Trips / Day	Trip Length (miles)	Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
Site Preparation	34	2	14.7	1,999	27.55	73
Grading	58	2	14.7	1,705	27.55	62
Building Construction	495	90	14.7	654,885	27.55	23,769
Paving	120	2	14.7	3,528	27.55	128
Architectural Coating	120	18	14.7	31,752	27.55	1,152
TOTAL CONSTRUCTION WORKER (LDT2) FUEL CONSUMPTION						*25,184*

(Urban Crossroads, 2021b, Table 4-8)

The EMFAC2017 aggregated fuel economy of LDT2s ranging from model year 1974 to model years 2022 are estimated to have a fuel efficiency of 26.03 mpg. Table 4.6-8, *Construction Worker Fuel Consumption Estimates (LTD2),* provides an estimated annual fuel consumption resulting from LDT2s related to the Project construction worker trips. Based on Table 4.6-8, it is estimated that 80,831 gallons of fuel would be consumed related to construction worker trips during full construction of the Project. (Urban Crossroads, 2021b, p. 25)

It should be noted that construction worker trips would represent a "single-event" gasoline fuel demand and would not require on-going or permanent commitment of fuel resources for this purpose. (Urban Crossroads, 2021b, p. 26)

Table 4.6-8 Construction Worker Fuel Consumption Estimates (LTD2)

Construction Activity	Duration (Days)	Worker LDT2 Trips / Day	Trip Length (miles)	Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
Site Preparation	34	4	14.7	1,999	26.03	77
Grading	58	5	14.7	4,263	26.03	164
Building Construction	495	274	14.7	1,993,761	26.03	76,592
Paving	120	4	14.7	7,056	26.03	271
Architectural Coating	120	55	14.7	97,020	26.03	3,727
TOTAL CONSTRUCTION WORKER (LDT1) FUEL CONSUMPTION						*80,831*

(Urban Crossroads, 2021b, Table 4-9)

5. *Construction Vendor Fuel Estimates*

Construction vendor trips (vehicles that deliver materials to the site during construction) are estimated to generate 795,812 VMT along area roadways for the Project over the duration of construction activity. Based on CalEEMod standard inputs, vehicles associated with vendor trips are limited to medium-heavy duty trucks (MHDT) and heavy-heavy duty trucks (HHDT). Similar to LDA, LDT1, and LDT fuel estimates, vehicle fuel efficiencies for MHDTs and HHDTs for vending trips were estimated using information generated within EMFAC2017. EMFAC2017 was run for the MHDT and HHDT vehicle classes within the California sub-area for the 2022 calendar year. Data from EMFAC2017 is shown in Appendix 4.2. 2 to the Project's Energy Analysis *(Technical Appendix E).* (Urban Crossroads, 2021b, p. 26)

As generated by EMFAC2017, an aggregated fuel economy of MHDTs ranging from model year 1974 to model year 2022 are estimated to have a fuel efficiency of 10.37 mpg. Based on Table 4.6-9, *Construction Vendor Fuel Consumption Estimates (MHDT)*, it is estimated that 68,170 gallons of fuel would be consumed related to construction vendor trips (MHDTs) during full construction of the Project. (Urban Crossroads, 2021b, p. 26)

Table 4.6-9 Construction Vendor Fuel Consumption Estimates (MHDT)

Construction Activity	Duration (Days)	Vendor Trips / Day	Trip Length (miles)	Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
Building Construction	495	207	6.9	707,009	10.37	68,170
TOTAL CONSTRUCTION VENDOR (MHDT) FUEL CONSUMPTION						*68,170*

(Urban Crossroads, 2021b, Table 4-10)

Table 4.6-10, *Construction Vendor Fuel Consumption Estimates (HHDT*)**,** shows the estimated fuel economy of HHDTs accessing the Project site. As generated by EMFAC2017, an aggregated fuel economy of HHDTs ranging from model year 1974 to model year 2022 are estimated to have a fuel efficiency of 7.06 mpg. Based on Table 4.6-10, fuel consumption from construction vendor trips (HHDTs) will total approximately 126,229 gallons. (Urban Crossroads, 2021b, p. 26)

Table 4.6-10 Construction Vendor Fuel Consumption Estimates (HHDT)

Construction Activity	Duration (Days)	Vendor Trips / Day	Trip Length (miles)	Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
Building Construction	495	261	6.9	891,446	7.06	126,229
TOTAL CONSTRUCTION VENDOR (HHDT) FUEL CONSUMPTION						*126,229*

(Urban Crossroads, 2021b, Table 4-11)

It should be noted that Project construction vendor trips would represent a "single-event" diesel fuel demand and would not require on-going or permanent commitment of diesel fuel resources for this purpose. (Urban Crossroads, 2021b, p. 27)

6. Construction Energy Efficiency/Conservation Measures

Starting in 2014, CARB adopted the nation's first regulation aimed at cleaning up off-road construction equipment such as bulldozers, graders, and backhoes. These requirements ensure fleets gradually turnover the oldest and dirtiest equipment to newer, cleaner models and prevent fleets from adding older, dirtier equipment. As such, the equipment used for Project construction would conform to CARB regulations and California emissions standards. It should also be noted that there are no unusual Project characteristics or construction processes that would require the use of equipment that would be more energy intensive than is used for comparable activities, or equipment that would not conform to current emissions standards (and related fuel efficiencies). Equipment employed in construction of the Project would therefore not result in inefficient, wasteful, or unnecessary consumption of fuel. (Urban Crossroads, 2021b, p. 27)

Construction contractors would be required to comply with applicable CARB regulations regarding retrofitting, repowering, or replacement of diesel off-road construction equipment. Additionally, CARB has adopted the Airborne Toxic Control Measure to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to diesel particulate matter and other Toxic Air Contaminants. Compliance with anti-idling and emissions regulations would result in a more efficient use of construction-related energy and the minimization or elimination of wasteful or unnecessary consumption of energy. Idling restrictions and the use of newer engines and equipment would result in less fuel combustion and energy consumption. (Urban Crossroads, 2021b, p. 27)

Additional construction-source energy efficiencies would occur due to required California regulations and best available control measures (BACM). For example, CCR Title 13, Motor Vehicles, section 2449(d)(3), *Idling*, limits idling times of construction vehicles to no more than five minutes, thereby precluding unnecessary and wasteful consumption of fuel due to unproductive idling of construction equipment. Section 2449(d)(3) requires that "grading plans shall reference the requirement that a sign shall be posted on-site stating that construction workers need to shut off engines at or before five minutes of idling." In this manner, construction equipment operators are required to be informed that engines are to be turned off at or prior to five minutes of idling. Enforcement of idling limitations is realized through periodic site inspections conducted by County building officials, and/or in response to citizen complaints. (Urban Crossroads, 2021b, p. 27)

A full analysis related to the energy needed to form construction materials is not included in this analysis due to a lack of detailed Project-specific information on construction materials. At this time, an analysis of the energy needed to create Project-related construction materials would be extremely speculative and thus has not been prepared. (Urban Crossroads, 2021b, p. 28)

In general, the construction processes promote conservation and efficient use of energy by reducing raw materials demands, with related reduction in energy demands associated with raw materials extraction, transportation, processing, and refinement. Use of materials in bulk reduces energy demands associated with preparation and transport of construction materials as well as the transport and disposal of construction waste

and solid waste in general, with corollary reduced demands on area landfill capacities and energy consumed by waste transport and landfill operations. (Urban Crossroads, 2021b, p. 28)

B. Operational Energy Demands

Energy consumption in support of or related to Project operations would include transportation energy demands (energy consumed by passenger car and truck vehicles accessing the Project site) and facilities energy demands (energy consumed by building operations and site maintenance activities). (Urban Crossroads, 2021b, p. 28)

1. Transportation Energy Demands

Energy that would be consumed by Project-generated traffic is a function of total VMT and estimated vehicle fuel economies of vehicles accessing the Project site. As shown in Table 4.6-11, *Total Project-Generated Traffic Annual Fuel Consumption (All Vehicles),* the Project would result in 11,581,479 annual VMT and an estimated annual fuel consumption of 429,229 gallons of fuel. These calculations are conservative as they do not include any Transportation Demand Management (TDM) measures, which are designed to reduce VMT from vehicles. (Urban Crossroads, 2021b, p. 28)

Table 4.6-11 Total Project-Generated Traffic Annual Fuel Consumption (All Vehicles)

Vehicle Type	Annual Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Annual Fuel Consumption (gallons)
LDA	6,290,353	33.8	186,182
LDT1	703,563	28.4	24,789
LDT2	2,139,794	27.0	79,190
MDV	1,508,580	21.5	70,315
LHD1	275,987	14.6	18,930
LHD2	73,577	15.3	4,823
MHD	135,712	10.8	12,595
HHD	105,820	7.4	14,231
OBUS	9,404	6.7	1,396
UBUS	5,895	5.0	1,187
MCY	280,191	37.9	7,394
SBUS	8,686	8.1	1,078
MH	43,905	6.2	7,118
Total (All Vehicles)	11,581,467	NA	**429,229**

(Urban Crossroads, 2021b, Table 4-12)

2. *Facility Energy Demands*

Project building operational activities would result in the consumption of natural gas and electricity. Natural gas would be supplied to the Project by SoCalGas, while electricity would be supplied to the Project by SCE. As previously stated, the analysis herein assumes compliance with the 2019 Title 24 Standards. Annual natural gas and electricity demands of the Project are summarized in Table 4.6-12, *Project Annual Operational Natural Gas Demand*, and Table 4.6-13, *Project Annual Operational Electricity Demand*. Energy demand estimates are generated as part of the AQIA calculations provided in Appendices 4.1 to the Project's Energy Analysis *(Technical Appendix E).* (Urban Crossroads, 2021b, p. 28)

Table 4.6-12 Project Annual Operational Natural Gas Demand

Natural Gas Demand	kBTU/year
Single Family Residential	10,070,200
Age Restricted Housing	1,210,070
Super Market	956,500
Pharmacy	30,800
Retail	223,300
Fast-Food Restaurant	2,862,930
Park	0
TOTAL PROJECT NATURAL GAS DEMAND	***15,353,800***

(Urban Crossroads, 2021b, Table 4-13)

Table 4.6-13 Project Annual Operational Electricity Demand

Electricity Demand	kWh/year
Single Family Residential	2,835,420
Age Restricted Housing	348,855
Super Market	1,819,000
Pharmacy	169,960
Retail	1,232,210
Fast-Food Restaurant	484,680
Park	0
TOTAL PROJECT ELECTRICITY DEMAND	***6,890,125***

(Urban Crossroads, 2021b, Table 4-14)

3. *Operational Energy Efficiency/Conservation Measures*

Energy efficiency/energy conservation attributes of the Project would be complemented by increasingly stringent State and federal regulatory actions addressing vehicle fuel economies and vehicle emissions standards, and enhanced building/utilities energy efficiencies mandated under California building codes (e.g., Title 24, California Green Building Standards Code). (Urban Crossroads, 2021b, p. 30)

Project annual fuel consumption estimates presented previously in Table 4.6-11 represent likely potential maximums that would occur for the Project. Under subsequent future conditions, average fuel economies of

vehicles accessing the Project site can be expected to improve as older, less fuel-efficient vehicles are removed from circulation, and in response to fuel economy and emissions standards imposed on newer vehicles entering the circulation system. (Urban Crossroads, 2021b, p. 30)

Enhanced fuel economies realized pursuant to federal and State regulatory actions, and related transition of vehicles to alternative energy sources (e.g., electricity, natural gas, biofuels, hydrogen cells) would likely decrease future gasoline fuel demands per VMT. Location of the Project proximate to regional and local roadway systems tends to reduce VMT within the region, acting to reduce regional vehicle energy demands. (Urban Crossroads, 2021b, p. 30)

C. Summary of Energy Demands

1. Construction Energy Demands

The estimated power cost of on-site electricity usage during the construction of the Project is assumed to be approximately $69,911.45. Additionally, based on the assumed power cost, it is estimated that the total electricity usage during construction, after full Project build-out, is calculated to be approximately 635,559 kWh. (Urban Crossroads, 2021b, p. 30)

Construction equipment used by the Project would result in single event consumption of approximately 85,246 gallons of diesel fuel. Construction equipment use of fuel would not be atypical for the type of construction proposed because there are no aspects of the Project's proposed construction process that are unusual or energy-intensive, and Project construction equipment would conform to the applicable CARB emissions standards, acting to promote equipment fuel efficiencies. (Urban Crossroads, 2021b, pp. 30-31)

CCR Title 13, Title 13, Motor Vehicles, section 2449(d)(3), *Idling*, limits idling times of construction vehicles to no more than 5 minutes, thereby precluding unnecessary and wasteful consumption of fuel due to unproductive idling of construction equipment. BACMs inform construction equipment operators of this requirement. Enforcement of idling limitations is realized through periodic site inspections conducted by County building officials, and/or in response to citizen complaints. (Urban Crossroads, 2021b, p. 31)

Construction worker trips for full construction of the Project would result in the estimated fuel consumption of 313,019 gallons of fuel. Additionally, fuel consumption from construction vendor and hauling trips (MHDTs and HHDTs) would total approximately 194,399 gallons. Diesel fuel would be supplied by County and regional commercial vendors. Indirectly, construction energy efficiencies and energy conservation would be achieved using bulk purchases, transport and use of construction materials. The 2020 IEPR released by the CEC has shown that fuel efficiencies are getting better within on and off-road vehicle engines due to more stringent government requirements. As supported by the preceding discussions, Project construction energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary. (Urban Crossroads, 2021b, p. 31)

2. Operational Energy Demands

Transportation Energy Demands

Annual vehicular trips and related VMT generated by the operation of the Project would result in a fuel demand of 429,229 gallons of fuel. Fuel would be provided by current and future commercial vendors. Trip generation and VMT generated by the Project are consistent with other residential uses of similar scale and configuration, as reflected respectively in the Institute of Transportation Engineers (ITE) Trip Generation Manual (10th Ed., 2017) and CalEEMod. As such, Project operations would not result in excessive and wasteful vehicle trips and VMT, nor excess and wasteful vehicle energy consumption compared to other residential and commercial developments of similar size. (Urban Crossroads, 2021b, p. 31)

In addition, enhanced fuel economies realized pursuant to federal and State regulatory actions, and related transition of vehicles to alternative energy sources (e.g., electricity, natural gas, biofuels, hydrogen cells) would likely decrease future gasoline fuel demands per VMT in the future. Location of the Project proximate to regional and local roadway systems tends to reduce VMT within the region, acting to reduce regional vehicle energy demands. The Project would implement sidewalks, facilitating and encouraging pedestrian access, as well as an 8-foot recreational trail located in Planning Area 9 and along Keller Road, which would connect to a community-wide trail system. Facilitating pedestrian access would reduce VMT and associated energy consumption. As supported by the preceding discussions, Project transportation energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary, and impacts would therefore be less than significant. (Urban Crossroads, 2021b, p. 31)

Facility Energy Demands

Project facility operational energy demands are estimated at: 15,353,800 kBTU/year of natural gas; and 6,890,125 kWh/year of electricity. Natural gas would be supplied to the Project by SoCalGas; electricity would be supplied by SCE. The Project proposes conventional residences reflecting contemporary energy efficient/energy conserving designs and operational programs. The Project would also be required to install solar PV systems and would not result in inefficient or unnecessary energy use. The Project does not propose uses that are inherently energy intensive and the energy demands in total would be comparable to other industrial land use projects of similar scale and configuration. (Urban Crossroads, 2021b, pp. 31-32)

Lastly, the Project would comply with the applicable Title 24 standards. Compliance itself with applicable Title 24 standards would ensure that the Project energy demands would not be inefficient, wasteful, or otherwise unnecessary. (Urban Crossroads, 2021b, p. 32)

D. Conclusion

As supported by the preceding analyses, Project construction and operations would not result in the inefficient, wasteful, or unnecessary consumption of energy. The Project would therefore not cause or result in the need for additional energy producing or transmission facilities. The Project would not engage in wasteful or inefficient uses of energy and aims to achieve energy conservations goals within the State of California. Accordingly, the Project would not result in the wasteful, inefficient, or unnecessary consumption of energy resources, and impacts would be less than significant.

Threshold b:	***Would the Project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?***

A summary of the Project's consistency with applicable regulations and requirements is provided below.

Consistency with Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA)

Transportation and access to the Project site is provided by the local and regional roadway systems. The Project would not interfere with, nor otherwise obstruct intermodal transportation plans or projects that may be realized pursuant to the ISTEA because Southern California Association of Governments (SCAG) is not planning for intermodal facilities on or through the Project site. (Urban Crossroads, 2021b, p. 32)

Consistency with the Transportation Equity Act for the 21st Century (TEA-21)

The Project site is located near major transportation corridors with proximate access to the Interstate freeway system. The site selected for the Project facilitates access acts to reduce vehicle miles traveled, takes advantage of existing infrastructure systems, and promotes land use compatibilities through collocation of similar uses. The Project supports the strong planning processes emphasized under TEA-21. The Project is therefore consistent with, and would not otherwise interfere with, nor obstruct implementation of TEA-21. (Urban Crossroads, 2021b, p. 32)

Consistency with 2019 Integrative Energy Policy Report (IEPR)

Electricity may be provided to the Project by SCE. SCE's Clean Power and Electrification Pathway (CPEP) white paper builds on existing state programs and policies. As such, the Project is consistent with, and would not otherwise interfere with, nor obstruct implementation the goals presented in the 2020 IEPR. (Urban Crossroads, 2021b, pp. 32-33)

Consistency with the State of California Energy Plan

The Project site is located along major transportation corridors with proximate access to the Interstate freeway system. The site selected for the Project facilitates access and takes advantage of existing infrastructure systems. The Project therefore supports urban design and planning processes identified under the State of California Energy Plan, is consistent with, and would not otherwise interfere with, nor obstruct implementation of the State of California Energy Plan. (Urban Crossroads, 2021b, p. 33)

Consistency with California Code Title 24, Part 6, Energy Efficiency Standards

The 2019 version of Title 24 was adopted by the California Energy Commission (CEC) and became effective on January 1, 2020. It should be noted that the analysis herein assumes compliance with the 2019 Title 24 Standards. The CEC anticipates that, with incorporation of solar PV requirements, residential buildings will use approximately 53% less energy compared to the 2016 Energy Code and non-residential buildings will use approximately 30% less energy due to lighting upgrades compared to the 2016 version of the Title 24 requirements. (Urban Crossroads, 2021b, p. 33)

Consistency with AB 1493

AB 1493 is not applicable to the Project as it is a Statewide measure establishing vehicle emissions standards. No feature of the Project would interfere with implementation of the requirements under AB 1493. (Urban Crossroads, 2021b, p. 33)

Consistency with Renewable Portfolio Standard (RPS)

California's Renewable Portfolio Standard is not applicable to the Project as it is a statewide measure that establishes a renewable energy mix. No feature of the Project would interfere with implementation of the requirements under RPS. (Urban Crossroads, 2021b, p. 33)

Consistency with Senate Bill 350 (SB 350)

The proposed Project would use energy from SCE, which have committed to diversify their portfolio of energy sources by increasing energy from wind and solar sources. No feature of the Project would interfere with implementation of SB 350. Additionally, the Project would be designed and constructed to implement the energy efficiency measures for new residential developments and would include several measures designed to reduce energy consumption. (Urban Crossroads, 2021b, p. 33)

Conclusion

As indicated in the preceding analysis, the Project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. Thus, impacts would be less than significant.

4.6.5 Cumulative Impact Analysis

As indicated under the analysis of Threshold a., there are no components of the proposed Project that would result in the wasteful, inefficient, or unnecessary consumption of energy resources. Although it is possible other cumulative developments could result in the wasteful, inefficient, or unnecessary consumption of energy resources, the Project's projected energy demand during operations would be less-than-cumulatively considerable with mandatory compliance with applicable regulations.

As indicated under the analysis of Threshold b., the Project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. As such, the Project has no potential to result in cumulatively-considerable impacts due to a conflict with or obstruction of such plans.

4.6.6 Significance of Impacts Before Mitigation

Threshold a.: Less-than-Significant Impact. Project construction and operations would not result in the inefficient, wasteful, or unnecessary consumption of energy. Further, the energy demands of the Project can be accommodated within the context of available resources and energy delivery systems. The Project would therefore not cause or result in the need for additional energy producing or transmission facilities. The Project would not engage in wasteful or inefficient uses of energy and aims to achieve energy conservation goals within the State of California. As such, Project impacts due to wasteful, inefficient, or unnecessary consumption of energy resources would be less than significant requiring no mitigation.

Threshold b.: Less-than-Significant Impact. Energy consumed by the Project's operation is calculated to be comparable to, or less than, energy consumed by other mixed use (residential/commercial retail) projects of similar scale and intensity that are operating in California, as the Project would be subject to current regulatory requirements, such as the 2019 version of Title 24, which was not in effect when most existing developments were constructed. Specifically, the CEC anticipates that non-residential buildings will use approximately 30% less energy due to lighting upgrades compared to the 2016 version of the Title 24 requirements, and that residential buildings will use approximately 53% less energy compared to the 2016 Energy Code. Moreover, the Project would be subject to compliance with the Riverside County CAP and would be required to achieve a minimum of 100 points per the CAP screening tables, which would further reduce the Project's energy demand. Based on the analysis presented herein, the Project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency, and impacts would be less than significant.

4.6.7 County/Regulations, Design Requirements, and Mitigation

Applicable Regulations and Design Requirements

The following are applicable regulations and design requirements within the County of Riverside. Although these requirements technically do not meet CEQA's definition for mitigation, they are imposed herein to ensure Project compliance with applicable City regulations and design requirements.

- Pavley Fuel Efficiency Standards (AB1493). Establishes fuel efficiency ratings for new vehicles.

- Renewable Portfolio Standards (SB 100). Increases California's RPS requirement to 50% renewable resources target by December 31, 2026, and to achieve a 60% target by December 31, 2030. SB 100 also requires that retail sellers and local publicly owned electric utilities procure a minimum quantity of electricity products from eligible renewable energy resources so that the total kilowatt hours (kWh) of those products sold to their retail end-use customers achieve 44% of retail sales by December 31, 2024, 52% by December 31, 2027, and 60% by December 31, 2030. In addition to targets under AB 32 and SB 32, Executive Order B-55-18 establishes a carbon neutrality goal for the state of California by 2045; and sets a goal to maintain net negative emissions thereafter. The Executive Order directs the California Natural Resources Agency (CNRA), California Environmental Protection Agency (CalEPA), the Department of Food and Agriculture (CDFA), and CARB to include sequestration targets in the Natural and Working Lands Climate Change Implementation Plan consistent with the carbon neutrality goal.

- CCR Title 13, Motor Vehicles, Section 2449(d)(3), *Idling*. Grading plans shall reference the requirement that a sign shall be posted on-site stating that construction workers need to shut off engines at or before five minutes of idling.

Mitigation

Project impacts due to energy consumption would be less than significant; therefore, mitigation measures are not required.

4.7 GEOLOGY AND SOILS

This Subsection assesses the existing surface and subsurface geologic conditions and features of the Project site and determines the potential for impacts associated with these features. The analysis in this Subsection is based, in part, on information from the report titled, "Updated Geotechnical and Infiltration Evaluation, Proposed Single-Family Residential Development, Keller Crossing Project, Northwest Corner of Winchester Road and Keller Road, Winchester Area of Riverside County, California" (herein, "Geotechnical Update"), prepared by GeoTek, Inc. (herein, "GeoTek"), dated May 25, 2021, and included as EIR *Technical Appendix F1* (GeoTek, 2021). The Project's Geotechnical Update is an update to a July 29, 2009 geotechnical investigation prepared by GeoSoils Inc. (GSI) and included as EIR *Technical Appendix F2* (GeoSoils, 2009). A summary of the findings in the GSI report is presented in Section 3 of the Project's Geotechnical Update. Refer to Section 7.0, *References*, for a complete list of reference sources.

4.7.1 EXISTING CONDITIONS

A. Regional Geology

The Project site is situated in the Peninsular Ranges geomorphic province. This province varies in width from about 30 to 100 miles. It is bounded on the west by the Pacific Ocean, on the south by the Gulf of California and on the east by the Colorado Desert Province. The Peninsular Ranges are essentially a series of northwest-southeast oriented fault blocks. Several major fault zones are found in this province. The Elsinore Fault zone and the San Jacinto Fault zone trend northwest-southeast and are mostly found near the middle of the province. (GeoTek, 2021, p. 8)

Specifically, the Project site is located in an area geologically mapped to be underlain mostly by meta-sedimentary (phyllite) bedrock (phyllite and schist, with abundant feldspar and quartz) with areas in the southeast, south, and west of the site underlain by alluvium. Based on field investigations conducted by Geotek, the alluvial areas have been geologically mapped as older alluvium. Additionally, the site was geologically mapped by GSI (2009) as being underlain by very old alluvial deposits and Phyllite bedrock. GSI indicated that adverse geologic structure within the Phyllite bedrock is not anticipated to comprise a constraint to development. (GeoTek, 2021, p. 8)

B. Local Geology and Subsurface Soil Conditions

A brief description of the earth materials reported to be on the site by GSI (2009) and encountered in field explorations for the Project site and areas of proposed offsite utilities is presented below. Detailed logs of the subsurface conditions of the site are presented in Appendices A and B of the Project's Geotechnical Update (*Technical Appendix F1*). Report of the seismic refraction survey by GeoTek is presented in Appendix C of the Project's Geotechnical Update.

- Artificial Fill. Artificial fill materials were observed in Boring B-7 located west of the Project site within areas of proposed utility improvements. These materials consist of silty sand and sandy silt which has various shades of brown and olive in color, slightly moist, and is in loose condition, based on field observations conducted by GetoTek. The fill thickness encountered in Boring B-7 was 2 feet. The fill materials apparently were originated from the construction of Keller Road. (GeoTek, 2021, p. 9)

- Older Alluvium. Older Alluvium was encountered in all the exploratory trenches excavated within the Project site and within the majority of the exploratory borings drilled along the proposed utility alignments. These materials consist of silty sand, sandy silt, and clayey sand and extended from the ground surface to depths of about 2 to 8.5 feet, with average depths of 4 to 6 feet. The older alluvium was brown, red and gray in color, slightly moist to moist, and medium dense to very dense, based on field observations conducted by GetoTek. (GeoTek, 2021, p. 9)

- Metasedimentary Bedrock. Metasedimentary bedrock was observed at the Project site and under the proposed off-site utility alignments at typical depths of 4 to 6 feet and in some areas as deep as approximately 8.5 feet. The regional geologic map shows the bedrock is being of schist (phyllite) composition, generally with foliations in a northwest/southeast orientation with inclinations ranging from 52 degrees to 75 degrees to the northeast. GSI describes the bedrock as fissile black phyllite with a predominantly east-west strike with steep northerly inclinations. GSI states the rocks are generally moderately weathered in the near surface and become hard to very hard at depth. (GeoTek, 2021, p. 9)

  The on-site bedrock consists of phyllite which is moderately to highly weathered within its upper portions and is generally recovered as gray, brown, and red fine to medium sand and clayey sand when excavated. The bedrock becomes less weathered with depth. All of the exploratory trenches explored on field observations conducted by GetoTek were able to be excavated to a maximum depth of 20 feet, with increasing difficulty below 15 feet below ground surface. (GeoTek, 2021, p. 9)

  The seismic refraction survey generally identified three zones of subsurface materials. The uppermost zone comprises mostly soil and highly weathered bedrock and is estimated to extend up to 5 feet below grade. The middle zone was noted to correspond to weathered bedrock to depths ranging generally from about 18 to 60 feet with velocities ranging from 3,700 to 4,600 feet per second (fps). The bottom zone was noted to comprise less weathered bedrock with velocities ranging from 7,100 to 10,800 fps. A tomographic model conducted for seismic line 3 indicated that relatively fresh bedrock exists near the center portion of the line at about 30 feet below existing grade. (GeoTek, 2021, pp. 9-10)

  To estimate the approximate depth to rippable bedrock and rippable trenching (utility construction) using the seismic refraction data collected at the site, cut-off velocities of 5,000 fps and 4,000 fps, have been utilized respectively during field observations conducted by GetoTek examining the excavation of the recent site trenches. Based on the above, it is estimated that the north-central, elevated portions of the Project site contain marginally rippable bedrock. Hard, marginally rippable bedrock is anticipated to exist in that area at general depths ranging from 20 to 40 feet. The seismic refraction traverses performed by GSI (2009) also indicated hard bedrock in the northeastern end of the Project site with depth to marginally rippable rock ranging from 25 to 30 feet. (GeoTek, 2021, p. 10)

  The seismic refraction lines by GeoTek and GSI also suggest that very difficult to non-rippable trenching could be encountered in areas of Lines 1 and 3 through 5 by GeoTek and Lines 4 and 9 by GSI at about 5 to 10 feet below existing grades, based on a cut-off velocity of 4,000 pounds per square foot (psf). Most of these lines are also situated within the north-central and northeastern ends of the Project site. The rest of the lines appear to indicate that rippable trenching could achieve to 20 to 40

feet below grade. However, the majority of the Project site's exploratory trenches noted slow excavation below 15 feet. (GeoTek, 2021, p. 10)

- Granitic Bedrock. Granitic bedrock was encountered in exploratory boring B-7 located on Keller Road within an area of proposed utilities. These materials generally excavated as fine to coarse sand and were found at a depth of about 3 feet. The granitic bedrock was found to be gabbroic in composition that was orange and brown in color, slightly moist to moist, hard, and highly weathered, based on field observations conducted by GetoTek. (GeoTek, 2021, p. 10)

C. Site Topography

As previously shown in EIR Figure 2-9, the Project site's topography is characterized by relatively flat topography in the southern portions of the site, with undulating hill forms occurring in the north and northeastern portions of the Project site. Elevations on site range from 1,422 feet above mean sea level (amsl) in the southeast corner of the Project site to 1,587 feet amsl near the northeast corner of the Project site. (Google Earth, 2021)

D. Groundwater

Groundwater was not encountered on the Project site during exploratory borings or trenches excavated to a maximum depth of 32.1 feet. Additionally, groundwater was not encountered by GSI to an explored depth of 9 feet below existing ground surface. Regional groundwater level is estimated to be greater than 50 feet below the existing ground surface. (GeoTek, 2021, p. 11)

The California Department of Water Resources, Water Data Library, was searched for groundwater data, however, none of the wells in the general vicinity of the Project had groundwater depths more recent than 1968. Accordingly, these wells are not representative of current groundwater condition on the Project site. The nearest well was found on GeoTracker approximately 3 miles southeast of the Project site. Groundwater was encountered in this well (NM-MW4S) at 45 feet below ground surface. However, seasonal perched groundwater may be encountered during grading within the lower elevations of the site. (GeoTek, 2021, p. 11)

E. Faulting and Seismicity

1. Faulting

The geologic structure of the entire southern California area is dominated mainly by northwest-trending faults associated with the San Andreas system. The Project site is in a seismically active region; however, no active or potentially active fault is known to exist at the Project site nor is the site situated within a State of California designated *"Alquist-Priolo"* Earthquake Fault Zone. The County of Riverside has designated the site as "not in a fault zone" and "not in a fault line." The nearest known active fault zone is the Elsinore Fault – Temecula Section located approximately 7.9 miles southwest of the site. Therefore, the potential for surface rupture at the site is considered negligible. (GeoTek, 2021, pp. 11-12)

2. Secondary Seismic Effects

Secondary effects of seismic activity normally considered as possible hazards to a site include several types of ground failure. Evidence of ancient landslides or slope instabilities at the Project site was not observed during field investigation. Thus, the potential for landslides is considered negligible. (GeoTek, 2021, p. 13)

The potential for secondary seismic hazard such as a tsunami is considered negligible due to the Project site elevation and great distance to the ocean. Diamond Valley Lake is located approximately 2.8 miles northeast of the Project site. This man-made lake was designed for a maximum water elevation 1756 feet amsl, which is about 320 feet above the lowest elevation of the subject site. However, the design and construction of the lake's three dams was recently completed (2002) and included dam safety for a strong seismic event. Accordingly, the risk of a seiche associated with Diamond Valley Lake is minor. (GeoTek, 2021, p. 13)

Additionally, Skinner Reservoir is located approximately 2.4 miles southeast of the site. This man-made reservoir was designed for a maximum water elevation of 1,497 feet about amsl which is about 75 feet above the lowest elevation of the subject site. However, site area surficial drainage west of the skinner reservoir dam is generally to the west-southwest with topographic high areas between the dam and the Project site. Therefore, risk of seiche or flooding from dam failure is considered to be minor. (GeoTek, 2021, p. 13)

Other bodies of water such as Heritage Lake and Canyon Lake are situated at greater distances and/or lower elevations than the site. Thus, the hazard of seiche related to these lakes is anticipated to be low. Rock fall hazards are considered nil based on the lack of perched loose rock materials and dense nature of the underlying bedrock. (GeoTek, 2021, p. 13)

3. Liquefaction and Seismically-Induced Settlement

Liquefaction is not considered to be a hazard at the Project site due the presence of shallow bedrock materials. Also, the potential for seismically-induced settlement at the property is considered to be nil because of the minimal thickness of soil atop bedrock. Additionally, GSI concluded the absence of a liquefaction hazard at the site and no further investigation or analysis of this nature are warranted. The County of Riverside has designated the site having "low" liquefaction potential and as being "susceptible" to subsidence. (GeoTek, 2021, pp. 12-13)

F. Volumetric Changes – Shrinkage and Subsidence

Volumetric changes in earth quantities occur when excavated onsite soil and bedrock materials are replaced as properly compacted fill. Provided below is an estimate of shrinkage and bulking factors for the various geologic units present onsite: (GeoTek, 2021, p. 5)

- Colluvium/topsoil: Shrinkage of 5 to 10%
- Older Alluvium: Shrinkage of 0 to 10%
- Phyllite bedrock: Bulking 15 to 25%

Subsidence of 0.10 feet was estimated in non-bedrock areas. (GeoTek, 2021, p. 5)

G. Expansive Soils

Based on the results of the laboratory testing conducted by Geotek, the on-site materials have mostly "very low" (0≤ EI ≤20) expansion potential with occasional materials having "low" expansion potential, per ASTM D 4829 (GeoTek, 2021).

H. Soil Types and Erosion Potential

EIR Table 2-1 (previously presented) provides a summary of the soils present on the Project site, and identifies the attendant rate of runoff and erosion susceptibility. As shown, approximately 15.8% of the Project site has a "Slow" rate of runoff and a "Slight" susceptibility to erosion. Approximately 1.9% of the Project site has a "Slow to Medium" rate of erosion and a "Moderate" susceptibility to erosion. Approximately 15.7% of the Project site has a "Medium" rate of runoff and a "Moderate" susceptibility to erosion. Approximately 49.5% of the Project site has a "Rapid" rate of runoff and a "High" susceptibility to erosion. Approximately 17.1% of the Project site has a "Very Rapid" rate of runoff and a "Very High" susceptibility to erosion. (USDA, 1971, pp. 30, 34, 42-44, and 62-65; USDA, 2021)

4.7.2 Applicable Environmental Regulations

A. Federal Regulations

1. Clean Water Act

The Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. The basis of the CWA was enacted in 1948 and was called the Federal Water Pollution Control Act, but the Act was substantially reorganized and expanded in 1972. "Clean Water Act" became the Act's common name with amendments in 1972. Under the CWA, the Environmental Protection Agency (EPA) has implemented pollution control programs such as setting wastewater standards for industry, and also has set water quality standards for all contaminants 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) permit program controls discharges. Point sources are discrete conveyances such as pipes or man-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 permits if their discharges go directly to surface waters. (EPA, n.d.)

B. State Regulations

1. Alquist-Priolo Earthquake Fault Zoning Act (A-P Act)

The Alquist-Priolo Earthquake Fault Zoning Act (A-P Act) was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy. The A-P Act's main purpose is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The A-P Act only addresses the hazard of surface fault rupture and is not directed toward other earthquake hazards. (CA Legislative Info, n.d.)

The A-P Act requires the State Geologist to establish regulatory zones (known as Earthquake Fault Zones) around the surface traces of active faults and to issue appropriate maps. ["Earthquake Fault Zones" were called "Special Studies Zones" prior to January 1, 1994.] The maps are distributed to all affected cities, counties, and

state agencies for their use in planning and controlling new or renewed construction. Local agencies must regulate most development projects within the zones. Projects include all land divisions and most structures for human occupancy. Single family wood-frame and steel-frame dwellings up to two stories not part of a development of four units or more are exempt. However, local agencies can be more restrictive than state law requires. (CA Legislative Info, n.d.)
Before a project can be permitted, cities and counties must require a geologic investigation to demonstrate that proposed buildings will not be constructed across active faults. An evaluation and written report of a specific site must be prepared by a licensed geologist. If an active fault is found, a structure for human occupancy cannot be placed over the trace of the fault and must be set back from the fault (generally 50 feet). (CA Legislative Info, n.d.)

2. Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act (SHMA) of 1990 (Public Resources Code, Chapter 7.8, § 2690-2699.6) directs the Department of Conservation, California Geological Survey to identify and map areas prone to liquefaction, earthquake-induced landslides, and amplified ground shaking. The purpose of the SHMA is to minimize loss of life and property through the identification, evaluation, and mitigation of seismic hazards. (CDC, n.d.)

Staff geologists in the Seismic Hazard Zonation Program gather existing geological, geophysical, and geotechnical data from numerous sources to produce the Seismic Hazard Zone Maps. They integrate and interpret these data regionally in order to evaluate the severity of the seismic hazards and designate as Zones of Required Investigation (ZORI) those areas prone to liquefaction and earthquake–induced landslides. Cities and counties are then required to use the Seismic Hazard Zone Maps in their land use planning and building permit processes. (CDC, n.d.)

The SHMA requires site-specific geotechnical investigations be conducted within the Zones of Required Investigation to identify and evaluate seismic hazards and formulate mitigation measures prior to permitting most developments designed for human occupancy. (CDC, n.d.)

3. Natural Hazards Disclosure Act

The Natural Hazards Disclosure Act, effective June 1, 1998 (as amended June 9, 1998), requires that sellers of real property and their agents provide prospective buyers with a "Natural Hazard Disclosure Statement" when the property being sold lies within one or more state-mapped hazard areas, including a Seismic Hazard Zone. (CA Legislative Info, n.d.)

The law requires the State Geologist to establish regulatory zones (Zones of Required Investigation) and to issue appropriate maps (Seismic Hazard Zone maps). These maps are distributed to all affected cities, counties, and state agencies for their use in planning and controlling construction and development. Single-family frame dwellings up to two stories not part of a development of four or more units are exempt from the state requirements. However, local agencies can be more restrictive than state law requires. (CA Legislative Info, n.d.)

Before a development permit can be issued or a subdivision approved, cities and counties must require a site-specific investigation to determine whether a significant hazard exists at the site and, if so, recommend measures to reduce the risk to an acceptable level. The investigation must be performed by state-licensed engineering geologists and/or civil engineers. (CA Legislative Info, n.d.)

4. Essential Services Buildings Seismic Safety Act

In 1986, the California Legislature determined that buildings providing essential services should be capable of providing those services to the public after a disaster. Their intent in this regard was defined in legislation known as the Essential Services Buildings Seismic Safety Act of 1986 and includes requirements that such buildings shall be "…designed and constructed to minimize fire hazards and to resist…the forces generated by earthquakes, gravity, and winds." This enabling legislation can be found in the California Health and Safety Code, Chapter 2, § 16000 through 16022. In addition, the California Building Code defines how the intent of the act is to be implemented in Title 24, Part 1 of the California Building Standards Administrative Code, Chapter 4, Articles 1 through 3. (CAB, n.d.)

5. California Building Standards Code (Title 24)

California Code of Regulations (CCR) Title 24 is reserved for state regulations that govern the design and construction of buildings, associated facilities, and equipment. These regulations are also known as building standards (reference California Health and Safety Code § 18909). Health and Safety Code (state law) § 18902 gives CCR Title 24 the name California Building Standards Code (CBSC). (CBSC, 2019, p. 1)

The CBSC in CCR Title 24 is published by the California Building Standards Commission and it applies to all building occupancies (see Health and Safety Code §§ 18908 and 18938) throughout the State of California. Cities and counties are required by state law to enforce CCR Title 24 (reference Health and Safety Code §§ 17958, 17960, 18938(b), and 18948). Cities and counties may adopt ordinances making more restrictive requirements than provided by CCR Title 24, because of local climatic, geological, or topographical conditions. Such adoptions and a finding of need statement must be filed with the California Building Standards Commission (Reference Health and Safety Code §§ 17958.7 and 18941.5). (CBSC, 2019, p. 1)

6. Porter-Cologne Water Control Act

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

- That the quality of all the waters of the State shall be protected;
- That all activities and factors affecting the quality of water shall be regulated to attain the highest water quality within reason; and
- That the State must be prepared to exercise its full power and jurisdiction to protect the quality of water in the State from degradation. (SWRCB, 2014)

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

The Regional Water Boards regulate discharges under the Porter-Cologne Act primarily through issuance of NPDES permits for point source discharges and waste discharge requirements (WDRs) for NPS discharges. Anyone discharging or proposing to discharge materials that could affect water quality (other than to a community sanitary sewer system regulated by an NPDES permit) must file a report of waste discharge. The Storm Water Resources Control Board (SWRCB) and the Regional Water Quality Control Boards can make their own investigations or may require dischargers to carry out water quality investigations and report on water quality issues. The Porter-Cologne Act provides several options for enforcing WDRs and other orders, including cease and desist orders, cleanup and abatement orders, administrative civil liability orders, civil court actions, and criminal prosecutions. (SWRCB, 2014)

The Porter-Cologne Act also implements many provisions of the Clean Water Act, such as the NPDES permitting program. The Porter-Cologne Act also requires adoption of water quality control plans that contain the guiding policies of water pollution management in California. In addition, regional water quality control plans (basin plans) have been adopted by each of the Regional Water Boards and get updated as necessary and practical. These plans identify the existing and potential beneficial uses of waters of the State and establish water quality objectives to protect these uses. The basin plans also contain implementation, surveillance, and monitoring plans. (SWRCB, 2014) The Project site is located in the Santa Ana River Watershed, which is within the purview of Santa Ana Regional Water Quality Control Board (RWQCB). The RWQCB's Santa Ana Region Basin Plan ("Basin Plan"), as most recently updated in June 2019, is the governing water quality plan for the region (RWQCB, 2019).

C. Local Regulations

1. Riverside County Ordinance No. 457 – Riverside County Building and Fire Codes

Every three years, Riverside County's Building and Fire Codes are adapted from the California Building Standards Code (CCR Title 24), which includes both building and fire codes. These codes establish site-specific investigation requirements, construction standards and inspection procedures to ensure that development authorized by the County of Riverside does not pose a threat to the health, safety, or welfare of the public. The California Building Standards Code contains minimum baseline standards to guard against unsafe development. This ordinance also adopts, in some cases with modification to a stricter standard, a number of California State's Title 24 codes (fire, building, plumbing, electrical, etc.). The Riverside County Department of Building and Safety provides technical expertise in reviewing and enforcing these codes. (Riverside County, 2015, p. 4.12-25)

2. Riverside County Ordinance No. 547 - Implementation of the Alquist-Priolo Earthquake Fault Zoning Act

This ordinance establishes the policies and procedures used by the County of Riverside to implement the A-P Act. Among other things, it requires all projects proposed within an "earthquake fault zone," as shown on the maps prepared by the State Geologist to comply with the provisions of the A-P Act. It establishes regulations for construction, including for grading, slopes and compaction, erosion control, retaining wall design and earthquake fault zone setbacks. (Riverside County, 2015, p. 4.12-25)

3. Riverside County Ordinance 484 – Control of Blowing Dust

This ordinance establishes requirements for the control of blowing sand within county-designated "Agricultural Dust Control Areas." It defines activities that may contribute to wind erosion, identifies restrictions on activities within these areas, establishes penalties for violation of the ordinance and identifies procedures necessary to obtain a valid permit. (Riverside County, 2015, p. 4.12-25)

4.7.3 Basis For Determining Significance

Section VII of Appendix G to the State CEQA Guidelines addresses typical adverse effects due to geological conditions, and includes the following threshold questions to evaluate the Project's impacts resulting from geologic or soil conditions (OPR, 2018a):

- *Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:*
  - *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.*
  - *Strong seismic ground shaking?*
  - *Seismic-related ground failure, including liquefaction?*
  - *Landslides?*
- *Would the project result in substantial soil erosion or the loss of topsoil?*
- *Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?*
- *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?*
- *Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?*
- *Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*

Significance thresholds are set forth in Riverside County's Environmental Assessment Checklist, as modified based on the 2018 updates to Section VII of Appendix G to the State CEQA Guidelines (listed above), and indicate significant impacts would occur if the Project or any Project-related component would:

a. *Be subject to rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault;*
b. *Be subject to seismic-related ground failure, including liquefaction;*
c. *Be subject to strong seismic ground shaking;*
d. *Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, collapse, or rockfall hazards;*
e. *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 ground subsidence;*
f. *Be subject to geologic hazards, such as seiche, mudflow, or volcanic hazard;*
g. *Change topography or ground surface relief features;*
h. *Create cut or fill slopes greater than 2:1 or higher than 10 feet;*
i. *Result in grading that affects or negates subsurface sewage disposal systems;*
j. *Result in substantial soil erosion or the loss of topsoil;*
k. *Be located on expansive soil, as defined in Section 1803.5.3 of the California Building Code (2019), creating substantial direct or indirect risks to life or property;*
l. *Have soils incapable of adequately supporting use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water;*
m. *Be impacted by or result in an increase in wind erosion and blow sand, either on or off site.*

The significance thresholds set forth in Riverside County's Environmental Assessment Checklist, as modified by the 2018 updates to the State CEQA Guidelines, were used to evaluate the significance of the proposed Project's impacts on geology and soils. It should be noted that the Project's potential impacts to paleontological resources are addressed separately in Subsection 4.14, *Paleontological Resources*, of this EIR.

4.7.4 Impact Analysis

Threshold a:	***Would the Project be subject to 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?***
Threshold c:	***Would the Project be subject to strong seismic ground shaking?***

The Project is located in a seismically-active region; however, no active or potentially active fault is known to exist at the Project site nor is the site situated within an Alquist-Priolo Earthquake Fault Zone. No faults are

identified on geologic maps readily available and reviewed as part of the Project's Geotechnical Update (*Technical Appendix F1* to this EIR). The nearest known active fault zone is the Elsinore Fault – Temecula Section located approximately 7.9 miles southwest of the site. Therefore, impacts due to rupture of a known earthquake would be less-than-significant. (GeoTek, 2021, p. 12)

As previously stated, the Project site is located in a seismically active area of southern California and is expected to experience moderate to severe ground shaking during the lifetime of the Project. The risk is not considered substantially different than that of other similar properties in the southern California area. The Project would be required to construct all proposed structures in accordance with the California Building Standards Code (CBSC, Title 24) and the Riverside County Building Code. The CBSC and Riverside County Building Code have been designed to preclude significant adverse effects associated with strong seismic ground shaking. Additionally, the Project's Geotechnical Update (*Technical Appendix F1*) includes site-specific recommendations to attenuate seismic-related hazards.

However, a significant impact could occur if the Project did not comply with the site-specific recommendations of the Project's Geotechnical Update (*Technical Appendix F1*). The Project's Geotechnical Update includes recommendations that would reduce seismic risks to an "acceptable level" as defined by the California Code of Regulations. Accordingly, prior to mitigation implementing the Geotechnical Update recommendations, the proposed Project has the potential to expose people or structures to substantial adverse effects, including loss, injury, or death, as a result of strong seismic ground shaking. This is evaluated as a significant impact for which mitigation would be required.

Threshold b: ***Would the Project be subject to seismic-related ground failure, including liquefaction?***

Seismically-induced liquefaction is a phenomenon in which cyclic stresses, produced by earthquake-induced ground motion, create excess pore pressures in soils. The soils may thereby acquire a high degree of mobility, and lead to lateral movement, sliding, sand boils, consolidation and settlement of loose sediments, and other damaging deformations. This phenomenon occurs only below the water table; but after liquefaction has developed, it can propagate upward into overlying, non-saturated soil as excess pore water dissipates. Typically, liquefaction has a relatively low potential at depths greater than 45 feet and is virtually unknown below a depth of 60 feet.

The condition of liquefaction has two principal effects. One is the consolidation of loose sediments with resultant settlement of the ground surface. The other effect is lateral sliding. Significant permanent lateral movement generally occurs only when there is significant differential loading, such as fill on natural ground slopes. Liquefaction susceptibility is related to numerous factors and the following conditions should be present for liquefaction to occur: 1) sediments must be relatively young in age and not have developed a large amount of cementation; 2) sediments generally consist of medium to fine grained, relatively cohesionless sands; 3) the sediments must have low relative density; 4) free groundwater must be present in the sediment; and 5) the site must experience a seismic event of a sufficient duration and magnitude, to induce straining of soil particles.

Based on site observations and subsurface investigations conducted by GeoTek, the Project site is not susceptible to soil liquefaction based on the depth to groundwater being in excess of 50 feet below grade and

due to the presence of shallow dense soil/bedrock materials across most of the Project site. Also, the potential for seismically-induced settlement at the property is considered to be nil because of the minimal thickness of soil atop bedrock. Accordingly, the Project would not be subject to seismic-related ground failure, including liquefaction, and impacts would therefore be less than significant. (GeoTek, 2021, p. 13)

Threshold d:	***Would the Project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, collapse, or rockfall hazards?***

Landslide Hazards

Evidence of ancient landslides or slope instabilities at the Project site were not observed during field investigation. Thus, the potential for landslides is considered negligible. Accordingly, impacts due to landslide hazards would be less than significant. (GeoTek, 2021, p. 13)

Lateral Spreading

Lateral spreading is a type of liquefaction-induced ground failure associated with the lateral displacement of surficial blocks of sediment resulting from liquefaction in a subsurface layer. Once liquefaction transforms the subsurface layer into a fluid mass, gravity plus the earthquake inertial forces may cause the mass to move downslope towards a free face (such as a river channel or an embankment). Lateral spreading may cause large horizontal displacements and such movement typically damages pipelines, utilities, bridges, and structures.

Due to the low probability of liquefaction to occur on site due the presence of shallow bedrock materials and minimal thickness of soil atop bedrock, the potential for lateral spreading is also considered low (GeoTek, 2021, pp. 12-13). Nonetheless, impacts could occur if proposed grading activities are not conducted in accordance with the site-specific recommendations of the Project's Geotechnical Update (*Technical Appendix F1*). This is evaluated as a potentially significant direct impact of the proposed Project for which mitigation would be required.

Collapse Hazards

Static settlement of the site would be induced by subjecting the existing grades to design grades (adding fill) and by the proposed structural building loads. Impacts due to collapse hazards could occur if proposed grading activities are not conducted in accordance with the site-specific recommendations of the Project's Geotechnical Update that would be required in association with Project grading and building permits. This is evaluated as a potentially significant direct impact of the proposed Project for which mitigation would be required.

Rockfall Hazards

A rockfall is a fragment of rock, or block of rocks, that detaches from a vertical to sub-vertical cliff or bluff in a downward motion. Under existing conditions, rock fall hazards are considered nil based on the lack of perched loose rock materials and dense nature of the underlying bedrock (GeoTek, 2021, p. 13). As such, the Project site is not be subject to rockfall hazards. Accordingly, impacts due to rockfall hazards would be less than significant.

Threshold e: ***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 ground subsidence?***

The County of Riverside indicates that the Project site is "susceptible" to subsidence. However, according to the Project's Geotechnical Update (*Technical Appendix F1* to this EIR), the potential for seismically induced settlement at the property is considered to be nil because of the minimal thickness of soil atop bedrock. (GeoTek, 2021, pp. 12-13) As such, the Project would not 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 ground subsidence, and impacts would therefore be less than significant.

Threshold f: ***Would the Project be subject to geologic hazards, such as seiche, mudflow, or volcanic hazard?***

There are no volcanoes in the Project region; thus, no impacts due to volcanic hazards would occur.

A seiche is an underwater wave that oscillates through a body of water which may be triggered by earthquakes or landslides. In general, seiches are small (on the order of a few inches) and are present in larger lakes as a result of the depth, temperature, and contours of the body of water. Diamond Valley Lake is located approximately 2.8 miles northeast of the site and was recently constructed (2002) to include dam safety for a strong seismic event. Additionally, Skinner Reservoir located approximately 2.4 miles southeast of the Project site has a minor risk of seiche or flooding from dam failure. (GeoTek, 2021, p. 13) Due to the lack of an onsite body of water or other bodies of water within close proximity to the site that have the potential to result in site inundation, the potential for the subject site to be impacted by seiches is considered low. As such, impacts due to seiches would be less than significant.

Although several existing hill forms occur in the northern portion of the Project site and would be preserved as open space, due to the relatively shallow depth to bedrock that occurs across the Project site, the risk of mudflow associated with these hill forms would be low. As such, impacts due to mudflow hazards would be less than significant.

Threshold g: ***Would the Project change topography or ground surface relief features?***

As discussed in EIR Section 3.0, the Project site would be graded in a manner that largely approximates the site's existing topographic conditions. The grading generally would follow the existing drainage patterns and the grading design boundaries for a nearly balanced rough graded condition with raw cut and fill quantities of approximately 1.2 million cubic yards (c.y.). It is anticipated that the Project's grading concept would result in balanced earthwork on-site without no need to export excess materials or to import materials from off-site areas. Thus, the Project would not result in a substantial change in topography or ground surface relief features, and impacts would be less-than-significant.

Threshold h: ***Would the Project create cut or fill slopes greater than 2:1 or higher than 10 feet?***

As shown on Project's proposed Tentative Tract Map No. 38163 ("TTM 38163"; refer to Figure 3-11 of this EIR), the proposed manufactured slopes along the boundary of proposed OS-CH land uses in proposed Planning Area 10 of SP 380A1 would be constructed at a 2:1 gradient, with a maximum height of approximately 25.4 feet. Although the slopes would exceed a height of 10 feet, site-specific recommendations

are provided in the Project's Geotechnical Update *(Technical Appendix F1)* which would ensure that proposed slopes are grossly stable. However, a significant impact could occur if the Project did not comply with the site-specific recommendations of the Project's Geotechnical Update. Accordingly, this is evaluated as a potentially significant direct impact of the Project for which mitigation would be required.

Threshold i:	***Would the Project result in grading that affects or negates subsurface sewage disposal systems?***

According to the Project's Phase I Environmental Site Assessment (EIR *Technical Appendix H*), and based upon the historic and present property use, there are no known septic tanks (systems) or other subsurface sewage disposal systems that exist on the Project site (Tetra Tech, 2020). As such, no impact associated with subsurface sewage disposal would occur.

Threshold l:	***Would the Project have soils incapable of adequately supporting use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?***

Sewer service to the proposed Project would be provided by the EMWD, and no septic tanks or alternative waste water disposal systems are proposed as part of the Project. SP 380A1 includes a Conceptual Sewer Plan (refer to EIR Figure 3-8) that would be implemented by proposed TTM 38163 (as shown on EIR Figure 3-9). The proposed sewer improvements would involve the construction of 8-inch and 12-inch gravity sewer lines that would connect to an existing 18-inch gravity sewer main and manhole located southeast of Winchester Road in Abelia Street, south of the Project site. As such, no impact associated with septic tanks or alternative waste water disposal systems would occur.

Threshold j:	***Would the Project result in substantial soil erosion or the loss of topsoil?***
Threshold m:	***Would the Project be impacted by or result in an increase in wind erosion and blow sand, either on or off site?***

Implementation of the Project has the potential to result in soil erosion. The analysis below summarizes the likelihood of the Project to result in substantial soil erosion during temporary construction activities and long-term operation.

❑ Construction-Related Impacts

Proposed grading and construction activities at the Project site would expose underlying soils and disturb surficial soils. Exposed soils would be subject to erosion during rainfall events or high winds due to the removal of stabilizing vegetation and exposure of these erodible materials to wind and water.

Pursuant to the requirements of the State Water Resources Control Board, the Project Applicant is required to obtain a NPDES permit for construction activities, including proposed grading. The NPDES permit is required for all projects that include construction activities such as clearing, grading, and/or excavation that disturb at least one (1) acre of total land area. The County's Municipal Separate Storm Sewer System (MS4) NPDES Permit requires the Project Applicant to prepare and submit to the County for approval a Project-specific Storm Water Pollution Prevention Plan (SWPPP). The SWPPP would identify a combination of erosion control and sediment control measure (i.e., Best Management Practices [BMPs]) to reduce or eliminate sediment discharge to surface water from storm water and non-stormwater source discharges during construction.

In addition, proposed construction activities would be required to comply with SCAQMD Rule 403, which would reduce the amount of particulate matter in the air and minimize the potential for wind erosion. Rule 403 requires that certain construction practices be following that limit dust and dirt from leaving the construction site. For example, no dust is allowed to be tracked out of the site by more than 25 feet. In addition, proposed construction activities would be required to comply with applicable County ordinances (e.g., Ordinance Nos. 457 and 460) to protect and enhance the water quality of the County, which requires the Project Applicant to prepare an erosion control plan to be used during the rainy season. With mandatory compliance to the requirements noted in the Project's SWPPP, as well as mandatory compliance to applicable regulatory requirements including but not limited to SCAQMD Rule 403 and Riverside County Ordinance Nos. 457 and 460, the potential for water and/or wind erosion impacts during Project construction would be reduced to less-than-significant levels.

❑ Long-Term Operational Impacts

Following construction, wind and water erosion on the Project site would be minimized, as the disturbed areas would be landscaped or covered with impervious surfaces, and drainage would be controlled through a storm drain system. As discussed in detail in EIR Subsection 4.10, *Hydrology and Water Quality,* the Project would reduce the rate of runoff leaving the site, as compared to existing conditions. As discussed in Subsection 4.10, construction of detention basins and water quality basins on-site would ensure that post-development rates and amounts of runoff are reduced as compared to those occurring under existing conditions. Accordingly, implementation of the Project would not increase the risk of siltation or erosion in stormwater discharged from the Project site. In addition, and pursuant to Riverside County Ordinance No. 475 (Building Codes & Fees Ordinance), Water Quality Management Plans (WQMPs) would be required for future implementing developments within the Project site, which would identify post-construction measures to ensure on-going protection against erosion. Compliance with the WQMP would be required as a condition of approval for future implementing developments, and long-term maintenance of on-site water quality features also would be required. Based on the foregoing, implementation of the Project would not significantly increase the risk of long-term wind or water erosion on- or off-site, and impacts would be less-than-significant.

Threshold k: Would the Project be located on expansive soil, as defined in Section 1803.5.3 of the California Building Code (2019), creating substantial risks to life or property?

The Project's on-site soils have an expansion rating ranging from very low to medium. (GeoTek, 2021, pp. 4-5) However, results of expansion testing at finish grades would need to be utilized to confirm final foundation design. Accordingly, impacts due to expansive soils could occur if proposed grading activities are not conducted in accordance with the site-specific recommendations of the Geotechnical Update prepared for the Project and/or the recommendations of future geotechnical studies that will be required in association with grading and building permits. This is evaluated as a potentially significant direct impact of the proposed Project for which mitigation would be required.

4.7.5 Cumulative Impact Analysis

With exception of erosion hazards, potential geologic and soils effects are inherently restricted to the areas proposed for development and would not contribute to cumulative impacts associated with other existing, planned, or proposed development. That is, thresholds including fault rupture, seismic ground shaking,

liquefaction, landslides, expansive soils, and other geologic hazards would involve effects to (and not from) the proposed Project, and are specific to on-site conditions. Accordingly, addressing these potential hazards for the proposed development would involve using measures to conform to existing requirements, and/or site-specific design and construction efforts that have no relationship to, or impact on, off-site areas. Because of the site-specific nature of these potential hazards and the measures to address them, there would be no connection to similar potential issues or cumulative effects to or from other properties. Cumulatively-considerable impacts would be less-than-significant.

As discussed under Thresholds j. and m., during both near-term construction and long-term operation, measures would be incorporated into the Project's design to ensure that significant erosion hazards do not occur. Other developments within the cumulative study area would be required to comply with similar requirements, such as the need to obtain an NPDES permit and mandatory compliance with the resulting SWPPPs. All projects in the cumulative study area also would be required to demonstrate that measures have been incorporated to ensure that development does not result in substantial increases in the amount or rate of runoff under long-term operating conditions, which could in turn increase soil erosion. Further, all projects in the cumulative study area also would be required to comply with Riverside County Ordinance Nos. 457 and 460, as well as SCAQMD Rule 403, which would preclude water- and wind-related erosion hazards during construction. Therefore, because the Project would result in less-than-significant erosion impacts, and because other projects within the cumulative study area would be subject to similar requirements to control erosion hazards during construction and long-term operation, cumulatively-considerable impacts associated with wind and water erosion hazards are evaluated as less-than-significant.

4.7.6 Significance of Impacts Before Mitigation

Thresholds a. & c.: Significant Direct Impact. The potential for surface fault rupture to occur at the site is considered low. Impacts due to rupture of a known earthquake would therefore be less than significant. However, the Project site is located in a seismically active area of southern California and is expected to experience moderate to severe ground shaking during the lifetime of the Project. A significant impact could occur if the Project did not comply with the site-specific recommendations of the Project's Geotechnical Update (*Technical Appendix F1*). Therefore, impacts would be potentially significant and mitigation is required to ensure compliance with the site-specific recommendations of the Project's Geotechnical Update.

Threshold b.: Less-than-Significant Impact. The Project site is situated in an area of generalized low/very low liquefaction potential. Based on site observations and subsurface investigations conducted by GeoTek, the Project site is not susceptible to soil liquefaction based on the depth to groundwater being in excess of 50 feet below grade and due to the presence of shallow dense soil/bedrock materials across most of the Project site. Also, the potential for seismically induced settlement at the property is considered to be nil because of the minimal thickness of soil atop bedrock. Accordingly, the Project would not be subject to seismic-related ground failure, including liquefaction, and impacts would therefore be less than significant.

Threshold d.: Significant Direct Impact. The Project site is not susceptible to landslide or rockfall hazards, and impacts would be less than significant. Impacts due to lateral spreading and collapse hazards could occur if proposed grading and development is not conducted in accordance with the site-specific recommendations of the Project's Geotechnical Update (*Technical Appendix F1*). This is evaluated as a potentially significant direct impact of the proposed Project for which mitigation would be required.

Threshold e.: Less-than-Significant Impact. The County of Riverside indicates that the Project site is "susceptible" to subsidence. However, the potential for seismically induced settlement at the property is considered to be nil because of the minimal thickness of soil atop bedrock. As such, the Project would not 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 ground subsidence, and impacts would therefore be less than significant.

Threshold f.: Less-than-Significant Impact. The Project site is not subject to volcanic hazards or hazards associated with seiches. Although several existing hill forms occur in the northern portion of the Project site and would be preserved as open space, due to the relatively shallow depth to bedrock that occurs across the Project site, the risk of mudflow associated with these hill forms would be low. As such, impacts due to mudflow hazards would be less than significant.

Threshold g.: Less-than-Significant-Impact. The Project site would be graded in a manner that largely approximates the site's existing topographic conditions. The Project would require a total of approximately 1.2 million cubic yards (cy) of cut and fill quantities. Earthwork activities are expected to balance on site and no import or export of soils would be required. Thus, the Project would not result in a substantial change in topography or ground surface relief features, and impacts would be less than significant.

Threshold h.: Significant Direct Impact. All proposed slopes on site would be constructed at a gradient of 2:1. Although the slopes adjacent to proposed SP 380A1 Planning Area 10 would exceed a height of 10 feet, site-specific recommendations are provided in the Project's Geotechnical Update (*Technical Appendix F1*) which would minimize impacts. However, a significant impact could occur if the Project did not comply with the site-specific recommendations of the Project's Geotechnical Update. Accordingly, prior to mitigation implementing the Geotechnical Update recommendations, the Project has the potential to cause significant impacts as a result of creating slopes higher than 10 feet. This is evaluated as a potentially significant impact for which mitigation would be required.

Threshold i.: No Impact. According to the Project's Phase I Environmental Site Assessment (EIR *Technical Appendix H*), and based upon the historic and present property use, there are no known septic tanks (systems) or other subsurface sewage disposal systems that exist on the Project site. As such, no impact associated with subsurface sewage disposal would occur.

Threshold l.: No Impact. Sewer service to the proposed Project would be provided by the EMWD, and no septic tanks or alternative wastewater disposal systems are proposed as part of the Project. Accordingly, no impact would occur.

Thresholds j. and m.: Less-than-Significant Impacts. The Project would not result in substantial soil erosion or loss of topsoil. The Project Applicant would be required to obtain a NPDES permit for construction activities and adhere to a Stormwater Pollution Prevention Plan (SWPPP) as well as SCAQMD Rule 403 and Riverside County Ordinance Nos. 457 and 460. With mandatory compliance to these regulatory requirements, the potential for water and wind erosion impacts during construction would be less than significant. Following development, wind and water erosion on the Project site would be minimized, as the areas disturbed during construction would be landscaped or covered with impervious surfaces and drainage would be controlled

through a storm drain system. Furthermore, the Project is required by law to implement a WQMP during operation, which would preclude substantial erosion impacts in the long-term. Accordingly, impacts would be less-than-significant.

Threshold k.: Significant Direct Impact. Impacts due to expansive soils could occur if proposed grading activities are not conducted in accordance with the site-specific recommendations of the of the Project's Geotechnical Investigation (*Technical Appendix F1*). This is evaluated as a potentially significant impact for which mitigation would be required.

4.7.7 County Regulations, Design Requirements, and Mitigation

Applicable County Regulations and Design Requirements

The following are applicable regulations and design requirements within Riverside County. Although these requirements technically do not meet CEQA's definition for mitigation, they are imposed herein to ensure Project compliance with applicable County regulations and design requirements.

- The Project is required to comply with the provisions of County Ordinance Nos. 457 and 460. Ordinance No. 457 requires that all projects comply with California Building Codes and the International Building Codes. These codes establish site-specific investigation requirements, construction standards, and inspection procedures to ensure that development does not pose a threat to the health, safety, and welfare of the public, and includes requirements related to erosion. Ordinance No. 460 sets forth soil erosion control requirements and requires preparation and implementation of a wind erosion control plan.

- The Project is required to comply with the provisions of SCAQMD Rule 403, by addressing blowing dust from the Project's construction activities.

- The Project is required to comply with the provisions of the County's National Pollution Discharge Elimination System (NPDES) permit, and the future-required Storm Water Pollution Prevention Plan (SWPPP). Compliance with the NPDES permit and the future-required SWPPPs would ensure an effective combination of erosion control and sediment control measures (i.e., Best Management Practices) are implemented to reduce or eliminate sediment discharge to surface water from stormwater and non-stormwater discharges.

Mitigation

MM 4.7-1 Prior to issuance of grading or building permits, the Riverside County Building and Safety Department shall verify that all of the recommendations given in the Project's May 25, 2021 "Updated Geotechnical and Infiltration Evaluation, Proposed Single-Family Residential Development, Keller Crossing Project, Northwest Corner of Winchester Road and Keller Road, Winchester Area of Riverside County, California," prepared by GeoTek, Inc. and included as *Technical Appendix F1* to the Project's EIR, are incorporated into the construction and grading plans. Alternatively, the Project shall comply with the findings and

recommendations of any geotechnical studies that may be required in association with future grading and/or building permits.

4.7.8 Significance of Impacts After Mitigation

Thresholds a. & c.: Less-than-Significant Impact with Mitigation Incorporated. Implementation of Mitigation Measure MM 4.7-1 would ensure that appropriate measures are incorporated into future grading and/or building permit applications to address seismic-related hazards in conformance with the CBSC and the Riverside County Building Code. With implementation of the required mitigation, impacts due to strong seismic ground shaking would be reduced to less-than-significant levels.

Threshold d.: Less-than-Significant Impact with Mitigation Incorporated. Implementation of Mitigation Measure MM 4.7-1 would ensure that appropriate measures are incorporated into future grading and/or building permit applications to address the potential for lateral spreading and collapse hazards. With implementation of the required mitigation, impacts due to lateral spreading and collapse would be reduced to less-than-significant levels.

Threshold h.: Less-than-Significant Impact with Mitigation Incorporated. Implementation of Mitigation Measure MM 4.7-1 would ensure that appropriate measures are incorporated into future grading and/or building permit applications to ensure that any slopes higher than 10 feet would be grossly stable. With implementation of the required mitigation, impacts associated with unstable slopes would be reduced to less-than-significant levels.

Threshold k.: Less-than-Significant Impact with Mitigation Incorporated. Implementation of Mitigation Measure MM 4.7-1 would ensure that appropriate measures are incorporated into future grading and/or building permit applications to address expansive soils on site. With implementation of the required mitigation, impacts associated with expansive soils would be reduced to less-than-significant levels.

4.8 GREENHOUSE GAS EMISSIONS

The analysis in this Subsection primarily is based in part on a Greenhouse Gas Analysis (GHGA) prepared by Urban Crossroads, Inc., which is entitled, "Keller Crossing Specific Plan Greenhouse Gas Analysis," dated October 14, 2021 and included as *Technical Appendix G* to this EIR (Urban Crossroads, 2021c). However, since preparation of the GHGA, in May 2022, the California Air Pollution Control Officers Association (CAPCOA) in conjunction with other California air districts, including the South Coase Air Quality Management district (SCAQMD), released the latest version of the CalEEMod Version 2022. Accordingly, a supplemental analysis was conducted by Urban Crossroads based on CalEEMod Version 2022, entitled, "Keller Crossing Specific Plan Air Quality and Greenhouse Gas Assessment Evaluation" (herein, "GHGA Supplement"), dated June 9, 2022, and included as *Technical Appendix B2* to this EIR (Urban Crossroads, 2022a) It should be noted that the Project's GHGA and GHGA Supplement assume the Project site would be developed with 436 dwelling units, while only 433 dwelling units are proposed; thus, the analysis in *Technical Appendices B2 and G* provide a "worst case" analysis of the Project's potential impacts due to greenhouse gas emissions. Refer to Section 7.0, *References*, for a complete list of reference sources.

4.8.1 EXISTING CONDITIONS

A. Introduction to Global Climate Change

Global Climate Change (GCC) is defined as the change in average meteorological conditions on the earth with respect to temperature, precipitation, and storms. The majority of scientists believe that the climate shift taking place since the Industrial Revolution is occurring at a quicker rate and magnitude than in the past. Scientific evidence suggests that GCC is the result of increased concentrations of Greenhouse Gases (GHGs) in the earth's atmosphere, including carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and fluorinated gases. The majority of scientists believe that this increased rate of climate change is the result of GHGs resulting from human activity and industrialization over the past 200 years. (Urban Crossroads, 2021c, p. 5)

An individual project like the proposed Project evaluated in this EIR cannot generate enough GHG emissions to affect a discernible change in global climate. However, the proposed Project may participate in the potential for GCC by its incremental contribution of GHGs combined with the cumulative increase of all other sources of GHGs, which when taken together constitute potential influences on GCC. (Urban Crossroads, 2021c, p. 5)

GCC refers to the change in average meteorological conditions on the earth with respect to temperature, wind patterns, precipitation, and storms. Global temperatures are regulated by naturally occurring atmospheric gases such as water vapor, CO_2, N_2O, CH_4, hydrofluorocarbons (HFC), perfluorocarbons (PFC), and sulfur hexafluoride (SF_6). These particular gases are important due to their residence time (duration they stay) in the atmosphere, which ranges from 10 years to more than 100 years. These gases allow solar radiation into the earth's atmosphere, but prevent radioactive heat from escaping, thus warming the earth's atmosphere. GCC can occur naturally as it has in the past with the previous ice ages. (Urban Crossroads, 2021c, p. 5)

Gases that trap heat in the atmosphere are often referred to as GHGs. GHGs are released into the atmosphere by both natural and anthropogenic activity. Without the natural GHG effect, the earth's average temperature would be approximately 61 degrees Fahrenheit (°F) cooler than it is currently. The cumulative accumulation

of these gases in the earth's atmosphere is considered to be the cause for the observed increase in the earth's temperature. (Urban Crossroads, 2021c, p. 5)

B. Greenhouse Gases

1. Greenhouse Gases and Health Effects

GHGs trap heat in the atmosphere, creating a GHG effect that results in global warming and climate change. Many gases demonstrate these properties and areas discussed below. For the purposes of this analysis, emissions of CO_2, CH_4, and N_2O were evaluated because these gases are the primary contributors to GCC from development projects. Although there are other substances such as fluorinated gases that also contribute to GCC, these fluorinated gases were not evaluated as their sources are not well-defined and do not contain accepted emissions factors or methodology to accurately calculate these gases. (Urban Crossroads, 2021c, pp. 5-6)

❑ Water

Water is the most abundant, important, and variable GHG in the atmosphere. Water vapor is not considered a pollutant; in the atmosphere it maintains a climate necessary for life. Changes in its concentration primarily are considered to be a result of climate feedbacks related to the warming of the atmosphere rather than a direct result of industrialization. A climate feedback is an indirect, or secondary, change, either positive or negative, that occurs within the climate system in response to a forcing mechanism. The feedback loop in which water is involved is critically important to projecting future climate change. (Urban Crossroads, 2021c, Table 2-1)

As the temperature of the atmosphere rises, more water is evaporated from ground storage (rivers, oceans, reservoirs, soil). Because the air is warmer, the relative humidity can be higher (in essence, the air is able to 'hold' more water when it is warmer), leading to more water vapor in the atmosphere. As a GHG, the higher concentration of water vapor is then able to absorb more thermal indirect energy radiated from the Earth, thus further warming the atmosphere. The warmer atmosphere can then hold more water vapor and so on. This is referred to as a "positive feedback loop." The extent to which this positive feedback loop will continue is unknown as there are also dynamics that hold the positive feedback loop in check. As an example, when water vapor increases in the atmosphere, more of it will eventually condense into clouds, which are more able to reflect incoming solar radiation (thus allowing less energy to reach the Earth's surface and heat it up). (Urban Crossroads, 2021c, Table 2-1)

The main source of water vapor is evaporation from the oceans (approximately 85%). Other sources include evaporation from other water bodies, sublimation (change from solid to gas) from sea ice and snow, and transpiration from plant leaves. (Urban Crossroads, 2021c, Table 2-1)

There are no known direct health effects related to water vapor at this time. It should be noted however that when some pollutants react with water vapor, the reaction forms a transport mechanism for some of these pollutants to enter the human body through water vapor. (Urban Crossroads, 2021c, Table 2-1)

❑ Carbon Dioxide (CO_2)

Carbon Dioxide (CO_2) is an odorless and colorless GHG. Since the industrial revolution began in the mid-1700s, the sort of human activity that increases GHG emissions has increased dramatically in scale and distribution. Data from the past 50 years suggests a corollary increase in levels and concentrations. Prior to the industrial revolution, CO_2 concentrations were fairly stable at 280 parts per million (ppm). Today, they are around 370 ppm, an increase of more than 30%. Left unchecked, the concentration of CO_2 in the atmosphere is projected to increase to a minimum of 540 ppm by the year 2100 as a direct result of anthropogenic sources. (Urban Crossroads, 2021c, Table 2-1)

CO_2 is emitted from natural and man-made sources. Natural sources include the decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources include the burning of coal, oil, natural gas, and wood. CO_2 is naturally removed from the air by photosynthesis, dissolution into ocean water, transfer to soils and ice caps, and chemical weathering of carbonate rocks. (Urban Crossroads, 2021c, Table 2-1)

Outdoor levels of CO_2 are not high enough to result in negative health effects. According to the National Institute for Occupational Safety and Health (NIOSH), high concentrations of CO_2 can result in health effects such as headaches, dizziness, restlessness, difficulty breathing, sweating, increased heart rate, increased cardiac output, increased blood pressure, coma, asphyxia, and/or convulsions. While current concentrations of CO_2 in the Earth's atmosphere are estimated to be approximately 370 ppm, the actual reference exposure level (level at which adverse health effects typically occur) is at exposure levels of 5,000 ppm averaged over 10 hours in a 40-hour work week and short-term reference exposure levels of 30,000 ppm averaged over a 15-minute period. (Urban Crossroads, 2021c, Table 2-1)

❑ Methane (CH_4)

Methane (CH_4) is an extremely effective absorber of radiation, although its atmospheric concentration is less than CO_2 and its lifetime in the atmosphere is brief (10-12 years) compared to other GHGs. CH_4 has both natural and anthropogenic sources. It is released as part of animal digestion and the biological processes in low oxygen environments, such as in swamplands or in rice production (at the roots of the plants). Over the last 50 years, human activities such as growing rice, raising cattle, using natural gas, and mining coal have added to the atmospheric concentration of CH_4. Other anthropocentric sources include fossil-fuel combustion and biomass burning. (Urban Crossroads, 2021c, Table 2-1)

CH_4 is extremely reactive with oxidizers, halogens, and other halogen-containing compounds. Exposure to high levels of CH_4 can cause asphyxiation, loss of consciousness, headache, dizziness, nausea, vomiting, weakness, loss of coordination, and an increased breathing rate. (Urban Crossroads, 2021c, Table 2-1)

❑ Nitrous Oxide (N_2O)

Nitrous oxide (N_2O), also known as laughing gas, is a colorless GHG. Concentrations of N_2O also began to rise at the beginning of the industrial revolution. In 1998, the global concentration was 314 parts per billion (ppb). N_2O is produced by microbial processes in soil and water, including those reactions which occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its

atmospheric load. It is used as an aerosol spray propellant (i.e., in whipped cream bottles), in potato chip bags to keep chips fresh, and in rocket engines and race cars. N_2O can be transported into the stratosphere, be deposited on Earth's surface, or be converted to other compounds by chemical reaction. (Urban Crossroads, 2021c, Table 2-1)

N_2O can cause dizziness, euphoria, and sometimes slight hallucinations. In small doses, it is considered harmless. However, in some cases, heavy and extended use can cause Olney's Lesions (brain damage). (Urban Crossroads, 2021c, Table 2-1)

❑ Chlorofluorocarbons (CFCs)

Chlorofluorocarbons (CFCs) are gases formed synthetically by replacing all hydrogen atoms in CH_4 or ethane (C_2H_6) with chlorine and/or fluorine atoms. CFCs are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at Earth's surface). CFCs have no natural source but were first synthesized in 1928. They were used for refrigerants, aerosol propellants, and cleaning solvents. Due to the discovery that they are able to destroy stratospheric ozone, a global effort to halt their production was undertaken and was extremely successful, so much so that levels of the major CFCs are now remaining steady or declining. However, their long atmospheric lifetimes mean that some of CFCs will remain in the atmosphere for over 100 years. (Urban Crossroads, 2021c, Table 2-1)

In confined indoor locations, working with CFC-113 or other CFCs is thought to result in death by cardiac arrhythmia (heart frequency too high or too low) or asphyxiation. (Urban Crossroads, 2021c, Table 2-1)

❑ Hydrofluorocarbons (HFCs)

Hydrofluorocarbons (HFCs) are synthetic, man-made chemicals that are used as a substitute for CFCs. Out of all the GHGs, they are one of three groups with the highest global warming potential ("GWP," described below). The HFCs with the largest measured atmospheric abundances are (in order), fluoroform (CHF_3), 1,1,1,2-tetrafluoroethane (CH_2FCF), and 1,1-difluoroethane (CH_3CF_2). Prior to 1990, the only significant emissions were of CHF_3. CH_2FCF emissions are increasing due to its use as a refrigerant. HFCs are man-made for applications such as automobile air conditioners and refrigerants. No health effects are known to result from exposure to HFCs. (Urban Crossroads, 2021c, Table 2-1)

❑ Perfluorocarbons (PFCs)

Perfluorocarbons (PFCs) have stable molecular structures and do not break down through chemical processes in the lower atmosphere. High-energy ultraviolet rays, which occur about 60 kilometers above Earth's surface, are able to destroy the compounds. Because of this, PFCs have very long lifetimes, between 10,000 and 50,000 years. Two common PFCs are tetrafluoromethane (CF_4) and hexafluoroethane (C_2F_6). The United States Environmental Protection Agency (EPA) estimates that concentrations of CF_4 in the atmosphere are over 70 parts per trillion (ppt). The two main sources of PFCs are primary aluminum production and semiconductor manufacture. No health effects are known to result from exposure to PFCs. (Urban Crossroads, 2021c, Table 2-1)

❑ **Sulfur Hexafluoride (SF_6)**

Sulfur Hexafluoride (SF_6) is an inorganic, odorless, colorless, nontoxic, nonflammable gas. It also has the highest GWP of any gas evaluated (23,900). The EPA indicates that concentrations in the 1990s were about 4 ppt. SF_6 is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection. In high concentrations in confined areas, the gas presents the hazard of suffocation because it displaces the oxygen needed for breathing. (Urban Crossroads, 2021c, Table 2-1)

❑ **Nitrogen Trifluoride (NF_3)**

Nitrogen Trifluoride (NF_3) is a colorless gas with a distinctly moldy odor. The World Resources Institute (WRI) indicates that NF_3 has a 100-year GWP of 17,200. NF_3 is used in industrial processes and is produced in the manufacturing of semiconductors, Liquid Crystal Display (LCD) panels, types of solar panels, and chemical lasers. Long-term or repeated exposure may affect the liver and kidneys and may cause fluorosis. (Urban Crossroads, 2021c, Table 2-1)

2. Potential Global Warming Effects

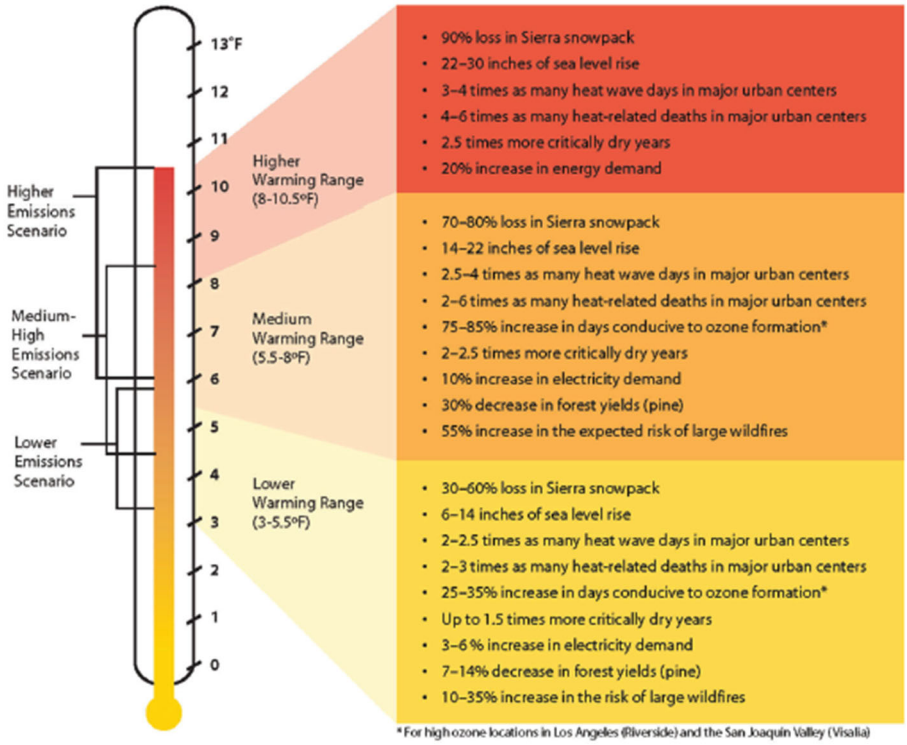
The potential health effects related directly to the emissions of CO_2, CH_4, and N_2O as they relate to development projects such as the proposed Project are still being debated in the scientific community. Their cumulative effects to GCC have the potential to cause adverse effects to human health. Increases in Earth's ambient temperatures would result in more intense heat waves, causing more heat-related deaths. Scientists also purport that higher ambient temperatures would increase disease survival rates and result in more widespread disease. Climate change will likely cause shifts in weather patterns, potentially resulting in devastating droughts and food shortages in some areas. Figure 4.8-1, *Summary of Project Global Warming Impact 2070-2099 (As Compared with 1961-1990),* presents the potential impacts of global warming. (Urban Crossroads, 2021c, p. 11)

3. Global Warming Potential (GWP)

GHGs have varying GWP values. GWP of a GHG indicates the amount of warming a gas causes over a given period of time and represents the potential of a gas to trap heat in the atmosphere. CO_2 is utilized as the reference gas for GWP, and thus has a GWP of 1. CO_2 equivalent (CO_2e) is a term used for describing the difference GHGs in a common unit. CO_2e signifies the amount of CO_2 which would have the equivalent GWP. (Urban Crossroads, 2021c, p. 11)

The atmospheric lifetime and GWP of selected GHGs are summarized. As shown in Table 4.8-1, *GWP and Atmospheric Lifetime of Select GHGs*, GWP for the Second Assessment Report, the Intergovernmental Panel on Climate Change (IPCC)'s scientific and socio-economic assessment on climate change, range from 1 for CO_2 to 23,900 for SF_6 and GWP for the IPCC's 5th Assessment Report range from 1 for CO_2 to 23,500 for SF_6. (Urban Crossroads, 2021c, p. 11)

Figure 4.8-1 Summary of Project Global Warming Impact 2070-2099 (As Compared with 1961-1990)



(Urban Crossroads, 2021c, Exhibit 2-A)

Table 4.8-1 GWP and Atmospheric Lifetime of Select GHGs

Gas	Atmospheric Lifetime (years)	Global Warming Potential (100-year time horizon)	
		Second Assessment Report	5th Assessment Report
CO_2	See*	1	1
CH_4	12 .4	21	28
N_2O	121	310	265
HFC-23	222	11,700	12,400
HFC-134a	13.4	1,300	1,300
HFC-152a	1.5	140	138
SF_6	3,200	23,900	23,500

*As per Appendix 8.A. of IPCC's 5th Assessment Report, no single lifetime can be given.
Source: Table 2.14 of the IPCC Fourth Assessment Report, 2007

(Urban Crossroads, 2021c, Table 2-2)

C. Greenhouse Gas Inventories

1. Global

Worldwide anthropogenic GHG emissions are tracked by the Intergovernmental Panel on Climate Change (IPCC) for industrialized nations (Annex I) and developing nations (referred to as Non-Annex I). Human GHG emissions data for Annex I nations are available through 2018. Based on the latest available data, the sum of these emissions totaled approximately 28,768,439 gigagram (Gg) CO_2e[1] as summarized on Table 4.8-2, *Top GHG Producing Countries and the European Union.* (Urban Crossroads, 2021c, p. 13)

Table 4.8-2 Top GHG Producing Countries and the European Union

Emitting Countries	GHG Emissions (Gg CO_2e)
China	12,300,200
United States	6,676,650
European Union (28-member countries)	4,232,274
Russian Federation	2,220,123
India	2,100,850
Japan	1,238,343
Total	**28,768,439**

(Urban Crossroads, 2021c, Table 2-3)

2. United States

As noted in Table 4.8-2, the United States, as a single country, was the number two producer of GHG emissions in 2018. (Urban Crossroads, 2021c, p. 13)

3. State of California

California has significantly slowed the rate of growth of GHG emissions due to the implementation of energy efficiency programs as well as adoption of strict emission controls but is still a substantial contributor to the U.S. emissions inventory total. The California Air Resource Board (CARB) compiles GHG inventories for the State of California. Based upon the 2020 GHG inventory data (i.e., the latest year for which data are available) for the 2000-2018 GHG emissions period, California emitted an average 425.3 million metric tons of CO_2e (MMT CO_2e) per year. (Urban Crossroads, 2021c, p. 13)

[1] The global emissions are the sum of Annex I and non-Annex I countries, without counting Land-Use, Land-Use Change and Forestry (LULUCF). For countries without 2018 data, the United Nations' Framework Convention on Climate Change (UNFCCC) data for the most recent year were used U.N. Framework Convention on Climate Change, "Annex I Parties – GHG total without LULUCF," The most recent GHG emissions for China and India are from 2014 and 2010, respectively.

D. Effects of Climate Change in California

1. Public Health

Higher temperatures may increase the frequency, duration, and intensity of conditions conducive to air pollution formation. For example, days with weather conducive to ozone formation could increase from 25 to 35% under the lower warming range to 75 to 85% under the medium warming range. In addition, if global background ozone levels increase as predicted in some scenarios, it may become impossible to meet local air quality standards. Air quality could be further compromised by increases in wildfires, which emit fine particulate matter that can travel long distances, depending on wind conditions. The Climate Scenarios report indicates that large wildfires could become up to 55% more frequent if GHG emissions are not significantly reduced. (Urban Crossroads, 2021c, p. 14)

In addition, under the higher warming range scenario, there could be up to 100 more days per year with temperatures above 90°F in Los Angeles and 95°F in Sacramento by 2100. This is a large increase over historical patterns and approximately twice the increase projected if temperatures remain within or below the lower warming range. Rising temperatures could increase the risk of death from dehydration, heat stroke/exhaustion, heart attack, stroke, and respiratory distress caused by extreme heat. (Urban Crossroads, 2021c, p. 14)

2. Water Resources

A vast network of man-made reservoirs and aqueducts captures and transports water throughout the State from northern California rivers and the Colorado River. The current distribution system relies on Sierra Nevada snowpack to supply water during the dry spring and summer months. Rising temperatures, potentially compounded by decreases in precipitation, could severely reduce spring snowpack, increasing the risk of summer water shortages. (Urban Crossroads, 2021c, p. 14)

If temperatures continue to increase, more precipitation could fall as rain instead of snow, and the snow that does fall could melt earlier, reducing the Sierra Nevada spring snowpack by as much as 70 to 90%. Under the lower warming range scenario, snowpack losses could be only half as large as those possible if temperatures were to rise to the higher warming range. How much snowpack could be lost depends in part on future precipitation patterns, the projections for which remain uncertain. However, even under the wetter climate projections, the loss of snowpack could pose challenges to water managers and hamper hydropower generation. It could also adversely affect winter tourism. Under the lower warming range, the ski season at lower elevations could be reduced by as much as a month. If temperatures reach the higher warming range and precipitation declines, there might be many years with insufficient snow for skiing and snowboarding. (Urban Crossroads, 2021c, p. 14)

The State's water supplies also are at risk from rising sea levels. An influx of saltwater could degrade California's estuaries, wetlands, and groundwater aquifers. Saltwater intrusion caused by rising sea levels is a major threat to the quality and reliability of water within the southern edge of the Sacramento/San Joaquin River Delta – a major fresh water supply. (Urban Crossroads, 2021c, p. 14)

3. Agriculture

Increased temperatures could cause widespread changes to the agriculture industry reducing the quantity and quality of agricultural products statewide. First, California farmers could possibly lose as much as 25% of the water supply needed. Although higher CO_2 levels can stimulate plant production and increase plant water-use efficiency, California's farmers could face greater water demand for crops and a less reliable water supply as temperatures rise. Crop growth and development could change, as could the intensity and frequency of pest and disease outbreaks. Rising temperatures could aggravate ozone pollution, which makes plants more susceptible to disease and pests and interferes with plant growth. (Urban Crossroads, 2021c, p. 15)

Plant growth tends to be slow at low temperatures, increasing with rising temperatures up to a threshold. However, faster growth can result in less-than-optimal development for many crops, so rising temperatures could worsen the quantity and quality of yield for a number of California's agricultural products. Products likely to be most affected include wine grapes, fruits, and nuts. In addition, continued GCC could shift the ranges of existing invasive plants and weeds and alter competition patterns with native plants. Range expansion could occur in many species while range contractions may be less likely in rapidly evolving species with significant populations already established. Should range contractions occur, new or different weed species could fill the emerging gaps. Continued GCC could alter the abundance and types of many pests, lengthen pests' breeding season, and increase pathogen growth rates. (Urban Crossroads, 2021c, p. 15)

4. Forest and Landscapes

GCC has the potential to intensify the current threat to forests and landscapes by increasing the risk of wildfire and altering the distribution and character of natural vegetation. If temperatures rise into the medium warming range, the risk of large wildfires in California could increase by as much as 55%, which is almost twice the increase expected if temperatures stay in the lower warming range. However, since wildfire risk is determined by a combination of factors, including precipitation, winds, temperature, and landscape and vegetation conditions, future risks will not be uniform throughout the State. In contrast, wildfires in northern California could increase by up to 90% due to decreased precipitation. (Urban Crossroads, 2021c, p. 15)

Moreover, continued GCC has the potential to alter natural ecosystems and biological diversity within the State. For example, alpine and subalpine ecosystems could decline by as much as 60 to 80% by the end of the century as a result of increasing temperatures. The productivity of the State's forests has the potential to decrease as a result of GCC. (Urban Crossroads, 2021c, p. 15)

5. Rising Sea Levels

Rising sea levels, more intense coastal storms, and warmer water temperatures could increasingly threaten the state's coastal regions. Under the higher warming range scenario, sea level is anticipated to rise 22 to 35 inches by 2100. Elevations of this magnitude would inundate low-lying coastal areas with saltwater, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats. Under the lower warming range scenario, sea level could rise 12-14 inches. (Urban Crossroads, 2021c, p. 15)

4.8.2 Applicable Environmental Regulations

The following is a brief description of the federal, state, and local environmental laws and related regulations related to GHG emissions.

A. International Regulations

1. Kyoto Protocol

The Kyoto Protocol is an international agreement linked to the United Nations Framework Convention on Climate Change, which commits its Parties by setting internationally binding emission reduction targets. Recognizing that developed countries are principally responsible for the current high levels of GHG emissions in the atmosphere as a result of more than 150 years of industrial activity, the Protocol places a heavier burden on developed nations under the principle of "common but differentiated responsibilities." (UNFCCC, n.d.)

The Kyoto Protocol was adopted in Kyoto, Japan, on December 11, 1997 and entered into force on February 16, 2005. The detailed rules for the implementation of the Protocol were adopted at Conference of the Parties (COP) 7 in Marrakesh, Morocco, in 2001, and are referred to as the "Marrakesh Accords." Its first commitment period started in 2008 and ended in 2012. (UNFCCC, n.d.)

On December 8, 2012, in Doha, Qatar, the "Doha Amendment to the Kyoto Protocol" was adopted. The amendment includes:

- New commitments for Annex I Parties to the Kyoto Protocol who agreed to take on commitments in a second commitment period from January 1, 2013 to December 31, 2020;
- A revised list of greenhouse gases (GHG) to be reported on by Parties in the second commitment period; and
- Amendments to several articles of the Kyoto Protocol which specifically referenced issues pertaining to the first commitment period and which needed to be updated for the second commitment period. (UNFCCC, n.d.)

On December 21, 2012, the amendment was circulated by the Secretary-General of the United Nations, acting in his capacity as Depositary, to all Parties to the Kyoto Protocol in accordance with Articles 20 and 21 of the Protocol. (UNFCCC, n.d.)

During the first commitment period, 37 industrialized countries and the European Community committed to reduce GHG emissions to an average of five percent against 1990 levels. During the second commitment period, Parties committed to reduce GHG emissions by at least 18 percent below 1990 levels in the eight-year period from 2013 to 2020; however, the composition of Parties in the second commitment period is different from the first. (UNFCCC, n.d.)

2. The Paris Agreement

The Paris Agreement builds upon the Convention and – for the first time – brings all nations into a common cause to undertake ambitious efforts to combat climate change and adapt to its effects, with enhanced support to assist developing countries to do so. As such, it charts a new course in the global climate effort. (UNFCCC, n.d.)

The Paris Agreement's central aim is to strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius. Additionally, the agreement aims to strengthen the ability of countries to deal with the impacts of climate change. To reach these ambitious goals, appropriate financial flows, a new technology framework and an enhanced capacity building framework will be put in place, thus supporting action by developing countries and the most vulnerable countries, in line with their own national objectives. The Agreement also provides for enhanced transparency of action and support through a more robust transparency framework. (UNFCCC, n.d.)

The Paris Agreement requires all Parties to put forward their best efforts through "nationally determined contributions" (NDCs) and to strengthen these efforts in the years ahead. This includes requirements that all Parties report regularly on their emissions and on their implementation efforts. (UNFCCC, n.d.)

In 2018, Parties will take stock of the collective efforts in relation to progress towards the goal set in the Paris Agreement and to inform the preparation of NDCs. There will also be a global stock-taking every five years to assess the collective progress towards achieving the purpose of the Agreement and to inform further individual actions by Parties. (UNFCCC, n.d.)

The Paris Agreement entered into force on November 4, 2016, thirty days after the date on which at least 55 Parties to the Convention accounting in total for at least an estimated 55% of the total global greenhouse gas emissions have deposited their instruments of ratification, acceptance, approval, or accession with the Depositary. (UNFCCC, n.d.)

On June 1, 2017, President Donald Trump announced he would begin the process of withdrawing the United States from the Paris Agreement. In accordance with articles within the Paris Agreement, the earliest effective date for the United States' withdrawal from the Agreement was November 4, 2020, at which time the withdraw became official. On January 20, 2021, President Biden signed the executive order for the United States to rejoin the Paris Agreement, which became official on February 19, 2021.

B. Federal Regulations

1. Clean Air Act

Coinciding with the 2009 meeting of international leaders in Copenhagen, on December 7, 2009, the EPA issued an Endangerment Finding under § 202(a) of the Clean Air Act (CAA), opening the door to federal regulation of GHGs. The Endangerment Finding notes that GHGs threaten public health and welfare and are subject to regulation under the CAA. To date, the EPA has not promulgated regulations on GHG emissions, but it has begun to develop them. (EPA, n.d.; DOJ, 2015)

Previously the EPA had not regulated GHGs under the CAA because it asserted that the Act did not authorize it to issue mandatory regulations to address Global Climate Change (GCC) and that such regulation would be unwise without an unequivocally established causal link between GHGs and the increase in global surface air temperatures. In *Massachusetts v. Environmental Protection Agency et al.* (127 S. Ct. 1438 [2007]); however, the U.S. Supreme Court held that GHGs are pollutants under the CAA and directed the EPA to decide whether

the gases endangered public health or welfare. The EPA had also not moved aggressively to regulate GHGs because it expected Congress to make progress on GHG legislation, primarily from the standpoint of a cap-and-trade system. However, proposals circulated in both the House of Representative and Senate have been controversial and it may be some time before the U.S. Congress adopts major climate change legislation. The EPA's Endangerment Finding paves the way for federal regulation of GHGs with or without Congress. (EPA, n.d.; DOJ, 2015)

C. *State Regulations*

1. *Title 24 Building Energy Standards*

The California Energy Commission (CEC) first adopted Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24, Part 6) in 1978 in response to a legislative mandate to reduce energy consumption in the state. Although not originally intended to reduce GHG emissions, increased energy efficiency, and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standard. The standards are updated periodically to allow for the consideration and inclusion of new energy efficiency technologies and methods. The latest revisions (2019 Building Energy Efficiency Standards) became effective on January 1, 2020. The 2019 Building Energy Efficiency Standards are 7 percent more efficient than the previous (2016) Building Energy Efficiency Standards for residential construction and 30 percent more efficient than the previous Standards for non-residential construction. (The 2016 Building Energy Efficiency Standards already were 28 percent more efficient for residential construction and 5 percent more efficient for nonresidential construction than the 2013 Building Energy Efficiency Standards they replaced.) (CEC, 2020)

Part 11 of Title 24 is referred to as the California Green Building Standards Code (CALGreen Code). The purpose of the CALGreen Code is to "improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) Planning and design; (2) Energy efficiency; (3) Water efficiency and conservation; (4) Material conservation and resource efficiency; and (5) Environmental air quality." The CALGreen Code is not intended to substitute or be identified as meeting the certification requirements of any green building program that is not established and adopted by the California Building Standards Commission (CBSC). Unless otherwise noted in the regulation, all newly constructed buildings in California are subject of the requirements of the CALGreen Code. (CEC, 2020)

2. *California Assembly Bill No. 1493 (AB 1493)*

AB 1493 required the California Air Resources Board (CARB) to adopt the nation's first GHG emission standards for automobiles. On September 24, 2009, CARB adopted amendments to the "Pavley" regulations that reduce greenhouse gas (GHG) emissions in new passenger vehicles from model year 2009 through 2016. These amendments were part of California's commitment toward a nation-wide program to reduce new passenger vehicle GHGs from 2012 through 2016. CARB's September amendments cement California's enforcement of the Pavley rule starting in 2009 while providing vehicle manufacturers with new compliance flexibility. The amendments also prepare California to harmonize its rules with the federal rules for passenger vehicles. (CARB, n.d.)

The U.S. EPA granted California the authority to implement GHG emission reduction standards for new passenger cars, pickup trucks, and sport utility vehicles on June 30, 2009. The first California request to implement GHG standards for passenger vehicles, known as a waiver request, was made in December 2005, and was denied by the EPA in March 2008. That decision was based on a finding that California's request to reduce GHG emissions from passenger vehicles did not meet the CAA requirement of showing that the waiver was needed to meet "compelling and extraordinary conditions." (CARB, n.d.)

CARB's Board originally approved regulations to reduce GHGs from passenger vehicles in September 2004, with the regulations to take effect in 2009. These regulations were authorized by the 2002 legislation Assembly Bill 1493 (Pavley). (CARB, n.d.)

The regulations had been threatened by automaker lawsuits and were stalled by the EPA's delay in reviewing and then initially denying California's waiver request. The parties involved entered a May 19, 2009 agreement to resolve these issues. With the granting of the waiver on June 30, 2009, it is expected that the Pavley regulations reduced GHG emissions from California passenger vehicles by about 22 percent in 2012 and about 30 percent in 2016, all while improving fuel efficiency and reducing motorists' costs. (CARB, n.d.)

The CARB has adopted a new approach to passenger vehicles – cars and light trucks – by combining the control of smog-causing pollutants and greenhouse gas emissions into a single coordinated package of standards. The new approach also includes efforts to support and accelerate the numbers of plug-in hybrids and zero-emission vehicles in California. (CARB, n.d.)

3. Executive Order S-3-05

Executive Order (EO) S-3-05 documents GHG emission reduction goals, creates the Climate Action Team and directs the Secretary of the California EPA to coordinate efforts with meeting the GHG reduction targets with the heads of other state agencies. The EO requires the Secretary to report back to the Governor and Legislature biannually to report: progress toward meeting the GHG goals; GHG impacts to California; and applicable Mitigation and Adaptation Plans. EO S-3-05 goals for GHG emissions reductions include: reducing GHG emissions to 2000 levels by the year 2010; reducing GHG emissions to 1990 levels by the year 2020; and reducing GHG emissions to 80 percent below 1990 levels by 2050. (AC, 2005)

4. California Assembly Bill 32 – Global Warming Solutions Act of 2006

In September 2006, Governor Schwarzenegger signed Assembly Bill 32 (AB 32), the California Global Warming Solutions Act of 2006. AB 32 requires California to reduce its GHG emissions to 1990 levels by 2020, which represents a reduction of approximately 15 percent below emissions expected under a "business as usual" scenario. Pursuant to AB 32, the CARB must adopt regulations to achieve the maximum technologically feasible and cost-effective GHG emission reductions. The full implementation of AB 32 will help mitigate risks associated with climate change, while improving energy efficiency, expanding the use of renewable energy resources, cleaner transportation, and reducing waste. (CARB, 2018)

AB 32 specifically required that CARB do the following: (CARB, 2018)

- Prepare and approve a Scoping Plan for achieving the maximum technologically feasible and cost-effective reductions in GHG emissions from sources or categories of sources of GHGs by 2020, and update the Scoping Plan every five years.
- Maintain and continue reductions in emissions of GHG beyond 2020.
- Identify the statewide level of GHG emissions in 1990 to serve as the emissions limit to be achieved by 2020.
- Identify and adopt regulations for discrete early actions that could be enforceable on or before January 1, 2010.
- Adopt a regulation that establishes a system of market-based declining annual aggregate emission limits for sources or categories of sources that emit GHG emissions.
- Convene an Environmental Justice Advisory Committee to advise the Board in developing and updating the Scoping Plan and any other pertinent matter in implementing AB 32.
- Appoint an Economic and Technology Advancement Advisory Committee to provide recommendations for technologies, research, and GHG emission reduction measures.

In November 2007, CARB completed its estimated calculations of Statewide 1990 GHG levels. Net emission 1990 levels were estimated at 427 million metric tons (MMTs) (emission sources by sector were: transportation – 35 percent; electricity generation – 26 percent; industrial – 24 percent; residential – 7 percent; agriculture – 5 percent; and commercial – 3 percent). Accordingly, 427 million metric tons of carbon dioxide equivalent ($MMTCO_2e$) equivalent was established as the emissions limit for 2020. For comparison, CARB's estimate for baseline GHG emissions was 473 MMTCO2e for 2000 and without emissions reduction measures 2010 emissions were projected to be 532 $MMTCO_2e$. "Business as usual" conditions (without the reductions to be implemented by CARB regulations) for 2020 were projected to be 596 $MMTCO_2e$. (CARB, 2007)

AB 32 required CARB to develop a Scoping Plan which lays out California's strategy for meeting the goals. The Scoping Plan must be updated every five years. In December 2008, CARB approved the initial Scoping Plan, which included a suite of measures to sharply cut GHG emissions. Table 4.8-3*, Scoping Plan GHG Reduction Measures Towards 2020 Target*, shows the proposed reductions from regulations and programs outlined in the Scoping Plan. While local government operations were not accounted for in achieving the Year 2020 emissions reduction, local land use changes are estimated to result in a reduction of 5 $MMTCO_2e$, which is approximately 3 percent of the 2020 GHG emissions reduction goal. In recognition of the critical role local governments will play in successful implementation of AB 32, CARB is recommending GHG reduction goals of 15 percent of 2006 levels by 2020 to ensure that municipal and community-wide emissions match the State's reduction target. According to the Measure Documentation Supplement to the Scoping Plan, local government actions and targets are anticipated to reduce vehicle miles by approximately 2 percent through land use planning, resulting in a potential GHG reduction of 2 $MMTCO_2e$ (or approximately 1.2 percent of the GHG reduction target). (CARB, 2018)

Overall, CARB determined that achieving the 1990 emission level in 2020 would require a reduction in GHG emissions of approximately 28.5 percent in the absence of new laws and regulations (referred to as "Business-As-Usual" [BAU]). The Scoping Plan evaluates opportunities for sector-specific reductions, integrates all CARB and Climate Action Team (CAT) early actions and additional GHG reduction measures, identifies additional measures to be pursued as regulations, and outlines the role of the cap-and-trade program.

Table 4.8-3 Scoping Plan GHG Reduction Measures Towards 2020 Target

Recommended Reduction Measures	*Reductions Counted toward 2020 Target of 169 MMT CO2e*	*Percentage of Statewide 2020 Target*
Cap and Trade Program and Associated Measures		
California Light-Duty Vehicle GHG Standards	31.7	19%
Energy Efficiency	26.3	16%
Renewable Portfolio Standard (33 percent by 2020)	21.3	13%
Low Carbon Fuel Standard	15	9%
Regional Transportation-Related GHG Targets[1]	5	3%
Vehicle Efficiency Measures	4.5	3%
Goods Movement	3.7	2%
Million Solar Roofs	2.1	1%
Medium/Heavy Duty Vehicles	1.4	1%
High Speed Rail	1.0	1%
Industrial Measures	0.3	0%
Additional Reduction Necessary to Achieve Cap	34.4	20%
Total Cap and Trade Program Reductions	146.7	87%
Uncapped Sources/Sectors Measures		
High Global Warming Potential Gas Measures	20.2	12%
Sustainable Forests	5	3%
Industrial Measures (for sources not covered under cap and trade program)	1.1	1%
Recycling and Waste (landfill methane capture)	1	1%
Total Uncapped Sources/Sectors Reductions	27.3	16%
Total Reductions Counted toward 2020 Target	174	100%
Other Recommended Measures – Not Counted toward 2020 Target		
State Government Operations	1.0 to 2.0	1%
Local Government Operations	To Be Determined[2]	NA
Green Buildings	26	15%
Recycling and Waste	9	5%
Water Sector Measures	4.8	3%
Methane Capture at Large Dairies	1	1%
Total Other Recommended Measures – Not Counted toward 2020 Target	42.8	NA

Source: CARB. 2008, MMTons CO2e: million metric tons of CO2e
[1]Reductions represent an estimate of what may be achieved from local land use changes. It is not the SB 375 regional target.
[2]According to the Measure Documentation Supplement to the Scoping Plan, local government actions and targets are anticipated to reduce vehicle miles by approximately 2 percent through land use planning, resulting in a potential GHG reduction of 2 million metric tons of CO2e (or approximately 1.2 percent of the GHG reduction target). However, these reductions were not included in the Scoping Plan reductions to achieve the 2020 Target

When the 2020 emissions level projection also was updated to account for implemented regulatory measures, including Pavley (vehicle model-years 2009 - 2016) and the renewable portfolio standard (12% - 20%), the 2020 projection in the BAU condition was reduced further to 507 metric tons of carbon dioxide equivalent ($MTCO_2e$). As a result, based on the updated economic and regulatory data, CARB determined that achieving the 1990 emissions level in 2020 would now only require a reduction of GHG emissions of 80 $MTCO_2e$, or approximately 16 percent (down from 28.5 percent), from the BAU condition.

In May 2014, CARB approved the First Update to the Climate Change Scoping Plan (Update), which builds upon the initial Scoping Plan with new strategies and recommendations. The Update highlights California's progress toward meeting the near-term 2020 GHG emission reduction goals, highlights the latest climate change science and provides direction on how to achieve long-term emission reduction goal described in Executive Order S-3-05. The Update recalculates 1990 GHG emissions using new global warming potentials identified in the Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report released in 2007. Using those Global Warming Potentials (GWPs), the 427 $MTCO_2e$ 1990 emissions level and 2020 GHG emissions limit identified in the 2008 Scoping Plan would be slightly higher, at 431 $MTCO_2e$. Based on the revised 2020 emissions level projection identified in the 2011 Final Supplement and the updated 1990 emissions levels identified in the discussion draft of the First Update, achieving the 1990 emissions level in 2020 would require a reduction of 78 $MTCO_2e$ (down from 509 $MTCO_2e$), or approximately 15.3 percent (down from 28.5 percent), from the BAU condition. (CARB, 2018; CARB, 2017)

In November 2017, CARB released the Final 2017 Scoping Plan Update, which identifies the State's post-2020 reduction strategy. The Final 2017 Scoping Plan Update reflects the 2030 target of a 40% reduction below 1990 levels, set by Executive Order B-30-15 and codified by SB 32. Key programs that the proposed Second Update builds upon include the Cap-and-Trade Regulation, the Low Carbon Fuel Standard (LCFS), and much cleaner cars, trucks, and freight movement, utilizing cleaner, renewable energy, and strategies to reduce CH_4 emissions from agricultural and other wastes. The Final 2017 Scoping Plan Update establishes a new emissions limit of 260 $MMTCO_2e$ for the year 2030, which corresponds to a 40% decrease in 1990 levels by 2030. (CARB, 2017)

5. California Senate Bill No. 1368 (SB 1368)

In 2006, the State Legislature adopted Senate Bill (SB) 1368 (Perata, Chapter 598, Statutes of 2006), which directs the California Public Utilities Commission (CPUC) to adopt a GHG emission performance standard (EPS) for the future power purchases of California utilities. SB 1368 seeks to limit carbon emissions associated with electrical energy consumed in California by forbidding procurement arrangements for energy longer than five years from resources that exceed specified emissions criteria. Accordingly, SB 1368 effectively prevents California's utilities from investing in, otherwise financially supporting, or purchasing power from new coal plants located in or out of the State. SB 1368 will lead to dramatically lower GHG emissions associated with California energy demand. (CEC, n.d.)

6. Executive Order S-01-07, Low Carbon Fuel Standard (LCFS)

Executive Order (EO) S-01-07 is effectively known as the Low Carbon Fuel Standard (LCFS). The Executive Order seeks to reduce the carbon intensity of California's passenger vehicle fuels by at least 10 percent by 2020. The LCFS requires fuel providers in California to ensure that the mix of fuel they sell into the California market meet, on average, a declining standard for GHG emissions measured in CO_2e grams per unit of fuel energy sold. (CAN, 2007)

7. Senate Bill 1078

Senate Bill (SB) 1078 establishes the California Renewables Portfolio Standard Program, which requires electric utilities and other entities under the jurisdiction of the California Public Utilities Commission to meet

20% of their renewable power by December 31, 2017 for the purposes of increasing the diversity, reliability, public health, and environmental benefits of the energy mix. (CA Legislative Info, n.d.)

8. Senate Bill 107

SB 107 directed California Public Utilities Commission's Renewable Energy Resources Program to increase the amount of renewable electricity (Renewable Portfolio Standard) generated per year, from 17% to an amount that equals at least 20% of the total electricity sold to retail customers in California per year by December 31, 2010. (CA Legislative Info, n.d.)

9. Executive Order S-14-08

On November 17, 2008, Governor Schwarzenegger signed Executive Order S-14-08, revising California's existing Renewable Portfolio Standard (RPS) upward to require all retail sellers of electricity to serve 33% of their load from renewable energy sources by 2020. In order to meet this new goal, a substantial increase in the development of wind, solar, geothermal, and other "RPS eligible" energy projects will be needed. Executive Order S-14-08 seeks to accelerate such development by streamlining the siting, permitting, and procurement processes for renewable energy generation facilities. To this end, S-14-08 issues two directives: (1) the existing Renewable Energy Transmission Initiative will identify renewable energy zones that can be developed as such with little environmental impact, and (2) the California Energy Commission (CEC) and the California Department of Fish and Wildlife (CDFW) will collaborate to expedite the review, permitting, and licensing process for proposed RPS-eligible renewable energy projects. (CA State Library, 2008)

10. Senate Bill 97

By enacting SB 97 in 2007, California's lawmakers expressly recognized the need to analyze GHGs as a part of the CEQA process. SB 97 required the Governor's Office of Planning and Research (OPR) to develop, and the Natural Resources Agency to adopt, amendments to the State CEQA Guidelines addressing the analysis and mitigation of greenhouse gas emissions. Those State CEQA Guidelines amendments clarified several points, including the following: (CA Legislative Info, n.d.)

- Lead agencies must analyze the GHG emissions of proposed projects, and must reach a conclusion regarding the significance of those emissions. (See State CEQA Guidelines § 15064.4.)
- When a project's GHG emissions may be significant, lead agencies must consider a range of potential mitigation measures to reduce those emissions. (See State CEQA Guidelines § 15126.4(c).)
- Lead agencies must analyze potentially significant impacts associated with placing projects in hazardous locations, including locations potentially affected by climate change. (See State CEQA Guidelines § 15126.2(a).)
- Lead agencies may significantly streamline the analysis of GHGs on a project level by using a programmatic GHG emissions reduction plan meeting certain criteria. (See State CEQA Guidelines § 15183.5(b).)
- CEQA mandates analysis of a proposed project's potential energy use (including transportation-related energy), sources of energy supply, and ways to reduce energy demand, including through the use of efficient transportation alternatives. (See State CEQA Guidelines, Appendix F.)

As part of the administrative rulemaking process, the Natural Resources Agency developed a Final Statement of Reasons explaining the legal and factual bases, intent, and purpose of the State CEQA Guidelines amendments. The amendments to the State CEQA Guidelines implementing SB 97 became effective on March 18, 2010. (CA Legislative Info, n.d.)

Of note, the new guidelines state that a lead agency shall have discretion to determine whether to use a quantitative model or methodology, or in the alternative, rely on a qualitative analysis or performance based standards. Pursuant to State CEQA Guidelines § 15064.4(a), "A lead agency shall have discretion to determine, in the context of a particular project, whether to: (1) Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use; or (2) Rely on a qualitative analysis or performance based standards." (CA Legislative Info, n.d.)

CEQA emphasizes that the effects of greenhouse gas emissions are cumulative, and should be analyzed in the context of CEQA's requirements for cumulative impacts analysis. (See State CEQA Guidelines § 15130(f)).

§ 15064.4(b) of the guidelines provides direction for lead agencies for assessing the significance of impacts of greenhouse gas emissions:

1. The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting;
2. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; or
3. The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such regulations or requirements must be adopted by the relevant public agency through a public review process and must include specific requirements that reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.

The CEQA Guideline amendments do not identify a threshold of significance for GHG emissions, nor do they prescribe assessment methodologies or specific mitigation measures. Instead, they call for a "good-faith effort, based on available information, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project." The amendments encourage lead agencies to consider many factors in performing a CEQA analysis and preserve lead agencies' discretion to make their own determinations based upon substantial evidence. The amendments also encourage public agencies to make use of programmatic mitigation plans and programs from which to tier when they perform individual project analyses. Specific GHG language incorporated in the Guidelines' suggested Environmental Checklist (Guidelines Appendix G) is as follows:

VII. GREENHOUSE GAS EMISSIONS

Would the project:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

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

11. Senate Bill 375

The Sustainable Communities and Climate Protection Act of 2008 (Sustainable Communities Act, SB 375, Chapter 728, Statutes of 2008) supports the State's climate action goals to reduce greenhouse gas (GHG) emissions through coordinated transportation and land use planning with the goal of more sustainable communities. (CARB, n.d.)

Under the Sustainable Communities Act, CARB sets regional targets for GHG emissions reductions from passenger vehicle use. In 2010, CARB established these targets for 2020 and 2035 for each region covered by one of the State's metropolitan planning organizations (MPO). CARB will periodically review and update the targets, as needed. (CARB, n.d.)

Each of California's MPOs must prepare a "sustainable communities strategy" (SCS) as an integral part of its regional transportation plan (RTP). The SCS contains land use, housing, and transportation strategies that, if implemented, would allow the region to meet its GHG emission reduction targets. Once adopted by the MPO, the RTP/SCS guides the transportation policies and investments for the region. CARB must review the adopted SCS to confirm and accept the MPO's determination that the SCS, if implemented, would meet the regional GHG targets. If the combination of measures in the SCS would not meet the regional targets, the MPO must prepare a separate "alternative planning strategy" (APS) to meet the targets. The APS is not a part of the RTP. (CARB, n.d.)

The Sustainable Communities Act also establishes incentives to encourage local governments and developers to implement the SCS or the APS. Developers can get relief from certain environmental review requirements under CEQA if their new residential and mixed-use projects are consistent with a region's SCS (or APS) that meets the targets (see Cal. Public Resources Code §§ 21155, 21155.1, 21155.2, 21159.28.). (CARB, n.d.)

12. Executive Order B-30-15

On April 29, 2015, Governor Brown issued Executive Order B-30-15, which sets a goal to reduce GHG emissions in California to 40 percent below 1990 levels by 2030. The 2030 target serves as a benchmark goal on the way to achieving the GHG reductions goal set by former Governor Schwarzenegger via Executive Order S-3-05 (i.e., 80 percent below 1990 greenhouse gas emissions levels by 2050). (CA State Library, 2015)

13. Senate Bill 32

On September 8, 2016, Governor Jerry Brown signed the Senate Bill (SB) 32 and its companion bill, Assembly Bill (AB) 197. SB 32 requires the state to reduce statewide GHG emissions to 40% below 1990 levels by 2030, a reduction target that was first introduced in Executive Order B-30-15. The new legislation builds upon the AB 32 goal of 1990 levels by 2020 and provides an intermediate goal to achieving S-3-05, which sets a statewide greenhouse gas reduction target of 80% below 1990 levels by 2050. (CA Legislative Info, n.d.)

D. Regional Regulations

1. Connect SoCal 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)

The Southern California Association of Governments (SCAG) is a Joint Powers Authority (JPA) under California State law, established as an association of local governments and agencies that voluntarily convene as a forum to address regional issues. Under federal law, SCAG is designated as a Metropolitan Planning Organization (MPO) and under State law as a Regional Transportation Planning Agency and a Council of Governments. The SCAG region encompasses six counties (Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura) and 191 cities in an area covering more than 38,000 square miles.

SCAG's *2020-2045 Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS)*, also referred to as *Connect SoCal*, develops long-range regional transportation plans including a sustainable communities strategy and growth forecast components, regional transportation improvement programs, regional housing needs allocations and other plans for the region. The RTP/SCS provides objectives for meeting air pollution emissions reduction targets set forth by the California Air Resources Board (CARB); these objectives were provided in direct response to Senate Bill 375 (SB 375) which was enacted to reduce GHG emissions from automobiles and light trucks through integrated transportation, land use, housing, and environmental planning.

2. South Coast Air Quality Management District (SCAQMD)

To provide guidance to local lead agencies on determining significance for GHG emissions in CEQA documents, SCAQMD staff is convening an ongoing GHG CEQA Significance Threshold Working Group. Members of the working group include government agencies implementing CEQA and representatives from various stakeholder groups that provide input to SCAQMD staff on developing the significance thresholds. On October 8, 2008, the SCAQMD released the Draft AQMD Staff CEQA GHG Significance Thresholds. These thresholds have not been finalized and continue to be developed through the working group.

The *Draft AQMD Staff CEQA GHG Significance Thresholds* guidance document, which builds on the previous guidance prepared by the California Air Pollution Control Officers Association (CAPCOA), explored various approaches for establishing a significance threshold for GHG emissions and was described as a "work in progress" of efforts to date. However, the draft interim CEQA thresholds guidance document was not adopted or approved by the Governing Board. In December 2008, the SCAQMD adopted an interim 10,000 metric tons of CO_2e per year ($MTCO_2e/yr$) screening level threshold for stationary source/industrial projects for which the SCAQMD is the lead agency. From December 2008 to September 2010, SCAQMD hosted working group meetings and revised the draft threshold proposal several times, although it did not officially provide these proposals in a subsequent document. SCAQMD has continued to consider adoption of significance thresholds for residential and general land use development projects. The most recent proposal, issued in September 2010, used the following tiered approach to evaluate potential GHG impacts from various uses:

- Tier 1: Determine if CEQA categorical exemptions are applicable. If not, move to Tier 2.

- Tier 2: Consider whether or not the proposed project is consistent with a locally-adopted GHG reduction plan that has gone through public hearing and CEQA review, that has an approved inventory, includes monitoring, etc. If not, move to Tier 3.

- Tier 3: Consider whether the project generates GHG emissions in excess of screening thresholds for individual land uses. The 10,000 $MTCO_2e$/yr threshold for industrial uses would be recommended for use by all lead agencies. Under option 1, separate screening thresholds are proposed for residential projects (3,500 $MTCO_2e$/yr), commercial projects (1,400 $MTCO_2e$/yr), and mixed-use projects (3,000 $MTCO_2e$/yr). Under option 2, a single numerical screening threshold of 3,000 $MTCO_2e$/yr would be used for all non-industrial projects. If the project generates emissions in excess of the applicable screening threshold, move to Tier 4.

- Tier 4: Consider whether the project generates GHG emissions in excess of applicable performance standards for the project service population (population plus employment). The efficiency targets were established based on the goal of AB 32 to reduce statewide GHG emissions to 1990 levels by 2020. The 2020 efficiency targets are 4.8 $MTCO_2e$/yr per service population for project level analyses and 6.6 $MTCO_2e$/yr per service population for plan level analyses. If the project generates emissions in excess of the applicable efficiency targets, move to Tier 5.

- Tier 5: Consider the implementation of CEQA mitigation (including the purchase of GHG offsets) to reduce the project efficiency target to Tier 4 levels.

The SCAQMD has not announced when staff is expecting to present a finalized version of its GHG thresholds to the governing board. These thresholds were developed as part of the SCAQMD GHG CEQA Significance Threshold Working Group. This working group was formed to assist SCAQMD's efforts to develop a GHG significance threshold and is composed of a wide variety of stakeholders including the State Office of Planning and Research (OPR), CARB, the Attorney General's Office, a variety of city and county planning departments in the SCAB, various utilities such as sanitation and power companies throughout the SCAB, industry groups, and environmental and professional organizations. These thresholds were developed to be consistent with CEQA requirements for developing significance thresholds, are supported by substantial evidence, and provides guidance to CEQA practitioners with regard to determining whether GHG emissions from a proposed land use project are significant.

E. Local Regulations

1. Riverside County Climate Action Plan (CAP)

The County of Riverside Climate Action Plan (CAP), which was adopted in December 2015 and most recently updated in December 2019 ("CAP Update"), was designed under the premise that the County of Riverside, and the community it represents, is uniquely capable of addressing emissions associated with sources under Riverside County's jurisdiction, and that Riverside County's emission reduction efforts should coordinate with the state strategies of reducing emissions in order to accomplish these reductions in an efficient and cost-effective manner. The 2019 CAP Update establishes GHG emission reduction programs and regulations that correlate with and support evolving state GHG emissions reduction goals and strategies. The CAP Update includes reduction targets for year 2030 and year 2050. These reduction targets require the County to reduce

emissions by at least 525,511 $MTCO_2e$/yr below the Adjusted Business As Usual (ABAU) scenario by 2030 and at least 2,982,948 $MTCO_2e$/yr below the ABAU scenario by 2050. To evaluate consistency with the CAP Update, the County has implemented CAP Update Screening Tables (Screening Tables) to aid in measuring the reduction of GHG emissions attributable to certain design and construction measures incorporated in development projects. To this end, the Screening Tables establish categories of GHG Implementation Measures. Under each Implementation Measure category, mitigation or project design features (collectively "features") are assigned point values that correspond to the minimum GHG emissions reduction that would result from each feature. Projects that yield at least 100 points are considered to be consistent with the GHG emissions reduction quantities anticipated in the County's GHG Technical Report and support the GHG emissions reduction targets established under the CAP Update. The potential for such projects to generate direct or indirect GHG emissions that would result in a significant impact on the environment; or conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHG would be considered less than significant.

4.8.3 Basis for Determining Significance

While estimated Project-related GHG emissions can be quantified, the direct impacts of such emissions on GCC and global warming cannot be determined on the basis of available science. There is no evidence at this time that would indicate that the emissions from a project the size of the proposed Project would directly or indirectly affect the global climate.

AB 32 states, in part, that "[g]lobal warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California." Because global warming is the result of GHG emissions, and GHGs are emitted by innumerable sources worldwide, the proposed Project would have no potential to result in a direct impact to global warming; rather, Project-related contributions to GCC, if any, only have potential significance on a cumulative basis. Therefore, the analysis below focuses on the Project's potential to contribute to GCC in a cumulatively-considerable way.

Section VIII of Appendix G to the State CEQA Guidelines addresses typical adverse effects due to GHGs, and includes the following threshold questions (OPR, 2018a):

- Would the project generate GHGs, either directly or indirectly, that may have a significant impact on the environment?

- Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs?

The following thresholds are derived directly from Section VIII of Appendix G to the State CEQA Guidelines and the County's Environmental Assessment form, and address typical adverse effects associated with GHG emissions. The proposed Project would have a significant impact on GHG emissions if the Project or any Project-related component would:

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

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

The above-listed thresholds for GHGs do not prescribe specific methodologies for performing an assessment, do not establish specific thresholds of significance, and do not mandate specific mitigation measures. Rather, the State CEQA Guidelines emphasize the lead agency's discretion to determine the appropriate methodologies and thresholds of significance consistent with the manner in which other impact areas are handled in CEQA. With respect to GHG emissions, State CEQA Guidelines Section 15064.4(a) states that lead agencies "shall make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate" GHG emissions resulting from a project. The State CEQA Guidelines note that an agency has the discretion to either quantify a project's GHG emissions or rely on a "qualitative analysis or other performance-based standards." A lead agency may use a "model or methodology" to estimate GHG emissions and has the discretion to select the model or methodology it considers "most appropriate to enable decision makers to intelligently take into account the project's incremental contribution to climate change." Section 15064.4(b) provides that the lead agency should consider the following when determining the significance of impacts from GHG emissions on the environment:

1. The extent a project may increase or reduce GHG emissions as compared to the existing environmental setting.
2. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
3. The extent to which the project complies with regulations or requirements adopted to implement a Statewide, regional, or local plan for the reduction or mitigation of GHG emissions (14 CCR 15064.4(b)).

In addition, Section 15064.7(c) of the State CEQA Guidelines specifies that "[w]hen adopting or using thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence." The State CEQA Guidelines also clarify that the effects of GHG emissions are cumulative and should be analyzed in the context of CEQA's requirements for cumulative impact analyses. As a note, the State CEQA Guidelines were amended in response to SB 97. In particular, the State CEQA Guidelines were amended to specify that compliance with a GHG emissions reduction plan renders a cumulative impact insignificant.

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

15064(h)(3) allows a lead agency to make a finding of less than significant for GHG emissions if a project complies with adopted programs, plans, policies, and/or other regulatory strategies to reduce GHG emissions.

The significance of the Project's GHG emissions is evaluated consistent with State CEQA Guidelines Section 15064.4(b)(2) by considering whether the Project complies with applicable plans, policies, regulations, and requirements adopted to implement a Statewide, regional, or local plan for the reduction or mitigation of GHG emissions.

The Riverside County 2019 CAP Update aims to reduce GHG emissions from development projects under County jurisdiction. The CAP Update builds on State and regional policies aimed at reducing GHG emissions consistent with the SB 32 2030 GHG reduction target and Statewide post-2030 reduction goals. The CAP Update identifies a two-step approach in evaluating GHG emissions. First, a screening threshold of 3,000 $MTCO_2e$/yr is used to determine if additional analysis is required. Projects that exceed 3,000 $MTCO_2e$/yr will be required to quantify and disclose the anticipated GHG emissions then either 1) demonstrate GHG emissions at project buildout year levels of efficiency and include project design features and/or mitigation measures to reduce GHG emissions or 2) garner 100 points through the CAP Update Screening Tables. For purposes of analysis herein, Option 1 is used to determine the significance of the Project's GHG impacts. Per the CAP Update, Projects that exceed the 3,000 $MTCO_2e$/yr are required to calculate GHG emissions at 2020 levels of efficiency and compare those emissions to the GHG emissions at the project buildout year levels of efficiency (inclusive of project design features and/or mitigation to reduce GHG emissions, which based on the CAP 2020 emissions and the 2030 target is approximately 25%). If it can be demonstrated that a project can achieve an efficiency equal to or greater than the GHG efficiency identified in the CAP Update by comparing the emissions estimate from a 2020 scenario to a proposed project, the project is determined to be consistent with the reduction quantities anticipated in the County of Riverside's GHG Technical Report, and consequently would be consistent with the CAP Update. Projects deemed consistent with the CAP Update are considered to have a less-than-significant individual and cumulative impact on GHG emissions. (Urban Crossroads, 2021c, p. 32)

Projects that garner at least 100 points are determined to be consistent with the reduction quantities anticipated in the County of Riverside's GHG Technical Report, and consequently would be consistent with the CAP Update. As such, projects that achieve a total of 100 points or more are considered to have a less-than-significant individual and cumulative impact on GHG emissions. It should be noted many of the CAP checklist implementation measures are incomplete and do not assign points to 22 measures and several others offer a large range of point reductions without providing guidance on how to determine the proper points for those measures. (Urban Crossroads, 2021c, pp. 32-33)

4.8.4 Impact Analysis

Threshold a:	***Would the Project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?***

❑ Construction Emissions

Project construction activities would generate CO_2, N_20, and CH_4 emissions. The Project's Air Quality Impact Analysis ("AQIA"; *Technical Appendix B* to this EIR) contains detailed information regarding Project construction activities. As discussed in the AQIA, construction related emissions are expected from the

following construction activities: site preparation, grading, building construction, paving, and architectural coating. (Urban Crossroads, 2021c, p. 36)

The anticipated construction duration, by phase, is shown in Table 3-1 of the Project's GHGA (*Technical Appendix G)*, while the list of construction equipment assumed in the analysis is presented in Table 3-2 of the Project's GHGA.

For construction phase Project emissions, GHGs are quantified and amortized over the life of the Project. To amortize the emissions over the life of the Project, the SCAQMD recommends calculating the total GHG emissions for the construction activities, dividing it by a 30-year project life then adding that number to the annual operational phase GHG emissions. As such, construction emissions were amortized over a 30-year period and added to the annual operational phase GHG emissions. The construction emissions from the Project are also used for estimating the total 2020 scenario emissions. The amortized construction emissions are presented in Table 4.8-4*, Project Construction GHG Emissions*. (Urban Crossroads, 2021c, p. 37)

Table 4.8-4 Project Construction GHG Emissions

Year	Emissions (MT/yr)				
	CO_2	CH_4	N_2O	R	Total CO_2E
2022	196.00	0.01	< 0.005	0.02	197.00
2023	1,245.00	0.05	0.06	1.02	1,264.00
2024	1,412.00	0.05	0.06	1.12	1,433.00
Total Annual Construction Emissions	2,853.00	0.11	0.12	2.16	2,894.00
Amortized Construction Emissions ($MTCO_2E$)	**95.10**	**3.67E-03**	**4.00E-03**	**0.07**	**96.47**

(Urban Crossroads, 2022a, Table 5)

❑ Operational Emissions

Operational activities associated with the proposed Project will result in emissions of CO_2, CH_4, and N_2O from the following primary sources: area source emissions; energy source emissions; mobile source emissions; water supply, treatment, and distribution; and solid waste. Each is discussed below. (Urban Crossroads, 2021c, p. 38)

Area Source Emissions

Landscape Maintenance Equipment

Landscape maintenance equipment would generate emissions from fuel combustion and evaporation of unburned fuel. Equipment in this category would include lawnmowers, shedders/grinders, blowers, trimmers, chain saws, and hedge trimmers used to maintain the landscaping of the Project. The emissions associated with landscape maintenance equipment were calculated based on assumptions provided in CalEEMod. The same settings for area sources were used for the 2020 and Project emissions modeling. (Urban Crossroads, 2021c, p. 38)

Energy Source Emissions

Combustion Emissions Associated with Natural Gas and Electricity

GHGs are emitted from buildings as a result of activities for which electricity and natural gas are typically used as energy sources. Combustion of any type of fuel emits CO_2 and other GHGs directly into the atmosphere. These emissions are considered direct emissions associated with a building; the building energy use emissions do not include street lighting. GHGs also are emitted during the generation of electricity from fossil fuels; these emissions are considered to be indirect emissions. The electricity intensity factors for calculating emissions associated with energy were not adjusted in CalEEMod for the Project or the 2020 scenario. (Urban Crossroads, 2021c, p. 38)

Title 24 Energy Efficiency Standards

California's Energy Efficiency Standards for Residential and Nonresidential Buildings was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods. Energy efficient buildings require less electricity. The 2019 version of Title 24 was adopted by the CEC and became effective on January 1, 2020. Based on CEC guidance single-family residences built with the 2019 standards will use approximately 7% less energy compared to the residential residences built under the 2016 standards. Additionally, after implementation of solar photovoltaic systems, residences under four stories built under the 2019 standards will use about 53% less energy than the same residences built under the 2016 standards. The Project and the 2020 scenario were modeled based on 2019 Title 24 requirements. (Urban Crossroads, 2021c, pp. 38-39)

Additionally, based on Title 24, Part 6 requirements, residential units of approximately 2,000 s.f. and constructed in Climate Zone 10 would be required to install solar photovoltaic systems capable of generating the equivalent of 2.66 kW. Thus, under the current building code, the entire single-family portion of the proposed Project would be required to install the equivalent of 946.96 kW of solar electrical generation. (Urban Crossroads, 2021c, p. 39)

Mobile Source Emissions

Project mobile source GHG impacts are dependent on both overall daily vehicle trip generation and the effect of the Project on peak hour traffic volumes and traffic operations in the vicinity of the Project. The Project-related GHG impacts are derived primarily from vehicle trips generated by the Project. The Project and the 2020 scenario were modeled using a conservative opening year of 2023 and include the effects of the SAFE Rule, which results in slightly higher mobile source emissions due to changes in fuel efficiencies. (Urban Crossroads, 2021c, p. 39)

EMFAC2021 Emission Rates

The EMissions FACtor (EMFAC) model web database is used for State Implementation Plans and transportation conformity analyses. EMFAC is a mathematical model that was developed to calculate emission rates, fuel consumption, vehicle miles traveled (VMT) from motor vehicles that operate on highways, freeways, and local roads in California and is commonly used by CARB to project changes in future emissions

from on-road mobile sources. The 2021 version of EMFAC (EMFAC2021) is incorporated into CalEEMod, version 2022.1. The Project's GHGA uses the EMFAC2021 emission factors that include CARB's SAFE rule correction factors in order to derive vehicle emissions associated with Project operational activities as well as operational activities under the 2020 scenario. (Urban Crossroads, 2021c, p. 39)

Water Supply, Treatment, and Distribution

Indirect GHG emissions result from the production of electricity used to convey, treat, and distribute water and wastewater. The amount of electricity required to convey, treat, and distribute water depends on the volume of water as well as the sources of the water. CalEEMod default end use water demand rates are based on 2000 water demand data. Since 2013 CalGreen has required a 20% reduction in indoor water use over base line rates. This was implemented through design requirements in the code for water closets, faucets, and other plumbing fixtures to achieve the 20% decrease by decreasing the flow rates by 20%. Therefore, CalEEMod default parameters for the Project were modified to reflect this requirement for both the Project and the 2020 scenario as it would have affected both. (Urban Crossroads, 2021c, p. 39)

Solid Waste

GHG emissions from waste generation also were calculated in CalEEMod and are based on the IPCC's methods for quantifying GHG emissions from solid waste using the degradable organic content of waste. Waste disposal rates by land use and overall composition of municipal solid waste in California was primarily based on data provided by the California Department of Resources Recycling and Recovery (CalRecycle). These estimates are based on the best available data and no alteration to waste generation factors was applied to emissions modeling. The same settings were used for the 2020 scenario and Project emissions modeling. (Urban Crossroads, 2021c, p. 40)

❑ Emissions Summary

The annual GHG emissions associated with the operation of the proposed Project are estimated to be approximately 9,900.17 $MTCO_2e$ per year as summarized in Table 4.8-5, *Project GHG Emissions*. Detailed calculations are provided in Appendix 3.1 of the Project's GHGA *(Technical Appendix G)* and Attachment 2 to the Project's GHGA Supplement (*Technical Appendix B2*). It should be noted to account for the required solar photovoltaic system, emissions are summarized from the mitigated results. (Urban Crossroads, 2021c, p. 40; Urban Crossroads, 2022a, pp. 6-7)

As shown in Table 4.8-5, Project emissions would exceed the screening threshold of 3,000 $MTCO_2e$, and therefore requires additional analysis to compare the Project's emissions against a 2020 Project scenario. The annual GHG emissions associated with the operation of the proposed Project under a 2020 scenario per the County of Riverside CAP *GHG Screening Table* document are estimated to be approximately 13,307.47 $MTCO_2e$ per year as summarized in Table 4.8-6, *2020 Project Scenario GHG Emissions*. (Urban Crossroads, 2021c, p. 40; Urban Crossroads, 2022a, pp. 6-7)

Table 4.8-5 Project GHG Emissions

Source	Emissions (MT/yr)				
	CO_2	CH_4	N_20	R	Total CO_2E
Annual construction-related emissions amortized over 30 years	95.10	3.67E-03	4.00E-03	0.07	96.47
Area	105.00	< 0.005	< 0.005	N/A	105.00
Energy	2,854.00	0.26	0.02	N/A	2,865.00
Mobile	6,276.00	0.31	0.31	8.26	6,385.00
Waste	64.80	6.48	0.00	N/A	227.00
Water	120.00	1.05	0.03	N/A	154.00
Refrigerants	N/A	N/A	N/A	67.70	67.70
Total CO_2E (All Sources)			**9,900.17**		

(Urban Crossroads, 2022a, Table 6)

Table 4.8-6 2020 Project Scenario GHG Emissions

Source	Emissions (MT/yr)				
	CO_2	CH_4	N_20	R	Total CO_2E
Annual construction-related emissions amortized over 30 years	95.10	3.67E-03	4.00E-03	0.07	96.47
Area	105.00	< 0.005	< 0.005	N/A	105.00
Energy	3,442.00	0.26	0.02	N/A	3,453.00
Mobile	7,345.00	0.44	0.40	16.80	7,493.00
Waste	64.80	6.48	0.00	N/A	227.00
Water	179.00	1.05	0.03	N/A	213.00
Refrigerants	N/A	N/A	N/A	1,720.00	1,270.00
Total CO_2E (All Sources)			**13,307.47**		

(Urban Crossroads, 2022a, Table 7)

❑ Evaluation of Project Impacts Due to GHGs

As discussed, the CAP identifies a three-step approach in evaluating GHG emissions at a project level. For purposes of analysis herein, consistency with the County of Riverside CAP is determine through the evaluation of Project efficiency as compared to a 2020 project scenario. (Urban Crossroads, 2021c, p. 41; Urban Crossroads, 2022a, p. 7)

As shown in Table 4.8-5, the Project as proposed would result in 9,900.17 $MTCO_2e$ per year ($MTCO_2e$/yr). As shown in Table 4.8-6, under a 2020 scenario the Project would result in 13,307.47 $MTCO_2e$/yr. Thus, the Project as proposed would be approximately 25.6% ([13,307.47 - 9,900.17]/13,307.47 = 25.6%) more efficient than the County of Riverside's CAP projected reductions through 2030. According to the CAP Update, if a project can demonstrate an efficiency equal to or greater than the 25% GHG efficiency identified in the CAP Update when comparing the emissions estimate of the project to a 2020 scenario, the project is considered to

be consistent with the reduction quantities anticipated in the County of Riverside CAP Update for the land use located at the site. Since the project would be 25.6% more efficient than the 2020 scenario, the Project is consistent with the County of Riverside CAP emissions estimates and projected reductions. Therefore, because the Project would be consistent with the County of Riverside CAP emissions estimates and projected reductions, Project impacts due to GHG emissions would be less-than-significant. (Urban Crossroads, 2022a, p. 7)

Threshold b: ***Would the Project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?***

Pursuant to Section 15604.4 of the State CEQA Guidelines, a lead agency may rely on qualitative analysis or performance-based standards to determine the significance of impacts from GHG emissions. Project consistency with SB 32 and the County's CAP Update is evaluated below.

❑ Project Consistency with SB 32/CARB 2017 Scoping Plan Update

In November 2017, CARB released the Final 2017 Scoping Plan Update, which identifies the State's post-2020 GHG reduction strategy. As the Project buildout is anticipated to occur in 2022, consistency with SB 32 is discussed below.

The 2017 Scoping Plan Update reflects the 2030 target of a 40% reduction below 1990 levels, set by Executive Order B-30-15 and codified by SB 32. Table 4.8-7, *2017 Scoping Plan Consistency Summary,* summarizes the Project's consistency with the 2017 Scoping Plan. As summarized, the Project would not conflict with any of the provisions of the Scoping Plan and in fact supports seven of the action categories. Any regulations adopted would apply directly or indirectly to the Project. Further, recent studies show that the State's existing and proposed regulatory framework will allow the State to reduce its GHG emissions level to 40% below 1990 levels by 2030, consistent with SB 32. Accordingly, the Project would not conflict with or obstruct implementation of the 2017 Scoping Plan Update, and impacts would therefore be less than significant.

Table 4.8-7 2017 Scoping Plan Consistency Summary

Action	Responsible Parties	Consistency
Implement SB 350 by 2030		
Increase the Renewables Portfolio Standard (RPS) to 50% of retail sales by 2030 and ensure grid reliability.	CPUC, CEC, CARB	Consistent. The Project would use energy from Southern California Edison (SCE). SCE has committed to diversify its portfolio of energy sources by increasing energy from wind and solar sources. The Project would not interfere with or obstruct SCE energy source diversification efforts.
Establish annual targets for Statewide energy efficiency savings and demand reduction that will achieve a cumulative doubling of Statewide energy efficiency savings in electricity and natural gas end uses by 2030.		Consistent. The Project would be designed and constructed to implement the energy efficiency measures for new commercial and residential developments and would include several measures designed to reduce energy consumption. The Project would not interfere with or obstruct policies or strategies to establish annual targets for Statewide energy efficiency savings and demand reduction.
Reduce GHG emissions in the electricity sector through the implementation of the		Consistent. The proposed Project would be designed and constructed to implement energy efficiency

Table 4.8-7 2017 Scoping Plan Consistency Summary

Action	Responsible Parties	Consistency
above measures and other actions as modeled in Integrated Resource Planning (IRP) to meet GHG emissions reductions planning targets in the IRP process. Load-serving entities and publicly-owned utilities meet GHG emissions reductions planning targets through a combination of measures as described in IRP.		measures, where applicable, by including several measures designed to reduce energy consumption. The proposed Project would include energy efficient lighting and fixtures that meet the current Title 24 Standards throughout the Project and would be a modern development with energy efficient boilers, heaters, and air conditioning systems.
Implement Mobile Source Strategy (Cleaner Technology and Fuels)		
At least 1.5 million zero emission and plug-in hybrid light-duty electric vehicles by 2025.	CARB, California State Transportation Agency (CalSTA), Strategic Growth Council (SGC), California Department of Transportation (Caltrans), CEC, OPR, Local Agencies	Consistent. This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB zero emission and plug-in hybrid light-duty electric vehicle 2025 targets.
At least 4.2 million zero emission and plug-in hybrid light-duty electric vehicles by 2030.		Consistent. This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB zero emission and plug-in hybrid light-duty electric vehicle 2030 targets.
Further increase GHG stringency on all light-duty vehicles beyond existing Advanced Clean cars regulations.		Consistent. This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB efforts to further increase GHG stringency on all light-duty vehicles beyond existing Advanced Clean cars regulations.
Medium- and Heavy-Duty GHG Phase 2.		Consistent. This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB efforts to implement Medium- and Heavy-Duty GHG Phase 2.
Innovative Clean Transit: Transition to a suite of to-be-determined innovative clean transit options. Assumed 20% of new urban buses purchased beginning in 2018 will be zero emission buses with the penetration of zero-emission technology ramped up to 100% of new sales in 2030. Also, new natural gas buses, starting in 2018, and diesel buses, starting in 2020, meet the optional heavy-duty low-NO_X standard.		Consistent. This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB efforts to improve transit-source emissions.
Last Mile Delivery: New regulation that would result in the use of low NO_X or cleaner engines and the deployment of increasing numbers of zero-emission trucks primarily for class 3-7 last mile delivery trucks in California. This measure assumes zero-emission vehicles comprise 2.5% of new Class 3-7 truck sales in local fleets starting in 2020, increasing to 10% in 2025 and remaining flat through 2030.		Consistent. This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB efforts to improve last mile delivery emissions.
Further reduce VMT through continued implementation of SB 375 and regional Sustainable Communities Strategies;		Consistent. This Project would not obstruct or interfere with implementation of SB 375. and the Project is required to implement all feasible Transportation

Table 4.8-7 2017 Scoping Plan Consistency Summary

Action	Responsible Parties	Consistency
forthcoming Statewide implementation of SB 743; and potential additional VMT reduction strategies not specified in the Mobile Source Strategy but included in the document "Potential VMT Reduction Strategies for Discussion."		Demand Management (TDM) strategies in order to reduce VMT (refer to EIR Mitigation Measure MM 4.18-2). The Project therefore would not conflict with this measure.
Increase stringency of SB 375 Sustainable Communities Strategy (2035 targets).	CARB	Consistent. This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB efforts to Increase stringency of SB 375 Sustainable Communities Strategy (2035 targets).
Harmonize project performance with emissions reductions and increase competitiveness of transit and active transportation modes (e.g. via guideline documents, funding programs, project selection, etc.).	CalSTA, SGC, OPR, CARB, Governor's Office of Business and Economic Development (GOBiz), California Infrastructure and Economic Development Bank (IBank), Department of Finance (DOF), California Transportation Commission (CTC), Caltrans	Consistent. The Project would not obstruct or interfere with agency efforts to harmonize transportation facility project performance with emissions reductions and increase competitiveness of transit and active transportation modes.
By 2019, develop pricing policies to support low-GHG transportation (e.g. low-emission vehicle zones for heavy duty, road user, parking pricing, transit discounts).	CalSTA, Caltrans, CTC, OPR, SGC, CARB	Consistent. The Project would not obstruct or interfere with agency efforts to develop pricing policies to support low-GHG transportation.
Implement California Sustainable Freight Action Plan		
Improve freight system efficiency.	CalSTA, CalEPA, California Natural Resources Agency (CNRA), CARB, Caltrans, CEC, GO-Biz	Consistent. The Project would not obstruct or interfere with agency efforts to improve freight system efficiency.
Deploy over 100,000 freight vehicles and equipment capable of zero emission operation and maximize both zero and near-zero emission freight vehicles and equipment powered by renewable energy by 2030.		Consistent. The Project would not obstruct or interfere with agency efforts to deploy over 100,000 freight vehicles and equipment capable of zero emission operation and maximize both zero and near-zero emission freight vehicles and equipment powered by renewable energy by 2030.
Adopt a Low Carbon Fuel Standard with a Carbon Intensity reduction of 18%.	CARB	Consistent. When adopted, this measure would apply to all fuel purchased and used by the Project in the State. The Project would not obstruct or interfere with agency efforts to adopt a Low Carbon Fuel Standard with a Carbon Intensity reduction of 18%.

Table 4.8-7 2017 Scoping Plan Consistency Summary

Action	Responsible Parties	Consistency
Implement the Short-Lived Climate Pollutant Strategy (SLPS) by 2030		
40% reduction in methane and hydrofluorocarbon emissions below 2013 levels.	CARB, California's Department of Resources Recycling and Recovery (CalRecycle), CDFA, SWRCB, Local Air Districts	Consistent. The Project would be required to comply with this measure and reduce any Project-source SLPS emissions accordingly. The Project would not obstruct or interfere agency efforts to reduce SLPS emissions.
50% reduction in black carbon emissions below 2013 levels.		
By 2019, develop regulations and programs to support organic waste landfill reduction goals in the Short-Lived Climate Pollutants (SLCP) and SB 1383.	CARB, CalRecycle, CDFA SWRCB, Local Air Districts	Consistent. The Project would implement waste reduction and recycling measures consistent with State and County requirements. The Project would not obstruct or interfere agency efforts to support organic waste landfill reduction goals in the SLCP and SB 1383.
Implement the post-2020 Cap-and-Trade Program with declining annual caps.	CARB	Consistent. The Project would be required to comply with any applicable Cap-and-Trade Program provisions. The Project would not obstruct or interfere agency efforts to implement the post-2020 Cap-and-Trade Program.
By 2018, develop Integrated Natural and Working Lands Implementation Plan to secure California's land base as a net carbon sink		
Protect land from conversion through conservation easements and other incentives.	CNRA, Departments Within CDFA, CalEPA, CARB	Consistent. The Project would not obstruct or interfere agency efforts to protect land from conversion through conservation easements and other incentives.
Increase the long-term resilience of carbon storage in the land base and enhance sequestration capacity.		Consistent. The Project site is vacant disturbed property and does not comprise an area that would effectively provide for carbon sequestration. The Project would not obstruct or interfere agency efforts to increase the long-term resilience of carbon storage in the land base and enhance sequestration capacity.
Utilize wood and agricultural products to increase the amount of carbon stored in the natural and built environments.		Consistent. Where appropriate, the Project would incorporate wood or wood products. The Project would not obstruct or interfere with agency efforts to encourage use of wood and agricultural products to increase the amount of carbon stored in the natural and built environments.
Establish scenario projections to serve as the foundation for the Implementation Plan.		Consistent. The Project would not obstruct or interfere agency efforts to establish scenario projections to serve as the foundation for the Implementation Plan.
Establish a carbon accounting framework for natural and working lands as described in SB 859 by 2018.	CARB	Consistent. The Project would not obstruct or interfere agency efforts to establish a carbon accounting framework for natural and working lands as described in SB 859 by 2018.
Implement Forest Carbon Plan.	CNRA, California Department of Forestry and Fire Protection (CAL FIRE),	Consistent. The Project would not obstruct or interfere agency efforts to implement the Forest Carbon Plan.

Table 4.8-7 2017 Scoping Plan Consistency Summary

Action	Responsible Parties	Consistency
	CalEPA	
Identify and expand funding and financing mechanisms to support GHG reductions across all sectors.	State Agencies & Local Agencies	Consistent. The Project would not obstruct or interfere with agency efforts to identify and expand funding and financing mechanisms to support GHG reductions across all sectors.

❑ **Project Consistency with Riverside County CAP Update**

To address the State's requirement to reduce GHG emissions, the County of Riverside prepared its CAP Update to assess the previous GHG reduction targets identified in the 2015 CAP and proposes new targets that are consistent with the State policies in order to meet the requirements of SB 32. The State recommended a 15% reduction below 2005–2008 baseline levels by 2020, a 49% reduction below 2008 levels by 2030, and an 80% reduction below 2008 levels by 2050. To continue reductions consistent with the State's long-term emissions reduction goals, the County of Riverside would need to reduce emissions in 2030 by 525,511 $MTCO_2e$ from an ABAU forecast and by 2,982,947 $MTCO_2e$ from an ABAU forecast by 2050. The County of Riverside's target is consistent with the SB 32 target and ensures that the County of Riverside will be providing GHG reductions locally that will complement State efforts to reduce GHG emissions. Because the County of Riverside's CAP addresses GHG emissions reductions and is consistent with the requirements of SB 32 and international efforts to reduce GHG emissions, compliance with the CAP fulfills the description of mitigation found in the State CEQA Guidelines. (Urban Crossroads, 2021c, p. 42)

As discussed under Threshold a., the Project would be approximately 25.6% more efficient than a 2020 scenario. Based on the project-level analysis guidance included with the CAP, the Project would achieve the required reduction in emissions to be consistent with the County of Riverside CAP reductions which are consistent with the State goals contained in the 2017 Scoping Plan and enumerated by SB 32. Therefore, the Project would have a less-than-significant impact on GHG reduction plans at the local and State levels. (Urban Crossroads, 2021c, p. 42)

4.8.5 Cumulative Impact Analysis

As discussed in subsection 4.8.3, there is no evidence at this time that would indicate that the emissions from a project the size of the proposed Project would directly or indirectly affect the global climate. As such, Project impacts due to GHG emissions are inherently cumulative in nature.

As discussed under the analysis of Threshold a., the Project would result in 9,900.17 $MTCO_2e$/yr, and 13,307.47 $MTCO_2e$/yr under a 2020 scenario. Thus, the Project as proposed would be approximately25.6% ([13,307.47 - 9,900.17]/13,307.47 = 25.6%) more efficient than the County of Riverside's CAP projected reductions through 2030. Therefore, the Project would not have the potential to result in a cumulatively-considerable impact on the environment with respect to GHG emissions.

As discussed under the analysis of Threshold b., the Project would be consistent with or otherwise would not conflict with the CARB 2017 Scoping Plan. Based on the project level analysis guidance included with the CAP, the Project would achieve the required reduction in emissions to be consistent with the County of Riverside CAP reductions which are consistent with the State goals contained in the 2017 Scoping Plan and

enumerated by SB 32. Therefore, the Project would not have the potential to result in a cumulatively-considerable impact on GHG reduction plans at the local or state level.

4.8.6 Significance of Impacts Before Mitigation

Threshold a: Less-Than-Significant Impact. As discussed under the analysis of Threshold a., the CAP Update identifies a three-step approach in evaluating GHG emissions at a project level. For purposes of analysis herein, consistency with the County of Riverside CAP is determine through the evaluation of Project efficiency as compared to a 2020 project scenario. As shown in Table 4.8-5, the Project as proposed would result in 9,900.17 $MTCO_2e$ per year. As shown in Table 4.8-6, under a 2020 scenario the Project would result in 13,307.47 $MTCO_2e$/yr. Thus, the Project as proposed would be approximately 25.6% ([13,307.47 - 9,900.17]/13,307.47 = 25.6%) more efficient than the County of Riverside's CAP projected reductions through 2030. According to the CAP Update, if a project can demonstrate an efficiency equal to or greater than the 25% GHG efficiency identified in the CAP Update when comparing the emissions estimate of the project to a 2020 scenario, the project is considered to be consistent with the reduction quantities anticipated in the County of Riverside CAP Update for the land use located at the site. Since the project would be 25.6% more efficient than the 2020 scenario, the Project is consistent with the County of Riverside CAP emissions estimates and projected reductions. Therefore, the Project would be consistent with the County of Riverside CAP emissions estimates and projected reductions and impacts on the environment from GHGs would be less-than-significant.

Threshold b: Less-Than-Significant Impact. The Project would be approximately 25.6% more efficient than a 2020 scenario. Based on the project level analysis guidance included with the CAP, the Project would achieve the required reduction in emissions to be consistent with the County of Riverside CAP reductions, which are consistent with the State goals contained in the 2017 Scoping Plan and enumerated by SB 32. Therefore, the Project would have a less-than-significant impact on GHG reduction plans at the local or State level.

4.8.7 County Regulations, Design Requirements, and Mitigation

Applicable County Regulations and Design Requirements

The Project would be required to comply with all mandates imposed by the State of California and SCAQMD aimed at the reduction of air quality emissions. Those that are applicable to the Project and that would assist in the reduction of greenhouse gas emissions are listed below:

- Global Warming Solutions Act of 2006 (AB32)
- Pavley Fuel Efficiency Standards (AB1493). Establishes fuel efficiency ratings for new vehicles.
- Title 17 California Code of Regulations (Low Carbon Fuel Standard). Requires carbon content of fuel sold in California to be 10% less by 2020.
- Statewide Retail Provider Emissions Performance Standards (SB 1368). Requires energy generators to achieve performance standards for GHG emissions.
- Renewable Portfolio Standards (SB 1078). Requires electric corporations to increase the amount of energy obtained from eligible renewable energy resources to 20 percent by 2010 and 33 percent by 2020.
- Senate Bill 32 (SB 32). Requires the state to reduce statewide greenhouse gas emissions to 40% below 1990 levels by 2030, a reduction target that was first introduced in Executive Order B-30-15.

The Project also would be subject to compliance with Riverside County CAP Update Measure R2-CE1, as follows:

- Prior to issuance of building permits, and in accordance with measure R2-CE1 of the County's Climate Action Plan (CAP) Update, future implementing building permits that involve more than 75 new dwelling units of residential development or one or more new buildings totaling more than 100,000 gross square feet of commercial, office, industrial, or manufacturing development shall be required to offset the energy demand through renewable energy production. Renewable energy production shall be onsite generation of at least 20% of energy demand for commercial, office, industrial or manufacturing development, meet or exceed 20% of energy demand for multi-family residential development, and meet or exceed 30% of energy demand for single-family residential development.

Mitigation

The Project's impacts due to GHG emissions would be less than significant; therefore, mitigation is not required.

4.9 HAZARDS AND HAZARDOUS MATERIALS

The information and analysis presented in this Subsection is based in part on a technical study that was prepared to determine the presence or absence of hazardous materials on the Project site under existing conditions. This report, entitled, "Phase I Environmental Site Assessment, Keller Crossing, Winchester, Riverside County, California 92596" (herein, "Phase I ESA"), was prepared by Tetra Tech, is dated July 27, 2020, and is included as EIR *Technical Appendix H* (Tetra Tech, 2020).

4.9.1 EXISTING CONDITIONS

A. Definition of Toxic Substances and Hazardous Waste

For purposes of this EIR, the term "toxic substance" is defined as a substance which, because of its quantity, concentration, or physical, chemical, or infectious characteristics, may present an unreasonable risk of injury to human health or the environment. Toxic substances include: chemical, biological, flammable, explosive, and radioactive substances.

"Hazardous material" is defined as a substance which, because of its quantity, concentration, or physical, chemical, or infectious characteristics, may: 1) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, disposed of, or otherwise mismanaged; or 2) cause or contribute to an increase in mortality or an increase in irreversible or incapacitating illness.

Hazardous waste is defined in the California Code of Regulations, Title 22, § 66261.3. The defining characteristics of hazardous waste are: ignitability (oxidizers, compressed gases, and extremely flammable liquids and solids), corrosivity (strong acids and bases), reactivity (explosives or generates toxic fumes when exposed to air or water), and toxicity (materials listed by the United States Environmental Protection Agency [USEPA] as capable of inducing systemic damage to humans or animals).

Certain wastes are called "Listed Wastes" and are found in the California Code of Regulations, Title 22, §§ 66261.30 through 66261.35. Wastes appear on the lists because of their known hazardous nature or because the processes that generate them are known to produce hazardous wastes (which are often complex mixtures).

A Recognized Environmental Condition (REC) means the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. The term is not intended to include de minimis conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

B. Historical Review, Regulatory Review, and Field Reconnaissance

As part of the Project's Phase I ESA (*Technical Appendix H*), Tetra Tech conducted a site walk to document the current condition of the Project site and neighboring facilities; a review of a regulatory databases; a review of previously-prepared reports for the Project site; questionnaires to the current property owner; a review of historical references including aerial photographs, city directories, and topographic maps; on-line research and

file review requests concerning the Project site and suspect off-site sources at the Department of Toxic Substances Control (DTSC) websites; a review of records maintained by the Riverside County Department of Environmental Health; and a review of building records and blueprints of the former Site buildings maintained by Riverside County. The results of the assessment are summarized below.

1. Historical Review

Tetra Tech's review of readily available historical aerial photographs (dated 1949, 1953, 1961, 1967, 1978, 1985, 1989, 1996, 2002, 2006, 2009, 2012, and 2016) indicates that Project site consists of agricultural land with hilly terrain primarily in the northeastern portion with scattered stream channels and additional hills throughout in all reviewed aerial photographs. Tetra Tech did not identify a previous use of the Project site that would represent a REC. (Tetra Tech, 2020, p. ES-2)

Based on the review of readily available historical aerial photographs, the areas surrounding the Project site appear to consist of undeveloped or agricultural land with scattered rural residential properties in the 1949 through 2002 aerial photographs. Highway 79 is also visible to the adjacent east in all reviewed aerial photographs. Beginning in the 1996 aerial photograph, a nursey is also visible to the southeast. By the 2006 aerial photograph, a residential subdivision also appears to the southeast. The areas surrounding the target property appear relatively unchanged in the remaining aerial photographs. Tetra Tech did not identify a previous use of the surrounding properties that would represent a REC to the Project site. (Tetra Tech, 2020, p. ES-2)

Based on the historical agricultural use of the Project site and surrounding areas, it is possible that environmentally persistent pesticides have been applied to crops grown on or around the site. However, the normal use and application of agricultural chemicals generally does not trigger enforcement actions, assessments by regulatory agencies, or the recommendation for further assessment of the Project site unless there is evidence indicating that misuse, dumping, or improper storage of chemicals is present or has occurred. There are no indications of these types of activities or evidence of agricultural chemical mixing, large quantity storage, or materials processing located on or around the Project site. (Tetra Tech, 2020, pp. ES-2 and ES-3)

2. Regulatory Review

Tetra Tech contracted Environmental Data Resources, Inc. (EDR) to perform a database search of information published by local, State, and federal regulatory agencies relative to the target property and adjacent and surrounding properties. Tetra Tech's review of available regulatory information and area reconnaissance did not indicate on-site or off-site RECs or vapor encroachment conditions (VECs) for the target property. Refer to the Project's Phase I ESA (*Technical Appendix H*) for a description of facilities identified in the EDR Radius Map Report within two miles of the Project site, none of which represent an REC for the Project site. (Tetra Tech, 2020, p. ES-10)

3. Site Reconnaissance

At the time of the site reconnaissance, the majority of the Project site consisted of agricultural land with hilly terrain primarily on the northeastern and northwestern portions. In addition, a suspected intermittent stream was noted within the northeastern portion. A stormwater outlet also was observed on the northeastern portion of the site, as well as on the west-central portion. Overhead electrical powerlines were observed along the

southern and western Project boundaries. Two pole-mounted transformers were observed along the southern boundary, while one was observed on the northwestern portion of the Project site. The transformers were not labeled for polychlorinated biphenyl (PCB) content but were observed to be in good condition with no evidence of leaks or staining. Debris consisting of a bumper and car seat also were observed on the northwestern portion, while wind-blown trash was observed throughout the Project boundaries. No staining, distressed vegetation, or other concerns were noted in association with the debris. No active earthwork or site development activities were observed at the Project site during the site reconnaissance. (Tetra Tech, 2020, pp. ES-1 and ES-2)

The Project site is bordered to the north by vacant land and rural residences, with Scott Road beyond. To the east, the Project site is bordered by Highway 79 with vacant land, rural residences, and agricultural land beyond. The Project site is bordered to the south by Keller Road with rural residences beyond. To the west, the Project site is bordered by Pourroy Road with vacant land and rural residences beyond. (Tetra Tech, 2020, p. ES-2)

Tetra Tech's site reconnaissance revealed no evidence of RECs for the Project site. (Tetra Tech, 2020, p. ES-2)

C. Airport Hazards

The Project site is not located within two miles of a public airport or within an airport land use plan. The closest airport is the French Valley Airport located roughly 3.3 miles southwest of the Project site. According to Map CO-1 of the Riverside County Airport Land Use Compatibility Plan Policy Document, the Project site is located outside of the compatibility zones for the French Valley Airport, indicating that the Project site is not subject to airport-related hazards. (RCALUC, 2004) Additionally, the Project site is located approximately 0.9 miles southeast of Pines Airpark, which formerly was a private airport located within the County of Riverside. However, the Conditional Use Permit (CUP) for the Pines Airpark (CUP 3078 Revision No. 3) was withdrawn on November 15, 2016, and the previously-approved CUP was allowed to expire (Riverside County, 2016). As such, the Pines Airpark is no longer in operation.

4.9.2 Applicable Environmental Regulations

The following is a brief description of the federal, state, and local environmental laws and related regulations related to hazards and hazardous materials.

A. Hazardous Materials Regulations and Plans

1. Federal Regulations

- **Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and Superfund Amendments and Reauthorization Act (SARA)**

The Comprehensive Environmental Response, Compensation, and Liability Act, also known as CERCLA or Superfund, provides a Federal "Superfund" to clean up uncontrolled or abandoned hazardous-waste sites as well as accidents, spills, and other emergency releases of pollutants and contaminants into the environment. Through CERCLA, the Environmental Protection Agency (EPA) was given power to seek out those parties responsible for any release and assure their cooperation in the cleanup. EPA cleans up orphan sites when potentially responsible parties cannot be identified or located, or when they fail to act. Through various enforcement tools, EPA obtains private party cleanup through orders, consent decrees, and other small party

settlements. EPA also recovers costs from financially viable individuals and companies once a response action has been completed. (EPA, n.d.)

EPA is authorized to implement the Act in all 50 states and U.S. territories. Superfund site identification, monitoring, and response activities in states are coordinated through the state environmental protection or waste management agencies. (EPA, n.d.)

The Superfund Amendments and Reauthorization Act (SARA) of 1986 reauthorized CERCLA to continue cleanup activities around the country. Several site-specific amendments, definitions clarifications, and technical requirements were added to the legislation, including additional enforcement authorities. Also, Title III of SARA authorized the Emergency Planning and Community Right-to-Know Act (EPCRA). (EPA, n.d.)

❑ Resource Conservation and Recovery Act (RCRA)

The Resource Conservation and Recovery Act (RCRA) gives EPA the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. (EPA, n.d.)

The Federal Hazardous and Solid Waste Amendments (HSWA) are the 1984 amendments to RCRA that focused on waste minimization and phasing out land disposal of hazardous waste as well as corrective action for releases. Some of the other mandates of this law include increased enforcement authority for EPA, more stringent hazardous waste management standards, and a comprehensive underground storage tank program. (EPA, n.d.)

❑ Hazardous Materials Transportation Act (HMTA)

The Hazardous Materials Transportation Act of 1975 (HMTA) empowered the Secretary of Transportation to designate as hazardous material any "particular quantity or form" of a material that "may pose an unreasonable risk to health and safety or property." (OSHA, n.d.)

Hazardous materials regulations are subdivided by function into four basic areas:

- Procedures and/or Policies 49 CFR Parts 101, 106, and 107
- Material Designations 49 CFR Part 172
- Packaging Requirements 49 CFR Parts 173, 178, 179, and 180
- Operational Rules 49 CFR Parts 171, 173, 174, 175, 176, and 177 (OSHA, n.d.)

The HMTA is enforced by use of compliance orders [49 U.S.C. 1808(a)], civil penalties [49 U.S.C. 1809(b)], and injunctive relief (49 U.S.C. 1810). The HMTA (Section 112, 40 U.S.C. 1811) preempts state and local governmental requirements that are inconsistent with the statute, unless that requirement affords an equal or greater level of protection to the public than the HMTA requirement. (OSHA, n.d.)

❑ Hazardous Materials Transportation Uniform Safety Act of 1990

In 1990, Congress enacted the Hazardous Materials Transportation Uniform Safety Act (HMTUSA) to clarify the maze of conflicting state, local, and federal regulations. Like the HMTA, the HMTUSA requires the Secretary of Transportation to promulgate regulations for the safe transport of hazardous material in intrastate, interstate, and foreign commerce. The Secretary also retains authority to designate materials as hazardous when they pose unreasonable risks to health, safety, or property. (OSHA, n.d.)

The statute includes provisions to encourage uniformity among different state and local highway routing regulations, to develop criteria for the issuance of federal permits to motor carriers of hazardous materials, and to regulate the transport of radioactive materials. (OSHA, n.d.)

❑ Occupational Safety and Health Act (OSHA)

Congress passed the Occupational and Safety Health Act (OSHA) to ensure worker and workplace safety. Their goal was to make sure employers provide their workers a place of employment free from recognized hazards to safety and health, such as exposure to toxic chemicals, excessive noise levels, mechanical dangers, heat or cold stress, or unsanitary conditions. (EPA, n.d.)

In order to establish standards for workplace health and safety, the Act also created the National Institute for Occupational Safety and Health (NIOSH) as the research institution for OSHA. OSHA is a division of the U.S. Department of Labor that oversees the administration of the Act and enforces standards in all 50 states. (EPA, n.d.)

❑ Toxic Substances Control Act

The Toxic Substances Control Act (TSCA) of 1976 provides EPA with authority to require reporting, record-keeping and testing requirements, and restrictions relating to chemical substances and/or mixtures. Certain substances are generally excluded from TSCA, including, among others, food, drugs, cosmetics, and pesticides. TSCA addresses the production, importation, use, and disposal of specific chemicals including polychlorinated biphenyls (PCBs), asbestos, radon, and lead-based paint. (EPA, n.d.)

Various sections of TSCA provide authority to:

- Require, under Section 5, pre-manufacture notification for "new chemical substances" before manufacture
- Require, under Section 4, testing of chemicals by manufacturers, importers, and processors where risks or exposures of concern are found
- Issue Significant New Use Rules (SNURs), under Section 5, when it identifies a "significant new use" that could result in exposures to, or releases of, a substance of concern.
- Maintain the TSCA Inventory, under Section 8, which contains more than 83,000 chemicals. As new chemicals are commercially manufactured or imported, they are placed on the list.
- Require those importing or exporting chemicals, under Sections 12(b) and 13, to comply with certification reporting and/or other requirements.

- Require, under Section 8, reporting and record-keeping by persons who manufacture, import, process, and/or distribute chemical substances in commerce.
- Require, under Section 8(e), that any person who manufactures (including imports), processes, or distributes in commerce a chemical substance or mixture and who obtains information which reasonably supports the conclusion that such substance or mixture presents a substantial risk of injury to health or the environment to immediately inform EPA, except where EPA has been adequately informed of such information. EPA screens all TSCA b§8(e) submissions as well as voluntary "For Your Information" (FYI) submissions. The latter are not required by law, but are submitted by industry and public interest groups for a variety of reasons. (EPA, n.d.)

2. State Regulations

❑ Cal/OSHA and the California State Plan

Under an agreement with OSHA, since 1973 California has operated an occupational safety and health program in accordance with Section 18 of the federal OSHA. The State of California's Department of Industrial Relations administers the California Occupational Safety and Health Program, commonly referred to as Cal/OSHA. The State of California's Division of Occupational Safety and Health (DOSH) is the principal agency that oversees plan enforcement and consultation. In addition, the California State program has an independent Standards Board responsible for promulgating State safety and health standards, and reviewing variances. It also has an Appeals Board to adjudicate contested citations and the Division of Labor Standards Enforcement to investigate complaints of discriminatory retaliation in the workplace. (OSHA, n.d.)

Pursuant to 29 CFR 1952.172, the California State Plan applies to all public and private sector places of employment in the state, with the exception of federal employees, the United States Postal Service, private sector employers on Native American lands, maritime activities on the navigable waterways of the United States, private contractors working on land designated as exclusively under federal jurisdiction and employers that require federal security clearances. Cal/OSHA is the only agency in the state authorized to adopt, amend, or repeal occupational safety and health standards or orders. In addition, the Standards Board maintains standards for certain things not covered by federal standards or enforcement, including: elevators, aerial passenger tramways, amusement rides, pressure vessels and mine safety training. The Cal/OSHA enforcement unit conducts inspections of California workplaces in response to a report of an industrial accident, a complaint about an occupational safety and health hazard, or as part of an inspection program targeting industries with high rates of occupational hazards, fatalities, injuries or illnesses. (OSHA, n.d.)

❑ California Hazardous Waste Control Law

The Hazardous Waste Control Law (HWCL) (Health and Safety Code [HSC], Division 20, Chapter 6.5, Section 25100, et seq.) is the primary hazardous waste statute in California. The HWCL implements RCRA as a "cradle-to-grave" waste management system in the state. It specifies that generators have the primary duty to determine whether their wastes are hazardous and to ensure its proper management. The HWCL also establishes criteria for the reuse and recycling of hazardous wastes used or reuse as raw materials. The HWCL exceeds federal requirements by mandating source reduction planning and broadening requirements for permitting facilities that treat hazardous waste. It also regulates a number of waste types and waste management activities not covered by federal law (RCRA). (CA Legislative Info, n.d.)

❑ California Code of Regulations (CCR), Titles 22 and 26

A variety of California Code of Regulation (CCR) titles address regulations and requirements for generators of hazardous waste. Title 22 contains detailed compliance requirements for hazardous waste generators, transporters, and facilities for treatment, storage, and disposal. Because California is a fully-authorized state according to RCRA, most regulations (i.e., 40 CFR 260, et seq.) have been duplicated and integrated into Title 22. However, because the Department of Toxic Substances Control (DTSC) regulates hazardous waste more stringently than the EPA, the integration of state and federal hazardous waste regulations that make up Title 22 does not contain as many exemptions or exclusions as does 40 CFR 260. As with the HSC, Title 22 also regulates a wider range of waste types and waste management activities than does RCRA. To aid the regulated community, California has compiled hazardous materials, waste, and toxics-related regulations from CCR, Titles 3, 8, 13, 17, 19, 22, 23, 24 and 27 into one consolidated listing: CCR Title 26 (Toxics). However, the hazardous waste regulations are still commonly referred to collectively as "Title 22." (DTSC, n.d.; DTSC, 2019)

❑ California Government Code Section 65962.5

California Government Code Section 65962.5 requires the DTSC to compile and update as appropriate, but at least annually, and shall submit to the Secretary for Environmental Protection, a list of all 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 former Article 11 (commencing with Section 25220) of Chapter 6.5 of Division 20 of the Health and Safety Code; (3) All information received by the Department of Toxic Substances Control pursuant to Section 25242 of the Health and Safety Code on hazardous waste disposals on public land; and (4) All sites listed pursuant to Section 25356 of the Health and Safety Code.

B. Airport and Aircraft Hazards Regulations and Plans

1. State Regulations

❑ State Aeronautics Act

The State Aeronautics Commission Act of 1947 created the Division of Aeronautics ("Division"), and was later amended by statute to read the State Aeronautics Act (Aeronautics Act) in 1961. As a result of this legislation, the Division's first priorities are those mandated by the Aeronautics Act, then Caltrans guidance, then Division guidance as expressed through its Policy Element. As directed by the Aeronautics Act, the Division is a steward and advocate of aviation in California. To that end, its efforts are focused on activities that "protect the public interest in aeronautics and aeronautical progress." (§ 21002) (CA Legislative Info, n.d.)

The Aeronautics Act itself is divided into six chapters, the first five of which have not received significant cleanup legislation since its enabling in 1947. The first chapter begins with general provisions and definitions and explains the Legislature's intent for a State aviation program. Chapter two explains Caltrans' role in administering the Division, and explains the role of the California Transportation Commission (CTC). Chapter three includes many of the safety considerations from Federal Aviation Administration (FAA) regulations that help keep airports and the surrounding communities safe and compatible with flight operations. Chapter four deals with airport and heliport permitting, air navigation facilities, noise guidelines, funding, and importantly, the formation and authority of Airport Land Use Commissions (ALUC). Chapter five covers the investigations

and hearings on matters covered in the Aeronautics Act. Finally, Chapter six introduces airport planning and specifically introduces the intent of the CASP and how it can be used to support California aviation. (CA Legislative Info, n.d.)

❑ California Environmental Quality Act

The operation of airports and aircraft is the responsibility of the Federal Aviation Administration (FAA), but the requirement to document potential hazards related to airports and air activities when a new project is proposed is contained in CEQA, specifically PRC Section 21096, which states: (CA Legislative Info, n.d.)

> *"(a) If a lead agency prepares an environmental impact report for a project situated within airport land use compatibility plan boundaries, or, if an airport land use compatibility plan has not been adopted, for a project within two nautical miles of a public airport or public use airport, the Airport Land Use Planning Handbook published by the Division of Aeronautics of the Department of Transportation, in compliance with section 21674.5 of the Public Utilities Code and other documents, shall be utilized as technical resources to assist in the preparation of the environmental impact report as the report relates to airport-related safety hazards and noise problems.*
>
> *(b) A lead agency shall not adopt a negative declaration for a project described in subdivision (a) unless the lead agency considers whether the project will result in a safety hazard or noise problem for persons using the airport or for persons residing or working in the project area."*

4.9.3 Basis for Determining Significance

Section IX of Appendix G to the State CEQA Guidelines addresses typical adverse effects due to hazards and hazardous materials, and includes the following threshold questions to evaluate a project's impacts due to hazards and hazardous materials (OPR, 2018a).

- *Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*
- *Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?*
- *Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?*
- *Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?*
- *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?*

- *Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*
- *Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?*

Significance thresholds are set forth in Riverside County's Environmental Assessment Checklist, are derived from Section IX of Appendix G to the State CEQA Guidelines (listed above), and state that the proposed Project would have a significant impact from hazards and hazardous materials if construction and/or operation of the Project would:

a. *Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;*

b. *Create a significant hazard to the public, or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;*

c. *Impair implementation of or physically interfere with an adopted emergency response plan or an emergency evacuation plan;*

d. *Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;*

e. *Be located on a site, which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public, or the environment;*

f. *Result in an inconsistency with an Airport Master Plan;*

g. *Require review by the Airport Land Use Commission;*

h. *For a project located within an airport land use plan or, where such a plan has not been adopted, within two (2) miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area; or*

i. *For a project within the vicinity of a private airstrip, or heliport, would the project result in a safety hazard for people residing or working in the project area.*

The significance thresholds set forth in Riverside County's Environmental Assessment Checklist were used to evaluate the significance of the proposed Project's impacts due to hazards and hazardous materials. It should be noted that the issue of loss, injury, or death involving wildland fires is addressed separately in EIR Subsection 4.21, *Wildfire*.

4.9.4 IMPACT ANALYSIS

Threshold a:	***Would the Project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?***
Threshold b:	***Would the Project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?***

Implementation of the Project would result in the construction and long-term operation of a residential and commercial retail development. The analysis below evaluates the potential for the Project to result in a substantial hazard to people or the environment due to existing site conditions, construction activities, and long-term operation.

Impact Analysis for Existing Site Conditions

As indicated above under subsection 4.9.1.B, based on the Phase I ESA prepared by Tetra Tech (*Technical Appendix H*), based on a review of historical documents and regulatory records, and based on the site reconnaissance, there are no indications of on-site or off-site RECs or VECs for the Project site. (Tetra Tech, 2020, p. ES-10) Based on the historical agricultural use of the Project site, it is possible that environmentally persistent pesticides have been applied to crops grown on or around the site; however, the normal use and application of agricultural chemicals generally does not trigger enforcement actions, assessments by regulatory agencies, or the recommendation for further assessment of the Project site unless there is evidence indicating that misuse, dumping, or improper storage of chemicals is present or has occurred. There are no indications of these types of activities or evidence of agricultural chemical mixing, large quantity storage, or materials processing located on or around the Project site. (Tetra Tech, 2020, p. ES-2-ES-8) Based on these findings, there are no conditions associated with the Project site's existing condition or surroundings that would create a significant hazard to the public or the environment through the routine transport, use, disposal, or accidental release of hazardous materials. Accordingly, no impact would occur associated with the Project site's existing conditions.

Impact Analysis for Temporary Construction-Related Activities

Heavy equipment (e.g., dozers, excavators, tractors) would be operated on the Project site during construction of the Project. This heavy equipment likely would be fueled and maintained by petroleum-based substances such as diesel fuel, gasoline, oil, and hydraulic fluid, which are considered hazardous if improperly stored or handled. In addition, materials such as paints, adhesives, solvents, and other substances typically used in building construction would be used on the Project site during construction. Improper use, storage, or transportation of hazardous materials can result in accidental releases or spills, potentially posing health risks to workers, the public, and the environment. This is a standard risk on all construction sites, and there would be no greater risk for improper handling, transportation, or spills associated with the Project than would occur on any other similar construction site. Construction contractors would be required to comply with all applicable federal, State, and local laws and regulations regarding the transport, use, and storage of hazardous construction-related materials, including but not limited to requirements imposed by the Environmental Protection Agency (EPA) and DTSC, as well as the Santa Ana Regional Water Quality Control Board (RWQCB) pertaining to water quality as discussed in EIR Subsection 4.10, *Hydrology and Water Quality*. With mandatory compliance with applicable hazardous materials regulations, the Project would not create

significant hazard to the public or the environment through routine transport, use, or disposal of hazardous materials during the construction phase. A less-than-significant impact would occur.

Impact Analysis for Long-Term Operation

The Project would entail the future development of 353 single-family homes, 80 attached senior housing units, a 6.4-acre sports park/active park, and 176,000 s.f. of commercial retail area. For purposes of analysis within this EIR, it is assumed that the commercial retail uses would consist of a 50,000 square foot supermarket, 14,000 square foot pharmacy, 101,500 square feet of commercial retail uses, and 10,500 square feet of fast-food restaurant with drive-through window use. None of the proposed uses (residential, commercial, and recreational) are associated with the transport, use, or disposal of significant quantities of hazardous materials. Household and other goods used by residential homes and retail uses that contain toxic substances are usually low in concentration and small in amount; therefore, there is no significant risk to humans or the environment from the use of such household goods. Residents and employees are required to dispose of household hazardous waste, including pesticides, batteries, old paint, solvents, used oil, antifreeze, and other chemicals, at a Household Hazardous Waste Collection Facility. Also, as of February 2006, fluorescent lamps, batteries, and mercury thermostats can no longer be disposed in the trash. Furthermore, the transport, use, and disposal of hazardous materials are fully regulated by the EPA, State, and/or the County of Riverside. With mandatory regulatory compliance, potential hazardous materials impacts associated with the residential, commercial, and recreational uses associated with long-term operation of the Project would be less than significant.

Threshold c:	***Would the Project impair implementation of or physically interfere with an adopted emergency response plan or an emergency evacuation plan?***

The Project site does not contain any emergency facilities nor does it serve as an emergency evacuation route. Additionally, there are no emergency response plans or emergency evacuation plans in effect in the local area. During construction and at Project build-out, the proposed Project would be required to maintain adequate access for emergency vehicles. Furthermore, improvements planned as part of the Project are not anticipated to adversely affect traffic operations in the local area, including along nearby segments of Keller Road or Winchester Road (Highway 79). As part of the County's discretionary review process, Riverside County reviewed the Project's application materials to ensure that appropriate emergency ingress and egress would be available to and from the Project site and that circulation on the Project site was adequate for emergency vehicles. Moreover, the Project would accommodate the realignment of Keller Road through the Project site, which would help to improve access in the local area by establishing a perpendicular intersection with Winchester Road (Highway 79), which would replace the existing skewed intersection configuration. There are no components of the Project that would impair implementation of or physically interfere with an adopted emergency response plan or an emergency evacuation plan. Accordingly, impacts would be less than significant.

Threshold d:	***Would the Project emit hazardous emissions, or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?***

There are no existing or planned schools within one-quarter mile of the Project site. The nearest school the Project site is the Harvest Hill STEAM Academy, located approximately 0.5 mile southwest of the Project site. As described above under the analysis for Thresholds a. and b., the use of and transport of hazardous substances

or materials to and from the Project site during construction and long-term operational activities would be required to comply with applicable federal, State, and local regulations that would preclude substantial public safety hazards. Accordingly, there would be no potential for existing or proposed schools located within one-quarter mile of the Project site to be exposed to substantial safety hazards associated with emission, handling, or the routine transport of hazardous substances or materials to-and-from the Project site, and impacts would be less than significant.

Threshold e:	***Would the Project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?***

The Phase I ESA prepared for the Project site (*Technical Appendix H*) included a review of regulatory databases, and determined that the Project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (Tetra Tech, 2020, p. ES-2-ES-8). As such, the Project would not create a significant hazard to the public or the environment due to the Project site's inclusion on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, and no impact would occur.

Threshold f:	***Would the Project result in an inconsistency with an Airport Master Plan?***
Threshold g:	***Would the Project require review by the Airport Land Use Commission?***
Threshold h:	***For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?***

The Project site is not located within the boundaries of any Airport Master Plans, and no impact due to an inconsistency with an Airport Master Plan would occur. As previously indicated, the closest public airport is the French Valley Airport located roughly 3.3 miles southwest of the Project site. According to Map CO-1 of the Riverside County Airport Land Use Compatibility Plan Policy Document, the Project site is located outside of the compatibility zones for the French Valley Airport, indicating that the Project site is not subject to airport-related hazards associated with this facility. (RCALUC, 2004) The Project site is not located within the Airport Influence Area (AIA) for any other airports. As such, the Project would not require review by the Airport Land Use Commission (ALUC). Additionally, due to the distance between the Project site and the French Valley Airport, the Project would not result in a safety hazard for people residing or working in the Project area. Accordingly, impacts due to public airport-related hazards would be less than significant.

Threshold i:	***For a project within the vicinity of a private airstrip, or heliport, would the project result in a safety hazard for people residing or working in the project area?***

The nearest private airstrip, Pines Airpark, is located approximately 0.9-mile northwest of the Project site. However, the Conditional Use Permit (CUP) for the Pines Airpark (CUP 3078 Revision No. 3) was withdrawn on November 15, 2016, and the previously-approved CUP was allowed to expire (Riverside County, 2016). As a result, the Pines Airpark is not an actively-used airport. The nearest active private airport is the Hemet-Ryan Airport, located 7.2 miles northeast of the Project site; however, the Project site is not located within the AIA for this facility, and the Project would not be subject to substantial safety hazards due to aircraft operations at the Hemet-Ryan Airport. Thus, future residents and workers associated with the Project would not be

exposed to safety hazards associated with the Hemet-Ryan Airport or any other private airport facilities. No impact would occur.

4.9.5 Cumulative Impact Analysis

Because the issue of hazards and hazardous materials tend to be site-specific in nature, the cumulative study area includes existing and planned developments within a one-mile radius of each Project site. A one-mile radius is appropriate because that is the standard distance used in regulatory database searches of properties that may generate or store toxic materials.

As discussed under the analysis of Thresholds a. and b., under existing conditions the Project site does not contain any RECs that could create a significant hazard to the public or the environment. There are no conditions associated with the Project's construction or operations that would result in a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or conditions that could 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. Accordingly, cumulatively-considerable impacts would be less than significant.

The Project site does not contain any emergency facilities nor would the Project impact an emergency evacuation route. Other cumulative developments would be reviewed by the County of Riverside to ensure no interference with emergency access and evacuation routes would occur. Accordingly, the Project has no potential to result in cumulatively-considerable impacts associated with emergency evacuation plans or evacuation routes, and impacts would be less than significant.

The Project site is located approximately 0.5-mile from the nearest school. Additionally, as discussed under Threshold d., the use of and transport of hazardous substances or materials to and from the Project site during construction and long-term operational activities would be required to comply with applicable federal, State, and local regulations that would preclude substantial public safety hazards. As such, cumulatively-considerable hazardous materials impacts to nearby schools would be less than significant.

As discussed under the analysis of Threshold e., the Project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, the Project would not create a significant hazard to the public or the environment. Cumulatively-considerable impacts would not occur.

The Project site is located outside of the compatibility zones for the French Valley Airport, indicating that the Project site is not subject to airport-related hazards and has no potential to conflict with an Airport Master Plan. Accordingly, cumulatively-considerable impacts due to an inconsistency with an Airport Master Plan would not occur. Additionally, impacts due to a conflict with an ALUCP would be less-than-cumulatively considerable.

The Project site is located outside of the AIA for the Hemet-Ryan Airport, which is the nearest active private airport facility; thus, cumulatively-considerable impacts would not occur.

4.9.6 Significance of Impacts Before Mitigation

Thresholds a. and b.: Less-than-Significant Impact. Based on the Phase I ESA prepared by Tetra Tech (*Technical Appendix H*), there are no indications of on-site or off-site RECs or VECs on the Project site under existing conditions. (Tetra Tech, 2020, p. ES-10) During Project construction and operation, mandatory compliance with federal, State, and local regulations would ensure that the Project as proposed would not create a significant hazard to the public or environment through the routine transport, use, or disposal of hazardous materials.

Threshold c: Less-than-Significant Impact. The Project would not impair or physically interfere with an adopted emergency response plan or emergency evacuation plan. No emergency facilities exist on the Project site, and the site does not serve as an emergency evacuation route. Thus, impacts would be less than significant.

Threshold d: Less-than-Significant Impact. There are no existing or planned schools within one-quarter mile of the Project site. The nearest school the Project site is the Harvest Hill STEAM Academy, located approximately 0.5-mile southwest of the Project site. With mandatory regulatory compliance, the Project would not emit hazardous emissions, or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school, and impacts would be less than significant.

Threshold e: No Impact. The analysis conducted by Tetra Tech included a review of regulatory databases, and determined that the Project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (Tetra Tech, 2020, p. ES-2-ES-8). As such, the Project would not create a significant hazard to the public or the environment due to the Project site's inclusion on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, and no impact would occur.

Thresholds f., g., and h.: No Impact. The Project site is not located within two miles of a public airport or within an airport land use plan, and there are no components of the proposed Project that would affect airport operations. The closest airport is the French Valley Airport located roughly 3.3 south miles southwest of the Project site. The Project site is located outside of the compatibility zones for the French Valley Airport, indicating that the Project site is not subject to airport-related hazards. Therefore, the Project would not result in an inconsistency with an Airport Master Plan, would not require review by the Airport Land Use Commission, and would not result in a safety hazard for people residing or working in the Project area. Impacts would be less than significant.

Threshold i: No Impact. There are no active private airstrips in the Project vicinity. The nearest active private airport is the Hemet-Ryan Airport, located 7.2 miles northeast of the Project site. The Project site is not located within the AIA for this facility, and the Project would not be subject to substantial safety hazards due to aircraft operations at the Hemet-Ryan Airport. As such, the Project would not result in a safety hazard for people residing or working in the Project area, and no impact would occur.

4.9.7 Applicable Regulations, Design Requirements and Mitigation

Applicable Regulations and Design Requirements

The following are applicable regulations and design requirements within Riverside County. Although these requirements technically do not meet CEQA's definition for mitigation, they are imposed herein to ensure Project compliance with applicable County regulations and design requirements.

- All future businesses operating on the site would be subject to compliance with Riverside County Ordinance No. 651.1, which sets forth requirements for handling hazardous materials, requires a permit for handling certain types and quantities of hazardous materials, requires businesses to report their hazardous materials inventory, identifies different classifications of hazardous materials handlers, and requires reporting of spills or releases or threatened releases of a hazardous material to the Riverside County Department of Environmental Health (DEH) and to the Governor's Office of Emergency Services.

- All future contracts with construction contractors shall comply with all applicable regulations and requirements promulgated by the federal Occupational Safety and Health Administration (OSHA).

- The Project shall comply with Title 22, Division 4.5 of the California Code of Regulations, which requires residents and employees to dispose of household hazardous waste, including pesticides, batteries, old paint, solvents, used oil, antifreeze, and other chemicals, at a Household Hazardous Waste Collection Facility.

- The Project shall comply with Title 22, Division 4.5, Chapter 11 of the California Code of Regulations which requires fluorescent lamps, batteries, and mercury thermostats be recycled or taken to a Household Hazardous Waste Collection Facility.

Mitigation

The Project would not result in any impacts due to hazards and hazardous materials; therefore, mitigation measures are not required.

4.10 HYDROLOGY AND WATER QUALITY

The following analysis is based on a study entitled, "Preliminary Drainage Study for Tentative Tract Map No. 38163, Keller Crossing Project in the County of Riverside," prepared by K&A Engineering, Inc., dated April 2022, and included as *Technical Appendix I1* to this EIR (K&A, 2022a). The analysis in this subsection also is based in part on a document entitled, "County Project Specific Water Quality Management Plan" (WQMP), prepared by K&A Engineering, Inc., dated April 2022, and included as *Technical Appendix I2* to this EIR (K&A, 2022b). Refer to Section 7.0, *References*, for a complete list of reference sources.

4.10.1 EXISTING CONDITIONS

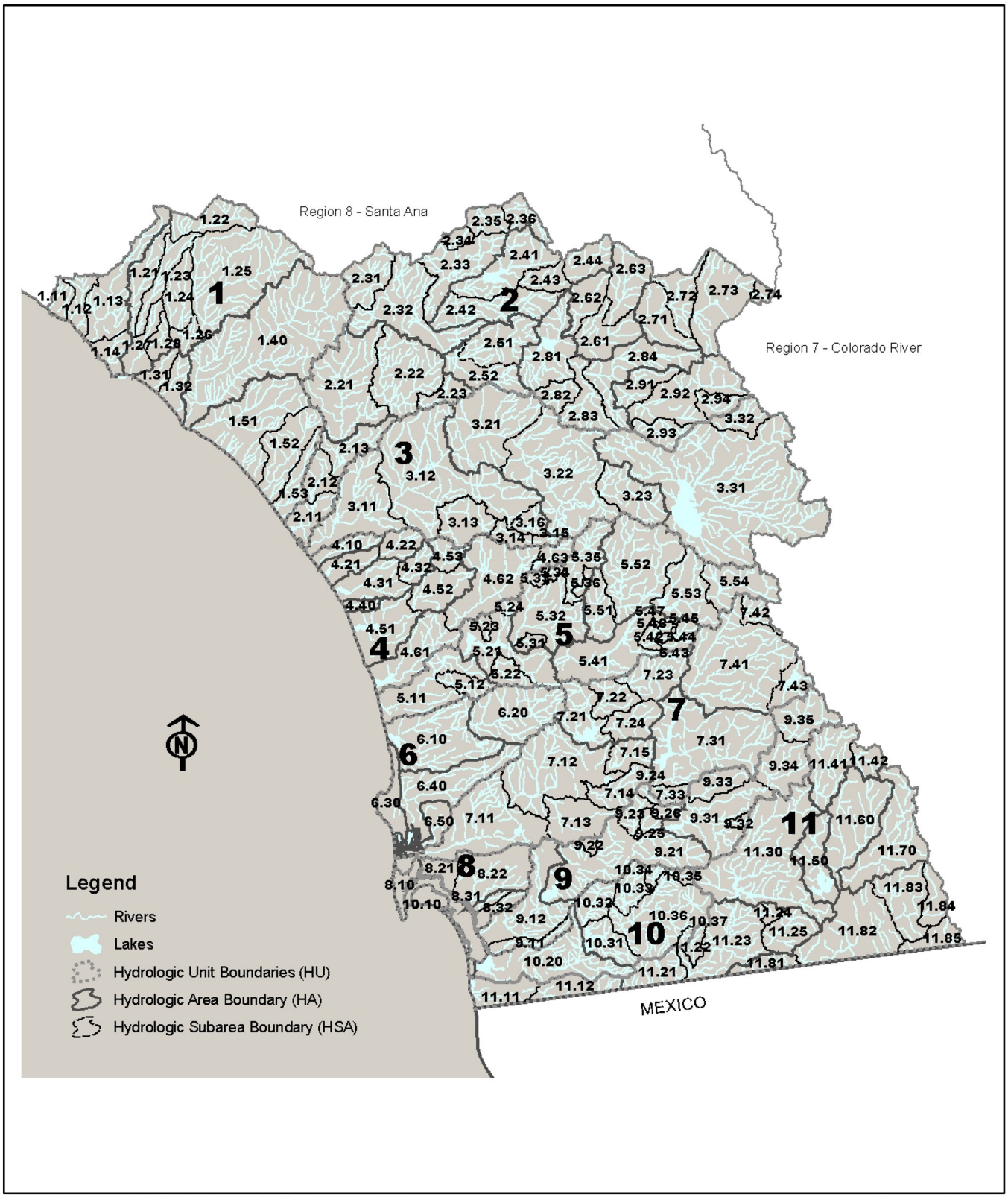
A. Regional Hydrology

The Project site is located within the French Subarea of the Murrieta Area of the Santa Margarita Hydrologic Unit (HU). The Santa Margarita HU is a rectangular area of about 750 square miles. Included in it are portions of Camp Pendleton as well as the civilian population centers of Murrieta, Temecula, and part of Fallbrook. The unit is drained largely by the Santa Margarita River, Murrieta Creek, and Temecula River. The only coastal lagoon of the unit is the Santa Margarita Lagoon which lies totally within the Camp Pendleton Naval Reservation of the U.S. Marine Corps. The slough at the mouth of the river is normally closed off from the ocean by a sandbar. The major surface water storage areas are Vail Lake and O'Neill Lake. Annual precipitation ranges from less than 12 inches near the coast to more than 45 inches inland near Palomar Mountain. The Santa Margarita HU is comprised of the following nine Hydrologic Areas (HAs); the Ysidora, Deluz, Murrieta, Auld, Pechanga, Wilson, Cave Rocks, Aguanga, and Oak Grove HAs. The Project site's location within the Santa Margarita Watershed is shown on Figure 4.10-1, *Santa Margarita Watershed Map*. (RWQCB, 2016, p. 1-8 and Figure 1-2)

B. Site Hydrology

The Project site consists of gentle rolling hills with a sloped rise in elevation from existing Keller Road to the northern edge boundary. The roughly trapezoidal shaped property has a sloping terrain, with the highest ground elevation of about 1,587 feet toward the northeastern portion of the site to the lowest elevation of about 1,422 feet near the southeastern edge of the site. (Google Earth, 2021)

As shown on Figure 4.10-2, *Existing Conditions Hydrology Map*, the existing drainage for the pre-developed condition of the Project site consists of drainage water courses that flow from the northerly higher elevation to south and southeasterly of the project which ultimately flow offsite toward and through several existing Caltrans reinforced concrete pipe (RCP) culvert-under-crossings along Winchester Road (Highway 79). A major drainage course, southwesterly of the Project site, conveys a significant tributary area runoff from the north and west areas of the site and surface-flows southeasterly across Pourroy Road and Keller Road. This water course continues southeasterly, adjacent to existing residential parcels, and crosses Winchester Road via several Caltrans RCP culverts. Presently, there is no existing storm drain infrastructure on-site or within Pourroy Road and Keller Road rights-of-way adjacent to the Project site. Table 4.10-1, *Existing Conditions Hydrology Summary*, provides a summary of the acreage and peak flows for each of the drainage areas shown on Figure 4.10-2. (K&A, 2022b, p. 3)

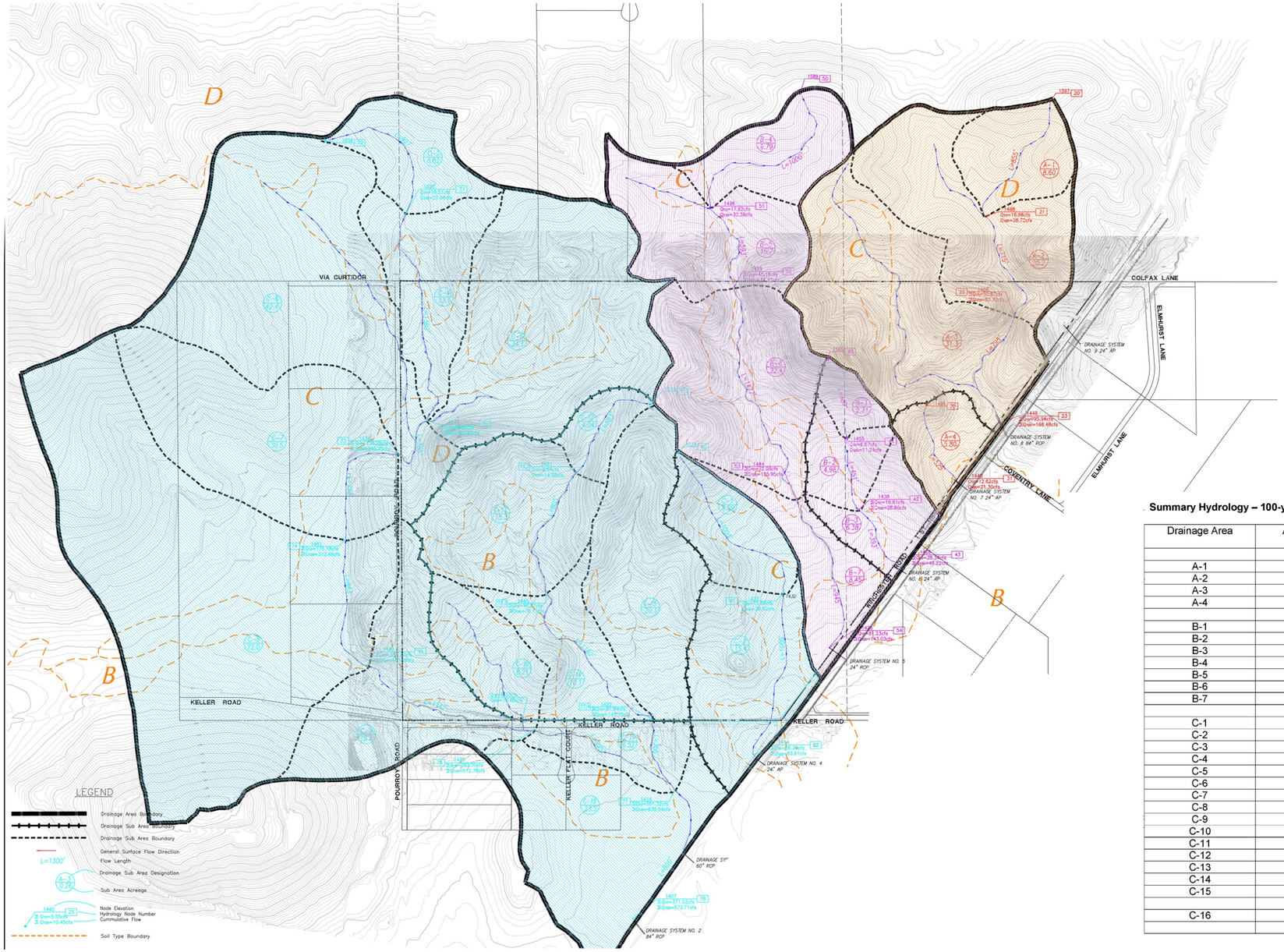


Source: ***California Regional Water Quality Control Board (October 2004)***

Figure 4.10-1

Not to Scale

Santa Margarita Watershed Map



Summary Hydrology – 100-year storm Existing Condition – Rational Method:

Drainage Area	Area in Acre	Q_{100} sub-area in cfs	Q_{100} conf. in cfs
A-1	8.60	28.72	
A-2	20.20	58.98	87.70
A-3	31.30	80.78	168.48
A-4	5.80	21.30	
B-1	2.71	11.24	
B-2	4.98	17.62	28.86
B-3	6.38	20.36	49.22
B-4	9.79	30.38	
B-5	15.70	43.79	74.17
B-6	22.40	51.78	125.95
B-7	8.45	17.08	143.03
C-1	8.59	26.62	
C-2	15.40	37.00	63.61
C-3	8.82	27.96	
C-4	13.10	32.49	60.44
C-5	34.10	84.99	145.43
C-6	42.40	99.92	245.35
C-7	30.50	67.10	312.46
C-8	72.00	147.64	460.09
C-9	19.20	37.09	497.18
C-10	8.21	15.60	512.78
C-11	6.52	10.88	523.66
C-12	4.04	14.58	
C-13	18.30	55.59	70.17
C-14	10.10	25.19	95.36
C-15	20.10	50.39	145.76
			635.54
C-16	23.50	38.17	673.71

Source(s): K & A Engineering (12-20-2021)

Figure 4.10-2

Not to Scale

Existing Conditions Hydrology Map

Table 4.10-1 Existing Conditions Hydrology Summary

Drainage Area	Drainage Subareas	Acreage	Existing Conditions Q_{100} in cfs
A	A-1 through A-3	60.10	168.48
	A-4	5.80	21.30
B	B-1 through B-3	14.07	49.22
	B-4 through B-7	56.34	143.03
C	C-1 through C-2	23.99	63.62
	C-3 through C-16	310.89	707.59

Notes: Q_{100} = 100-year storm flow; cfs = cubic feet per second
(K&A, 2022a, pp. 10, 11, 33)

C. Flood Hazards

According to mapping information available from the Federal Emergency Management Agency (FEMA), the Project site is located outside of mapped floodplains and is not subject to inundation during peak storm events (FEMA, 2021). Additionally, the Project site is not located within any areas subject to dam inundation hazards (Riverside County, 2021b, Figure 10). As such, the Project site is not subject to inundation due to flood hazards under existing conditions.

D. Water Quality

The Project site is located within the jurisdiction of the San Diego Regional Water Quality Control Board (RWQCB). In accordance with Section 303(d) of the Clean Water Act, the Water Quality Control Plan for the San Diego Basin (herein, "Basin Plan") identifies impairments of all major water bodies within the watershed. As summarized in Table 4.10-2, *Receiving Waters for Storm Water Runoff from the Project Site,* the receiving waters of flows from the Project site Warm Springs Creek, Murietta Creek, Santa Margarita River (Upper), and Santa Margarita River (Lower). Warm Springs Creek is impaired by chlorpyrifos, indicator bacteria, iron, manganese, nitrogen, and phosphorus. Murietta Creek is currently impaired by indicator bacteria, iron, manganese, phosphorus, toxicity, and nitrogen. The Santa Margarita River (Upper) is currently impaired by iron, manganese, phosphorus, toxicity, and nitrogen, while the Santa Margarita River (Lower) is impaired by chlorpyrifos, indicator bacteria, nitrogen, phosphorus, and toxicity. Impairment is typically associated with point and non-point sources of water pollutants including industrial discharge and agricultural operations, respectively. The beneficial uses of the receiving surface waters of the Project site also are summarized in Table 4.10-2. (K&A, 2022b, p. 9)

E. Groundwater

Under existing conditions, the Project site consists of undeveloped lands; thus, the Project site allows for infiltration of runoff under existing conditions. As indicated in the Project's Geotechnical Update *(Technical Appendix F1),* groundwater was not encountered in any of the exploratory borings or trenches excavated to a maximum depth of 32.1 feet, and the regional groundwater level is estimated to be greater than 50 feet below the existing ground surface of the Project site. (GeoTek, 2021, p. 11)

Table 4.10-2 Receiving Waters for Storm Water Runoff from the Project Site

Receiving Waters	USEPA Approved 303(d) List Impairments	Designated Beneficial Uses	Proximity to RARE Beneficial Use
Warm Spring Creek	Chlorpyrifos, Indicator Bacteria, Iron, Manganese, Nitrogen, Phosphorus.	N/A	None
Murietta Creek	Indicator Bacteria, Iron, Manganese, Phosphorus, Toxicity, Nitrogen	MUN, AGR, IND, PROC, GWR, REC1, REC2, WARM, WILD, SPWN	None
Santa Margarita River (Upper)	Iron, Manganese, Nitrogen, Phosphorus, Toxicity	MUN, AGR, IND, REC1, REC2, WARM, COLD, WILD, RARE	18 miles
Santa Margarita River (Lower)	Chlorpyrifos, Indicator Bacteria, Nitrogen, Phosphorus, Toxicity	MUN, AGR, IND, REC1, REC2, WARM, COLD, WILD, RARE	18 miles

(K&A, 2022b, Table A-1)

The Eastern Municipal Water District (EMWD) is responsible for managing two regions for groundwater purposes within its service area, the West San Jacinto Groundwater Sustainability Agency Area and the Hemet-San Jacinto Watermaster Management Area. As depicted on Figure 6-2 of EMWD's 2015 Urban Water Management Plan (UWMP), although the Project site falls under EMWD jurisdiction, the Project area is not located within either of the two groundwater management zones. As such, the Project area is not subject to a groundwater management plan. (EMWD, 2021, Figure 6-2)

4.10.2 Applicable Environmental Regulations

The following is a brief description of the federal, state, and local environmental laws and related regulations related to hydrology and water quality.

A. Federal Regulations

1. Clean Water Act

The Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. The basis of the CWA was enacted in 1948 and was called the Federal Water Pollution Control Act, but the Act was substantially reorganized and expanded in 1972. "Clean Water Act" became the Act's common name with amendments in 1972. Under the CWA, the Environmental Protection Agency (EPA) has implemented pollution control programs such as setting wastewater standards for industry, and also has set water quality standards for all contaminants 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) permit program controls discharges. Point sources are discrete conveyances such as pipes or man-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 permits if their discharges go directly to surface waters. (EPA, 2020e)

2. Federal Flood Insurance Program

The U.S. Congress established the National Flood Insurance Program (NFIP) with the passage of the National Flood Insurance Act of 1968. The NFIP is a Federal program enabling property owners in participating communities to purchase insurance as a protection against flood losses in exchange for State and community

floodplain management regulations that reduce future flood damages. Participation in the NFIP is based on an agreement between communities and the Federal Government. If a community adopts and enforces a floodplain management ordinance to reduce future flood risk to new construction in floodplains, the Federal Government will make flood insurance available within the community as a financial protection against flood losses. This insurance is designed to provide an insurance alternative to disaster assistance to reduce the escalating costs of repairing damage to buildings and their contents caused by floods. The Federal Insurance and Mitigation Administration (FIMA) within the Federal Emergency Management Agency (FEMA) is responsible for administering the NFIP and administering programs that provide assistance for mitigating future damages from natural hazards. (FEMA, n.d.)

3. Executive Order 11988 – Floodplain Management

Executive Order 11988 requires federal agencies to avoid to the extent possible the long- and short-term adverse impacts associated with the occupancy and modification of flood plains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative. In accomplishing this objective, "each agency shall provide leadership and shall take action to reduce the risk of flood loss, to minimize the impact of floods on human safety, health, and welfare, and to restore and preserve the natural and beneficial values served by flood plains in carrying out its responsibilities" for the following actions: (FEMA, 2020b)

- acquiring, managing, and disposing of federal lands and facilities;
- providing federally-undertaken, financed, or assisted construction and improvements; and
- conducting federal activities and programs affecting land use, including but not limited to water and related land resources planning, regulation, and licensing activities.

B. State Regulations

1. Porter-Cologne Water Control Act

The Porter-Cologne Act is the principal law governing water quality regulation in California. It establishes a comprehensive program to protect water quality and the beneficial uses of water. The Porter-Cologne Act applies to surface waters, wetlands, and ground water and to both point and nonpoint sources of pollution. Pursuant to the Porter-Cologne Act (California Water Code § 13000 et seq.), the policy of the State is as follows: (SWRCB, 2014)

- That the quality of all the waters of the State shall be protected;
- That all activities and factors affecting the quality of water shall be regulated to attain the highest water quality within reason; and
- That the State must be prepared to exercise its full power and jurisdiction to protect the quality of water in the State from degradation.

The Porter-Cologne Act established nine Regional Water Boards (based on hydrogeologic barriers) and the State Water Board, which are charged with implementing its provisions and which have primary responsibility for protecting water quality in California. The State Water Board provides program guidance and oversight, allocates funds, and reviews Regional Water Boards decisions. In addition, the State Water Board allocates rights to the use of surface water. The Regional Water Boards have primary responsibility for individual

permitting, inspection, and enforcement actions within each of nine hydrologic regions. The State Water Board and Regional Water Boards have numerous non-point source (NPS) related responsibilities, including monitoring and assessment, planning, financial assistance, and management. (SWRCB, 2014)

The Regional Water Boards regulate discharges under the Porter-Cologne Act primarily through issuance of NPDES permits for point source discharges and waste discharge requirements (WDRs) for NPS discharges. Anyone discharging or proposing to discharge materials that could affect water quality (other than to a community sanitary sewer system regulated by an NPDES permit) must file a report of waste discharge. The State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Boards (RWQCBs) can make their own investigations or may require dischargers to carry out water quality investigations and report on water quality issues. The Porter-Cologne Act provides several options for enforcing WDRs and other orders, including cease and desist orders, cleanup and abatement orders, administrative civil liability orders, civil court actions, and criminal prosecutions. (SWRCB, 2014)

The Porter-Cologne Act also implements many provisions of the Clean Water Act, such as the NPDES permitting program. The Porter-Cologne Act also requires adoption of water quality control plans that contain the guiding policies of water pollution management in California. In addition, regional water quality control plans (basin plans) have been adopted by each of the Regional Water Boards and get updated as necessary and practical. These plans identify the existing and potential beneficial uses of waters of the State and establish water quality objectives to protect these uses. The basin plans also contain implementation, surveillance, and monitoring plans. (SWRCB, 2014) The Project site is located in the Santa Margarita Watershed which is within the purview of San Diego Region RWQCB. The San Diego RWQCB and the San Diego Basin (9) Water Quality Control Plan is the governing water quality plan for the region.

2. California Water Code

The California Water Code is the principal state law regulating water quality in California. Water quality provisions must be complied with as contained in numerous code sections including: 1) the Health and Safety Code for the protection of ground and surface waters from hazardous waste and other toxic substances; 2) the Fish and Game Code for the prevention of unauthorized diversions of any surface water and discharge of any substance that may be deleterious to fish, plant, animal, or bird life; 3) the Harbors and Navigation Code for the prevention of the unauthorized discharge of waste from vessels into surface waters; and 4) the Food and Agriculture Code for the protection of groundwater which may be used for drinking water supplies. The California Department of Fish and Wildlife (CDFW), through provisions of the Fish & Game Code (§§ 1601 - 1603) is empowered to issue agreements for any alteration of a river, stream, or lake where fish or wildlife resources may be adversely affected. CDFW regulates wetland areas only to the extent that those wetlands are part of a river, stream, or lake as defined by CDFW. (CA Legislative Info, n.d.)

Surface water quality is the responsibility of the Regional Water Quality Control Board (RWQCB), water supply and wastewater treatment agencies, and city and county governments. The principal means of enforcement by the RWQCB is through the development, adoption, and issuance of water discharge permits. RWQCB basin plans establish water quality objectives that are defined as the limits or levels of water quality constituents or characteristics for the reasonable protection of beneficial uses of water. (CA Legislative Info, n.d.)

3. California Toxics Rule (CTR)

The California Toxics Rule (CTR) fills gap in California's water quality standards necessary to protect human health and aquatic life beneficial uses. The CTR criteria are similar to those published in the National Recommended Water Quality Criteria. The CTR supplements, and does not change or supersede, the criteria that EPA promulgated for California waters in the National Toxics Rule (NTR). The human health NTR and CTR criteria that apply to drinking water sources (those water bodies designated in the Basin Plans as municipal and domestic supply) consider chemical exposure through consumption of both water and aquatic organisms (fish and shellfish) harvested from the water. For waters that are not drinking water sources (e.g., enclosed bays and estuaries), human health NTR and CTR criteria only consider the consumption of contaminated aquatic organisms. The CTR and NTR criteria, along with the beneficial use designations in the Basin Plans and the related implementation policies, are the directly applicable water quality standards for toxic priority pollutants in California waters. (SWRCB, 2016, pp. 14-15)

4. CDFG Code Section 1600 et seq. (Lake- or Streambed Alteration Agreement Program)

Fish and Game Code § 1602 requires an entity to notify CDFW prior to commencing any activity that may do one or more of the following: (CDFW, n.d.)

- Substantially divert or obstruct the natural flow of any river, stream, or lake;
- Substantially change or use any material from the bed, channel or bank of any river, stream, or lake; or
- Deposit debris, waste or other materials that could pass into any river, stream, or lake.

It should be noted that "any river, stream or lake" includes those that are episodic (they are dry for periods of time) as well as those that are perennial (they flow year-round). This includes ephemeral streams, desert washes, and watercourses with a subsurface flow. It may also apply to work undertaken within the flood plain of a body of water. (CDFW, n.d.)

CDFW requires a Lake and Streambed Alteration (LSA) Agreement when it determines that the activity, as described in a complete LSA Notification, may substantially adversely affect existing fish or wildlife resources. An LSA Agreement includes measures necessary to protect existing fish and wildlife resources. CDFW may suggest ways to modify a project that would eliminate or reduce harmful impacts to fish and wildlife resources. Before issuing an LSA Agreement, CDFW must comply with CEQA. (CDFW, n.d.)

5. Watershed Management Initiative (WMI)

The State and Regional Water Boards are currently focused on looking at entire watersheds when addressing water pollution. The Water Boards adopted the Watershed Management Initiative (WMI) to further their goals. The WMI establishes a broad framework overlying the numerous federal and State mandated priorities. As such, the WMI helps the Water Boards achieve water resource protection, enhancement and restoration while balancing economic and environmental impacts. (SWRCB, n.d.) The integrated approach of the WMI involves three main ideas:

- Use water quality to identify and prioritize water resource problems within individual watersheds. Involve stakeholders to develop solutions.

- Better coordinate point source and nonpoint source regulatory efforts. Establish working relationships between staff from different programs.
- Better coordinate local, state, and federal activities and programs, especially those relating to regulations and funding, to assist local watershed groups. (SWRCB, n.d.)

6. Sustainable Groundwater Management Act (SGMA)

The 2014 Sustainable Groundwater Management Act (SGMA) requires governments and water agencies of high and medium priority basins to halt overdraft and bring groundwater basins into balanced levels of pumping and recharge. Under SGMA, these basins should reach sustainability within 20 years of implementing their sustainability plans. The DWR categorizes the priority of groundwater basins. For critically over-drafted basins, that will be 2040. For the remaining high and medium priority basins, 2042 is the deadline. The SGMA also requires local public agencies and Groundwater Sustainability Agencies (GSAs) in high- and medium-priority basins to develop and implement Groundwater Sustainability Plans (GSPs) or Alternatives to GSPs. GSPs are detailed road maps for how groundwater basins will reach long term sustainability. (DWR, n.d.)

C. Local Regulations

1. Water Quality Control Plan for the San Diego Basin (Basin Plan)

The California Porter-Cologne Water Quality Control Act (§ 13000 ("Water Quality") et seq., of the California Water Code), and the Federal Water Pollution Control Act Amendment of 1972 (also referred to as the Clean Water Act (CWA)) require that comprehensive water quality control plans be developed for all waters within the State of California. The Project site is located within the jurisdiction of the San Diego RWQCB. Water quality information for the Santa Margarita River watershed is contained in the "Water Quality Control Plan for the San Diego Basin" (Basin Plan), which was most recently updated in May 2016. This document is herein incorporated by reference and is available for public review at the San Diego RWQCB office located at 2375 Northside Drive, Suite 100, San Diego, CA 92108. The purpose of the Basin Plan is to: (1) designate beneficial uses of the Region's surface and ground waters; (2) designate water quality objectives for the reasonable protection of those uses; and (3) establish an implementation plan to achieve the objectives. A summary of the receiving waters for the Project site, their existing Section 303(d) impairments, and designated beneficial uses was previously shown in Table 4.10-2. (RWQCB, 2019)

4.10.3 Basis for Determining Significance

Section X of Appendix G to the CEQA Guidelines addresses typical adverse effects to hydrology and water quality, and includes the following threshold questions to evaluate the Project's impacts on hydrology and water quality (OPR, 2018):

- *Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality;*
- *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;*

- *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:*
  - *Result in substantial erosion or siltation on or off site;*
  - *Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site;*
  - *Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or*
  - *Impede or redirect flood flows;*
- *In flood hazard, tsunami, or seiche zones, would the project risk release of pullutants due to project inundation; or*
- *Would the project conflict with or otherwise obstruct implementation of a water quality control plan or sustainable groundwater management plan.*

Significance thresholds are set forth in Riverside County's Environmental Assessment Checklist, are derived from Section X of Appendix G to the CEQA Guidelines (listed above), and state that the proposed Project would have a significant impact to hydrology and water quality if construction and/or operation of the Project would:

a. *Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality;*

b. *Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin;*

c. *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces;*

d. *Result in substantial erosion or siltation on-site or off-site;*

e. *Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on-site or off-site;*

f. *Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;*

g. *Impede or redirect flood flows;*

h. *In flood hazard, tsunami, or seiche zones, risk the release of pollutants due to project inundation; or*

i. *Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.*

The significance thresholds set forth in Riverside County's Environmental Assessment Checklist were used to evaluate the significance of the proposed Project's impacts on hydrology and water quality.

4.10.4 IMPACT ANALYSIS

Threshold a:	***Would the Project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?***
Threshold b:	***Would the Project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?***
Threshold i:	***Would the Project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?***

Potable water service to the Project site would be provided by the EMWD, and the Project would not involve direct groundwater extraction via existing or proposed groundwater wells. Additionally, the total amount of runoff from the site would be similar to existing conditions, and all runoff would be conveyed to downstream facilities where groundwater infiltration would continue to occur (e.g., Warm Springs Creek, Temecula Creek, and the Santa Margarita River). Thus, the Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impeded sustainable groundwater management of the basin. Impacts would be less than significant.

The Project site is located within the jurisdiction of the San Diego Region Regional Water Quality Control Board (RWQCB). Water quality information for the Santa Margarita River watershed is contained in the Water Quality Control Plan for the San Diego Basin (Basin Plan), as most recently updated in May 2016. Additionally, the Project site is located within the jurisdiction of the EMWD which manages groundwater resources for the region. However, as previously indicated, although the Project site falls within EMWD's service area, the Project area is not located within either of the two groundwater management zones that are managed by the EMWD. As such, the Project area is not subject to a sustainable groundwater management plan. (RWQCB, 2016; EMWD, 2021, Figure 6-2) Accordingly, the analysis below focuses on the Project's consistency with the San Diego Basin Plan and the Project's potential to adversely affect groundwater quality or supplies.

Water Quality Control Plan for the San Diego Basin (Basin Plan)

The California Porter-Cologne Water Quality Control Act (§ 13000 ("Water Quality") et seq., of the California Water Code), and the Federal Water Pollution Control Act Amendment of 1972 (also referred to as the Clean Water Act (CWA)) require that comprehensive water quality control plans be developed for all waters within the State of California. The Project site is located within the Santa Margarita watershed, which is under the jurisdiction of the San Diego RWQCB. Water quality information for the Santa Margarita watershed is contained in the San Diego RWQCB's Basin Plan, as most recently updated in May 2016. This document is herein incorporated by reference and is available for public review at the San Diego RWQCB office located at 2375 Northside Drive, Suite 100, San Diego, CA 92108. (RWQCB, 2016)

The CWA requires all states to conduct water quality assessments of their water resources to identify water bodies that do not meet water quality standards. Water bodies that do not meet water quality standards are

placed on a list of impaired waters pursuant to the requirements of Section 303(d) of the CWA. The Project site resides within the Santa Margarita River Watershed and receiving waters for the property's drainage are the Warm Springs Creek, Murietta Creek, Santa Margarita River (Upper), and Santa Margarita River (Lower). All of the Project's receiving waters are listed on the Section 303(d) list. Warm Springs Creek is impaired by chlorpyrifos, indicator bacteria, iron, manganese, nitrogen, and phosphorus. Murietta Creek is currently impaired by indicator bacteria, iron, manganese, phosphorus, toxicity, and nitrogen. The Santa Margarita River (Upper) is currently impaired by iron, manganese, phosphorus, toxicity, and nitrogen, while the Santa Margarita River (Lower) is impaired by chlorpyrifos, indicator bacteria, nitrogen, phosphorus, and toxicity. (K&A, 2022b, p. 9)

Specific provision of the CWA applicable to the proposed Project is CWA Section 402, which authorizes the National Pollutant Discharge Elimination System (NPDES) permit program that covers point sources of pollution discharging to a water body. The NPDES program also requires operators of construction sites one acre or larger to prepare a Stormwater Pollution Prevention Plan (SWPPP) and obtain authorization to discharge stormwater under an NPDES construction stormwater permit.

Provided below is a discussion of the Project's potential to conflict with the San Diego Region Basin Plan both during construction and long-term operation.

Construction-Related Water Quality

Construction of the proposed Project would involve demolition, clearing, grading, paving, utility installation, building construction, and landscaping activities, which would result in the generation of potential water quality pollutants such as silt, debris, chemicals, paints, and other solvents with the potential to adversely affect water quality. As such, short-term water quality impacts have the potential to occur during construction of the Project in the absence of any protective or avoidance measures.

Pursuant to the requirements of the San Diego RWQCB and the County of Riverside, the Project Applicant would be required to obtain a NPDES Municipal Stormwater Permit for construction activities. The NPDES permit is required for all projects that include construction activities, such as clearing, grading, and/or excavation that disturb at least one acre of total land area. In addition, the Project would be required to comply with the RWQCB's Basin Plan. Compliance with the NPDES permit and the Basin Plan involves the preparation and implementation of a SWPPP for construction-related activities. The SWPPP is required to specify the Best Management Practices (BMPs) that the Project would be required to implement during construction activities to ensure that all potential pollutants of concern are prevented, minimized, and/or otherwise appropriately treated prior to being discharged from the subject property. Mandatory compliance with the SWPPP would ensure that the proposed Project does not violate any water quality standards or waste discharge requirements during construction activities. Therefore, with mandatory adherence to the future required SWPPP, runoff associated with Project-related construction activities would not conflict with the San Diego Basin Plan requirements, and impacts would be less than significant.

Operational Water Quality Impacts

As noted above and as shown in Table 4.10-2, receiving waters for the property's drainage are the Warm Springs Creek, Murietta Creek, Santa Margarita River (Upper), and Santa Margarita River (Lower). Warm

Springs Creek is impaired by chlorpyrifos, indicator bacteria, iron, manganese, nitrogen, and phosphorus. Murietta Creek is currently impaired by indicator bacteria, iron, manganese, phosphorus, toxicity, and nitrogen. The Santa Margarita River (Upper) is currently impaired by iron, manganese, phosphorus, toxicity, and nitrogen, while the Santa Margarita River (Lower) is impaired by chlorpyrifos, indicator bacteria, nitrogen, phosphorus, and toxicity. In order to assess the Project's potential for water quality impacts, Project-specific Hydrology and Water Quality Technical Appendices were prepared for the Project and are included as *Technical Appendices I1 and I2*, respectively.

To meet NPDES requirements, the Project's proposed storm drain system would be designed to route first flush runoff to detention basins and landscaped areas that would be constructed on the Project site. First flush is the initial surface runoff of a rainstorm. During this phase, water pollution entering storm drains in areas with high proportions of impervious surfaces is typically more concentrated compared to the remainder of the storm. The future required detention basins and landscaped areas would be designed to detain runoff and provide water quality treatment, and would reduce pollutants of concern in runoff leaving the Project site, such as pollutants that could cause or contribute to impairments such as chlorpyrifos, copper, phosphorus, total dissolved solids, and unknown toxicity. Because all runoff generated on site would be appropriately treated prior to ultimate discharge into the Santa Margarita River watershed, the proposed Project would not conflict with the Santa Diego Basin Plan, and impacts would therefore be less than significant. (K&A, 2022b)

Groundwater Quality and Supplies

As previously stated, the EMWD is responsible for managing two regions for groundwater purposes, the West San Jacinto Groundwater Sustainability Agency Area and the Hemet-San Jacinto Watermaster Management Area. As depicted on Figure 6-2 of the 2015 UWMP, although the Project site falls under EMWD jurisdiction, the Project area is not located within either of the two EMWD groundwater management zones (EMWD, 2021, Figure 6-2). As such, the Project is not subject to a groundwater management plan, and the Project has no potential to conflict with the West San Jacinto Groundwater Basin Management Plan or the policies and requirements applicable within the Hemet-San Jacinto Watermaster Management Area.

Although the Project site is not located within any EMWD groundwater management areas, the proposed Project would not adversely affect groundwater supplies or quality. There are no existing groundwater wells on the Project site, and the proposed Project does not propose to construct any wells on site. As such, the Project would not directly extract groundwater, but would instead obtain potable water from the EMWD, which relies in part on groundwater resources.

As noted above under the discussion of the Project's consistency with the San Diego Basin Plan, the Project Applicant would be required to obtain a NPDES Municipal Stormwater Permit for construction activities. The NPDES permit is required for all projects that include construction activities, such as clearing, grading, and/or excavation that disturb at least one acre of total land area. Compliance with the NPDES permit and the Basin Plan involves the preparation and implementation of a SWPPP for construction-related activities. The SWPPP is required to specify the BMPs that the Project would be required to implement during construction activities to ensure that all potential pollutants of concern are prevented, minimized, and/or otherwise appropriately treated prior to being discharged from the subject property. Mandatory compliance with the SWPPP would ensure that construction of the proposed Project does result in polluted runoff that could adversely affect

groundwater quality. Accordingly, during construction of the Project a less-than-significant impact would occur.

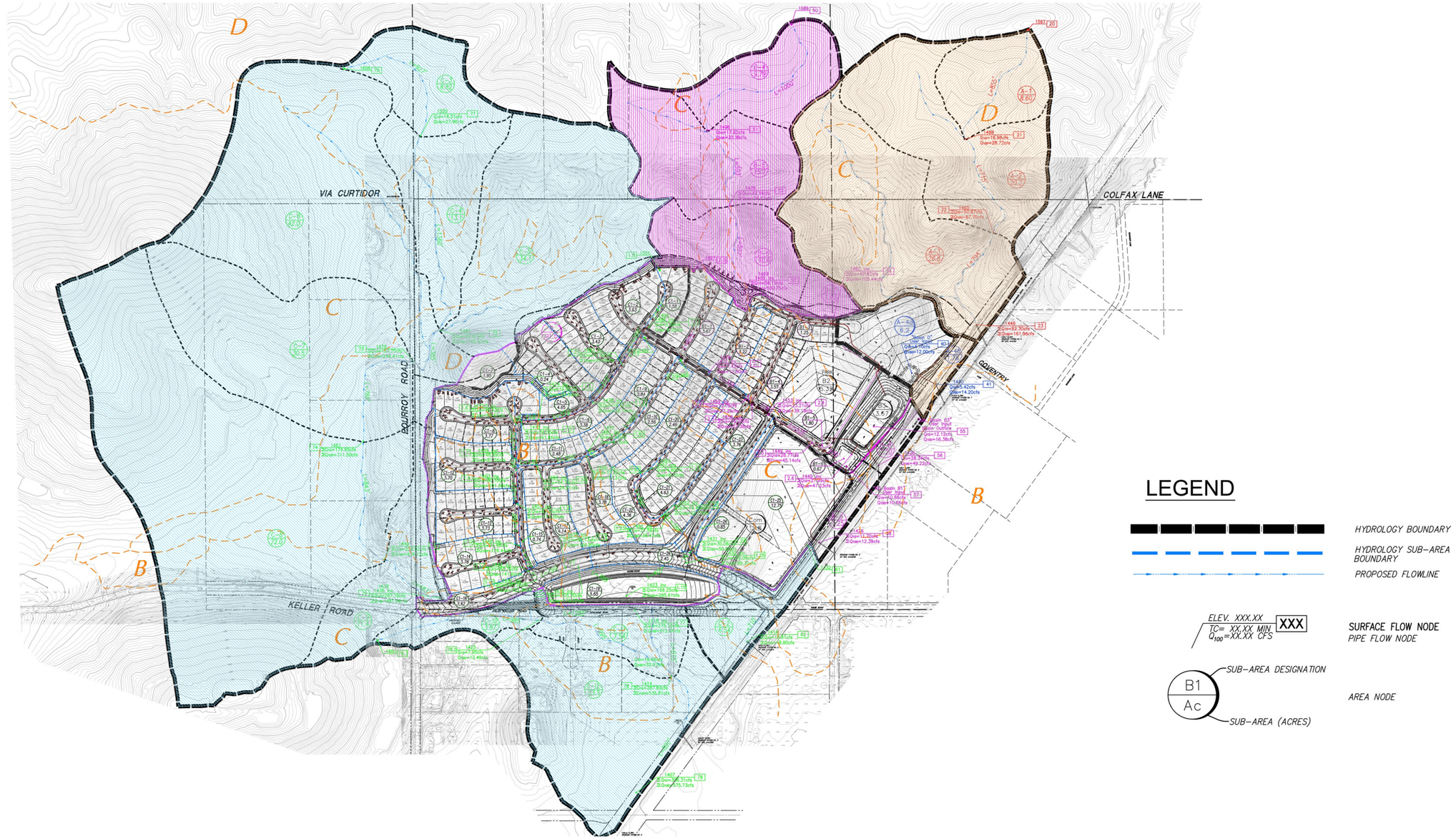
Following construction activities, infiltration on the Project site would be reduced and would be limited to landscaped and open space areas, as remaining areas of the site would be covered with impervious surfaces (i.e., buildings, streets, parking lots, etc.). While a nominal amount of groundwater recharge may occur on site under existing conditions, the majority of runoff is conveyed to downstream facilities, which ultimately include unlined drainage channels and bodies of water (i.e., the Santa Margarita River) wherein groundwater recharge occurs. These conditions would not substantially change under the proposed Project. Groundwater recharge would continue to occur downstream, as it does under existing conditions. As such, Project impacts due to groundwater recharge would be less than significant.

With respect to groundwater quality under long-term operations, the Project Applicant would be required to identify measures to reduce pollutants in runoff from the Project site pursuant to the applicable NPDES permit requirements, including, but not limited to, the Project's proposed biofiltration basins, landscaped areas, and open space areas. Measures identified to address water quality are identified as part of the Project's WQMP (*Technical Appendix I2*). With mandatory compliance with the Project's WQMP, the Project would not contribute substantial amounts of polluted runoff towards groundwater basins tributary to the Project site. As such, the proposed Project would not adversely affect groundwater supplies or groundwater quality, and impacts would therefore be less than significant.

Threshold c:	***Would the Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces?***
Threshold f:	***Would the Project create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?***

Please refer to the analysis of Thresholds a., b, and i. As indicated in the analysis, with implementation of the Project's proposed drainage system, the Project would not generate substantial additional sources of polluted runoff. Accordingly, Project impacts to water quality would be less than significant.

As previously depicted on EIR Figure 3-6 and as shown on Figure 4.10-3, *Proposed Conditions Hydrology Map*, grading proposed as part of the Project would not substantially alter the existing topography of the Project site. Runoff generated within the developed portions of the Project site would be collected via a series of on-site catch basins and storm drain lines ranging in size from 18 inches to 54 inches, which would convey flows into proposed detention basins in Planning Areas (PAs) 11A and 11B of proposed SP 380A1, which ultimately would discharge flows into their respective existing pre-developed water courses. Hillside storm flows from the open space in PA 10 would be intercepted and conveyed through a bypass storm drain line directly into the detention basin (low flow and storm water) proposed within PA 11A, adjacent to Winchester Road. The basin also would accommodate storm flows and runoff from the portion of PA 5 located north of Street "C" and runoff from the park proposed in PA 8. A basin proposed in PA 6 would detain flows from the northeastern



Source(s): K & A Engineering (12-20-2021)

Figure 4.10-3

Not to Scale

Proposed Conditions Hydrology Map

portion of PA 6. Outflows from PA 6 and the detention basin in PA 11A would be conveyed through 24-inch storm drain lines to three points of connection within the existing 24-inch Reinforced Concrete Pipes (RCPs) in Winchester Road.

The detention basin within PA 11B at the southern edge of the Project would detain and provide water quality treatment for the remaining portions of the Project's runoff. At the southwest corner of the Project site, a storm drain would intercept the natural drainage course traversing the southern tip of PA 9 and convey these flows under Old Keller Road in reinforced box culverts ("RCB"; 5' x 7' into 5' x 8' RCB) to bypass the PA 11B basin. These flows would then combine with flows leaving the PA 11B basin. The outflow from this basin would flow south into a 5-foot x 87-foot RCB culvert within an easement through private property to the pre-developed natural drainage course south of the Project boundary.

With implementation of the proposed Project, portions of the Project site would be developed with impervious surfaces, with exception of proposed open space, landscaped, and recreational areas. As previously indicated, runoff from the developed portions of the Project site is proposed to be routed to a combination of water quality and detention basins to mitigate the majority of proposed development water quality volume and to detain on-site runoff volume to ensure that post-development volume does not exceed pre-development volume. Table 4.10-3, *Comparison of Existing and Proposed Drainage Conditions*, provides a comparison between the site's existing peak storm flows and the peak storm flows anticipated with development of the Project as proposed. As shown, the proposed detention and water quality basins would reduce the total peak flows from the Project site as compared to existing conditions. As such, implementation of the proposed Project would not result in an increase in peak runoff from the Project site and therefore would not result in the alteration of any downstream receiving waters. Additionally, because existing drainage facilities downstream are adequately sized to accommodate peak runoff from the Project site and surrounding areas under existing conditions, and because peak runoff from the Project site would be reduced with development of the Project site as proposed, the Project would not contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems. Impacts would be less than significant. (K&A, 2022a, p. 6)

Threshold d: Would the Project result in substantial erosion or siltation on-site or off-site?

A. Construction-Related Erosion Impacts

As shown on EIR Figures 3-6 and 3-10, the Project has been designed to generally maintain the existing topography of the site, with minor modifications as necessary to accommodate site development and proposed drainage conditions. Nonetheless, construction of the proposed Project would involve substantial ground disturbance during clearing and grading of the site. In addition, on-site erosion could occur if graded slopes are not stabilized prior to ultimate development and/or landscaping. The proposed grading activities would generate fair amounts of silt which could be carried off-site during a heavy rainfall event. Should such an event occur in the absence of any preventative measures to contain silt and other soils on-site, erosion and/or siltation downstream could result.

However, pursuant to requirements of the SWRCB and the San Diego Basin Plan, the Project Applicant would be required to obtain a NPDES permit for construction activities on-site. The NPDES permit is required for all projects that include construction activities, such as clearing, grading, and/or excavation that disturb at least

Table 4.10-3 Comparison of Existing and Proposed Drainage Conditions

Drainage Area	Drainage Subarea	Caltrans Culvert Capacity Q max in cfs	Proposed Condition Q_{100} in cfs	Different [2]-[1]	Downstream Caltrans Drainage Facility	Existing Condition Peak Flow in cfs
		[1]	[2]			
A	A-1 thru A-3	**349.9**	163.27	-186.63	**DS #8** 84" RCP	168.48
WQ/Det. Basin A4a	D-1 and D-2	**32.8**	14.20	-18.6	**DS #7** 24" AP	21.30
Det. B3		**18.7**	16.73	-1.97	**DS #6** 24" RCP	49.22
WQ Basin Res. B1	Water Quality basin only	**13.9**	12.39	-1.51	**DS #5** 24" RCP	143.03
C	C-1 thru C-2	**30.7**	16.93	-13.77	**DS #4** 24" AP	63.61
WQ/Det. Basin C1	C-3 thru C-16	**721.0**	577.27	-143.73	**DS #3** 60" RCP	673.71
					DS #2 84" RCP	

(K&A, 2022a, p. 42)

one (1) acre of total land area. Compliance with the NPDES permit involves the preparation and implementation of a SWPPP for construction related activities. The SWPPP would specify BMPs to minimize the potential for erosion and siltation to occur and would include specific Project site measures to address the potential for the caving in of temporary excavations. Typical BMPs that are implemented at construction sites to protect water quality include the implementation of straw bale barriers, plastic sheeting/erosion control blankets, and outlet protection measures. With mandatory adherence to the SWPPP requirements, effects associated with construction-related erosion, siltation, water quality, and flooding on downstream water sources and flood control systems would be maintained at a level below significance.

B. Post-Development Erosion Impacts

Implementation of the proposed Project would result in the conversion of the site from undeveloped land to that of a residential and commercial retail development. With development of the Project site, large portions of the Project site would consist of impervious surfaces, with areas of pervious surfaces largely confined to landscaped and open space areas. Thus, the potential for erosion hazards on site would be substantially decreased as compared to existing conditions with buildout of the Project site. As such, long-term erosion impacts on site would be less than significant.

However, due to the increase in impervious surfaces on site, runoff from the site following development has the potential to contribute to erosion hazards downstream. As previously discussed under Thresholds c. and f., the Project would reduce the total peak flows from the Project site as compared to existing conditions. As such, and as compared to the existing condition, the Project would not result in an increase in peak runoff from the site, and therefore runoff from the Project site would not cause or contribute to any increased erosion hazards downstream. Impacts would be less than significant.

Threshold e: ***Would the Project substantially increase the rate or amount of surface runoff in a manner which would result in flooding on-site or off-site?***

Threshold g: ***Would the Project impede or redirect flood flows?***

According to mapping information available from FEMA, the Project site is located outside of mapped floodplains. As such, the Project site is not subject to inundation due to flood hazards. Additionally, there are no components of the Project that would impede or redirect flood flows. Impacts would be less than significant. (FEMA, 2021)

The Project's proposed drainage system has been designed to preclude the potential for flooding hazards on site, in accordance with standard County requirements. As previously indicated under the analysis of Thresholds c. and f., and as shown in Table 4.10-3, with implementation of the Project's proposed drainage system the peak runoff from the Project site would be reduced as compared to existing conditions. As such, the Project would not substantially increase the rate of surface runoff in a manner which would result in flooding on-site or off-site, and impacts would be less than significant.

Threshold h: ***In flood hazard, tsunami, or seiche zones, would the Project risk the release of pollutants due to Project inundation?***

The Project site is located approximately 31.0 miles northeast of the Pacific Ocean, and as such there is no potential for the Project site to be inundated with tsunamis. According to Figure 10 of the Southwest Area Plan (SWAP), the Project site is not located within a dam inundation area. As such, it can be concluded that the Project site also would not be subject to seiche hazards associated with nearby bodies of water, including Lake Skinner and Diamond Valley Lake (Riverside County, 2021b, Figure 10). With respect to flood hazards, and as indicated under the analysis of Thresholds e. and g., the Project site is not located within a mapped floodplain, indicating that the Project site is not subject to inundation due to flood hazards. Therefore, the Project would not result in the risk of pollutants due to site inundation and impacts would be less than significant.

4.10.5 Cumulative Impact Analysis

The cumulative impact analysis considers construction and operation of the proposed Project in conjunction with other development projects in the vicinity of the Project site and resulting from full buildout of the Riverside County General Plan and the general plans of other local jurisdictions that are located within the Santa Margarita River watershed.

As discussed under the analysis of Thresholds a., b., and i., the Project would result in less-than-significant impacts to surface and groundwater quality during construction because the Project Applicant would be

required to obtain a NPDES Municipal Stormwater Permit for construction activities. Compliance with the NPDES permit and the San Diego Basin Plan involves the preparation and implementation of a SWPPP for construction-related activities. The SWPPP is required to specify BMPs that the Project would be required to implement during construction activities to ensure that all potential pollutants of concern are prevented, minimized, and/or otherwise appropriately treated prior to being discharged from the subject property. Other cumulative developments within the cumulative study area also would be required to comply with the NPDES Municipal Stormwater Permit and would be required to implement BMPs during construction activities to preclude water quality impacts that could impair downstream waters or groundwater. As such, construction-related surface and groundwater quality impacts, as well as impacts due to a conflict with the San Diego Basin Plan, would be less-than-cumulatively considerable during construction. With respect to long-term impacts to water quality, the Project's proposed storm drain system is designed to route first flush runoff to water quality/detention basins. The water quality/detention basins have been designed to detain runoff and provide water quality treatment and would reduce pollutants of concern in runoff leaving the Project site. Other cumulative developments would similarly be required to incorporate BMPs to treat water quality pollutants of concern. Accordingly, the Project's impacts would be less than significant on a cumulatively-considerable basis.

As indicated under the analysis of Thresholds c. and f., although extensive grading would be required to implement the proposed Project, grading proposed as part of the Project generally would maintain the site's existing drainage patterns, with runoff continuing to flow from the northerly higher elevation to south and southeasterly of the Project site. As such, the Project would not substantially alter the existing drainage pattern of the Project site or surrounding areas, and impacts would be less than significant on a cumulatively-considerable basis. Additionally, implementation of the proposed Project would result in a reduction in peak runoff from the Project site as compared to existing conditions, and therefore the Project would not result in the alteration of any downstream receiving waters on either a direct or cumulatively-considerable basis. Additionally, because the Project would result in a decrease in peak runoff from the Project site, the Project would not contribute runoff water that could exceed the capacity of existing or planned stormwater drainage systems, and cumulatively-considerable impacts would not occur.

As discussed under the analysis of Threshold d., during construction the Project would be subject to compliance with the applicable NPDES permit, which requires the preparation and implementation of a SWPPP to address erosion hazards associated with construction activities. Other cumulative developments similarly would be required to prepare and implement a SWPPP. As such, erosion-related hazards during construction activities would be less-than-cumulatively considerable. Additionally, implementation of the proposed Project would result in the conversion of the site from undeveloped land to that of a proposed residential and commercial retail development. With development of the Project site, large portions of the Project site would consist of impervious surfaces, with areas of pervious surfaces largely confined to landscaped areas. Thus, the potential for erosion hazards on site would be substantially decreased as compared to existing conditions with buildout of the Project site. Additionally, because peak runoff from the Project site would decrease as compared to existing conditions, the Project has no potential to cause or cumulatively contribute to erosion hazards downstream. As such, long-term erosion impacts would be less than significant on a cumulatively-considerable basis.

The Project site is not subject to inundation during the 1% annual chance flood. As such, the Project would not impede or redirect flood flows, and cumulatively-considerable impacts would not occur.

Areas planned for development on site are not subject to inundation due to floods, tsunamis, or seiche zones. As such, cumulatively-considerable impacts associated with the release of pollutants due to Project site inundation would not occur.

4.10.6 Significance of Impacts Before Mitigation

Thresholds a., b., and i.: Less-than-Significant Impact. The Project would be served potable water by the EMWD, and no groundwater wells are proposed on site; thus, Project direct impacts to groundwater supplies would be less than significant. Additionally, the total amount of runoff from the site would not change with Project development, and as such Project-related runoff would be conveyed to downstream facilities where groundwater recharge would continue to occur. Additionally, water quality impacts during construction, including potential impacts due to a conflict with the San Diego Basin Plan and potential impacts to groundwater quality, would be less than significant. In addition, with implementation of the proposed Project, all runoff generated on site would be appropriately treated by the Project's BMPs prior to ultimate discharge into the Santa Margarita River watershed. Thus, the Project would not adversely affect surface or groundwater quality. Accordingly, the proposed Project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality; would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge; and would not conflict with the San Diego Basin Plan or result in adverse groundwater quality impacts. Impacts would be less than significant.

Thresholds c. and f.: Less-than-Significant Impact. Grading proposed as part of the Project generally would maintain the site's existing drainage patterns, with runoff continuing to flow from the northerly higher elevation to south and southeasterly of the Project site and offsite toward the southeast. In addition, the Project improvements would reduce the total peak flows from the Project site under post-development conditions. As such, implementation of the proposed Project would not result in an increase in peak runoff from the Project site and therefore would not result in the alteration of the existing alignment of any downstream receiving waters. Additionally, because existing drainage facilities downstream are adequately sized to accommodate peak runoff from the Project site and surrounding areas under existing conditions, and because peak runoff from the Project site would be reduced with development of the Project site as proposed, the Project would not contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems. Impacts would be less than significant.

Threshold d.: Less-than-Significant Impact. With mandatory adherence to the SWPPP requirements, effects associated with construction-related erosion, siltation, water quality, and flooding on downstream water sources and flood control systems would be maintained at a level below significance. With development of the Project site, large portions of the Project site would consist of impervious surfaces, with areas of pervious surfaces largely confined to landscaped and open space areas. Thus, the potential for erosion hazards on site would be substantially decreased as compared to existing conditions with buildout of the Project site. Additionally, implementation of the Project's proposed drainage system would result in a reduction in peak flows from the Project site, indicating that the Project would not result in increased erosion hazards in areas tributary to the Project site. As such, long-term erosion impacts would be less than significant.

Thresholds e. and g.: Less-than-Significant Impact. The Project site is located outside of mapped floodplains and is not subject to inundation due to flood hazards. The Project's proposed drainage system has been designed to preclude the potential for flooding hazards on site, in accordance with standard County requirements. With implementation of the Project's proposed drainage system, the peak runoff from the Project site would be reduced as compared to existing conditions. As such, the Project would not substantially increase the rate of surface runoff in a manner which would result in flooding on-site or off-site and would not impede or redirect flood flows, and impacts would be less than significant.

Threshold h. No Impact: The Project site is located approximately 31.0 miles northeast of the Pacific Ocean, and as such there is no potential for the Project site to be inundated with tsunamis. According to Figure 10 of the SWAP, the Project site is not located within the dam inundation area for any bodies of water. As such, it can be concluded that the Project site also would not be subject to seiche hazards associated with Lake Skinner or Diamond Valley Lake. Additionally, and as discussed more fully under the analysis of Threshold g., areas planned for development on site are not located in areas subject to inundation during the 1% annual chance flood. Accordingly, the Project would not risk the release of pollutants due to inundation from floods, tsunamis, or seiches, and no impact would occur.

4.10.7 County Regulations, Design Requirements, And Mitigation

Applicable County Regulations and Design Requirements

The following are applicable regulations and design requirements within Riverside County. Although these requirements technically do not meet CEQA's definition for mitigation, they are imposed herein to ensure Project compliance with applicable County regulations and design requirements.

- The Project Applicant is required to comply with the provisions of the Project's NPDES permit, and the Project's SWPPP. Compliance with the NPDES permit and the SWPPP would identify and implement an effective combination of erosion control and sediment control measures (i.e., Best Management Practices) to reduce or eliminate discharge to surface water from storm water and non-stormwater discharges during construction activities.

Mitigation

Impacts to hydrology and water quality would be less than significant; therefore, mitigation measures are not required.

4.11 LAND USE AND PLANNING

This Subsection discusses the Project's consistency with applicable land use and planning policies adopted by the Riverside County and other governing agencies for the purpose of reducing adverse effects on the physical environment. This Subsection also addresses present and future land uses, zoning, and the physical arrangement of land uses on the Project site. Information used to support the analysis in this Subsection was obtained in part from the Riverside County General Plan (Riverisde County, 2021a); the Southwest Area Plan (SWAP) (Riverside County, 2021b); and Riverside County Information Technology (RCIT) Map My County program (RCIT, 2021). Refer to EIR Section 7.0, *References*, for a complete list of reference sources.

4.11.1 EXISTING CONDITIONS

A. Existing On-Site and Surrounding Land Uses

Under existing conditions, the Project site is vacant, undeveloped, and is located within the adopted Keller Crossing Specific Plan (SP 380). The southern portion of the Project site is disturbed and was previously used for agricultural purposes including discing and dry farming. The northern portion of the Project site is undeveloped, contains natural vegetation, and has varying topography.

As previously illustrated in EIR Figure 2-3, land immediately north of the Project site consists of rural single-family residences and vacant, undeveloped land. Winchester Road (SR 79) is immediately east of the Project site and lands further east, on the opposite side of SR 79, contain single-family residences on varying lot sizes and vacant, undeveloped land. Keller Road is immediately south of the Project site and land further south, on the opposite side of Keller Road, contains single-family residences and vacant, undeveloped land. Land immediately west of the Project site is developed with single-family residences on varying lot sizes.

B. Existing On-Site and Surrounding Land Use Designations

The Project site is within the boundaries of the adopted Keller Crossing Specific Plan No. 380 (SP 380) area; therefore, the Project site's land use designations are established by the adopted Keller Crossing Specific Plan. Under the current adopted Keller Crossing Specific Plan, the Project site is divided into seven Planning Areas (PAs) (PAs 1 through 7), and is designated for "Very Low Density Residential (VLDR)," "Low Density Residential (LDR)," "Medium Density Residential (MDR)," "Mixed Use," "Commercial Retail (CR)," and "Open Space – Conservation (OS-C)." Table 4.11-1, *Existing On-Site Land Use Designations*, provides a summary of the existing on-site land use designations and their acreage.

As previously shown in EIR Figure 2-4, the land to the immediate north of the Project site is designated for OS-C, "Rural Residential (RR)," LDR, "Open Space – Conservation Habitat (OS-CH) uses and include MSHCP-dedicated hillsides; land to the east of the Project site, on the opposite side of SR 79, is designated for RR and OS-C uses; land to the south, on the opposite site of Keller Road, is designated for RR and CR uses; and land to the immediate west of the Project site is designated for RR and "Estate Density Residential (EDR)" uses.

Table 4.11-1 Existing On-Site Land Use Designations

Planning Area	Specific Plan Designations	Acreage	Dwelling Units	Commercial Building Area
1	Very Low Density Residential	9.9	3	--
2	Commercial Retail	8.8	--	125,000 s.f.
3	Medium Density Residential	13.9	42	--
4	Low Density Residential	18.3	25	--
5	Mixed Use	39.5	250	250,000 s.f.
6	Commercial Retail	29.0	--	275,000 s.f.
7	Open Space Conservation	61.1	--	--
--	Major Roadways	20.6	--	--
	Totals:	**201.1**	**320[1]**	**650,000 s.f.**

1. Includes 225 Continuing Care Retirement Community (CCRC) dwelling units.

C. *Existing On-Site and Surrounding Zoning Classifications*

The Riverside County Zoning Ordinance is intended to implement the Riverside County General Plan's land use plan. Under existing conditions, the 196.0-acre Project site is zoned for "Specific Plan Zone (SP Zone)," indicating that the property is within the boundaries of the adopted SP 380. Thus, under existing conditions the Project site is subject to the zoning classifications established by the adopted SP 380, which conform to the General Plan, SWAP, and SP 380 land use designations applied to the site, as described above.

Lands to the north of the Project site are zoned for SP Zone (these lands occur within Specific Plan No. 310). Land to the north is also zoned for "Rural Residential (R-R)" land uses. Lands to the east of the Project site also are zoned for SP Zone and R-R land uses (R-R-2 ½), as well as agricultural uses (A-1-5). Land to the west of the Project is zoned for rural residential uses, while land to the south is zoned for rural residential and commercial uses (C-1/C-P). (RCIT, 2021)

D. *Applicable Land Use and Planning Policies*

1. *Riverside County General Plan*

The Riverside County General Plan is a policy document that reflects the County's vision for the future of Riverside County. The General Plan was comprehensively revised in 2003 and most recently updated in 2021. The General Plan is organized into nine separate elements, including Land Use, Circulation, Multipurpose Open Space, Safety, Noise, Housing, Air Quality, Healthy Communities, and Administration. Each General Plan Element is instrumental to achieving the County's long-term development goals. Each element contains a series of policies that guide the course of action the County must take to achieve the County's vision for future development. (Riverside County, 2021a)

In addition, the General Plan divides the County into 19 Area Plans. The purpose of these Area Plans is to provide more detailed land use and policy direction regarding local issues such as land use, circulation, open space, and other topical areas. The Project site is located within the SWAP of the General Plan. The SWAP was most recently updated on June 29, 2021. The following section provides a summary of each General Plan Element, while the SWAP is discussed below in subsection 4.11.1.D.2. (Riverside County, 2021b)

Land Use Element

The General Plan Land Use Element functions as a guide to planners, the general public, and decision makers as to the ultimate pattern of development. The Land Use Element designates the general distribution, general location, and extent of land uses, such as housing, business, industry, open space, agriculture, natural resources, recreation, and public/quasi-public uses. These designations are reflected on the General Plan Land Use Map, which categorizes individual parcels of land into five basic categories ("Foundation Components"): Rural, Rural Community, Community Development, Agriculture, and Open Space. As reflected on the General Plan Land Use Map, the Land Use Element provides for a balanced mixture of land uses, including commercial, office, industrial, agriculture, and open space. For each of the various land use designations, the General Plan provides standards for residential density and non-residential intensity, and provides specific policies intended to ensure that product types, densities, and intensities respond to a multitude of market segments. The Land Use Element governs how land is to be utilized; therefore, many of the issues and policies contained in other plan elements are linked in some degree to this element. The Project site is currently located within an adopted Specific Plan that is located within the Community Development Foundation Component. The Project site is designated by the General Plan Land Use Plan for a mix of very low, low, and medium density residential, mixed use, commercial retail, and open space land uses. (Riverside County, 2021a, p. LU-1)

Circulation Element

The purpose of the Circulation Element is to provide for the movement of goods and people, including pedestrians, bicycles, transit, train, air, and automobile traffic flows within and through the community. Efficient traffic circulation is important to economic viability and the creation and preservation of a quality living environment (Riverside County, 2021a, p. C-1). The Circulation Element designates future road improvements and extensions; addresses non-motorized transportation alternatives; and identifies funding options. The various roadway improvements and extensions contemplated by the Circulation Element are reflected on the General Plan Circulation Plan. The various roadway classifications depicted on the Circulation Plan correspond to specific roadway cross-sections, which provide specific standards for right-of-way widths, lane configurations, medians, and landscaping requirements. As shown on Figure 7 of the SWAP, the Riverside County General Plan and SWAP classify Highway 79 as an "Expressway (128' to 220' ROW)" facility. Along the Project site's frontage, Keller Road is classified as a "Secondary (100' ROW)" facility, while the portion of Pourroy Road located south of Keller Road also is classified as a "Secondary (100' ROW)" facility. The future segment of Pourroy Road that abuts the western boundary of the Project site is not classified by the Circulation Element. (Riverside County, 2021b, Figure 7)

As shown in Figure 8 of the SWAP, there are proposed Community Trails along Leon Road, Keller Road, and Pourroy Road and a proposed regional trail along Abelia Street. (Riverside County, 2021b, Figure 8; Urban Crossroads, 2021f, p. 40)

Multipurpose Open Space Element

The Multipurpose Open Space Element addresses forms of open space in the County, including scenic, habitat, and recreation. This element has the purpose of addressing the protection and preservation of

natural resources, agriculture, and open space areas; managing mineral resources; preserving and enhancing cultural resources; and providing recreational opportunities for the residents of Riverside County. The Multipurpose Open Space Element also contains figures that detail the locations of water resources, vegetation communities, parks, forests, recreation areas, mineral resources, and cultural resources within the County. Together with the Multiple Species Habitat Conservation Plan (MSHCP), the Multipurpose Open Space Element seeks to preserve and protect identified open space areas in order to maintain or improve environmental quality. (Riverside County, 2021a, p. OS-1)

Safety Element

The Safety Element has the primary objective of reducing death, injuries, property damage, and economic and social impact of potential hazards within the County. The Safety Element serves to develop a framework by which safety considerations are introduced into the land use planning process; facilitate the identification and mitigation of hazards for new development; strengthen existing codes, project review, and permitting processes; present policies directed at identifying and reducing hazards in existing development; and strengthen earthquake, flood, inundation, and wildland fire preparedness planning and post-disaster reconstruction policies. Within the Safety Element, policies are presented which pertain to seismic, slope and soil instability; flood and inundation; fire safety; hazardous waste and materials; and disaster preparedness, response, and recovery hazards. (Riverside County, 2021a, pp. S-1 and S-2)

Noise Element

The purpose of the Noise Element is to identify sources of noise generation in the County and provide policies to ensure development does not expose people to unacceptable noise levels. The establishment of desirable maximum noise levels and implementation of noise regulations are also included as part of the Noise Element. The Noise Element provides a systematic approach to identifying and managing noise problems in the community; quantifies existing and projected noise levels; addresses excessive noise exposure; and directs community planning for regulation of noise. The Noise Element includes policies, standards, criteria, programs, diagrams, a reference to action items, and maps related to the protection of public health and welfare with respect to noise. (Riverside County, 2021a, p. N-3)

Housing Element

The 2021-2029 Housing Element identifies and establishes County policies intended to fulfill the housing needs of existing and future residents in Riverside County. It establishes policies that guide County decision-making and set forth an action plan to implement its housing goals. The Housing Element includes a review of previous housing goals, an assessment of the effectiveness of those goals, and an assessment of housing needs. Additionally, the Housing Element includes an inventory of resources and constraints related to meeting housing needs in the County; an analysis of affordable housing developments and programs intended to preserve such housing; community goals for the maintenance, preservation, improvement and development of housing; and a program which sets forth a five-year schedule of actions that the County is undertaking or intends to undertake in implementing the polices set forth in the Housing Element. (Riverside County, 2021c, p. H-3)

Air Quality Element

The intent of the Air Quality Element is to provide background information on the physical and regulatory environment affecting air quality in the County. This element also identifies goals, policies, and programs that are meant to balance the County's actions regarding land use, circulation, and other issues potentially affecting air quality. This element works in conjunction with local and regional air quality planning efforts to address ambient air quality standards set forth by the Federal Environmental Protection Agency (EPA) and the California Air Resources Board (CARB). The Air Quality Element sets ambient air quality standards for various air pollutants based on State and federal standards. The Element also contains policies regarding sensitive receptors, mobile and stationary pollution sources, energy efficiency and conservation, jobs and housing, and transportation. (Riverside County, 2021a, pp. AQ-3 through AQ-31)

Healthy Communities Element

The Healthy Communities Element provides a framework for translating the General Plan vision for a healthy Riverside County into reality by identifying policies aimed at achieving that vision. The Element addresses areas where public health and planning intersect, including transportation and active living; access to nutritious foods; access to health care; mental health; quality of life; and environmental health. This Element addresses overall health; land uses and community design; transportation system (with an emphasis on non-motorized transportation); arts and culture; social capital; complete communities; parks, trails, and open space; access to healthy foods and nutrition; healthcare and mental healthcare; schools, recreational centers, and daycare centers; and environmental health. The Environmental Justice section of the Healthy Communities Element identifies environmental justice policies that address quality of life and environmental safety. These environmental justice policies apply to the Environmental Justice Communities ("EJ Communities") shown on Figure LU-4.1, entitled "Riverside County Environmental Justice Communities," within the General Plan Land Use Element with specific policies located in the Healthy Communities Element. (Riverside County, 2021a, pp. HC-1 through HC-12)

Administration Element

The Administration Element focuses on the administration of the General Plan, which is the sole responsibility of the County of Riverside, under the authority of the Board of Supervisors. Administration of the General Plan policies includes establishing, maintaining, and applying tools and procedures for interpreting the intent of the General Plan and applying the interpretation to a variety of circumstances. This Element details the vision for Riverside County, General Planning Principles, Countywide Elements and Planning Policies/Area Plan, Appendices of the General Plan, and other administrative topics. (Riverside County, 2021a, pp. AQ-1 through AQ-20)

2. Southwest Area Plan (SWAP)

As noted above, the Project site is located within the Southwest Area Plan (SWAP) of the Riverside County General Plan. The SWAP guides the evolving character of the area, and uses the County of Riverside General Plan vision to establish policies for development and conservation within the specific area of Riverside County. The SWAP provides a description of the location, physical characteristic, and special features, in addition to a land use plan, policies, and exhibits to better understand the physical, environmental, and regulatory

characteristics that comprise the area. Each section of the SWAP addresses critical issues facing the Southwest Area planning area. The SWAP includes sections detailing the features, policy areas, land use, circulation, multipurpose open space, and hazards.

As shown on Figure 4 of the SWAP, *Southwest Area Plan Overlays and Policy Areas*, the Project site is located within the boundaries of adopted SP 380, and also is located within the Highway 79 Policy Area. In addition, SWAP Figure 6, *Southwest Area Plan Mt. Palomar Night Time Lighting Policy Area*, the Project site is located within Zone B of the Mt. Palomar Night Time Lighting Policy Area, indicating that land uses in the Project area are subject to compliance with Riverside County Ordinance No. 655 (Regulating Light Pollution). Additionally, SWAP Figure 9, *Southwest Area Plan Scenic Highways*, indicates that I-15 is "State Eligible" scenic highway. (Riverside County, 2021b, Figures 4 and 9)

3. Riverside County Zoning Ordinance

The Riverside County Zoning Ordinance is intended to implement the Riverside County General Plan's Land Use Plan. Under existing conditions, the 196.0-acre Project site is zoned for "Specific Plan Zone (SP Zone)," indicating that the property is within the boundaries of SP 380 and is subject to the zoning classifications established by the adopted SP 380 zoning ordinance. Refer to subsection 4.11.1.C for a more thorough discussion of the site's existing zoning classifications. (RCIT, 2021)

4. Riverside County Ordinance No. 460 (Regulating the Division of Land)

This ordinance regulates subdivisions pursuant to the Subdivision Map Act. All land divisions throughout unincorporated Riverside County are subject to all of the applicable provisions of the Subdivision Map Act and this ordinance. Ordinance No. 460 also identifies the necessary improvements associated with the division of land, and includes the provisions for the establishment of Road and Bridge Benefit Districts and associated fees.

5. Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP)

Riverside County has adopted a Multiple Species Habitat Conservation Plan (MSHCP), which is a comprehensive, multi-jurisdictional Habitat Conservation Plan (HCP). The MSHCP promotes conservation of species and their associated habitats in Riverside County through implementation of several HCPs that affect lands within the County. The Western Riverside County MSHCP and the Coachella Valley MSHCP are the two dominant plans that impact the largest portions of the county. These plans coordinate multi-jurisdictional habitat-planning and conservation efforts in the region to promote biological and ecological diversity while accommodating the appropriate construction of new development and infrastructure projects. Riverside County catalogs acquisitions and conservation of lands with respect to the HCPs, and periodically updates the General Plan Land Use maps accordingly. (Riverside County, 2015, p. 4.2-27)

As previously shown on EIR Figure 2-7, the Project site falls within all or portions of MSHCP Criteria Cells 5060, 5070, 5074, 5169, 5173, 5175, and 5275. Refer to EIR Subsection 4.4, *Biological Resources*, for a more thorough discussion of the MSHCP and the Project site's relationship thereto.

6. Stephen's Kangaroo Rat Habitat Conservation Plan (SKR HCP)

The Stephens' Kangaroo Rat Habitat Conservation Plan (SKR HCP) was prepared under the direction of the Riverside County Habitat Conservation Agency (RCHCA) Board of Directors, in consultation with United States Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW). The County of Riverside is a member agency of the RCHCA. The 30-year SKR HCP was designed to acquire and permanently conserve, maintain, and fund the conservation, preservation, restoration, and enhancement of Stephens' kangaroo rat-occupied habitat. The SKR HCP covers approximately 534,000 acres within the member jurisdictions and includes an estimated 30,000 acres of occupied Stephens' kangaroo rat habitat. The SKR HCP requires members to preserve and manage 15,000 acres of occupied habitat in seven Core Reserves encompassing over 41,000 acres. (Riverside County, 2015, p. 4.8-52)

On May 3, 1996, the USFWS issued a permit to the Riverside County Habitat Conservation Agency to incidentally take the federally endangered Stephens' kangaroo rat (*Dipodomys stephensi*). Similarly, the CDFW issued a California Endangered Species Act Management Authorization for Implementation of the Stephens' Kangaroo Rat HCP on May 6, 1996. To date, more than $50 million has been dedicated to the establishment and management of a system of regional preserves designed to ensure the survival of SKR in the plan area. This effort resulted in the permanent conservation of approximately 50% of the SKR-occupied habitat remaining in the HCP area. Through direct funding and in-kind contributions, SKR habitat in the regional reserve system is managed to ensure its continuing ability to support the species. Core reserves were deemed complete in December of 2003. (Riverside County, 2015, p. 4.8-52)

Although the Project site is not targeted for conservation as part of the SKR HCP, the Project site is located within the SKR HCP fee area, which requires the payment of fees pursuant to Riverside County Ordinance No. 663.

7. Southern California Association of Governments (SCAG)

The Southern California Association of Governments (SCAG) is a Joint Powers Authority (JPA) under California State law, established as an association of local governments and agencies that voluntarily convene as a forum to address regional issues. Under federal law, SCAG is designated as a Metropolitan Planning Organization (MPO) and under State law as a Regional Transportation Planning Agency and a Council of Governments (COG). The SCAG region encompasses six counties (Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura) and 191 cities in an area covering more than 38,000 square miles. SCAG develops long-range regional transportation plans including sustainable communities strategy and growth forecast components, regional transportation improvement programs, regional housing needs allocations and other plans for the region. (SCAG, n.d.)

As an MPO and public agency, SCAG develops transportation and housing strategies that transcend jurisdictional boundaries that affect the quality of life for southern California as a whole. On September 3, 2020, SCAG's Regional Council adopted *Connected SoCal (2020-2045 Regional Transportations Plan/Sustainable Communities Strategy* (herein, "RTP/SCS"). The RTP/SCS includes long-range regional transportation plans, regional transportation improvement programs, regional housing needs allocations, and other plans for the region. The RTP/SCS also provides objectives for meeting emissions reduction targets set forth by CARB; these objectives were provided in a direct response to Senate Bill 375 (SB 375) which was

enacted to reduce greenhouse gas emissions from automobiles and light trucks through integrated transportation, land use, housing and environmental planning. (SCAG, 2020) The RTP/SCS is updated periodically to allow for the consideration and inclusion of new transportation strategies and methods.

8. South Coast Air Quality Management District Air Quality Management Plan (SCAQMD AQMP)

California Health & Safety Code § 40702 et seq., the California Clean Air Act, requires that an Air Quality Management Plan (AQMP) be developed and then updated every three years for air basins with non-attainment status. As discussed in EIR Section 4.3, *Air Quality*, the Project site is located in the South Coast Air Basin (SoCAB). The SoCAB is within the jurisdiction of the South Coast Air Quality Management District (SCAQMD), the agency charged with bringing air quality in the SoCAB into conformity with federal and State air quality standards. Air quality within the SoCAB is regulated by the SCAQMD and standards for air quality are documented in the SCAQMD's 2016 AQMP. Although air quality in the SoCAB has improved over the past several decades, according to the SCAQMD, the SoCAB currently does not meet National Air Quality Standards (NAAQS) attainment status for ozone (O_3) and particulate matter less than 2.5 microns ($PM_{2.5}$). The SoCAB's currently is considered non-attainment under the California Ambient Air Quality Standards (CAAQS) due to levels of ozone (O_3), particulate matter < 2.5 microns ($PM_{2.5}$), and particulate matter < 10 microns (PM_{10}). (SCAQMD, 2017)

The SCAQMD AQMP is a plan for the regional improvement of air quality. Projects such as the proposed Project relate to the air quality planning process through the growth forecasts that were used as inputs into the regional transportation model. If a proposed project is consistent with these growth forecasts, and if all available emissions reduction strategies are implemented as effectively as possible on a project-specific basis, then the project is consistent with the AQMP.

4.11.2 Applicable Environmental Regulations

A. Federal Regulations

1. Clean Water Act (CWA)

The Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. The basis of the CWA was enacted in 1948 and was called the Federal Water Pollution Control Act, but the Act was substantially reorganized and expanded in 1972. "Clean Water Act" became the Act's common name with amendments in 1972. Under the CWA, the Environmental Protection Agency (EPA) has implemented pollution control programs such as setting wastewater standards for industry, and also has set water quality standards for all contaminants 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) permit program controls discharges. Point sources are discrete conveyances such as pipes or man-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 permits if their discharges go directly to surface waters. (EPA, n.d.)

2. Federal Aviation Regulations Part 77

Federal Regulation Title 14 Part 77 establishes standards and notification requirements for objects affecting navigable airspace. This notification serves as the basis for: (FAA, 2020a)

- Evaluating the effect of the construction or alteration on operating procedures;
- Determining the potential hazardous effect of the proposed construction on air navigation;
- Identifying mitigating measures to enhance safe air navigation; and
- Charting of new objects.

Notification allows the Federal Aviation Administration (FAA) to identify potential aeronautical hazards in advance to prevent or minimize the adverse impacts to the safe and efficient use of navigable airspace. Any person/organization who intends to sponsor any of the following construction or alterations must notify the Administrator of the FAA: (FAA, 2020a)

- Any construction or alteration exceeding 200 feet above ground level.
- Any construction or alteration:
  - within 20,000 feet of a public use or military airport which exceeds a 100:1 surface from any point on the runway of each airport with at least one runway more than 3,200 feet.
  - within 10,000 feet of a public use or military airport which exceeds a 50:1 surface from any point on the runway of each airport with its longest runway no more than 3,200 feet.
  - within 5,000 feet of a public use heliport which exceeds a 25:1 surface.
- Any highway, railroad, or other traverse way whose prescribed adjusted height would exceed that above noted standards.
- When requested by the FAA.
- Any construction or alteration located on a public use airport or heliport regardless of height or location. (FAA, 2020a)

Persons failing to comply with the provisions of FAR Part 77 are subject to Civil Penalty under Section 902 of the Federal Aviation Act of 1958, as amended and pursuant to 49 U.S.C. Section 46301(a). (FAA, 2020a)

B. State Regulations

1. Porter-Cologne Water Control Act

The Porter-Cologne Act is the principal law governing water quality regulation in California. It establishes a comprehensive program to protect water quality and the beneficial uses of water. The Porter-Cologne Act applies to surface waters, wetlands, and ground water and to both point and nonpoint sources of pollution. Pursuant to the Porter-Cologne Act (California Water Code § 13000 et seq.), the policy of the State is as follows: (SWRCB, 2014)

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

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

The Porter-Cologne Act established nine Regional Water Boards (based on hydrogeologic barriers) and the State Water Board, which are charged with implementing its provisions and which have primary responsibility for protecting water quality in California. The State Water Board provides program guidance and oversight, allocates funds, and reviews Regional Water Boards decisions. In addition, the State Water Board allocates rights to the use of surface water. The Regional Water Boards have primary responsibility for individual permitting, inspection, and enforcement actions within each of nine hydrologic regions. The State Water Board and Regional Water Boards have numerous non-point source (NPS) related responsibilities, including monitoring and assessment, planning, financial assistance, and management. (SWRCB, 2014)

The Regional Water Boards regulate discharges under the Porter-Cologne Act primarily through issuance of NPDES permits for point source discharges and waste discharge requirements (WDRs) for NPS discharges. Anyone discharging or proposing to discharge materials that could affect water quality (other than to a community sanitary sewer system regulated by an NPDES permit) must file a report of waste discharge. The Storm Water Resources Control Board (SWRCB) and the Regional Water Quality Control Boards (RWQCBs) can make their own investigations or may require dischargers to carry out water quality investigations and report on water quality issues. The Porter-Cologne Act provides several options for enforcing WDRs and other orders, including cease and desist orders, cleanup and abatement orders, administrative civil liability orders, civil court actions, and criminal prosecutions. (SWRCB, 2014)

The Porter-Cologne Act also implements many provisions of the Clean Water Act, such as the NPDES permitting program. The Porter-Cologne Act also requires adoption of water quality control plans that contain the guiding policies of water pollution management in California. In addition, regional water quality control plans (basin plans) have been adopted by each of the Regional Water Boards and get updated as necessary and practical. These plans identify the existing and potential beneficial uses of waters of the State and establish water quality objectives to protect these uses. The basin plans also contain implementation, surveillance, and monitoring plans. (SWRCB, 2014)

2. California Water Code

The California Water Code is the principal state law regulating water quality in California. Water quality provisions must be complied with as contained in numerous code sections including: 1) the Health and Safety Code for the protection of ground and surface waters from hazardous waste and other toxic substances; 2) the Fish and Game Code for the prevention of unauthorized diversions of any surface water and discharge of any substance that may be deleterious to fish, plant, animal, or bird life; 3) the Harbors and Navigation Code for the prevention of the unauthorized discharge of waste from vessels into surface waters; and 4) the Food and Agriculture Code for the protection of groundwater which may be used for drinking water supplies. The California Department of Fish and Wildlife (CDFW), through provisions of the Fish & Game Code (§§ 1601 - 1603) is empowered to issue agreements for any alteration of a river, stream, or lake where fish or wildlife resources may be adversely affected. CDFW regulates wetland areas only to the extent that those wetlands are part of a river, stream, or lake as defined by CDFW. (CA Legislative Info, n.d.)

Surface water quality is the responsibility of the Regional Water Quality Control Board (RWQCB), water supply and wastewater treatment agencies, and city and county governments. The principal means of enforcement by the RWQCB is through the development, adoption, and issuance of water discharge permits. RWQCB basin plans establish water quality objectives that are defined as the limits or levels of water quality constituents or characteristics for the reasonable protection of beneficial uses of water. (CA Legislative Info, n.d.)

3. California Planning and Zoning Law

The legal framework in which California cities and counties exercise local planning and land use functions is set forth in the California Planning and Zoning Law, §§ 65000 - 66499.58. Under State of California planning law, each city and county must adopt a comprehensive, long-term general plan. State law gives cities and counties wide latitude in how a jurisdiction may create a general plan, but there are fundamental requirements that must be met. These requirements include the inclusion of seven mandatory elements described in the Government Code, including a section on land use. Each of the elements must contain text and descriptions setting forth objectives, principles, standards, policies, and plan proposals; diagrams and maps that incorporate data and analysis; and mitigation measures. (OPR, n.d.)

4. Subdivision Map Act

The Subdivision Map Act ("Map Act") vests in the cities and counties the power to regulate and control the design and improvement of subdivisions within its boundaries. Each city must adopt an ordinance regulating and controlling subdivisions for which the Map Act requires a tentative and final or parcel map. The authority for a city or county to regulate land use, including subdivisions, flows from the general police power. However, the Map Act sets forth certain mandates that must be followed for subdivision processing. A city can impose conditions on the subdivision process when the Map Act is silent, but it cannot regulate contrary to specific provisions contained in the Map Act. (Curtin, Jr. & Merritt, 2002, p. 1) The Map Act's primary goals are:

- To encourage orderly community development by providing for the regulation and control of the design and improvement of the subdivision, with a proper consideration of its relation to adjoining areas;
- To ensure that the areas within the subdivision that are dedicated for public purposes will be properly improved by the subdivider so that they will not become an undue burden on the community; and
- To protect the public and individual transferees from fraud and exploitation. (Curtin, Jr. & Merritt, 2002, p. 1)

The Map Act is applied in conjunction with other state land use laws such as the general plan, specific plans, zoning, CEQA, and the Permit Streamlining Act. The Map Act provides for regulation of land divisions by a city or county and is interpreted and enforced by the city or county. (Curtin, Jr. & Merritt, 2002, p. 2)

5. Office of Planning and Research (OPR) General Plan Guidelines

Each city and county in California must prepare a comprehensive, long term general plan to guide its future. To assist local governments in meeting this responsibility, the Governor's Office of Planning and Research (OPR) is required to adopt and periodically revise guidelines for the preparation and content of local general plans pursuant to Government Code § 65040.2. The General Plan Guidelines is advisory, not mandatory.

Nevertheless, it is the state's only official document explaining California's legal requirements for general plans. Planners, decision-making bodies, and the public depend upon the General Plan Guidelines for help when preparing local general plans. The courts have periodically referred to the General Plan Guidelines for assistance in determining compliance with planning law. For this reason, the General Plan Guidelines closely adheres to statute and case law. It also relies upon commonly accepted principles of contemporary planning practice. (OPR, 2017b, p. 1)

6. State Aeronautics Act

The State Aeronautics Commission Act of 1947 created the Division of Aeronautics ("Division"), and was later amended by statute to read the State Aeronautics Act (Aeronautics Act) in 1961. As a result of this legislation, the Division's first priorities are those mandated by the Aeronautics Act, then Caltrans guidance, then Division guidance as expressed through its Policy Element. As directed by the Aeronautics Act, the Division is a steward and advocate of aviation in California. To that end, its efforts are focused on activities that "protect the public interest in aeronautics and aeronautical progress." (§ 21002) (CA Legislative Info, n.d.)

The Aeronautics Act itself is divided into six chapters, the first five of which have not received significant cleanup legislation since its enabling in 1947. The first chapter begins with general provisions and definitions and explains the Legislature's intent for a State aviation program. Chapter two explains Caltrans' role in administering the Division, and explains the role of the California Transportation Commission (CTC). Chapter three includes many of the safety considerations from Federal Aviation Administration (FAA) regulations that help keep airports and the surrounding communities safe and compatible with flight operations. Chapter four deals with airport and heliport permitting, air navigation facilities, noise guidelines, funding, and importantly, the formation and authority of Airport Land Use Commissions (ALUC). Chapter five covers the investigations and hearings on matters covered in the Aeronautics Act. Finally, Chapter six introduces airport planning and specifically introduces the intent of the CASP and how it can be used to support California aviation. (CA Legislative Info, n.d.)

7. Senate Bill 330 – Housing Crisis Act of 2019

To accelerate housing production, Senate Bill 330 (SB 330) makes changes to land use and zoning law to remove barriers and impediments to building new housing in urban areas of the state. To increase transparency and certainty in the development application process, SB 330 allows a housing developer to submit a "preliminary application" to a local agency for a housing development project. Submittal of a pre-application allows a developer to provide a specific subset of information on the proposed housing development ahead of providing the full amount of information required by the local government for a housing development application. Upon submittal of an application and a payment of the permit processing fee, a housing developer is allowed to "freeze" the applicable fees and development standards that apply to their project while they assemble the rest of the material necessary for a full application submittal. SB 330 requires the California Department of Housing and Community Development (HCD) to develop a standardized form that applicants for housing development projects may use for the purpose of satisfying the requirements for submittal of a preliminary application if a local agency has not developed its own application form. HCD has also provide a template that local governments may use to develop their own preliminary application form. (HCD, n.d.)

SB 330 also requires the California Department of Housing and Community Development (HCD) to develop a list of cities ("affected cities") and census designated places (CDPs) within the unincorporated county ("affected counties") that are prohibited from taking certain zoning-related actions, including, among other things: 1) Downzoning certain parcels; 2) Imposing a moratorium on development; and 3) Imposing design review standards that are not objective. The law also requires jurisdiction-wide housing replacement when housing affordable to lower-income residents is demolished. It is important to note that SB 330 does not prohibit an affected county or an affected city from changing a land use designation or zoning ordinance to a less intensive use, provided that the city or county concurrently changes the development standards, policies, and conditions applicable to other parcels within the jurisdiction to ensure that there is no net loss in residential capacity. (HCD, n.d.)

Although the Project would involve a General Plan Amendment and Change of Zone to change the site's existing land use designation and zoning classifications to allow for light industrial development instead of medium density residential housing, the provisions of SB 330 that prohibit downzoning of residential property for non-residential use apply only to "affected counties," which are defined by SB 330 as "a census designated place, based on the 2013-2017 American Community Survey 5-year Estimates, that is wholly located within the boundaries of an urbanized area, as designated by the United States Census Bureau." HCD has published a list of 141 CDPs in 22 counties that are identified as "affected counties." The Project site and surrounding areas are not included on the list of "affected counties" pursuant to SB 330. As such, the Project's proposal to allow for development of the Project site with light industrial and business park uses in lieu of medium density residential uses is not subject to the provisions of SB 330 that would require a concurrent change of zone on other off-site properties. (HCD, n.d.)

4.11.3 Basis for Determining Significance

Section XI of Appendix G to the State CEQA Guidelines, as updated in December 2018, addresses typical adverse effects to land use and planning, and includes the following threshold questions to evaluate the Project's impacts on land use and planning (OPR, 2018a):

a. *Would the Project physically divide an established community?*

b. *Cause a significant environmental impact due to a conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?*

Significance thresholds are set forth in Riverside County's Environmental Assessment Checklist, and are derived from Section XI of Appendix G to the State CEQA Guidelines (listed above), and stat that the proposed Project would have a significant impact on land use and planning if construction and/or operation of the Project would:

a. *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; or*

b. *Disrupt or divide the physical arrangement of an established community (including a low-income or minority community).*

The significance thresholds set forth in Riverside County's standard Environmental Assessment Checklist were used to evaluate the significance of the proposed Project's impacts on land use and planning. It should be noted that the Project's consistency with the Western Riverside County MSHCP and the SKR HCP, which are the only habitat conservation plans or natural community conservation plans applicable to the Project site, are evaluated in EIR Subsection 4.4, *Biological Resources*, under the analysis of Threshold a., and the analysis concludes that impacts due to a conflict with the MSHCP and the SKR HCP would be less than significant with mitigation and/or payment of fees pursuant to Riverside County Ordinance No. 663. Project consistency with the MSHCP and the SKR HCP is not further discussed in this Subsection.

4.11.4 IMPACT ANALYSIS

Threshold a:	***Would the Project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?***

A. Project Consistency with General Plan and Southwest Area Plan (SWAP)

1. General Plan and SWAP Land Use Consistency

Under existing conditions, the 196.0-acre Project site is located within the boundaries of the Keller Crossing Specific Plan (SP 380). As previously indicated, the General Plan and SWAP designate the property for VLDR, LDR, MDR, Mixed Use, CR, and OS-C land uses. The Project Applicant proposes a General Plan Amendment (GPA 210004) to change the site's land use designations to instead include "Medium Density Residential (MDR)," "Medium High Density Residential (MHDR)," "High Density Residential (HDR)," "Community-Development – Very Low Density Residential (CD-VLDR)," "Commercial Retail (CR)," "Open Space-Recreation (OS-R)," "Open Space-Conservation Habitat (OS-CH)," and "Open Space-Water (OS-W)" land uses. With approval of the Project's General Plan Amendment No. 210004 (GPA 210004), the Project would be fully consistent with the General Plan and SWAP land use designations for the 196.0-acre property. Moreover, impacts associated with the proposed land uses have been evaluated throughout this EIR. Where significant impacts are identified, mitigation measures are identified to reduce impacts to the maximum feasible extent. Based on the foregoing analysis, the proposed Project would not result in a significant environmental impact due to a conflict with any land use plan adopted for the purpose of avoiding or mitigating an environmental effect, and impacts would be less than significant.

2. General Plan and SWAP Policy Consistency

A General Plan Policies Consistency Analysis was prepared for the proposed Project in order to demonstrate the Project's consistency with applicable General Plan policies, and is included as *Technical Appendix P*. For more information regarding the Project's consistency with specific applicable Riverside County General Plan and SWAP policies, please refer to *Technical Appendix P*. As concluded therein, the Project would not conflict with any of the applicable General Plan and SWAP policies adopted for the purpose of avoiding or reducing significant environmental effects. Accordingly, impacts due to a conflict with applicable General Plan or SWAP policies would be less than significant.

B. Project Consistency with SCAG's 2012-2035 RTP/SCS

As previously noted, on September 3, 2020, SCAG adopted the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), also referred to as "Connect SoCal." The RTP/SCS seeks to improve mobility, promote sustainability, facilitate economic development, and preserve the quality of life for the residents in the region. The long-range visioning plan balances future mobility and housing needs with goals for the environment, the regional economy, social equity and environmental justice, and public health. The goals included in the RTP/SCS are pertinent to the proposed Project. These goals are meant to provide guidance for considering the proposed Project within the context of regional goals and policies. An analysis of the Project's consistency with the relevant goals of the RTP/SCS is presented below in *Table 4.11-2, Analysis of Consistency with SCAG Draft 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy Goals.* As indicated the Project would not conflict with any of the RTP/SCS goals, and no impact would occur.

Table 4.11-2 Analysis of Consistency with SCAG Draft 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy Goals

DRAFT RTP/SCS GOAL	GOAL STATEMENT	PROJECT CONSISTENCY DISCUSSION
1.	Encourage regional economic prosperity and global competitiveness.	Consistent. This policy would be implemented by cities and the counties within the SCAG region as part of comprehensive local and regional planning efforts. The Project would support this goal by providing employment-generating land uses (i.e., commercial retail) in a portion of the County that has a low jobs-to-housing ratio.
2.	Improve mobility, accessibility, reliability, and travel safety for people and goods.	Consistent. EIR Section 4.18, *Transportation*, evaluates Project-related transportation impacts and specifies improvements, fee payments, and fair-share contributions to address the Project's effects on Level of Service (LOS) at all study area facilities. The Project Applicant would implement or contribute to local transportation improvements that would improve mobility, accessibility, reliability, and travel safety for people and goods in the local area.
3.	Enhance the preservation, security, and resilience of the regional transportation system.	Consistent. This policy would be implemented by cities and the counties within the SCAG region as part of comprehensive local and regional planning efforts. As disclosed in EIR Section 4.18, *Transportation*, there are no components of the proposed Project that would adversely affect the preservation, security, or resilience of the regional transportation system, and the Project Applicant would contribute fees towards regional improvements required in the Project vicinity. Furthermore, SP 380A1 requires roadway and intersection improvements consistent with the County General Plan Circulation Element, SWAP, and the Riverside County Road Standards (Ordinance No. 461).

Table 4.11-2 Analysis of Consistency with SCAG Draft 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy Goals

DRAFT RTP/SCS GOAL	GOAL STATEMENT	PROJECT CONSISTENCY DISCUSSION
4.	Increase person and goods movement and travel choices within the transportation system.	Consistent. This policy would be implemented by cities and the counties within the SCAG region as part of the overall planning and maintenance of the regional transportation system. The Project does not entail any land uses associated with the goods movement industry. However, the intensity of the proposed Project would facilitate expanded transit service in the local area.
5.	Reduce greenhouse gas emissions and improve air quality.	Consistent. This policy would be implemented by cities and the counties within the SCAG region as part of comprehensive transportation planning efforts. The Project would entail development of residential, commercial retail, recreational, and open space uses in a portion of Riverside County that experiences a relatively low jobs-to-housing ratio; thus, the Project would serve to reduce worker commute times in the local area by providing jobs in close proximity to housing. Additionally, and as discussed in EIR Subsections 4.3, *Air Quality*, and 4.8, *Greenhouse Gas Emissions*, the Project would be required to implement mitigation measures to reduce air quality emissions to below a level of significance.
6.	Support healthy and equitable communities.	Consistent. An analysis of the Project's environmental impacts is provided throughout this EIR, and mitigation measures are specified where warranted. Air quality is addressed in EIR Subsection 4.3, *Air Quality*, and mitigation measures are specified to reduce the Project's air quality impacts to below a level of significance. The Project study area is within the service area of the Riverside Transit Authority (RTA), a public transit agency serving various jurisdictions within Riverside County. The Project would not conflict with any existing or planned RTA routes. Additionally, and as discussed in detail in EIR *Technical Appendix P*, the Project would be consistent with or otherwise would not conflict with any applicable General Plan policies or requirements, including policies and requirements included in the General Plan's Healthy Communities Element. Thus, the Project would facilitate the establishment of healthy and equitable communities.
7.	Adapt to a changing climate and support an integrated regional development pattern and transportation network.	Consistent. This policy would be implemented by cities and the counties within the SCAG region as part of comprehensive transportation planning efforts. As indicated in EIR Subsection 4.8, *Greenhouse Gas Emissions*, the Project would be conditioned to ensure full compliance with the Riverside County Climate Action Plan (CAP), thereby demonstrating that the Project would assist the County in meeting its greenhouse gas (GHG) reduction targets. The Project also would be conditioned

Table 4.11-2 Analysis of Consistency with SCAG Draft 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy Goals

DRAFT RTP/SCS GOAL	GOAL STATEMENT	PROJECT CONSISTENCY DISCUSSION
		to construct and/or contribute fees towards improving the regional transportation network.
8.	Leverage new transportation technologies and data-driven solutions that result in more efficient travel.	Not Applicable. This policy provides guidance to the County to leverage new transportation technologies and data-driven solutions that result in more efficient travel. There are no components of the proposed Project that would preclude the County's ability to implement this goal.
9.	Encourage development of diverse housing types in areas that are supported by multiple transportation options	Consistent. This policy would be implemented by cities and the counties within the SCAG region as part of comprehensive transportation planning efforts. The Project accommodates up to 436 residential dwelling units including various densities and age-qualified units located in an area served by the RTA.
10.	Promote conservation of natural and agricultural lands and restoration of habitats	Consistent. As part of the Project, a total of 61.4 acres of the Project site would be conserved as natural open space and would be dedicated as part of the MSHCP Reserve System. As indicated in EIR Subsection 4.4, *Biological Resources*, the Project would be required to implement mitigation measures to reduce impacts to biological resources to below a level of significance. As documented in EIR Subsection 4.2, the Project site does not contain any Important Farmland types, and the Project would result in less-than-significant impacts to agricultural resources.

(SCAG, 2020)

C. *Land Use Compatibility*

The Project as evaluated herein would provide for the future development of the 196.0-acre Project site with a mixture of medium, medium high, and high residential land uses, as well as commercial retail, recreational, and open space land uses. Under existing conditions, land to the west and north of the Project site includes vacant and undeveloped land along with several rural residential homes. Keller Road abuts the southern boundary of the Project site, beyond which are undeveloped lands and a few residential homes, with a master-planned residential community located further to the south. State Route-79 (SR-79) abuts the eastern boundary of the Project site, beyond which are undeveloped lands and a few rural residential homes.

The Riverside County General Plan and SWAP designate lands to the west and south of the Project site for Rural Residential (RR) land uses, with a small area to the south also designated for Commercial Retail (CR) land uses. Lands to the north of the Project site are designated for Open Space Conservation (OS-C) and RR uses. Lands to the east of the Project site and SR-79 are designated for RR and OS-C land uses.

Impacts associated with the Project's potential land use compatibility with surrounding uses have been evaluated throughout this EIR under the appropriate subject headings. For example, EIR Subsection 4.3, *Air*

Quality, includes an assessment of potential localized air quality impacts that could result from Project implementation. As concluded in EIR Subsection 4.3, the Project's localized air quality impacts affecting surrounding sensitive receptors, including residential and commercial uses, would be less than significant with mitigation. EIR Subsection 4.9, *Hazards and Hazardous Materials*, includes an analysis of potential hazardous materials impacts that could affect surrounding land uses, and demonstrates that with mandatory regulatory compliance and implementation of mitigation measures, impacts associated with hazards and hazardous materials would be less than significant. EIR Subsection 4.13, *Noise*, includes an assessment of potential noise impacts associated with the Project, including noise from construction, site operations, and Project-related traffic, and concludes that with mitigation, Project impacts would be less than significant. There are no environmental effects to surrounding existing or planned land uses that have not already been evaluated throughout this EIR, and where necessary mitigation measures have been imposed on the Project to reduce potential impacts to less-than-significant levels.

With implementation of the measures described above to address environmental issues (e.g., air quality, etc.), the Project's potential impacts due to land use compatibility would be less than significant.

Threshold b: Would the Project disrupt or divide the physical arrangement of an established community (including a low-income or minority community)?

Under existing conditions, the Project site is undeveloped and contains no public thoroughfares, aside from Keller Road along the site's southern boundary which is planned for improvements pursuant to SP 380A1. Rural single-family residential homes occur in areas surrounding the Project site, along with undeveloped and vacant lands. The Project would accommodate improvements to Keller Road adjacent to the Project site, which would facilitate access in the local area. There are no components of the proposed Project that would disrupt or divide the physical arrangement of an established community, and no impact would occur.

4.11.5 Cumulative Impact Analysis

As indicated under the analysis of Threshold a., with approval of GPA 210004, the Project's proposed land uses would be fully consistent with the General Plan and SWAP land use designations for the site. Additionally, the proposed Project would not conflict with any of the policies included in the General Plan or SWAP, and would not conflict with the SCAG 2020-2045 RTP/SCS. Other developments within the western Riverside County region similarly would be required to demonstrate compliance with applicable General Plan and RTP/SCS policies. Thus, the Project's impacts due to a conflict with a land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect would be less-than-cumulatively considerable.

As indicated under the analysis of Threshold b., the Project would not disrupt or divide the physical arrangement of an established community (including a low-income or minority community). As such, cumulatively-considerable impacts would not occur.

4.11.6 Significance Of Impacts Before Mitigation

Threshold a.: Less-than-Significant Impact. The Project would not conflict with the General Plan, SWAP, the SCAG 2020-2045 RTP/SCS, or any other land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Additionally, there are no impacts due to land use

incompatibility that have not already been evaluated and mitigated to the maximum feasible extent in relevant sections of this EIR; therefore, Project impacts due to land use incompatibility would be less than significant. Threshold b.: No Impact. The Project would not disrupt or divide the physical arrangement of an established community (including a low-income or minority community), and impacts would be less than significant

4.11.7 Applicable Regulations, Design Requirements, And Mitigation

Impacts to land use and planning would be less than significant; therefore, mitigation measures are not required.

4.12 MINERAL RESOURCES

This Subsection describes the potential mineral resources that are located on the Project site and in the vicinity and evaluates the potential effects that the Project may have on these resources. The following analysis is based in part on information obtained in the County's General Plan (Riverside County, 2021a). The analysis in this Subsection also is based on information from the report titled, "Geotechnical and Infiltration Evaluation" prepared by GeoTek, Inc. (herein, "GeoTek"), dated May 25th, 2021, and included as EIR *Technical Appendix F1*. In addition, this Subsection relies in part on a report entitled, "Phase I Environmental Site Assessment" (herein, "Phase I ESA"), prepared by Tetra Tech, Inc. (herein, "Tetra Tech"), dated July 20th, 2020 and included as EIR *Technical Appendix H.*

4.12.1 EXISTING CONDITIONS

A. *Geology*

The Project site is located the Peninsular Range Province of Southern California. The Peninsular Ranges are essentially a series of northwest-southeast oriented fault blocks. Several major fault zones are found in this province. The Elsinore Fault zone and the San Jacinto Fault zone trend northwest-southeast and are mostly found near the middle of the province. The San Andreas Fault zone borders the northeasterly margin of the province, and the San Jacinto fault borders the province adjacent the Colorado Desert province. (GeoTek, Inc., 2021)

Specifically, the Project site is located in an area geologically mapped to be underlain mostly by meta-sedimentary (phyllite) bedrock (phyllite and schist, with abundant feldspar and quartz) with areas in the southeast, south, and west of the site underlain by alluvium that have been geologically mapped as older alluvium. Additionally, the site was geologically mapped as being underlain by very old alluvial deposits and Phyllite bedrock. (GeoTek, Inc., 2021)

B. *Mineral Resources Potential*

The Surface Mining and Reclamation Act of 1975 (SMARA, Public Resources Code, §§ 2710-2796) provides a comprehensive surface mining and reclamation policy with the regulation of surface mining operations to assure that adverse environmental impacts are minimized and mined lands are reclaimed to a usable condition. The SMARA requires the State Geologist to classify land according to the presence, absence, or likely occurrence of significant mineral deposits in certain areas of the State subject to urban expansion or land uses incompatible with mining. The State classification system is broken out into four general zones, as shown below in Table 4.12-1, *Mineral Resources Zones*. According to mapping information available from the California Department of Conservation (CDC), the Project site occurs within an area that has not been studied for mineral resources (CDC, 2021b). Accordingly, the Project site does not contain any areas of known mineral resources.

Table 4.12-1 Mineral Resources Zones

Zone	Significance
MRZ-1	Areas where the available geologic information indicates no significant mineral deposits or a minimal likelihood of significant mineral deposits.
MRZ-2a	Areas where the available geologic information indicates that there are significant mineral deposits.
MRZ-2b	Areas where the available geologic information indicates that there is a likelihood of significant mineral deposits.
MRZ-3a	Areas where the available geologic information indicates that mineral deposits are likely to exist, however, the significance of the deposit is undetermined.
MRZ-4	Areas where there is not enough information available to determine the presence or absence of mineral deposits.

(Riverside County, 2021a, pp. OS-37 to OS-38)

4.12.2 Applicable Environmental Regulations

A. State Regulations

1. Surface Mining and Reclamation Act of 1975

The Surface Mining and Reclamation Act of 1975 (SMARA, Public Resources Code, §§ 2710-2796) provides a comprehensive surface mining and reclamation policy with the regulation of surface mining operations to assure that adverse environmental impacts are minimized and mined lands are reclaimed to a usable condition. SMARA also encourages the production, conservation, and protection of the state's mineral resources. Public Resources Code § 2207 provides annual reporting requirements for all mines in the state, under which the State Mining and Geology Board is also granted authority and obligations. (CDC, n.d.)

SMARA, Chapter 9, Division 2 of the Public Resources Code, requires the State Mining and Geology Board to adopt State policy for the reclamation of mined lands and the conservation of mineral resources. These policies are prepared in accordance with the Administrative Procedures Act, (Government Code) and are found in California Code of Regulations, Title 14, Division 2, Chapter 8, Subchapter 1. (CDC, n.d.)

4.12.3 Basis for Determining Significance

Section XII of Appendix G to the State CEQA Guidelines addresses typical adverse effects to mineral resources, and includes the following threshold questions to evaluate the Project's impacts on mineral resources (OPR, 2018a):

- *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?*

- *Would the Project result in the loss of availability of a locally-important mineral resource recover site delineated on a local general plan, specific plan, or other land use plan.*

Significance thresholds as implemented by Riverside County are set forth in Riverside County's Environmental Assessment Checklist form, which are derived from Section XII of Appendix G to the State CEQA Guidelines (listed above), and state that the proposed Project would have a significant impact on mineral resources if construction and/or operation of the Project would:

a. *Result in the loss of availability of a known mineral resource that would be of value to the region or the residents of the State;*

b. *Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan;*

c. *Be an incompatible land use located adjacent to a State classified or designated area or existing surface mine; or*

d. *Expose people or property to hazards from proposed, existing or abandoned quarries or mines.*

The significance thresholds set forth in Riverside County's Environmental Assessment Checklist were used to evaluate the significance of the proposed Project's impacts on mineral resources.

4.12.4 Impact Analysis

Threshold a:	***Result in the loss of availability of a known mineral resource that would be of value to the region or the residents of the State?***

According to the CDC, the Project site occurs within an area that has not been studied for mineral resources (CDC, 2021b). Therefore, the Project site does not contain any known mineral resources that would be of value to the region or the residents of the State. Accordingly, with implementation of the proposed Project there would be no impact to known mineral resources.

Threshold b:	***Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?***

The Project site is not designated as a mineral resource recovery site by the County's General Plan, Southwest Area Plan (SWAP), or the adopted SP 380, and there are no other land use plans that identify the site for containing mineral resources. Accordingly, the Project would not result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan, and no impact would occur.

Threshold c:	***Be an incompatible land use located adjacent to a State classified or designated area or existing surface mine?***

As mapped by the CDC, there are no areas surrounding the Project site that contain known mineral resources. No lands in the Project vicinity are classified or designated by the State as containing mineral resource deposits, and there are no known surface mines in the Project vicinity. The nearest lands designated as MRZ-2 are located approximately 13.5 miles southwest of the Project stie within the City of Temecula. (CDC, 2021b) Accordingly, the Project would not be an incompatible land use located adjacent to a State classified or designated area or existing surface mine, and no impact would occur.

Threshold d: Expose people or property to hazards from proposed, existing or abandoned quarries or mines?

Historical records indicate that no quarrying or mining activities ever occurred on the Project site, and there is no evidence of any proposed, existing, or abandoned quarries in the surrounding area (Tetra Tech, 2020). Accordingly, the Project would not expose people or property to hazards from proposed, existing, or abandoned quarries or mines, and no impact would occur.

4.12.5 Cumulative Impact Analysis

This cumulative impact analysis considers development of the proposed Project in conjunction with other development projects within the western Riverside County region. This cumulative study area was selected because western Riverside County encompasses large areas that include geologic conditions similar to those that occur on the Project site, and because this study area encompasses a large portion of the local market for the production and consumption of mineral resources.

As mapped by the CDC, the Project site occurs within an area that has not been studied for mineral resources. As such, the Project has no potential to result in cumulatively-considerable impacts due to the loss of availability of a known mineral resource that would be of value to the region or residents of the State. No cumulatively-considerable impacts would occur.

Riverside County's General Plan, SWAP, and the adopted SP 380 do not designate the Project site or surrounding areas as a mineral resource recovery site, and there are no other land use plans that identify the site or surrounding areas for containing mineral resources. As such, the Project has no potential to result in cumulatively-considerable impacts due to 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 cumulatively-considerable impacts would occur.

There are no lands in the Project vicinity that include State classified or designated areas for mineral resources, and there are no existing surface mines in the Project vicinity. As such, no cumulatively-considerable impacts to State classified or designated areas or existing surface mines would occur.

There are no known proposed, existing, or abandoned quarries or mines in the Project vicinity. As such, the Project has no potential to expose people or property to hazards from proposed, existing, or abandoned quarries or mines, and no cumulatively-considerable impacts would occur.

4.12.6 Significance Of Impacts Before Mitigation

Threshold a.: No Impact. The Project site does not contain any known mineral resources that would be of value to the region or the residents of the State. Accordingly, with implementation of the proposed Project there would be no impact to known mineral resources.

Threshold b.: No Impact. The Project would not result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan, and no impact would occur.

Threshold c.: No Impact. The Project would not be an incompatible land use located adjacent to a State classified or designated area or existing surface mine, and no impact would occur.

Threshold d.: No Impact. The Project would not expose people or property to hazards from proposed, existing, or abandoned quarries or mines, and no impact would occur

4.12.7 Applicable Regulations, Design Requirements, And Mitigation

No impacts to mineral resources would occur with implementation of the proposed Project; thus, mitigation measures are not required.

4.13 NOISE

This Subsection addresses the environmental issue of noise. The information in this Subsection is based in part on a technical report prepared by Urban Crossroads, Inc., titled, "Keller Crossing Specific Plan Noise Impact Analysis" (herein, "NIA"), dated September 16, 2021, and appended to this EIR as *Technical Appendix J* (Urban Crossroads, 2021d). It should be noted that the Project's NIA assumes the Project site would be developed with 436 dwelling units, while only 433 dwelling units are proposed; thus, the analysis in *Technical Appendix G* provides a "worst case" analysis of the Project's potential impacts due to operational and transportation-related noise. Refer to Section 7.0*, References*, for a complete list of reference sources.

4.13.1 ACOUSTICAL FUNDAMENTALS

A. Noise Definitions

Noise is simply defined as "unwanted sound." Sound becomes unwanted when it interferes with normal activities, when it causes actual physical harm, or when it has adverse effects on health. Noise is measured on a logarithmic scale of sound pressure level known as a decibel (dB). A weighted decibels (dBA) approximate the subjective response of the human ear to broad frequency noise source by discriminating against very low and very high frequencies of the audible spectrum. They are adjusted to reflect only those frequencies which are audible to the human ear. Figure 4.13-1, *Typical Noise Levels,* presents a summary of the typical noise levels and their subjective loudness and effects that are described in more detail below. (Urban Crossroads, 2021d, p. 9)

B. Range of Noise

Since the range of intensities that the human ear can detect is so large, the scale frequently used to measure intensity is a scale based on multiples of 10, the logarithmic scale. The scale for measuring intensity is the decibel scale. Each interval of 10 decibels indicates a sound energy ten times greater than before, which is perceived by the human ear as being roughly twice as loud. The most common sounds vary between 40 dBA (very quiet) to 100 dBA (very loud). Normal conversation at three feet is roughly at 60 dBA, while loud jet engine noises equate to 110 dBA at approximately 100 feet, which can cause serious discomfort. Another important aspect of noise is the duration of the sound and the way it is described and distributed in time. (Urban Crossroads, 2021d, pp. 9-10)

C. Noise Descriptors

Environmental noise descriptors are generally based on averages, rather than instantaneous, noise levels. The most used figure is the equivalent level (Leq). Equivalent sound levels are not measured directly but are calculated from sound pressure levels typically measured in A-weighted decibels (dBA). The equivalent sound level (Leq) represents a steady state sound level containing the same total energy as a time varying signal over a given sample period and is commonly used to describe the "average" noise levels within the environment. (Urban Crossroads, 2021d, p. 10)

Figure 4.13-1 Typical Noise Levels

COMMON OUTDOOR ACTIVITIES	COMMON INDOOR ACTIVITIES	A - WEIGHTED SOUND LEVEL dBA	SUBJECTIVE LOUDNESS	EFFECTS OF NOISE
THRESHOLD OF PAIN		140	INTOLERABLE OR DEAFENING	HEARING LOSS
NEAR JET ENGINE		130		
		120		
JET FLY-OVER AT 300m (1000 ft)	ROCK BAND	110		
LOUD AUTO HORN		100	VERY NOISY	
GAS LAWN MOWER AT 1m (3 ft)		90		
DIESEL TRUCK AT 15m (50 ft), at 80 km/hr (50 mph)	FOOD BLENDER AT 1m (3 ft)	80		SPEECH INTERFERENCE
NOISY URBAN AREA, DAYTIME	VACUUM CLEANER AT 3m (10 ft)	70	LOUD	
HEAVY TRAFFIC AT 90m (300 ft)	NORMAL SPEECH AT 1m (3 ft)	60		
QUIET URBAN DAYTIME	LARGE BUSINESS OFFICE	50	MODERATE	SLEEP DISTURBANCE
QUIET URBAN NIGHTTIME	THEATER, LARGE CONFERENCE ROOM (BACKGROUND)	40		
QUIET SUBURBAN NIGHTTIME	LIBRARY	30	FAINT	NO EFFECT
QUIET RURAL NIGHTTIME	BEDROOM AT NIGHT, CONCERT HALL (BACKGROUND)	20		
	BROADCAST/RECORDING STUDIO	10	VERY FAINT	
LOWEST THRESHOLD OF HUMAN HEARING	LOWEST THRESHOLD OF HUMAN HEARING	0		

(Urban Crossroads, 2021d, Exhibit 2-A)

Peak hour or average noise levels, while useful, do not completely describe a given noise environment. Noise levels lower than peak hour may be disturbing if they occur during times when quiet is most desirable, namely evening and nighttime (sleeping) hours. To account for this, the Community Noise Equivalent Level (CNEL), representing a composite 24-hour noise level is utilized. The CNEL is the weighted average of the intensity of a sound, with corrections for time of day, and averaged over 24 hours. The time-of-day corrections require the addition of 5 decibels to dBA Leq sound levels in the evening from 7:00 p.m. to 10:00 p.m., and the addition of 10 decibels to dBA Leq sound levels at night between 10:00 p.m. and 7:00 a.m. These additions are made to account for the noise sensitive time periods during the evening and night hours when sound appears louder. CNEL does not represent the actual sound level heard at any time, but rather represents the total sound exposure. The County of Riverside relies on the 24-hour CNEL level to assess land use compatibility with transportation-related noise sources. (Urban Crossroads, 2021d, p. 10)

D. Sound Propagation

When sound propagates over a distance, it changes in level and frequency content. The way noise reduces with distance depends on the following factors. (Urban Crossroads, 2021d, p. 10)

1. Geometric Spreading

Sound from a localized source (i.e., a stationary point source) propagates uniformly outward in a spherical pattern. The sound level attenuates (or decreases) at a rate of 6 dB for each doubling of distance from a point

source. Highways consist of several localized noise sources on a defined path and hence can be treated as a line source, which approximates the effect of several point sources. Noise from a line source propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of 3 dB for each doubling of distance from a line source. (Urban Crossroads, 2021d, p. 10)

2. Ground Absorption

The propagation path of noise from a highway to a receiver is usually very close to the ground. Noise attenuation from ground absorption and reflective wave canceling adds to the attenuation associated with geometric spreading. Traditionally, the excess attenuation has also been expressed in terms of attenuation per doubling of distance. This approximation is usually sufficiently accurate for distances of less than 200 ft. For acoustically hard sites (i.e., sites with a reflective surface between the source and the receiver, such as a parking lot or body of water), no excess ground attenuation is assumed. For acoustically absorptive or soft sites (i.e., those sites with an absorptive ground surface between the source and the receiver such as soft dirt, grass, or scattered bushes and trees), an excess ground attenuation value of 1.5 dB per doubling of distance is normally assumed. When added to the cylindrical spreading, the excess ground attenuation results in an overall drop-off rate of 4.5 dB per doubling of distance from a line source. (Urban Crossroads, 2021d, pp. 10-11)

3. Atmospheric Effects

Receivers located downwind from a source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lowered noise levels. Sound levels can be increased at large distances (e.g., more than 500 feet) due to atmospheric temperature inversion (i.e., increasing temperature with elevation). Other factors such as air temperature, humidity, and turbulence can also have significant effects. (Urban Crossroads, 2021d, p. 11)

4. Shielding

A large object or barrier in the path between a noise source and a receiver can substantially attenuate noise levels at the receiver. The amount of attenuation provided by shielding depends on the size of the object and the frequency content of the noise source. Shielding by trees and other such vegetation typically only has an "out of sight, out of mind" effect. That is, the perception of noise impact tends to decrease when vegetation blocks the line-of-sight to nearby residents. However, for vegetation to provide a substantial, or even noticeable, noise reduction, the vegetation area must be at least 15 feet in height, 100 feet wide, and dense enough to completely obstruct the line-of sight between the source and the receiver. This size of vegetation may provide up to 5 dBA of noise reduction. The Federal Highway Administration (FHWA) does not consider the planting of vegetation to be a noise abatement measure. (Urban Crossroads, 2021d, p. 11)

E. Noise Control

Noise control is the process of obtaining an acceptable noise environment for an observation point or receiver by controlling the noise source, transmission path, receiver, or all three. This concept is known as the source-path-receiver concept. In general, noise control measures can be applied to these three elements. (Urban Crossroads, 2021d, p. 11)

F. Noise Barrier Attenuation

Effective noise barriers can reduce noise levels by 10 to 15 dBA, cutting the loudness of traffic noise in half. A noise barrier is most effective when placed close to the noise source or receiver. Noise barriers, however, do have limitations. For a noise barrier to work, it must be high enough and long enough to block the path of the noise source. (Urban Crossroads, 2021d, p. 11)

G. Land Use Compatibility with Noise

Some land uses are more tolerant of noise than others. For example, schools, hospitals, churches, and residences are more sensitive to noise intrusion than are commercial or industrial developments and related activities. As ambient noise levels affect the perceived amenity or livability of a development, so too can the mismanagement of noise impacts impair the economic health and growth potential of a community by reducing the area's desirability as a place to live, shop, and work. For this reason, land use compatibility with the noise environment is an important consideration in the planning and design process. The FHWA encourages state and local governments to regulate land development in such a way that noise-sensitive land uses are either prohibited from being located adjacent to a highway, or that the developments are planned, designed, and constructed in such a way that noise impacts are minimized. (Urban Crossroads, 2021d, p. 12)

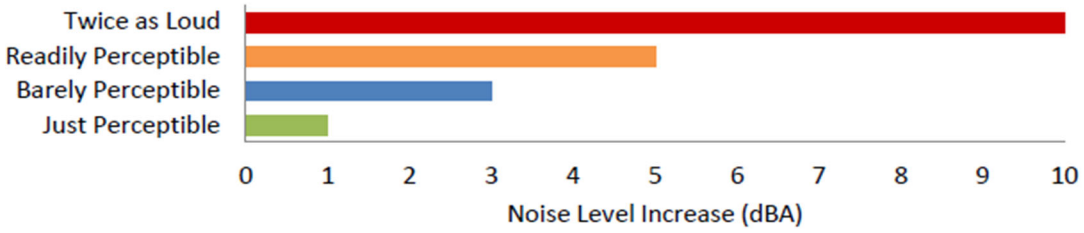
H. Community Response to Noise

Community responses to noise may range from registering a complaint by telephone or letter, to initiating court action, depending upon everyone's susceptibility to noise and personal attitudes about noise. Several factors are related to the level of community annoyance including: (Urban Crossroads, 2021d, p. 12)

- Fear associated with noise producing activities;
- Socio-economic status and educational level;
- Perception that those affected are being unfairly treated;
- Attitudes regarding the usefulness of the noise-producing activity;
- Belief that the noise source can be controlled.

Approximately ten percent of the population has a very low tolerance for noise and will object to any noise not of their making. Consequently, even in the quietest environment, some complaints will occur. Twenty-five percent of the population will not complain even in very severe noise environments. Thus, a variety of reactions can be expected from people exposed to any given noise environment. Surveys have shown that about ten percent of the people exposed to traffic noise of 60 dBA will report being highly annoyed with the noise, and each increase of one dBA is associated with approximately two percent more people being highly annoyed. When traffic noise exceeds 60 dBA or aircraft noise exceeds 55 dBA, people may begin to complain. Despite this variability in behavior on an individual level, the population can be expected to exhibit the responses to changes in noise levels as shown on Figure 4.13-2, *Noise Level Increase Perception*. A change of 3 dBA is considered barely perceptible, and changes of 5 dBA are considered readily perceptible. (Urban Crossroads, 2021d, p. 12)

Figure 4.13-2 Noise Level Increase Perception



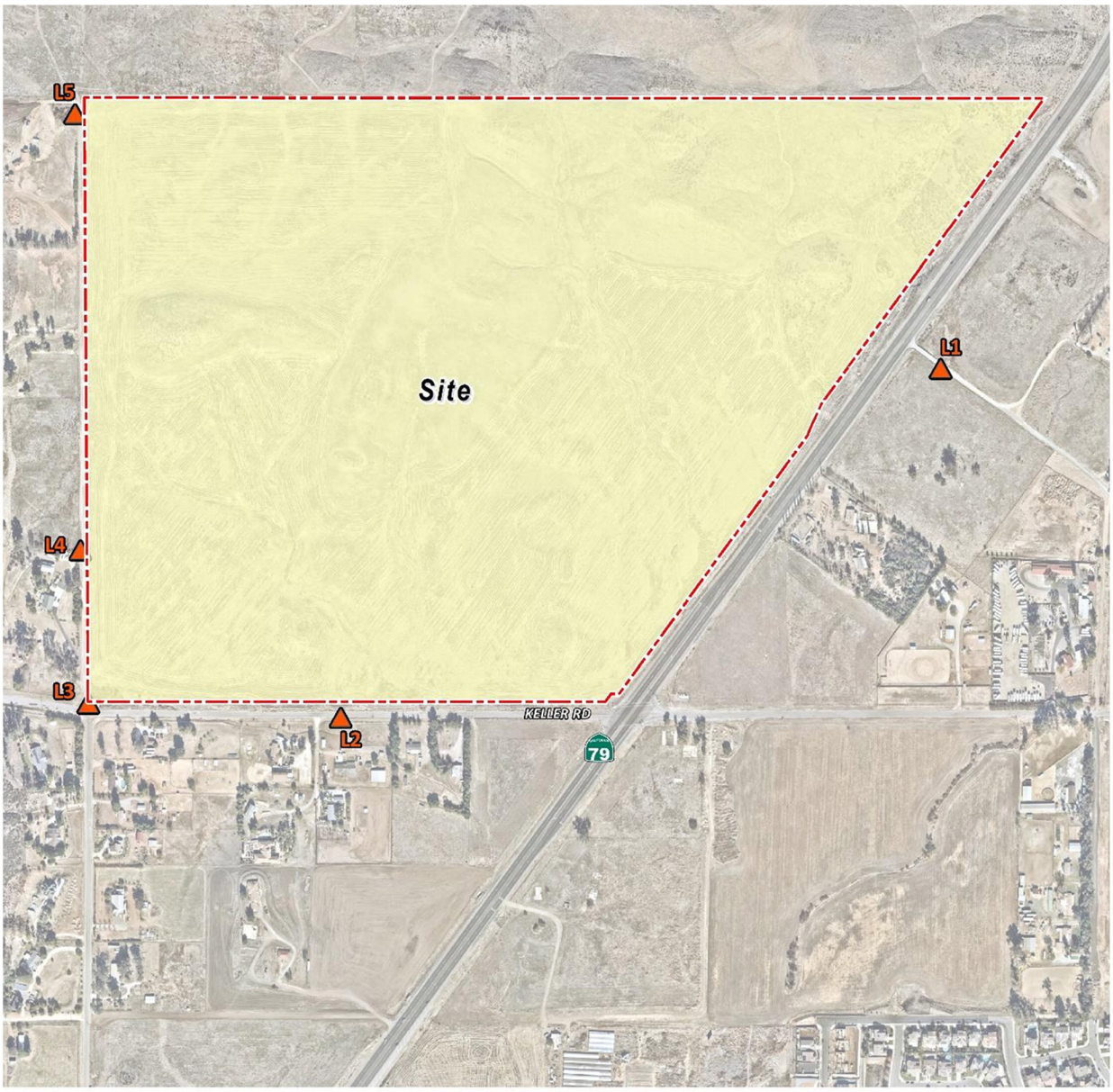
(Urban Crossroads, 2021d , Figure 2-B)

There are several different methods that are used to quantify vibration. The peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal. The PPV is most frequently used to describe vibration impacts to buildings but is not always suitable for evaluating human response (annoyance) because it takes some time for the human body to respond to vibration signals. Instead, the human body responds to average vibration amplitude often described as the root mean square (RMS). The RMS amplitude is defined as the average of the squared amplitude of the signal and is most frequently used to describe the effect of vibration on the human body. Decibel notation (VdB) is commonly used to measure RMS. Decibel notation (VdB) serves to reduce the range of numbers used to describe human response to vibration. Typically, ground-borne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration. Sensitive receivers for vibration include structures (especially older masonry structures), people (especially residents, the elderly, and sick), and vibration-sensitive equipment and/or activities. (Urban Crossroads, 2021d, p. 13)

The background vibration-velocity level in residential areas is generally 50 VdB. Ground-borne vibration is normally perceptible to humans at approximately 65 VdB. For most people, a vibration-velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels. Typical outdoor sources of perceptible ground-borne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the ground-borne vibration is rarely perceptible. The range of interest is from approximately 50 VdB, which is the typical background vibration-velocity level, to 100 VdB, which is the general threshold where minor damage can occur in fragile buildings. Exhibit 2-C of the Project's NIA (*Technical Appendix J* to this EIR) illustrates common vibration sources and the human and structural response to ground-borne vibration. (Urban Crossroads, 2021d, p. 13)

4.13.2 Existing Conditions

To assess the existing noise level environment, 24-hour noise level measurements were taken at five locations in the Project study area. The receiver locations were selected to describe and document the existing noise environment within the Project study area. Figure 4.13-3, *Noise Measurement Locations*, provides the boundaries of the Project study area and the noise level measurement locations. To fully describe the existing noise conditions, noise level measurements were collected by Urban Crossroads, Inc. on Wednesday, February 10, 2021. (Urban Crossroads, 2021d, p. 25)



Source: **Urban Crossroads (07-09-2021)**

Figure 4.13-3

Not to Scale

Noise Measurement Locations

B. Measurement Procedure and Criteria

To describe the existing noise environment, the hourly noise levels were measured during typical weekday conditions over a 24-hour period. By collecting individual hourly noise level measurements, it is possible to describe the equivalent daytime and nighttime hourly noise levels. The long-term noise readings were recorded using Piccolo Type 2 integrating sound level meter and dataloggers. The Piccolo sound level meters were calibrated using a Larson-Davis calibrator, Model CAL 150. All noise meters were programmed in "slow" mode to record noise levels in "A" weighted form. The sound level meters and microphones were equipped with a windscreen during all measurements. All noise level measurement equipment satisfies the American National Standards Institute (ANSI) standard specifications for sound level meters ANSI S1.4-2014/IEC 61672-1:2013. (Urban Crossroads, 2021d, p. 25)

C. Noise Measurement Locations

The long-term noise level measurements were positioned as close to the nearest sensitive receiver locations as possible to assess the existing ambient hourly noise levels surrounding the Project site. Both Caltrans and the FTA recognize that it is not reasonable to collect noise level measurements that can fully represent every part of a private yard, patio, deck, or balcony normally used for human activity when estimating impacts for new development projects. This is demonstrated in the Caltrans general site location guidelines which indicate that, "sites must be free of noise contamination by sources other than sources of interest. Avoid sites located near sources such as barking dogs, lawnmowers, pool pumps, and air conditioners unless it is the express intent of the analyst to measure these sources." Further, FTA guidance states that, "it is not necessary nor recommended that existing noise exposure be determined by measuring at every noise-sensitive location in the project area. Rather, the recommended approach is to characterize the noise environment for clusters of sites based on measurements or estimates at representative locations in the community." (Urban Crossroads, 2021d, p. 25)

Based on recommendations of Caltrans and the FTA, it is not necessary to collect measurements at each individual building or residence, because each receiver measurement represents a group of buildings that share acoustical equivalence. In other words, the area represented by the receiver shares similar shielding, terrain, and geometric relationship to the reference noise source. Receivers represent a location of noise sensitive areas and are used to estimate the future noise level impacts. Collecting reference ambient noise level measurements at the nearby sensitive receiver locations allows for a comparison of the before and after Project noise levels and is necessary to assess potential noise impacts due to the Project's contribution to the ambient noise levels. (Urban Crossroads, 2021d, pp. 25-26, pp. 23-24)

D. Noise Measurement Results

The noise measurements presented below focus on the equivalent or the hourly energy average sound levels (Leq). The equivalent sound level (Leq) represents a steady state sound level containing the same total energy as a time varying signal over a given sample period. Table 4.13-1, *24-Hour Ambient Noise Level Measurements* identifies the hourly daytime (7:00 a.m. to 10:00 p.m.) and nighttime (10:00 p.m. to 7:00 a.m.) noise levels at each noise level measurement location. (Urban Crossroads, 2021d, p. 26)

Table 4.13-1 24-Hour Ambient Noise Level Measurements

Location[1]	Description	Energy Average Noise Level (dBA L_{eq})[2]	
		Daytime	Nighttime
L1	Located east of SR-79 and south of Elmhurst Lane	46.8	38.0
L2	Located at the southeast corner of Keller Road and Keller Flat Court	56.5	51.9
L3	Located at the northeast corner of Keller Road and Pourroy Road	64.5	60.7
L4	Located West Pourroy Road near 33975 Pourroy Road	55.9	54.2
L5	Located at the northwest corner of the Project site near the end of Pourroy Road.	49.7	41.3

[1]See Figure 4.13-3 for the noise level measurement locations.
[2] Energy (logarithmic) average levels. The long-term 24-hour measurement worksheets are in included in Appendix 5.2 of the Project's NIA (*Technical Appendix J* to this EIR).
"Daytime" – 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.
(Urban Crossroads, 2021d, Table 5-1)

E. Airport-Related Noise

The Project site is not located within two miles of an airport or airstrip. The closest major airport is the French Valley Airport located roughly 3.3 miles southwest of the Project site. The Project site does not occur within the Airport Influence Area (AIA) for this airport, which indicates that the Project site is not subject to substantial airport-related noise under existing conditions. (Urban Crossroads, 2021d, p. 22)

4.13.3 Applicable Environmental Regulations

The following is a brief description of the federal, State, and local environmental laws and related regulations related to noise.

A. Federal Regulations

1. Noise Control Act of 1972

The Noise Control Act of 1972 establishes a national policy to promote an environment for all Americans free from noise that jeopardizes their health and welfare. The Act also serves to (1) establish a means for effective coordination of Federal research and activities in noise control; (2) authorize the establishment of Federal noise emission standards for products distributed in commerce; and (3) provide information to the public respecting the noise emission and noise reduction characteristics of such products. (EPA, 2020i)

While primary responsibility for control of noise rests with State and local governments, Federal action is essential to deal with major noise sources in commerce, control of which require national uniformity of treatment. The Environmental Protection Agency (EPA) is directed by Congress to coordinate the programs of all Federal agencies relating to noise research and noise control. (EPA, 2020i)

2. Federal Transit Administration

The Federal Transit Administration (FTA) has published a Noise and Vibration Impact Assessment (NVIA), which provides guidance for preparing and reviewing the noise and vibration sections of environmental documents. In the interest of promoting quality and uniformity in assessments, the manual is used by project sponsors and consultants in performing noise and vibration analyses for inclusion in environmental documents. The manual sets forth the methods and procedures for determining the level of noise and vibration impact resulting from most federally-funded transit projects and for determining what can be done to mitigate such impact. (FTA, 2006, p. 1-1)

The NVIA also establishes criteria for acceptable ground-borne vibration, which are expressed in terms of root mean square (rms) velocity levels in decibels and the criteria for acceptable ground-borne noise are expressed in terms of A-weighted sound levels. As shown in Table 4.13-2, *Ground-Borne Vibration and Ground-Borne Noise Impact Criteria for General Assessment*, the FTA identifies three categories of land uses and provides Ground-Based Vibration (GBV) and Ground-Based Noise (GBN) criteria for each category of land use. (FTA, 2006, pp. 8-3 and 8-4)

3. Federal Aviation Administration

The Federal Aviation Administration (FAA) regulates the maximum noise level that an individual civil aircraft can emit through requiring aircraft to meet certain noise certification standards. These standards designate changes in maximum noise level requirements by "stage" designation. The standard requires that the aircraft meet or fall below designated noise levels. For civil jet aircraft, there are four stages identified, with Stage 1 being the loudest and Stage 4 being the quietest. For helicopters, two different stages exist, Stage 1 and Stage 2. As with civil jet aircraft, Stage 2 is quieter than Stage 1. In addition, the FAA is currently working to adopt the latest international standards for helicopters, which will be called Stage 3 and will be quieter than Stage 2. (FAA, 2020b)

The FAA has undertaken a phase out of older, noisier civil aircraft, resulting in some stages of aircraft no longer being in the fleet. Currently within the contiguous US, civil jet aircraft over 75,000 pounds maximum take-off weight must meet Stage 3 and Stage 4 to fly. In addition, aircraft at or under 75,000 pounds maximum take-off weight must meet Stage 2, 3, or 4 to operate within the U.S. In addition, by December 31, 2015, all civil jet aircraft, regardless of weight must meet Stage 3 or Stage 4 to fly within the contiguous U.S. Both Stage 1 and Stage 2 helicopters are allowed to fly within the U.S. (FAA, 2020b)

The U.S. noise standards are defined in the Code of Federal Regulations (CFR) Title 14 Part 36 – *Noise Standards: Aircraft Type and Airworthiness Certification* (14 CFR Part 36). The FAA publishes certificated noise levels in the advisory circular, *Noise Levels for U.S Certificated and Foreign Aircraft*. This advisory circular provides noise level data for aircraft certificated under 14 CFR Part 36 and categorizes aircraft into

Table 4.13-2 Ground-Borne Vibration and Ground-Borne Noise Impact Criteria for General Assessment

Land Use Category	GBV Impact Levels (VdB re 1 micro-inch /sec)			GBN Impact Levels (dB re 20 micro Pascals)		
	Frequent Events[1]	Occasional Events[2]	Infrequent Events[3]	Frequent Events[1]	Occasional Events[2]	Infrequent Events[3]
Category 1: Buildings where vibration would interfere with interior operations.	65 VdB[4]	65 VdB[4]	65 VdB[4]	N/A[4]	N/A[4]	N/A[4]
Category 2: Residences and buildings where people normally sleep.	72 VdB	75 VdB	80 VdB	35 dBA	38 dBA	43 dBA
Category 3: Institutional land uses with primarily daytime use.	75 VdB	78 VdB	83 VdB	40 dBA	43 dBA	48 dBA

Notes:

1. "Frequent Events" is defined as more than 70 vibration events of the same source per day. Most rapid transit projects fall into this category.
2. "Occasional Events" is defined as between 30 and 70 vibration events of the same source per day. Most commuter trunk lines have this many operations.
3. "Infrequent Events" is defined as fewer than 30 vibration events of the same kind per day. This category includes most commuter rail branch lines.
4. This criterion limit is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. Vibration-sensitive manufacturing or research will require detailed evaluation to define the acceptable vibration levels. Ensuring lower vibration levels in a building often requires special design of the HVAC systems and stiffened floors.
5. Vibration-sensitive equipment is generally not sensitive to ground-borne noise.

(FTA, 2006, Table 8-1)

their appropriate "stages." Any aircraft that is certified for airworthiness in the U.S. needs to also comply with noise standard requirements to receive a noise certification. The purpose of the noise certification process is to ensure that the latest available safe and airworthy noise reduction technology is incorporated into aircraft design and enables the noise reductions offered by those technologies to be reflected in reductions of noise experienced by communities. As noise reduction technology matures, the FAA works with the international community to determine if a new stringent noise standard is needed. If so, the international community through the International Civil Aviation Organization (ICAO) embarks on a comprehensive analysis to determine what that new standard will be. (FAA, 2016)

The current FAA noise standards applicable to new type certifications of jet and large turboprop aircraft is Stage 4. It is equivalent to the ICAO Annex 16, Volume 1 Chapter 4 standards. Recently, the international community has established and approved a more stringent standard within the ICAO Annex 16, Volume 1 Chapter 14, which became effective July 14, 2014. The FAA adopted this standard and promulgated the rule for Stage 5 effective for new type certificates after December 31, 2017 and December 31, 2020, depending on the weight of the aircraft. The Final Rule for Stage 5 was published in the Federal Register on October 4, 2017. (FAA, 2016)

For helicopters, the FAA has noise standards for a Stage 3 helicopter that became effective on May 5, 2014. These more stringent standards apply to new type helicopters and are consistent with ICAO Annex 16, Volume 1 Chapter 8 and Chapter 11. (FAA, 2016)

The FAA Modernization and Reform Act of 2012, in Section 513, had a prohibition on operating certain aircraft weighing 75,000 pounds or less not complying with Stage 3 noise levels, and on July 2, 2013, the FAA published a Final Rule in the Federal Register for the *Adoption of Statutory Prohibition the Operation of Jets Weighing 75,000 Pounds or Less That Are Not Stage 3 Noise Compliant*. In 1990, Congress passed the Aviation Noise and Capacity Act, which required that by the year 2000 all jet and large turboprop aircraft at civilian airports be Stage 3. (FAA, 2016)

4. Federal Highway Administration

The Federal Highway Administration (FHWA) is the agency responsible for administering the Federal-aid highway program in accordance with Federal statutes and regulations. The FHWA developed the noise regulations as required by the Federal-Aid Highway Act of 1970 (Public Law 91-605, 84 Stat. 1713). The regulation, 23 CFR 772 *Procedures for Abatement of Highway Traffic Noise and Construction Noise*, applies to highway construction projects where a State department of transportation has requested Federal funding for participation in the project. The regulation requires the highway agency to investigate traffic noise impacts in areas adjacent to federally-aided highways for proposed construction of a highway on a new location or the reconstruction of an existing highway to either significantly change the horizontal or vertical alignment or increase the number of through-traffic lanes. If the highway agency identifies impacts, it must consider abatement. The highway agency must incorporate all feasible and reasonable noise abatement into the project design. (FHWA, 2017)

The FHWA regulations for mitigation of highway traffic noise in the planning and design of federally aided highways are contained in Title 23 of the United States Code of Federal Regulations Part 772. The regulations require the following during the planning and design of a highway project:

- Identification of traffic noise impacts;
- Examination of potential mitigation measures;
- The incorporation of reasonable and feasible noise mitigation measures into the highway project; and
- Coordination with local officials to provide helpful information on compatible land use planning and control. (FHWA, 2017)

The regulations contain noise abatement criteria, which represent the upper limit of acceptable highway traffic noise for different types of land uses and human activities. The regulations do not require meeting the abatement criteria in every instance. Rather, they require highway agencies make every reasonable and feasible effort to provide noise mitigation when the criteria are approached or exceeded. Compliance with the noise regulations is a prerequisite for the granting of Federal-aid highway funds for construction or reconstruction of a highway. (FHWA, 2017)

5. Construction-Related Hearing Conservation

The Occupational Safety and Health Administration (OSHA) hearing conservation program is designed to protect workers with significant occupational noise exposures from hearing impairment even if they are subject to such noise exposures over their entire working lifetimes. Standard 29 CFR, Part 1910 indicates the noise levels under which a hearing conservation program is required to be provided to workers exposed to high noise levels. (OSHA, 2002) This analysis does not evaluate the noise exposure of construction workers within the Project site based on CEQA requirements, and instead, evaluates the Project-related construction noise levels at the nearby sensitive receiver locations in the Project study area. Further, periodic exposure to high noise levels in short duration, such as Project construction, is typically considered an annoyance and not impactful to human health. It would take several years of exposure to high noise levels to result in hearing impairment.

B. State Regulations

1. Building Standards Code

The State of California's noise insulation standards are codified in the California Code of Regulations, Title 24, Building Standards Administrative Code, Part 2, and the California Building Standards Code. These noise standards are applied to new construction in California for the purpose of controlling interior noise levels resulting from exterior noise sources. The regulations specify that acoustical studies must be prepared when noise-sensitive structures, such as residential buildings, schools, or hospitals, are developed near major transportation noise sources, and where such noise sources create an exterior noise level of 60 dBA CNEL or higher. Acoustical studies that accompany building plans for noise-sensitive land uses must demonstrate that the structure has been designed to limit interior noise in habitable rooms to acceptable noise levels. For new residential buildings, schools, and hospitals, the acceptable interior noise limit for new construction is 45 dBA CNEL. (BSC, n.d.)

2. California Noise Insulation Standards

The California Noise Insulation Standards (CCR Title 25 Section 1092) establish uniform minimum noise insulation performance standards for new hotels, motels, dormitories, apartment houses, and dwellings other than detached single-family dwellings. Specifically, Title 25 specifies that interior noise levels attributable to exterior sources shall not exceed 45 dBA Ldn/CNEL (i.e., the same levels that the EPA recommends for residential interiors) in any habitable room of a new dwelling. An acoustical study must be prepared for proposed multiple unit residential and hotel/motel structures where outdoor Ldn/CNEL is 60 dBA or greater. The study must demonstrate that the design of the building would reduce interior noise to 45 dBA Ldn/CNEL or lower. Because noise levels can increase over time in developing areas, Title 25 also specifies that dwellings are to be designed so that interior noise levels will meet this standard for at least ten years from the time of building permit application. (MLA, n.d.)

3. OPR General Plan Guidelines

Though not adopted by law, the 2017 California General Plan Guidelines, published by the California Governor's Office of Planning and Research (OPR), provides guidance for local agencies in preparing or updating General Plans. The Guidelines provide direction on the required Noise Element portion of the General Plans. The purpose of the Noise Element is to limit the exposure of the community to excessive noise levels. Local governments must "analyze and quantify" noise levels and the extent of noise exposure through

actual measurement or the use of noise modeling. Technical data relating to mobile and point sources must be collected and synthesized into a set of noise control policies and programs that "minimizes the exposure of community residents to excessive noise." Noise level contours must be mapped and the conclusions of the element used as a basis for land use decisions. The element must include implementation measures and possible solutions to existing and foreseeable noise problems. Furthermore, the policies and standards must be sufficient to serve as a guideline for compliance with sound transmission control requirements. The noise element directly correlates to the Land Use, Circulation, and Housing Elements. The Noise Element must be used to guide decisions concerning land use and the location of new roads and transit facilities since these are common sources of excessive noise levels. The noise levels from existing land uses, including mining, agricultural, and industrial activities, must be closely analyzed to ensure compatibility, especially where residential and other sensitive receptors have encroached into areas previously occupied by these uses. (OPR, 2017a, pp. 131-132)

C. Local Regulations

1. Riverside County General Plan Noise Element

The County of Riverside has adopted a Noise Element of the General Plan to control and abate environmental noise, and to protect the citizens of the County of Riverside from excessive exposure to noise. The Noise Element specifies the maximum allowable exterior noise levels for new developments impacted by transportation noise sources such as arterial roads, freeways, airports, and railroads. In addition, the Noise Element identifies several polices to minimize the impacts of excessive noise levels throughout the community and establishes noise level requirements for all land uses. To protect County of Riverside residents from excessive noise, the Noise Element contains the following policies related to the Project:

N 1.1 Protect noise-sensitive land uses from high levels of noise by restricting noise-producing land uses from these areas. If the noise-producing land use cannot be relocated, then noise buffers such as setbacks, landscaping, or block walls shall be used.

N 1.2 Guide noise-tolerant land uses into areas irrevocably committed to land uses that are noise-producing, such as transportation corridors or within the projected noise contours of any adjacent airports.

N 1.3 Consider the following uses noise-sensitive and discourage these uses in areas in excess of 65 CNEL:

- *Schools*
- *Hospitals*
- *Rest Homes*
- *Long Term Care Facilities*
- *Mental Care Facilities*
- *Residential Uses*
- *Libraries*
- *Passive Recreation Uses*
- *Places of Worship*

N 1.4 Determine if existing land uses will present noise compatibility issues with proposed projects by undertaking site surveys.

N 1.5 Prevent and mitigate the adverse impacts of excessive noise exposure on the residents, employees, visitors, and noise-sensitive uses of Riverside County.

N 1.7 Require proposed land uses, affected by unacceptably high noise levels, to have an acoustical specialist prepare a study of the noise problems and recommend structural and site design features that will adequately mitigate the noise problem.

N 2.3 Mitigate exterior and interior noises to the levels listed in Table N-2 (Table 4.13-3 below) below to the extent feasible, for stationary sources:

Table 4.13-3 Stationary Source Land Use Noise Standards (Residential)

Time	Interior Standards	Exterior Standards
10:00 p.m. to 7:00 a.m.	40 L_{eq} (10 minute)	45 L_{eq} (10 minute)
7:00 a.m. to 10:00 p.m.	55 L_{eq} (10 minute)	65 L_{eq} (10 minute)

N 3.3 Ensure compatibility between industrial development and adjacent land uses. To achieve compatibility, industrial development projects may be required to include noise mitigation measures to avoid or minimize project impacts on adjacent uses.

N 4.1 Prohibit facility-related noise, received by any sensitive use, from exceeding the following worst-case noise levels:

a. 45 dBA 10-minute Leq between 10:00 p.m. and 7:00 a.m.;
b. 65 dBA 10-minute Leq between 7:00 a.m. and 10:00 p.m.

N 4.2 Develop measures to control non-transportation noise impacts.

N 4.3 Ensure any use determined to be a potential generator of significant stationary noise impacts be properly analyzed and ensure that the recommended mitigation measures are implemented.

N 4.5 Encourage major stationary noise-generating sources throughout the County of Riverside to install additional noise buffering or reduction mechanisms within their facilities to reduce noise generation levels to the lowest extent practicable prior to the renewal of conditional use permits or business license or prior to the approval and/or issuance of new conditional use permits for said facilities.

N 4.8 Require that the parking structures, terminals, and loading docks of commercial or industrial land uses be designed to minimize the potential noise impacts of vehicles on the site as well as on adjacent land uses.

N 6.3 Require commercial or industrial truck delivery hours be limited when adjacent to noise sensitive land uses unless there is no feasible alternative or there are overriding transportation benefits.

N 12.1 Utilize natural barrier such as hills, berms, boulders, and dense vegetation to assist in noise reduction.

N 13.1 Minimize the impacts of construction noise on adjacent uses within acceptable standards.

N 13.2 Ensure that construction activities are regulated to establish hours of operation in order to prevent and/or mitigate the generation of excessive or adverse impacts on surrounding areas.

N 13.3 Condition subdivision approval adjacent to developed/occupied noise-sensitive land uses (see policy N 1.3) by requiring the developer to submit a construction-related noise mitigation plan to the [County] for review and approval prior to issuance of a grading permit. The plan must depict the location of construction equipment and how the noise from this equipment will be mitigated during construction of this project, through the use of such methods as:

i. Temporary noise attenuation fences;
ii. Preferential location and equipment; and
iii. Use of current noise suppression technology and equipment.

N 13.4 Require that all construction equipment utilizes noise reduction features (e.g. mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer.

N 14.1 Enforce the California Building Standards that sets standards for building construction to mitigate interior noise levels to the tolerable 45 CNEL limit. These standards are utilized in conjunction with the Uniform Building Code by the County's Building Department to ensure that noise protection is provided to the public. Some design features may include extra-dense insulation, double-paned windows, and dense construction materials.

N 14.3 Incorporate acoustic site planning into the design of new development, particularly large scale, mixed-use, or master planned development, through measures which may include:

- *Separation of noise sensitive building from noise generating sources.*
- *Use of natural topography and intervening structures to shield noise sensitive land uses.*
- *Adequate sound proofing within the receiving structure.*

N 14.4 Consider and, when necessary, to lower noise to acceptable limits, require noise barriers and landscaped berms.

N 14.5 Consider the issue of adjacent residential land uses when designing and configuring all new, nonresidential development. Design and configure on site ingress and egress points that divert traffic away from nearby noise sensitive land uses to the greatest degree practicable.

N 14.8 Review all development applications for consistency with the standards and policies of the Noise Element of the General Plan.

N 16.2 Consider the following land uses sensitive to vibration:

- *Hospitals*
- *Residential areas*
- *Concert halls*
- *Libraries*
- *Sensitive research operations*

- *Schools*
- *Offices*

N 16.3 Prohibit exposure of residential dwellings to perceptible ground vibration from passing trains as perceived at the ground or second floor. Perceptible motion shall be presumed to be a motion velocity of 0.01 inches/second over a range of 1 to 100 Hz.

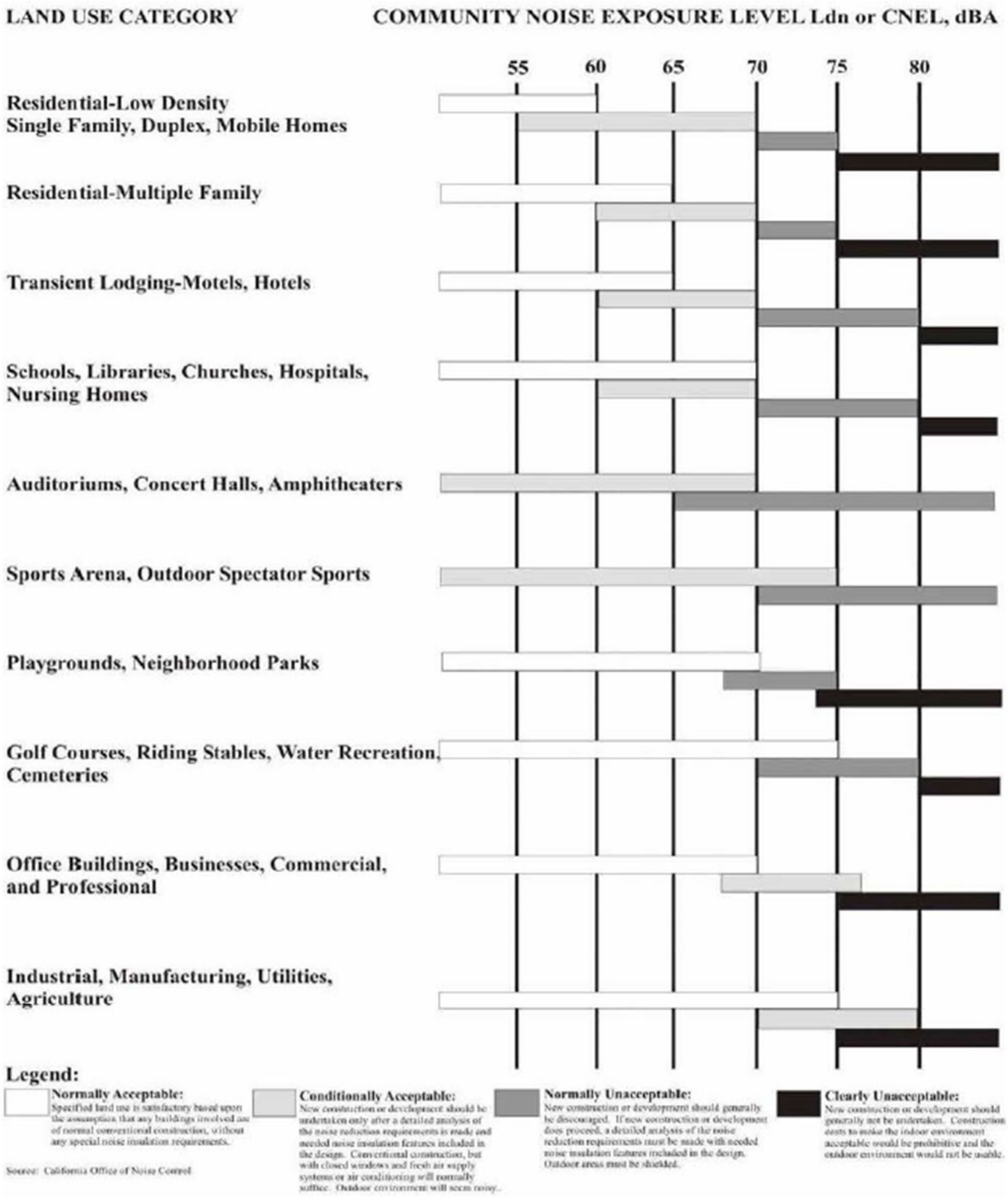
To ensure noise-sensitive land uses are protected from high levels of noise (N 1.1), Table N-1 of the Noise Element identifies guidelines to evaluate proposed developments based on exterior and interior noise level limits for land uses and requires a noise analysis to determine needed mitigation measures if necessary. The Noise Element identifies residential use as a noise-sensitive land use (N 1.3) and discourages new development in areas with transportation related levels of 65 dBA CNEL or greater existing ambient noise levels. To prevent and mitigate noise impacts for its residents (N 1.5), County of Riverside requires noise attenuation measures for sensitive land use exposed to transportation related noise levels higher than 65 dBA CNEL. In addition, the County of Riverside had adopted an interior noise level limit of 45 dBA CNEL (N 14.1). (Urban Crossroads, 2021d, p. 17)

Policy N 4.1 of the Noise Element sets a stationary-source exterior noise limit to not to be exceeded for a cumulative period of more than ten minutes in any hour of 65 dBA Leq for daytime hours of 7:00 a.m. to 10:00 p.m., and 45 dBA Leq during the noise-sensitive nighttime hours of 10:00 p.m. to 7:00 a.m. To prevent high levels of construction noise from impacting noise-sensitive land uses, policies N 13.1 through 13.3 identify construction noise mitigation requirements for new development located near existing noise-sensitive land uses. Policy N 16.3 establishes the vibration perception threshold for rail-related vibration levels, used in this analysis as a threshold for determining potential vibration impacts due to Project construction. (Urban Crossroads, 2021d, p. 17)

Land Use Compatibility

The noise criteria identified in the County of Riverside Noise Element (Table N-1) are guidelines to evaluate the land use compatibility of transportation related noise. The compatibility criteria, shown on Table 4.13-4, *Land Use Compatibility for Community Nosie Exposure*, provides the County with a planning tool to gauge the compatibility of land uses relative to existing and future exterior noise levels. The Land Use Compatibility for Community Noise Exposure matrix describes categories of compatibility and not specific noise standards. The Project's single-family residential land use within Planning Areas 1 to 5 is considered normally acceptable with exterior noise levels below 60 dBA CNEL, conditionally acceptable with exterior noise levels of up to 70 dBA CNEL, and normally unacceptable with exterior noise levels of up to 75 dBA CNEL. The Project's multi-family residential land use within Planning Area 6 is considered normally acceptable with exterior noise levels below 65 dBA CNEL, conditionally acceptable with exterior noise levels of up to 70 dBA CNEL and normally *unacceptable* with exterior noise levels of up to 75 dBA CNEL. The Project's commercial retail land use is considered *normally acceptable* with exterior noise levels below 70 dBA CNEL, *conditionally acceptable* with exterior noise levels up to 77 dBA CNEL and *clearly unacceptable* with exterior noise levels above up to 75 dBA CNEL. (Urban Crossroads, 2021d, p. 17)

Table 4.13-4 Land Use Compatibility for Community Nosie Exposure



Source: County of Riverside General Plan Noise Element, Table N-1.

(Urban Crossroads, 2021d, Figure 3-A)

2. Construction Noise Standards

To control noise impacts associated with the construction of projects, such as the proposed Project, Riverside County has established limits to the hours of operation. Section 2.i of Riverside County Ordinance No. 847 (herein, "Noise Ordinance") indicates that noise associated with any private construction activity located within one-quarter of a mile from an inhabited dwelling is considered exempt between the hours of 6:00 a.m. and 6:00 p.m., during the months of June through September, and 7:00 a.m. and 6:00 p.m., during the months of October through May. Neither the County's General Plan nor Municipal Code establish numeric maximum acceptable construction source noise levels at potentially affected receivers, which would allow for a quantified determination of what CEQA constitutes a substantial temporary or periodic noise increase. Therefore, a numerical construction threshold based on Federal Transit Administration (FTA) *Transit Noise and Vibration Impact Assessment Manual* is used for analysis of daytime construction impacts, as discussed below. (Urban Crossroads, 2021d, pp. 19-20)

According to the FTA, local noise ordinances are typically not very useful in evaluating construction noise. They usually relate to nuisance and hours of allowed activity, and sometimes specify limits in terms of maximum levels, but are generally not practical for assessing the impact of a construction project. Project construction noise criteria should account for the existing noise environment, the absolute noise levels during construction activities, the duration of the construction, and the adjacent land use. Due to the lack of standardized construction noise thresholds, the FTA provides guidelines that can be considered reasonable criteria for construction noise assessment. The FTA considers a daytime exterior construction noise level of 80 dBA Leq as a reasonable threshold for noise sensitive residential land use. (Urban Crossroads, 2021d, p. 20)

3. Construction Vibration Standards

Construction activity can result in varying degrees of ground-borne vibration, depending on the equipment and methods used, distance to the affected structures and soil type. Construction vibration is generally associated with pile driving and rock blasting. Other construction equipment such as air compressors, light trucks, hydraulic loaders, etc., generate little or no ground vibration. Occasionally large bulldozers and loaded trucks can cause perceptible vibration levels at close proximity. (Urban Crossroads, 2021d, p. 20)

The County of Riverside does not have vibration standards for temporary construction, but the County's General Plan Noise Element does contain the human reaction to typical vibration levels. Vibration levels with peak particle velocity of 0.0787 inches per second are considered readily perceptible and above 0.1968 in/sec are considered annoying to people in buildings. Further, County of Riverside General Plan Policy N 16.3 identifies a motion velocity perception threshold for vibration due to passing trains of 0.01 inches per second (in/sec) over the range of one to 100 Hz, which is used herein to assess potential impacts due to Project construction vibration levels. (Urban Crossroads, 2021d, p. 20)

4. Operational Noise Standards

The County of Riverside has set stationary-source hourly average Leq exterior noise limits to control roof-top air conditioning units, drive-through speakerphones, parking lot vehicle movements, loading docks, and sports park activities associated with the development of the proposed Project. These Project-related stationary noises, as projected to any portion of any surrounding property containing a habitable dwelling, hospital,

school, library, or nursing home, must not exceed the following worst-case noise levels. Policy N 4.1 of the County of Riverside General Plan Noise Element sets a stationary-source average Leq exterior noise limit not to be exceeded for a cumulative period of more than ten minutes in any hour of 65 dBA Leq for daytime hours of 7:00 a.m. to 10:00 p.m., and 45 dBA Leq during the noise-sensitive nighttime hours of 10:00 p.m. to 7:00 a.m. (Urban Crossroads, 2021d, p. 19)

However, Riverside County Ordinance No. 847 identifies lower, more restrictive exterior noise level standards, which for the purpose of analysis herein are used to evaluate potential Project-related operational noise level limits instead of the higher the General Plan exterior noise level standards previously identified. The County of Riverside Municipal Code identifies exterior noise level limits of 55 dBA Leq during the daytime hours of 7:00 a.m. to 10:00 p.m., and 45 dBA Leq during the noise-sensitive nighttime hours of 10:00 p.m. to 7:00 a.m. for noise-sensitive uses. A copy of Ordinance No. 847 is included in Appendix 3.1 to the Project's NIA (*Technical Appendix J*). (Urban Crossroads, 2021d, p. 19)

Based on consultation with the County of Riverside Department of Environmental Health (DEH), Office of Industrial Hygiene (OIH), it is important to recognize that the County of Riverside Municipal Code noise level standards incorrectly identify maximum noise level (Lmax) standards that should instead reflect the average Leq noise levels. Moreover, the County of Riverside DEH OIH's April 15th, 2015, *Requirements for Determining and Mitigating, Non-Transportation Noise Source Impacts to Residential Properties*, also identifies operational (stationary-source) noise level limits using the Leq metric, consistent with the direction of the County of Riverside General Plan guidelines and standards provided in the Noise Element. Therefore, the Project's NIA (*Technical Appendix J*) has been prepared consistent with direction of the County of Riverside DEH OIH guidelines and standards using the Municipal Code average Leq noise level metric for stationary-source (operational) noise level evaluation. Thus, operational noise levels would be significant if they expose residentially-designated properties to noise levels exceeding 55 dBA Leq for daytime hours of 7:00 a.m. to 10:00 p.m., and 45 dBA Leq during the noise-sensitive nighttime hours of 10:00 p.m. to 7:00 a.m. (Urban Crossroads, 2021d, p. 19)

4.13.4 Basis for Determining Significance

A. Significance Thresholds

Section XIII of Appendix G to the State CEQA Guidelines, as updated in December 2018, addresses typical adverse effects due to noise, and includes the following threshold questions to evaluate the Project's impacts due to noise (OPR, 2018a):

- Would the project result in the generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?
- Would the project result in the generation of excessive groundborne vibration or noise levels?
- For a project located within the vicinity of a private airstrip or an airport land use plan, or where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

The following thresholds are derived from Riverside County's Environmental Assessment Checklist, are based on the 2018 updates to the State CEQA Guidelines, and are used to evaluate the significance of impacts due to noise:

a. *For a project located within an airport land use plan or, where such a plan has not been adopted, within two (2) miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels;*

b. *For a project located within the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels;*

c. *Result in the generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan, noise ordinance, or applicable standards of other agencies; or*

d. *Result in the generation of excessive ground-borne vibration or ground-borne noise levels?*

The significance thresholds set forth in Riverside County's Environmental Assessment Checklist, as modified/updated per the 2018 updates to the State CEQA Guidelines, were used to evaluate the significance of the proposed Project's impacts due to noise.

B. Noise Level Increases

Noise level increases resulting from the Project are evaluated based on the Appendix G to the State CEQA Guidelines at the closest sensitive receiver locations. Under CEQA, consideration must be given to the magnitude of the increase, the existing ambient noise levels, and the location of noise-sensitive receivers to determine if a noise increase represents a significant adverse environmental impact. This approach recognizes that there is no single noise increase that renders the noise impact significant. This is primarily because of the wide variation in individual thresholds of annoyance and differing individual experiences with noise. Thus, an important way of determining a person's subjective reaction to a new noise is the comparison of it to the existing environment to which one has adapted – the so-called "ambient environment." (Urban Crossroads, 2021d, p. 21)

In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will typically be judged. The Federal Interagency Committee on Noise (FICON) developed guidance to be used for the assessment of project-generated increases in noise levels that consider the ambient noise level. The FICON recommendations are based on studies that relate aircraft noise levels to the percentage of persons highly annoyed by aircraft noise. Although the FICON recommendations were specifically developed to assess aircraft noise impacts, these recommendations are often used in environmental noise impact assessments involving the use of cumulative noise exposure metrics, such as the average-daily noise level (CNEL) and equivalent continuous noise level (Leq). The FICON guidance provides an established source of criteria to assess the impacts of substantial temporary or permanent increase in ambient noise levels. Based on the FICON criteria, the amount to which a given noise level increase is considered acceptable is reduced when the without Project noise levels are already shown to exceed certain land-use specific exterior noise level criteria. The specific levels are based on typical responses to noise level increases of 5 dBA (or readily

perceptible), 3 dBA (or barely perceptible), and 1.5 dBA depending on the underlying without Project noise levels for noise sensitive uses. These levels of increases and their perceived acceptance are consistent with guidance provided by both the FHWA and Caltrans. (Urban Crossroads, 2021d, pp. 21-22)

C. *Vibration*

For vibration impacts originating from the construction of the proposed Project, vibration-generating activities are appropriately evaluated the thresholds of significance outlined in the County of Riverside General Plan. These guidelines identify a motion velocity perception threshold for vibration due to passing trains of 0.01 inches per second (in/sec) over the range of one to 100 Hz, which is used herein to assess potential impacts due to Project construction vibration levels. (Urban Crossroads, 2021d, p. 22)

D. *Significance Criteria Summary*

Table 4.13-5, *Significance Criteria Summary*, provides a summary of the significance criteria utilized herein to evaluate the Project's potential impacts due to noise. Noise impacts would be considered significant if any of the conditions listed in Table 4.13-5 would occur as a direct result of the proposed Project. (Urban Crossroads, 2021d, p. 23)

Table 4.13-5 Significance Criteria Summary

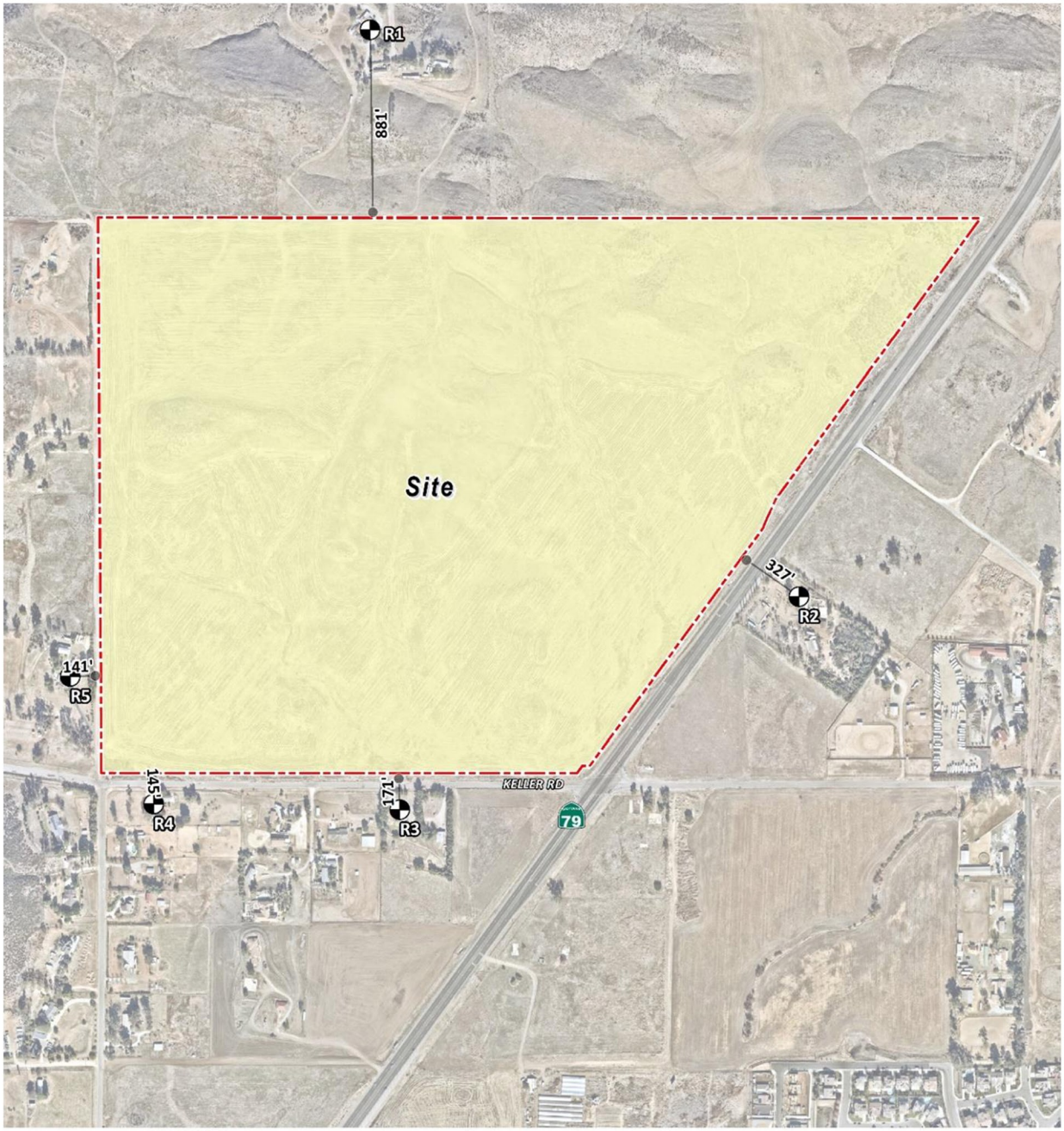
Analysis	Condition(s)	Significance Criteria	
		Daytime	Nighttime
Off-Site Traffic[1]	If ambient is < 60 dBA CNEL	≥ 5 dBA CNEL Project increase	
	If ambient is 60 - 65 dBA CNEL	≥ 3 dBA CNEL Project increase	
	If ambient is > 65 dBA CNEL	≥ 1.5 dBA CNEL Project increase	
On-Site Traffic[2]	Exterior Noise Level Criteria	65 dBA CNEL	
	Interior Noise Level Standard	45 dBA CNEL	
Operational	Exterior Noise Level Standards[3]	55 dBA L_{eq}	45 dBA L_{eq}
	If ambient is < 60 dBA Leq[1]	≥ 5 dBA L_{eq} Project increase	
	If ambient is 60 - 65 dBA Leq[1]	≥ 3 dBA L_{eq} Project increase	
	If ambient is > 65 dBA Leq[1]	≥ 1.5 dBA L_{eq} Project increase	
Construction	Noise Level Threshold[4]	80 dBA L_{eq}	
	Vibration Level Threshold[5]	0.01 in/sec RMS	

(Urban Crossroads, 2021d, Table 4-1)

4.13.5 Methodology for Calculating Project-Related Noise Impacts

A. *Sensitive Receptors*

To assess the potential for long-term operational and short-term construction noise impacts, the following sensitive receiver locations, as shown on Figure 4.13-4, *Receiver Locations*, were identified as representative



Source: **Urban Crossroads (07-09-2021)**

Figure 4.13-4

Not to Scale

Receiver Locations

locations for analysis. Sensitive receivers are generally defined as locations where people reside or where the presence of unwanted sound could otherwise adversely affect the use of the land. Noise-sensitive land uses are generally considered to include schools, hospitals, single-family dwellings, mobile home parks, churches, libraries, and recreation areas. Moderately noise sensitive land uses typically include multi-family dwellings, hotels, motels, dormitories, outpatient clinics, cemeteries, golf courses, country clubs, athletic/tennis clubs, and equestrian clubs. Land uses that are considered relatively insensitive to noise include business, commercial, and professional developments. Land uses that are typically not affected by noise include: industrial, manufacturing, utilities, agriculture, undeveloped land, parking lots, warehousing, liquid and solid waste facilities, salvage yards, and transit terminals. (Urban Crossroads, 2021d, p. 55)

To describe the potential off-site Project noise levels, five receiver locations in the vicinity of the Project site were identified. All distances are measured from the Project site boundary to the outdoor living areas (e.g., private backyards) or at the building façade, whichever is closer to the Project site. The selection of receiver locations is based on FHWA guidelines and is consistent with additional guidance provided by Caltrans and the FTA, as previously described in subsection 4.13.2.B. Other sensitive land uses in the Project study area that are located at greater distances than those identified herein the noise study would experience lower noise levels than those presented due to the additional attenuation from distance and the shielding of intervening structures. Distance is measured in a straight line from the Project boundary to each receiver location. (Urban Crossroads, 2021d, p. 55)

- R1: Location R1 represents the existing noise-sensitive residence at 33245 Ashford Lane, approximately 881 feet north of the Project site. Since there are no private outdoor living areas (backyards) facing the Project site, receiver R1 is placed at the residential building façade. A 24-hour noise measurement was taken near this location, L5, to describe the existing ambient noise environment. (Urban Crossroads, 2021d, p. 55)
- R2: Location R2 represents the existing noise-sensitive residence at 33900 Winchester Road, approximately 327 feet east of the Project site. Since there are no private outdoor living areas (backyards) facing the Project site, receiver R2 is placed at the residential building façade. A 24-hour noise measurement was taken near this location, L1, to describe the existing ambient noise environment. (Urban Crossroads, 2021d, p. 55)
- R3: Location R3 represents the existing noise-sensitive residence at 32265 Keller Road, approximately 171 feet south of the Project site. Since there are no private outdoor living areas (backyards) facing the Project site, receiver R3 is placed at the residential building façade. A 24-hour noise measurement near this location, L2, is used to describe the existing ambient noise environment. (Urban Crossroads, 2021d, p. 55)
- R4: Location R4 represents the existing noise-sensitive residence at 32025 Keller Road, approximately 145 feet south of the Project site. Since there are no private outdoor living areas (backyards) facing the Project site, receiver R4 is placed at the residential building façade. A 24-hour noise measurement near this location, L3, is used to describe the existing ambient noise environment. (Urban Crossroads, 2021d, pp. 55-56)
- R5: Location R5 represents the existing noise-sensitive residence at 33975 Pourroy Road, approximately 141 feet west of the Project site. R5 is placed at the private outdoor living areas

(backyard) facing the Project site. A 24-hour noise measurement near this location, L5, is used to describe the existing ambient noise environment. (Urban Crossroads, 2021d, p. 56)

B. Construction Noise Methodology

1. Typical Construction Reference Noise Levels

Noise generated by the Project construction equipment would include a combination of trucks, power tools, concrete mixers, and portable generators that when combined can reach high levels. The number and mix of construction equipment are expected to occur in the following stages: (Urban Crossroads, 2021d, p. 63)

- Site Preparation
- Grading
- Building Construction
- Paving
- Architectural Coating

To describe peak construction noise activities, the construction noise analysis was prepared using reference noise level measurements published in the Update of Noise Database for Prediction of Noise on Construction and Open Sites by the Department for Environment, Food and Rural Affairs (DEFRA). The DEFRA database provides the most recent and comprehensive source of reference construction noise levels. Table 4.13-6, *Construction Reference Noise Level,* provides a summary of the DEFRA construction reference noise level measurements expressed in hourly average dBA Leq using the estimated FHWA Roadway Construction Noise Model (RCNM) usage factors to describe the typical construction activities for each stage of Project construction. (Urban Crossroads, 2021d, p. 63)

2. Construction Vibration Assessment Methodology

Construction activity can result in varying degrees of ground vibration, depending on the equipment and methods used, distance to the affected structures and soil type. It is expected that ground-borne vibration from Project construction activities would cause only intermittent, localized intrusion. Ground-borne vibration levels resulting from typical construction activities occurring within the Project site were estimated by data published by the Federal Transit Administration (FTA). However, while vehicular traffic is rarely perceptible, construction has the potential to result in varying degrees of temporary ground vibration, depending on the specific construction activities and equipment used. Ground vibration levels associated with various types of construction equipment are summarized on Table 4.13-7, *Vibration Source Levels for Construction Equipment.* Based on the representative vibration levels presented for various construction equipment types, it is possible to estimate the potential Project construction vibration levels using the vibration assessment methods defined by the FTA, as more fully described in subsection 11.5 of the Project's NIA (*Technical Appendix J* to this EIR). (Urban Crossroads, 2021d, p. 67)

Table 4.13-6 Construction Reference Noise Levels

Construction Stage	Reference Construction Activity[1]	Reference Noise Level @ 50 Feet (dBA L_{eq})[1]	Highest Reference Noise Level (dBA L_{eq})
Site Preparation	Crawler Tractors	77	77
	Hauling Trucks	71	
	Rubber Tired Dozers	71	
Grading	Graders	79	79
	Excavators	64	
	Compactors	67	
Building Construction	Cranes	67	72
	Tractors	72	
	Welders	65	
Paving	Pavers	70	70
	Paving Equipment	69	
	Rollers	69	
Architectural Coating	Cranes	67	67
	Air Compressors	67	
	Generator Sets	67	

(Urban Crossroads, 2021d , p. 63)

Table 4.13-7 Vibration Source Levels for Construction Equipment

Equipment	PPV (in/sec) at 25 feet
Small bulldozer	0.003
Jackhammer	0.035
Loaded Trucks	0.076
Large bulldozer	0.089

(Urban Crossroads, 2021d, p. 65)

C. Operational Noise Methodology

1. Operational Noise Sources

The on-site Project-related noise sources are expected to include a combination of commercial retail land use noise source activities. This includes delivery truck movements, loading dock activities, roof-top air conditioning units, drive-thru speakerphones, parking lot vehicle movements, and other noise activities unique to the individual land uses and tenants. It is expected that the operational noise source activities primarily

would be limited to the commercial retail land uses located within Planning Area 7 of proposed SP 380A1. The residential planning areas within the Keller Crossing Specific Plan are considered noise-sensitive receiving land uses. Therefore, no potential operational noise impacts for the residential land use are analyzed in the Project's NIA. To describe the estimated commercial retail land use noise source activities, a reference sound power level of 103.4 dBA sound power level (Lw) is used. (Urban Crossroads, 2021d, p. 57)

2. CadnaA Noise Prediction Model

To fully describe the exterior operational noise levels from the Project, Urban Crossroads, Inc. developed a noise prediction model using the CadnaA (Computer Aided Noise Abatement) computer program. CadnaA can analyze multiple types of noise sources using the spatially accurate Project site plan, georeferenced Nearmap aerial imagery, topography, buildings, and barriers in its calculations to predict outdoor noise levels. (Urban Crossroads, 2021d, p. 57)

Using the ISO 9613-2 protocol, CadnaA will calculate the distance from each noise source to the noise receiver locations, using the ground absorption, distance, and barrier/building attenuation inputs to provide a summary of noise level at each receiver and the partial noise level contributions by noise source. Consistent with the ISO 9613-2 protocol, the CadnaA noise prediction model relies on the reference sound power level (Lw) to describe individual noise sources. While sound pressure levels (e.g., Leq) quantify in decibels the intensity of given sound sources at a reference distance, sound power levels (Lw) are connected to the sound source and are independent of distance. Sound pressure levels vary substantially with distance from the source and diminish because of intervening obstacles and barriers, air absorption, wind, and other factors. Sound power is the acoustical energy emitted by the sound source and is an absolute value that is not affected by the environment. (Urban Crossroads, 2021d, p. 57)

D. Off-Site Traffic Modeling Methodology

1. Federal Highway Administration Traffic Noise Prediction Model

The expected roadway noise level increases from vehicular traffic were calculated by Urban Crossroads, Inc. using a computer program that replicates the FHWA Traffic Noise Prediction Model FHWA-RD-77-108. The FHWA Model arrives at a predicted noise level through a series of adjustments to the Reference Energy Mean Emission Level (REMEL). In California the national REMELs are substituted with the California Vehicle Noise (Calveno) Emission Levels. Adjustments are then made to the REMEL to account for: the roadway classification (e.g., collector, secondary, major or arterial); the roadway active width (i.e., the distance between the center of the outermost travel lanes on each side of the roadway); the total average daily traffic (ADT); the travel speed; the percentages of automobiles, medium trucks, and heavy trucks in the traffic volume; the roadway grade; the angle of view (e.g., whether the roadway view is blocked); the site conditions ("hard" or "soft" relates to the absorption of the ground, pavement, or landscaping); and the percentage of total ADT which flows each hour throughout a 24-hour period. Research conducted by Caltrans has shown that the use of soft site conditions is appropriate for the application of the FHWA traffic noise prediction model used in the analysis. (Urban Crossroads, 2021d, p. 29)

This methodology is consistent with the County of Riverside Office of Industrial Hygiene *Requirements for Determining and Mitigating Traffic Noise Impacts to Residential Structures*, which specifically requires the

FHWA RD-77-108 model to be used in analyses within the County's jurisdiction. (Urban Crossroads, 2021d, p. 29)

2. Off-Site Traffic Noise Prediction Model Inputs

Table 6-1 of the Project's NIA (*Technical Appendix J*) presents the roadway parameters used to assess the Project's off-site transportation noise impacts and identifies the 24 off-site study area roadway segments, the distance from the centerline to adjacent receiving land use based on the functional roadway classifications per the County of Riverside General Plan Circulation Element, and the vehicle speeds. The ADT volumes used in the Project's NIA presented on Table 6-2 of the Project's NIA are based on the Project's Traffic Study ("TS"; *Technical Appendix L2* to this EIR), which assesses the following traffic scenarios: (Urban Crossroads, 2021d, p. 29)

1. Existing (2021) Conditions Without Project
2. Existing (2021) Conditions With Project (Project Buildout)
3. Existing plus Ambient Growth plus Cumulative (EAC) (2028) Without Project
4. Existing plus Ambient Growth plus Cumulative (EAC) (2028) With Project (Project Buildout)
5. Horizon Year (2040) Without Project
6. Horizon Year (2040) With Project (Project Buildout)

The ADT volumes vary for each roadway segment based on the existing traffic volumes and the combination of project traffic distributions. In addition, the off-site traffic noise analysis maintains a peak hour to average daily traffic (peak-to-daily) relationship of approximately 8.08%. The *County of Riverside General Plan Noise Element* requires that future on-site traffic noise impacts be assessed using the maximum capacity design standard for highways and major roads. However, the analysis herein relies on a comparative analysis of the off-site traffic noise impacts, without and with Project ADT traffic volumes from the Project's TS (*Technical Appendix L2* to this EIR). The use of the maximum capacity design standards is typically reserved for determining the future long range on-site traffic noise impacts, not the comparative contributions associated with the offsite Project traffic noise level impacts. (Urban Crossroads, 2021d, p. 32)

Table 6-3 of the Project's NIA (*Technical Appendix J* to this EIR) provides the time of day (daytime, evening, and nighttime) vehicle splits and Table 6-4 of the NIA presents the traffic flow distributions (vehicle mix) used for the analysis. The vehicle mix provides the hourly distribution percentages of automobile, medium trucks, and heavy trucks for input into the FHWA noise prediction model. (Urban Crossroads, 2021d, p. 32)

3. On-Site Traffic Noise Prediction Model Inputs

Table 6-5 of the Project's NIA (*Technical Appendix J* to this EIR) presents the on-site roadway parameters including the ADT volumes used for the NIA. The on-site roadway parameters are based on the County of Riverside General Plan Circulation Element roadway classifications and consistent with the County of Riverside Office of Industrial Hygiene *Requirements for Determining and Mitigating Traffic Noise Impacts to Residential Structures*. (Urban Crossroads, 2021d, p. 33)

The maximum two-way traffic volumes at a level of service C, shown on Table 6-5 of the Project's NIA (*Technical Appendix J* to this EIR), were obtained from Figure C-3 of the 2008 County of Riverside General

Plan Circulation Element and reflect future long-range traffic conditions needed to assess the on-site traffic noise environment and to identify the appropriate noise mitigation measures that address the worst-case future noise conditions. Consistent with the County of Riverside OIH noise study requirements, hard site conditions were used to analyze the potential on-site traffic noise impacts for the Project study area. Hard site conditions account for the sound propagation loss over a reflective surface between the source and the receiver. (Urban Crossroads, 2021d, p. 33)

4.13.6 IMPACT ANALYSIS

Threshold a:	***Would the Project be located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport would the project expose people residing or working in the project area to excessive noise levels?***
Threshold b:	***For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?***

The Project does not include an airport-related component, and the Project has no potential to contribute to or cause increased airport-related noise in the local area; thus, no direct impact would occur. There are no public airports located within two miles of the Project site. The closest public airport is the French Valley Airport located roughly 3.3 miles southwest of the Project site. According to Map FV-2 of the Riverside County Airport Land Use Compatibility Plan Policy Document, the Project site is located well outside of the 55 dBA CNEL contour for the French Valley Airport, which is considered "normally acceptable" for residential, commercial retail, and recreational land uses pursuant to Table N-1 of the Riverside County General Plan (refer to Table 4.13-4, previously presented). Because the Project site would not be exposed to airport-related noise levels exceeding 55 dBA CNEL, the Project would not expose people residing or working in the area to excessive noise levels associated with operations at the French Valley Airport, and impacts would be less than significant. (RCALUC, 2004, Map FV-2; Google Earth, 2021)

The nearest private airstrip to the Project site is the Pines Airpark, located approximately 0.9-mile northwest of the Project site. However, the Conditional Use Permit (CUP) for the Pines Airpark (CUP 3078 Revision No. 3) was withdrawn on November 15, 2016, and the previously-approved CUP was allowed to expire (Riverside County, 2016). As such, the Pines Airpark is no longer in operation. There are no other private airstrips within the Project vicinity (Google Earth, 2021). Accordingly, the Project would not expose people residing or working in the area to excessive noise levels associated with private airstrips, and no impact would occur.

Threshold c:	***Would the Project result in the generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan, noise ordinance, or applicable standards of other agencies?***

The Project has the potential to result in substantial temporary or periodic noise impacts during Project construction, and has the potential to result in permanent increases in ambient noise levels associated with site operations as well as from Project-related traffic. Each is discussed below.

A. Construction Noise Impacts

Following is an analysis of the potential average dBA Leq impacts resulting from short-term construction activities associated with the development of the Project. Figure 4.13-5, *Typical Construction Noise Source Locations*, shows the construction noise source locations in relation to the nearest sensitive receiver locations previously depicted on Figure 4.13-3.

1. Construction Noise Analysis

Using the reference construction equipment noise levels and the CadnaA noise prediction model, calculations of the Project construction noise level impacts at the nearby sensitive receiver locations were completed. To assess the worst-case construction noise levels, the Project construction noise analysis relies on the highest noise level impacts when the equipment with the highest reference noise level is operating at the closest point from the edge of primary construction activity (Project site boundary) to each receiver location. As shown on Table 4.13-8, *Construction Equipment Noise Level Summary*, the construction noise levels are expected to range from 57.8 to 74.6 dBA Leq, and the highest construction levels are expected to range from 69.8 to 74.6 dBA Leq at the nearby receiver locations. Appendix 11.1 of the Project's NIA (*Technical Appendix J*), includes the detailed CadnaA construction noise model inputs. (Urban Crossroads, 2021d, p. 65)

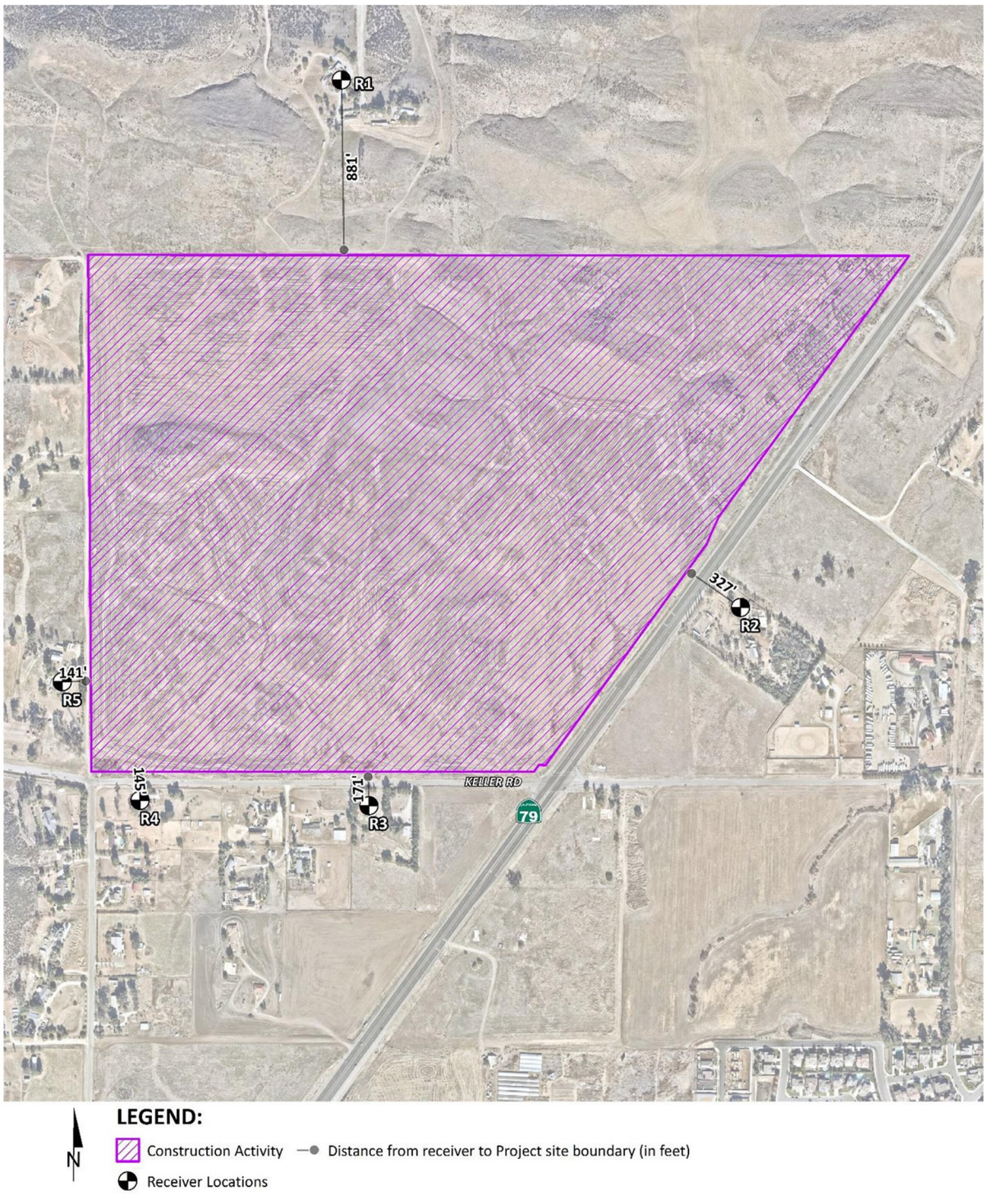
The construction noise analysis presents a conservative approach with the highest noise-level producing equipment for each stage of Project construction operating at the closest point from primary construction activity to the nearby sensitive receiver locations. This scenario is unlikely to occur during typical construction activities and likely overstates the construction noise levels which will be experienced at each receiver location. (Urban Crossroads, 2021d, p. 65)

2. Construction Noise Level Compliance

To evaluate whether the Project would generate potentially significant short-term noise levels at nearest receiver locations, a construction-related daytime noise level threshold of 80 dBA Leq is used as a reasonable threshold to assess the daytime construction noise level impacts. The construction noise analysis shows that the nearest receiver locations would satisfy the reasonable daytime 80 dBA Leq significance threshold during Project construction activities as shown on Table 4.13-9*, Construction Noise Level Compliance.* As such, Project construction-related noise impacts would be less than significant. (Urban Crossroads, 2021d, p. 66)

B. Operational Noise Impacts

Following is an analysis of the potential stationary-source operational noise impacts at the nearest receiver locations, identified previously in subsection 4.13.5.A, resulting from the operation of the proposed Project. Figure 4.13-6, *Operational Noise Source Locations*, identifies the noise source locations used to assess the hourly average Leq operational noise levels consistent with the Riverside County General Plan Noise Element Policy N 4.1. (Urban Crossroads, 2021d, p. 57)



Source(s): Urban Crossroads (07-09-2021)

Figure 4.13-5

Not to Scale

Typical Construction Noise Source Locations

Table 4.13-8 Construction Equipment Noise Level Summary

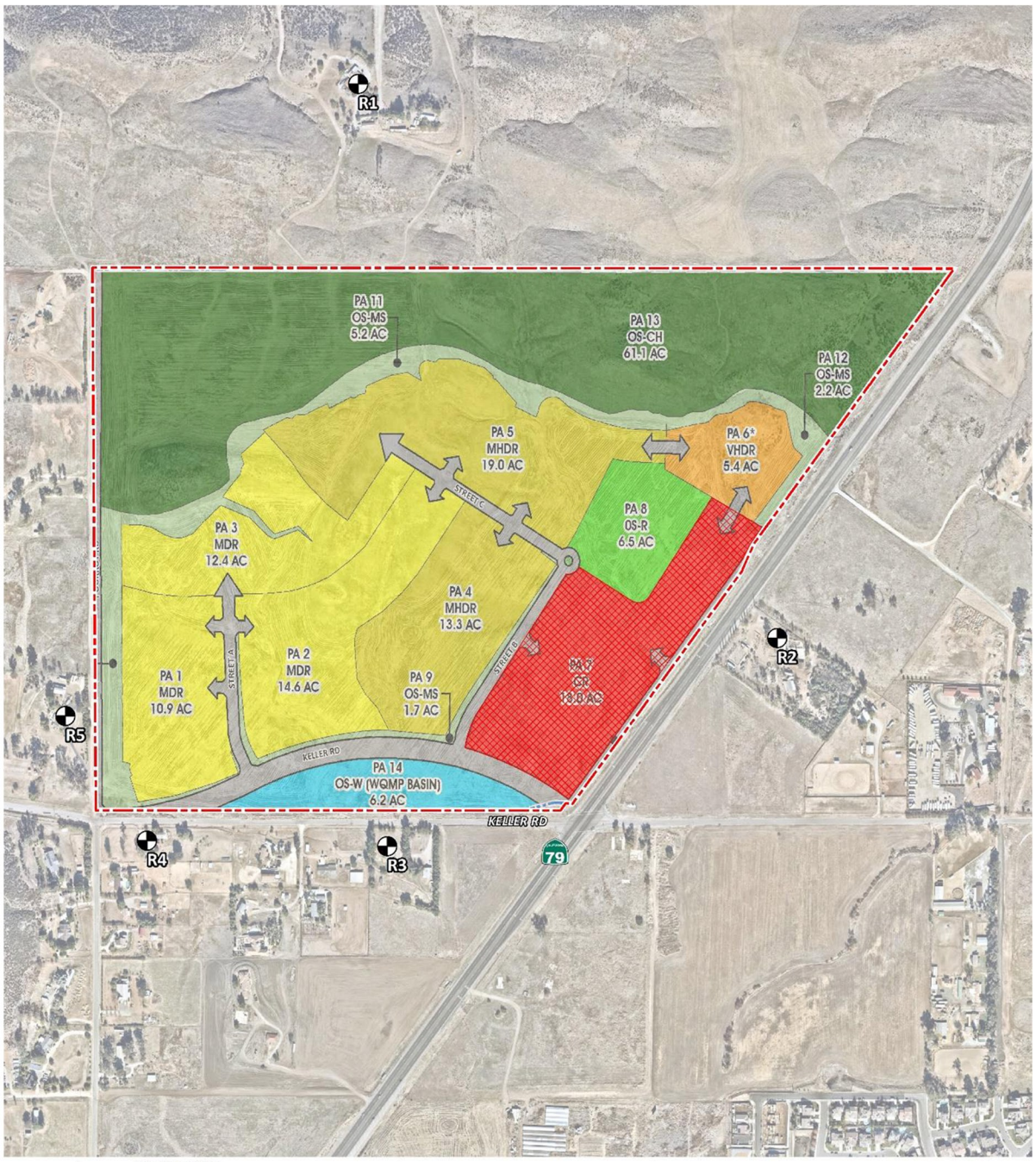
Receiver Location[1]	Construction Noise Levels (dBA L_{eq})					
	Site Preparation	Grading	Building Construction	Paving	Architectural Coating	Highest Levels[2]
R1	67.8	69.8	62.8	60.8	57.8	69.8
R2	71.0	73.0	66.0	64.0	61.0	73.0
R3	72.6	74.6	67.6	65.6	62.6	74.6
R4	72.0	74.0	67.0	65.0	62.0	74.0
R5	72.4	74.4	67.4	65.4	62.4	74.4

[1] Noise receiver locations are shown on Exhibit 11-A of the NIA (*Technical Appendix J)*
[2] Construction noise level calculations based on distance from the construction activity, which is measured from the Project site boundary to the nearest receiver locations. CadnaA construction noise model inputs are included in Appendix 11.1 of the NIA.
(Urban Crossroads, 2021d, Table 11-2)

Table 4.13-9 Construction Noise Level Compliance

Receiver Location[1]	Construction Noise Levels (dBA L_{eq})		
	Highest Construction Noise Levels[2]	Threshold[3]	Threshold Exceeded?[4]
R1	69.8	80	No
R2	73.0	80	No
R3	74.6	80	No
R4	74.0	80	No
R5	74.4	80	No

[1] Noise receiver locations are shown on Figure 4.13-5.
[2] Highest construction noise level calculations based on distance from the construction noise source activity to the nearest receiver locations as shown on Table 4.13-8.
[3] Construction noise level thresholds as shown on Table 4.13-5.
[4] Do the estimated Project construction noise levels exceed the construction noise level threshold?
(Urban Crossroads, 2021d, p. 64)



Source(s): Urban Crossroads (07-09-2021)

Figure 4.13-6

Not to Scale

Operational Noise Source Locations

1. Project Operational Noise Levels

The on-site Project-related noise sources are expected to include a combination of commercial retail land use noise source activities. This includes delivery truck movements, loading dock activities, roof-top air conditioning units, drive-thru speakerphones, parking lot vehicle movements and other noise activities unique to the individual land uses and tenants. Using the reference sound power levels to represent the proposed Project operations, Urban Crossroads, Inc. calculated the operational source noise levels that are expected to be generated at the Project site that would be experienced at each of the sensitive receiver locations. Table 4.13-10, *Project Operational Noise Levels*, shows the Project operational noise levels at the off-site receiver locations are expected to range from 34.4 to 41.1 dBA Leq. (Urban Crossroads, 2021d, pp. 57, 59)

Table 4.13-10 Project Operational Noise Levels

Receiver Location[1]	Project Operational Noise Levels (dBA Leq)[2]	Noise Level Standards (dBA Leq)[3]		Noise Level Standards Exceeded?[4]	
		Daytime	Nighttime	Daytime	Nighttime
R1	31.4	55.0	45.0	No	No
R2	41.1	55.0	45.0	No	No
R3	40.1	55.0	45.0	No	No
R4	34.2	55.0	45.0	No	No
R5	33.1	55.0	45.0	No	No

[1] See Figure 4.13-4 for the receiver locations.
[2] Proposed Project operational noise level calculations are included in Appendix 10.1 of the Project's NIA (*Technical Appendix J)*
[3] County of Riverside Ordinance No. 847 (Appendix 3.1 of the Project's NIA).
[4] Do the estimated Project operational noise source activities exceed the noise level standards?
"Daytime" = 7:00 a.m. to 10:00 p.m; "Nighttime" = 10:00 p.m. to 7:00 a.m.
(Urban Crossroads, 2021d, Table 10-1)

2. Project Operational Noise Level Compliance

To demonstrate compliance with local noise regulations, the Project-only operational noise levels are evaluated against exterior noise level thresholds based on the County of Riverside exterior noise level standards at the nearest noise-sensitive receiver locations. Based on the CadnaA noise prediction model results that account for the noise attenuation due to distance from the noise source activities, Table 4.13-10 shows the operational noise levels associated with the proposed Project would satisfy the County of Riverside 55 dBA Leq daytime and 45 dBA Leq nighttime exterior noise level standards at the nearest receiver locations. Therefore, the operational noise impacts would be less than significant at the nearest noise-sensitive receiver locations. (Urban Crossroads, 2021d, p. 59)

3. Project Operational Noise Level Contributions

To describe the Project operational noise level increases, the Project operational noise levels are combined with the existing ambient noise levels measurements for the nearest receiver locations potentially impacted by Project operational noise sources. Since the units used to measure noise, decibels (dB), are logarithmic units, the Project-operational and existing ambient noise levels cannot be combined using standard arithmetic

equations. Instead, they must be logarithmically added using the formula presented in Subsection 10.5 of the Project's NIA (*Technical Appendix J*). (Urban Crossroads, 2021d, p. 60)

The difference between the combined Project and ambient noise levels describes the Project noise level increases to the existing ambient noise environment. Noise levels that would be experienced at receiver locations when Project-source noise is added to the daytime and nighttime ambient conditions are presented on Table 4.13-11, *Daytime Project Operational Noise Level Increases*, and Table 4.13-12, *Nighttime Operational Noise Level Increases*, respectively. Table 4.13-11 shows that the Project would not generate a measurable daytime operational noise level increase at the nearest receiver locations. Table 4.13-12 shows that the Project would generate a nighttime operational noise level increases ranging from 0.0 to 4.8 dBA Leq at the nearest receiver locations. (Urban Crossroads, 2021d, p. 60)

Based on the significance criteria presented in Table 4.13-5, the Project-related operational noise level increases would satisfy the operational noise level increase criteria at the nearest sensitive receiver locations and Project-related operational noise impacts would be less than significant. (Urban Crossroads, 2021d, p. 60)

C. *Off-Site Transportation Noise Impacts*

To assess the off-site transportation CNEL noise level impacts associated with development of the proposed Project, noise contours were developed based on the Project's TS (*Technical Appendix L2* to this EIR). Noise contour boundaries represent the equal levels of noise exposure and are measured in CNEL from the center of the roadway. The noise contours do not consider the effect of any existing noise barriers or topography that may attenuate ambient noise levels. In addition, because the noise contours reflect modeling of vehicular noise on area roadways, they appropriately do not reflect noise contributions from the surrounding stationary noise

Table 4.13-11 Daytime Project Operational Noise Level Increases

Receiver Location[1]	Total Project Operational Noise Level[2]	Measurement Location[3]	Reference Ambient Noise Levels[4]	Combined Project and Ambient[5]	Project Increase[6]	Increase Criteria[7]	Increase Criteria Exceeded?
R1	31.4	L1	46.8	46.9	0.1	5.0	No
R2	41.1	L2	56.5	56.6	0.1	5.0	No
R3	40.1	L3	64.5	64.5	0.0	3.0	No
R4	34.2	L4	55.9	55.9	0.0	5.0	No
R5	33.1	L5	49.7	49.8	0.1	5.0	No

[1] See Figure 4.13-4 for the receiver locations.
[2] Total Project daytime operational levels shown on Table 4.13-10.
[3] Reference noise level measurement locations are shown on Figure 4.13-3.
[4] Observed daytime ambient noise levels as shows on Table 4.13-1.
[5] Represents the combined ambient conditions plus the Project activities.
[6] The noise level increase expected with the addition of the proposed Project activities.
[7] Significance increase criteria as show on Table 4.13-5.
(Urban Crossroads, 2021d, Table 10-2)

Table 4.13-12 Nighttime Operational Noise Level Increases

Receiver Location[1]	Total Project Operational Noise Level[2]	Measurement Location[3]	Reference Ambient Noise Levels[4]	Combined Project and Ambient[5]	Project Increase[6]	Increase Criteria[7]	Increase Criteria Exceeded?
R1	31.4	L5	41.3	41.7	0.4	5.0	No
R2	41.1	L1	38.0	42.8	4.8	5.0	No
R3	40.1	L2	51.9	52.2	0.3	5.0	No
R4	34.2	L3	60.7	60.7	0.0	3.0	No
R5	33.1	L5	41.3	41.9	0.6	5.0	No

[1] See Figure 4.13-4 for the receiver locations.
[2] Total Project nighttime operational levels shown on Table 4.13-10.
[3] Reference noise level measurement locations are shown on Figure 4.13-3.
[4] Observed nighttime ambient noise levels as shows on Table 4.13-1.
[5] Represents the combined ambient conditions plus the Project activities.
[6] The noise level increase expected with the addition of the proposed Project activities.
[7] Significance increase criteria as show on Table 4.13-5.
(Urban Crossroads, 2021d, Table 10-3)

sources within the Project study area. Refer to Subsection 7.1 of the Project's NIA (*Technical Appendix L*) for a discussion of traffic noise contours developed for the Project, which are presented in NIA Tables 7-1 through 7-6. (Urban Crossroads, 2021d, p. 35)

1. Existing (2021) Project Traffic Noise Level Increases

An analysis of existing traffic noise levels plus traffic noise generated by the proposed Project has been included for informational purposes and to fully analyze all the existing traffic scenarios identified in the Project's TS (*Technical Appendix L2* to this EIR). However, the analysis of existing off-site traffic noise levels plus traffic noise generated by the proposed Project would not actually occur since the Project would not be fully constructed and operational until future conditions when the Project is built and fully occupied. Table 7-1 of the Project's NIA (*Technical Appendix J* to this EIR) shows the Existing without Project conditions CNEL noise levels. The Existing without Project exterior noise levels range from 60.7 to 78.9 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 7-2 of the Project's NIA shows the Existing with Project conditions would range from 66.3 to 79.0 dBA CNEL. Table 4.13-13, *Existing (2021) Project Traffic Noise Level* Increases, shows that the Project offsite traffic noise level would range from 0.0 to 5.6 dBA CNEL on the study area roadway segments. (Urban Crossroads, 2021d, p. 42)

Based on the significance criteria for off-site traffic noise previously presented in Table 4.13-5, existing noise sensitive uses on the following study area roadway segment would experience *potentially significant* off-site traffic noise level increases due to the proposed Project traffic under Existing with Project conditions. All other roadway segments would not experience noise level increases under Existing with Project conditions that would exceed the established thresholds of significance. (Urban Crossroads, 2021d, p. 42)

- Keller Road east of Leon Road (Segment #22)

Table 4.13-13 Existing (2021) Project Traffic Noise Level Increases

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[2]			Noise-Sensitive Land Use?	Incremental Noise Level Increase Threshold[3]	
				No Project	With Project	Project Addition		Limit	Exceeded?
1	Menifee Rd.	n/o Scott Rd.	Sensitive	69.1	69.2	0.1	Yes	1.5	No
2	Whitewood Rd.	n/o Clinton Keith Rd.	Sensitive	78.2	78.2	0.0	Yes	1.5	No
3	Whitewood Rd.	s/o Clinton Keith Rd.	Sensitive	77.0	77.0	0.0	Yes	1.5	No
4	Leon Rd.	s/o Scott Rd.	Sensitive	67.5	68.8	1.3	Yes	1.5	No
5	Leon Rd.	s/o Keller Rd.	Sensitive	71.1	71.9	0.8	Yes	1.5	No
6	Leon Rd.	n/o Jean Nicholas Rd.	Sensitive	72.7	73.3	0.6	Yes	1.5	No
7	Leon Rd.	s/o Jean Nicholas Rd.	Sensitive	73.9	74.3	0.4	Yes	1.5	No
8	Winchester Rd. (SR-79)	n/o Domenigoni Pkwy.	Non-Sensitive	76.4	76.4	0.0	No	3.0	No
9	Winchester Rd. (SR-79)	s/o Domenigoni Pkwy.	Sensitive	78.1	78.2	0.1	Yes	1.5	No
10	Winchester Rd. (SR-79)	n/o Scott Rd.	Sensitive	78.1	78.2	0.1	Yes	1.5	No
11	Winchester Rd. (SR-79)	s/o Scott Rd.	Sensitive	75.9	76.0	0.1	Yes	1.5	No
12	Winchester Rd. (SR-79)	n/o Whisper Heights Pkwy./Pourroy Rd.	Sensitive	76.1	76.4	0.3	Yes	1.5	No
13	Winchester Rd. (SR-79)	s/o Whisper Heights Pkwy./Pourroy Rd.	Sensitive	75.9	76.2	0.3	Yes	1.5	No
14	Winchester Rd. (SR-79)	n/o Thompson Rd.	Sensitive	77.4	77.5	0.1	Yes	1.5	No
15	Winchester Rd. (SR-79)	s/o Thompson Rd.	Sensitive	78.8	78.9	0.1	Yes	1.5	No
16	Winchester Rd. (SR-79)	n/o Via Mira Mosa/Auld Rd.	Non-Sensitive	78.3	78.4	0.1	No	3.0	No
17	Winchester Rd. (SR-79)	n/o La Alba Dr./Sparkman Wy.	Sensitive	78.6	78.7	0.1	Yes	1.5	No
18	Winchester Rd. (SR-79)	s/o La Alba Dr./Sparkman Wy.	Sensitive	78.9	78.9	0.0	Yes	1.5	No
19	Scott Rd.	w/o Menifee Rd.	Sensitive	76.8	77.0	0.2	Yes	1.5	No
20	Scott Rd.	e/o Menifee Rd.	Sensitive	76.8	77.1	0.3	Yes	1.5	No
21	Scott Rd.	w/o Leon Rd.	Sensitive	73.6	74.3	0.7	Yes	1.5	No
22	Keller Rd.	e/o Leon Rd.	Sensitive	60.7	66.3	5.6	Yes	3.0	Yes
23	Clinton Keith Rd.	w/o Whitewood Rd.	Sensitive	78.9	79.0	0.1	Yes	1.5	No
24	Clinton Keith Rd.	e/o Whitewood Rd.	Sensitive	78.5	78.7	0.2	Yes	1.5	No

[1] Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.
[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest receiving land use.
[3] Does the Project create an incremental noise level increase exceeding the significance criteria (Table 4.13-5)?
(Urban Crossroads, 2021d, Table 7-7)

2. *Existing Plus Ambient Growth Plus Cumulative (EAC) (2028) Project Traffic Noise Level Increases*

Table 7-4 of the Project's NIA (*Technical Appendix J* to this EIR) presents the EAC (2028) without Project conditions CNEL noise levels. The EAC (2028) without Project exterior noise levels would range from 66.5 to 81.5 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 7-5 of the Project's NIA shows the EAC (2028) with Project conditions would range from 68.8 to 81.6 dBA CNEL. Table 4.13-14, *EAC Project Traffic Noise Level Increases*, shows that the Project off-site traffic noise level increases would range from 0.0 to 2.3 dBA CNEL. Based on the significance criteria for off-site traffic noise presented in Table 4.13-5, existing noise sensitive uses on the following study area roadway segment is shown to experience potentially significant offsite traffic noise level increases due to the proposed Project traffic under EAC (2028) with Project conditions. (Urban Crossroads, 2021d, p. 42)

- Keller Road east of Leon Road (Segment #22)

3. *Horizon Year (2040) Project Traffic Noise Level Increases*

Table 7-5 of the Project's NIA (*Technical Appendix J* to this EIR) presents the Horizon Year 2040 without Project conditions CNEL noise levels. The Horizon Year 2040 without Project exterior noise levels would range from 66.9 to 81.9 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 7-6 of the Project's NIA shows the Horizon Year 2040 with Project conditions would range from 69.0 to 82.0 dBA CNEL. Table 4.13-15, *Horizon Year 2040 Project Traffic Noise Level Increases*, shows that the Project off-site traffic noise level increases would range from 0.0 to 2.1 dBA CNEL. Based on the significance criteria for off-site traffic noise previously presented in Table 4.13-5, existing noise sensitive uses on the following study area roadway segment is shown to experience potentially significant off-site traffic noise level increases due to the proposed Project traffic under Horizon Year with Project conditions. (Urban Crossroads, 2021d, pp. 42-43)

- Keller Road east of Leon Road (Segment #22)

D. *On-Site Traffic Noise Impacts*

An on-site exterior noise impact analysis has been completed to determine the noise exposure levels that would result from adjacent transportation noise sources in the Project study area, and to identify potential noise mitigation measures that would achieve acceptable Project exterior and interior noise levels. The primary source of transportation noise affecting the Project site is anticipated to be from Winchester Road (SR-79) and Keller Road. The Project also would be exposed to nominal traffic noise from the Project's internal roads. However, due to the distance, topography, and low traffic volume/speed, traffic noise from these roads would not make a substantive contribution to ambient noise conditions. (Urban Crossroads, 2021d, p. 49)

1. *On-Site Exterior Noise Analysis*

Using the FHWA traffic noise prediction model and the parameters outlined in Tables 6-3 to 6-5 of the Project's NIA (*Technical Appendix J* to this EIR), the expected future exterior noise levels for the on-site Project land uses were estimated. Table 4.13-16, *Unmitigated Exterior Noise Levels*, presents a summary of

Table 4.13-14 EAC Project Traffic Noise Level Increases

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[2]			Noise-Sensitive Land Use?	Incremental Noise Level Increase Threshold[3]	
				No Project	With Project	Project Addition		Limit	Exceeded?
1	Menifee Rd.	n/o Scott Rd.	Sensitive	72.9	72.9	0.0	Yes	1.5	No
2	Whitewood Rd.	n/o Clinton Keith Rd.	Sensitive	79.9	80.0	0.1	Yes	1.5	No
3	Whitewood Rd.	s/o Clinton Keith Rd.	Sensitive	78.2	78.2	0.0	Yes	1.5	No
4	Leon Rd.	s/o Scott Rd.	Sensitive	73.0	73.4	0.4	Yes	1.5	No
5	Leon Rd.	s/o Keller Rd.	Sensitive	75.8	76.1	0.3	Yes	1.5	No
6	Leon Rd.	n/o Jean Nicholas Rd.	Sensitive	77.1	77.3	0.2	Yes	1.5	No
7	Leon Rd.	s/o Jean Nicholas Rd.	Sensitive	77.3	77.5	0.2	Yes	1.5	No
8	Winchester Rd. (SR-79)	n/o Domenigoni Pkwy.	Non-Sensitive	78.5	78.6	0.1	No	3.0	No
9	Winchester Rd. (SR-79)	s/o Domenigoni Pkwy.	Sensitive	80.2	80.2	0.0	Yes	1.5	No
10	Winchester Rd. (SR-79)	n/o Scott Rd.	Sensitive	81.4	81.4	0.0	Yes	1.5	No
11	Winchester Rd. (SR-79)	s/o Scott Rd.	Sensitive	79.0	79.1	0.1	Yes	1.5	No
12	Winchester Rd. (SR-79)	n/o Whisper Heights Pkwy./Pourroy Rd.	Sensitive	79.4	79.5	0.1	Yes	1.5	No
13	Winchester Rd. (SR-79)	s/o Whisper Heights Pkwy./Pourroy Rd.	Sensitive	79.2	79.3	0.1	Yes	1.5	No
14	Winchester Rd. (SR-79)	n/o Thompson Rd.	Sensitive	80.1	80.1	0.0	Yes	1.5	No
15	Winchester Rd. (SR-79)	s/o Thompson Rd.	Sensitive	81.5	81.5	0.0	Yes	1.5	No
16	Winchester Rd. (SR-79)	n/o Via Mira Mosa/Auld Rd.	Non-Sensitive	80.6	80.7	0.1	No	3.0	No
17	Winchester Rd. (SR-79)	n/o La Alba Dr./Sparkman Wy.	Sensitive	80.1	80.2	0.1	Yes	1.5	No
18	Winchester Rd. (SR-79)	s/o La Alba Dr./Sparkman Wy.	Sensitive	80.2	80.3	0.1	Yes	1.5	No
19	Scott Rd.	w/o Menifee Rd.	Sensitive	80.3	80.4	0.1	Yes	1.5	No
20	Scott Rd.	e/o Menifee Rd.	Sensitive	81.0	81.1	0.1	Yes	1.5	No
21	Scott Rd.	w/o Leon Rd.	Sensitive	80.4	80.5	0.1	Yes	1.5	No
22	Keller Rd.	e/o Leon Rd.	Sensitive	66.5	68.8	2.3	Yes	1.5	Yes
23	Clinton Keith Rd.	w/o Whitewood Rd.	Sensitive	81.4	81.5	0.1	Yes	1.5	No
24	Clinton Keith Rd.	e/o Whitewood Rd.	Sensitive	81.5	81.6	0.1	Yes	1.5	No

[1] Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.
[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest receiving land use.
[3] Does the Project create an incremental noise level increase exceeding the significance criteria (Table 4.13-5)?
(Urban Crossroads, 2021d, Table 7-8)

Table 4.13-15 Horizon Year 2040 Project Traffic Noise Level Increases

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[2]			Noise-Sensitive Land Use?	Incremental Noise Level Increase Threshold[3]	
				No Project	With Project	Project Addition		Limit	Exceeded?
1	Menifee Rd.	n/o Scott Rd.	Sensitive	73.3	73.4	0.1	Yes	1.5	No
2	Whitewood Rd.	n/o Clinton Keith Rd.	Sensitive	80.4	80.4	0.0	Yes	1.5	No
3	Whitewood Rd.	s/o Clinton Keith Rd.	Sensitive	78.6	78.6	0.0	Yes	1.5	No
4	Leon Rd.	s/o Scott Rd.	Sensitive	73.4	73.8	0.4	Yes	1.5	No
5	Leon Rd.	s/o Keller Rd.	Sensitive	76.2	76.4	0.2	Yes	1.5	No
6	Leon Rd.	n/o Jean Nicholas Rd.	Sensitive	77.6	77.7	0.1	Yes	1.5	No
7	Leon Rd.	s/o Jean Nicholas Rd.	Sensitive	77.7	77.9	0.2	Yes	1.5	No
8	Winchester Rd. (SR-79)	n/o Domenigoni Pkwy.	Non-Sensitive	78.6	78.6	0.0	No	3.0	No
9	Winchester Rd. (SR-79)	s/o Domenigoni Pkwy.	Sensitive	80.2	80.3	0.1	Yes	1.5	No
10	Winchester Rd. (SR-79)	n/o Scott Rd.	Sensitive	81.8	81.8	0.0	Yes	1.5	No
11	Winchester Rd. (SR-79)	s/o Scott Rd.	Sensitive	79.4	79.5	0.1	Yes	1.5	No
12	Winchester Rd. (SR-79)	n/o Whisper Heights Pkwy./Pourroy Rd.	Sensitive	79.8	79.9	0.1	Yes	1.5	No
13	Winchester Rd. (SR-79)	s/o Whisper Heights Pkwy./Pourroy Rd.	Sensitive	79.6	79.7	0.1	Yes	1.5	No
14	Winchester Rd. (SR-79)	n/o Thompson Rd.	Sensitive	80.5	80.5	0.0	Yes	1.5	No
15	Winchester Rd. (SR-79)	s/o Thompson Rd.	Sensitive	81.9	81.9	0.0	Yes	1.5	No
16	Winchester Rd. (SR-79)	n/o Via Mira Mosa/Auld Rd.	Non-Sensitive	81.0	81.1	0.1	No	3.0	No
17	Winchester Rd. (SR-79)	n/o La Alba Dr./Sparkman Wy.	Sensitive	80.5	80.6	0.1	Yes	1.5	No
18	Winchester Rd. (SR-79)	s/o La Alba Dr./Sparkman Wy.	Sensitive	80.7	80.7	0.0	Yes	1.5	No
19	Scott Rd.	w/o Menifee Rd.	Sensitive	80.7	80.8	0.1	Yes	1.5	No
20	Scott Rd.	e/o Menifee Rd.	Sensitive	81.4	81.5	0.1	Yes	1.5	No
21	Scott Rd.	w/o Leon Rd.	Sensitive	80.8	80.9	0.1	Yes	1.5	No
22	Keller Rd.	e/o Leon Rd.	Sensitive	66.9	69.0	2.1	Yes	1.5	Yes
23	Clinton Keith Rd.	w/o Whitewood Rd.	Sensitive	81.9	81.9	0.0	Yes	1.5	No
24	Clinton Keith Rd.	e/o Whitewood Rd.	Sensitive	81.9	82.0	0.1	Yes	1.5	No

[1] Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.

[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest receiving land use.

[3] Does the Project create an incremental noise level increase exceeding the significance criteria (Table 4.13-5)?

(Urban Crossroads, 2021d, Table 7-9)

Table 4.13-16 Unmitigated Exterior Noise Levels

Planning Area	Land Use[1]	Noise-Sensitive Land Use?	Unmitigated Exterior Noise Level (dBA CNEL)[2]	Land Use Compatibility[3]
PA 1	Single-Family Residential (MDR)	Yes	69.4	*Conditionally Acceptable*
PA 2	Single-Family Residential (MDR)	Yes	68.5	*Conditionally Acceptable*
PA 4	Single-Family Residential (MHDR)	Yes	68.5	*Conditionally Acceptable*
PA 6	Multi-Family Residential (VHDR)	Yes	74.6	*Normally Unacceptable*
PA 7	Commercial Retail (CR)	No	76.3	*Conditionally Acceptable*

[1] Project land uses as previously shown on EIR Figure 3-2.
[2] Exterior on-site traffic noise level calculations are included in Appendix 8.1 of the Project's NIA.
[3] Based on the General Plan land use compatibility guidelines as previously shown on Table 4.13-4.
(Urban Crossroads, 2021d, Table 8-1)

future on-site exterior traffic noise levels. The on-site traffic noise analysis calculations are provided in Appendix 8.1 of the Project's NIA. All future residential uses would require detailed analysis as a component of noise studies for implementing building permits that evaluate the implementing projects within each planning area. These final noise studies would utilize any recommendations identified in the Project's NIA in combination with precise grading plans and actual barriers and/or building materials (e.g., sound transmission class ratings for windows and doors), if necessary. (Urban Crossroads, 2021d, p. 49)

Single-Family Residential Land Uses (MDR/MHDR)

The on-site exterior traffic noise analysis indicates that the noise sensitive outdoor living areas (backyards) for single-family residential land uses Planning Areas 1, 2 and 4 would experience unmitigated exterior noise levels from Keller Road ranging from 68.5 to 69.4 dBA CNEL. Based on County of Riverside Land Use Compatibility for Community Noise Exposure shown previously on Table 4.13-4, the single-family land uses within Planning Areas 1, 2 and 4 are considered as conditionally acceptable with unmitigated exterior noise levels of less than 70 dBA CNEL. For conditionally acceptable exterior noise levels, new construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and the needed noise insulation features are included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice. Accordingly, prior to mitigation, future residential uses within Planning Areas 1, 2, and 4 would experience significant impacts due to exterior noise levels. (Urban Crossroads, 2021d, pp. 49-50)|

Multi-Family Residential (VHRD)

No exterior noise mitigation is required to satisfy the County of Riverside Land Use Compatibility for Community Noise Exposure guidelines for the multi-family residential uses proposed in Planning Area 6 of SP 380A1. Exterior noise mitigation is generally limited to the noise sensitive private outdoor living areas (backyards) for single-family residential land use. As shown on Table 4.13-16, the planned multi-family residential land use within Planning Area 6 near Winchester Road (SR-79) would experience normally unacceptable exterior noise levels of 74.6 dBA CNEL. For normally unacceptable exterior noise levels, the

Land Use Compatibility for Community Noise Exposure guidelines indicate that new construction or development should generally be discouraged. If new construction or development does proceed, a detail analysis of the noise reduction requirements must be made with needed noise insulation features included in the design. Outdoor areas must be shielded. To demonstrate that the Project satisfies these guidelines, additional interior noise analysis is provided below to demonstrate compliance the General Plan Noise Element interior noise level standards. Accordingly, exterior noise impacts associated with the proposed multi-family residential uses in Planning Area 6 would be less than significant. (Urban Crossroads, 2021d, p. 50)

Commercial Retail (CR)

The County of Riverside does not identify any exterior noise level limits for commercial retail uses. Therefore, analysis of the commercial retail land use is limited to the interior noise level significance criteria outlined in California Green Building Standards Code Section 5.507 and described in Section 3.1 of the Project's NIA. The results of the on-site exterior traffic noise analysis shown on Table 4.13-16 indicates that the planned commercial retail uses adjacent to Winchester Road (SR-79) may experience unmitigated exterior noise levels estimated at 76.3 dBA CNEL, which represent conditionally unacceptable land use requiring interior noise analysis. To demonstrate that the Project satisfies these requirements, additional interior noise analysis is provided below to demonstrate compliance the General Plan Noise Element interior noise level standards. Accordingly, exterior noise impacts affecting the proposed commercial retail uses on site would be less than significant. (Urban Crossroads, 2021d, p. 51)

2. On-Site Interior Noise Analysis

To ensure that the interior noise levels comply with the interior noise level standards, future exterior noise levels were calculated at the estimated at the first and second floor building façade locations for planned residential home locations and at the building façade where the planned commercial retail land uses are located. (Urban Crossroads, 2021d, p. 51)

The interior noise level is the difference between the predicted exterior noise level at the building facade and the noise reduction of the structure. Typical building construction will provide a Noise Reduction (NR) of approximately 12 dBA with "windows open" and a minimum 25 dBA noise reduction with "windows closed." However, sound leaks, cracks, and openings within the window assembly can greatly diminish its effectiveness in reducing noise. Several methods are used to improve interior noise reduction, including: [1] weather-stripped solid core exterior doors; [2] upgraded dual glazed windows; [3] mechanical ventilation/air conditioning; and [4] exterior wall/roof assembles free of cut outs or openings. (Urban Crossroads, 2021d, p. 51)

To provide the necessary interior noise level reduction, Table 4.13-17, *First Floor Interior Noise Level (CNEL)* and Table 4.13-18, *Second Floor Interior Noise Level (CNEL)*, indicate that Project land uses adjacent to Winchester Road (SR-79) and Keller Road would require a windows-closed condition and a means of mechanical ventilation (e.g. air conditioning). Table 4.13-17 and Table 4.13-18 show that the future unmitigated noise levels at the first and second floor building façade are expected to range from 62.3 to 76.0 dBA CNEL. The interior noise assessment shows that the interior noise standard of 45 dBA CNEL for the proposed single-family residential (MDR and MHDR) uses within Planning Areas 1, 2, and 4 can be satisfied

Table 4.13-17 First Floor Interior Noise Level (CNEL)

Planning Area	Land Use[1]	Noise-Sensitive Land Use?	Noise Level at Façade[2]	Required Interior Noise Reduction[3]	Estimated Interior Noise Reduction[4]	Upgraded Windows[5]	Interior Noise Level[6]	Threshold[7]	Threshold Exceeded?
PA 1	Single-Family Residential (MDR)	Yes	63.0	18.0	25.0	No	38.0	45	No
PA 2	Single-Family Residential (MDR)	Yes	62.3	17.3	25.0	No	37.3	45	No
PA 4	Single-Family Residential (MHDR)	Yes	62.3	17.3	25.0	No	37.3	45	No
PA 6	Multi-Family Residential (VHDR)	Yes	74.3	29.3	32.0	No	42.3	45	No
PA 7	Commercial Retail (CR)	No	76.0	26.0	32.0	No	44.0	50	No

[1] Project land uses as shown on Exhibit 1-A of the Project's NIA (*Technical Appendix* J).
[2] Exterior noise level at the façade with a windows closed condition requiring a means of mechanical ventilation (e.g. air conditioning). See Appendix 8.1 of the Project's NIA.
[3] Noise reduction to satisfy the interior noise level threshold
[4] A minimum of 25 dBA noise reduction is assumed with standard building construction and approximately 2 dBA less than the STC rating for upgraded windows.
[5] Does the required interior nose level with minimum STC rating of greater than 2?
[6] Estimated interior noise level with minimum STC rating for all windows.
[7] Interior noise level threshold: 45 dBA CNEL for residential use (California Code of Regulations, Title 24, Building Standards Administrative Code), and 50 dBA CNEL for commercial uses (Based on the California Green Building Standards Code, Section 5.507.4.2)
(Urban Crossroads, 2021d, Table 8-3)

Table 4.13-18 Second Floor Interior Noise Level (CNEL)

Planning Area	Land Use[1]	Noise-Sensitive Land Use?	Noise Level at Façade[2]	Required Interior Noise Reduction[3]	Estimated Interior Noise Reduction[4]	Upgraded Windows[5]	Interior Noise Level[6]	Threshold[7]	Threshold Exceeded?
PA 1	Single-Family Residential (MDR)	Yes	68.8	23.8	25.0	No	43.8	45	No
PA 2	Single-Family Residential (MDR)	Yes	68.0	23.0	25.0	No	43.0	45	No
PA 4	Single-Family Residential (MHDR)	Yes	68.0	23.0	25.0	No	43.0	45	No
PA 6	Multi-Family Residential (VHDR)	Yes	74.3	29.3	32.0	No	42.3	45	No
PA 7	Commercial Retail (CR)	No	76.0	26.0	32.0	No	44.0	50	No

[1] Project land uses as shown on Exhibit 1-A of the Project's NIA (*Technical Appendix J*)
[2] Exterior noise level at the façade with a windows closed condition requiring a means of mechanical ventilation (e.g. air conditioning). See Appendix 8.1 of the Project's NIA.
[3] Noise reduction to satisfy the interior noise level threshold
[4] A minimum of 25 dBA noise reduction is assumed with standard building construction and approximately 2 dBA less than the STC rating for upgraded windows.
[5] Does the required interior nose level with minimum STC rating of greater than 2?
[6] Estimated interior noise level with minimum STC rating for all windows.
[7] Interior noise level threshold: 45 dBA CNEL for residential use (California Code of Regulations, Title 24, Building Standards Administrative Code), and 50 dBA CNEL for commercial uses (Based on the California Green Building Standards Code, Section 5.507.4.2)
(Urban Crossroads, 2021d, Table 8-4)

using standard windows with a minimum Sound Transmission Class (STC) rating of 27. However, to satisfy the interior noise level standard of 45 dBA CNEL for the multi-family residential (HDR) land uses in Planning Area 6 facing Winchester Road (SR-79), upgraded windows and sliding glass doors with minimum STC ratings of 34 would be required. To satisfy the interior noise level standard of 50 dBA CNEL for commercial land uses in Planning Area 7, upgraded windows and sliding glass doors with minimum STC rating of 34 would be required. (Urban Crossroads, 2021d, p. 52)

Table 4.13-17 and Table 4.13-18 show that unmitigated on-site interior traffic noise levels would exceed the County of Riverside 45 dBA CNEL interior noise level standard for residential development, and the 50 dBA CNEL interior noise level threshold for commercial uses. This represent a potentially significant impact for which mitigation would be required. (Urban Crossroads, 2021d, p. 52)

Threshold d: ***Would the Project result in the generation of excessive ground-borne vibration or ground-borne noise levels?***

The proposed Project would only have the potential to result in excessive ground-borne vibration or ground borne noise levels during construction activities, as Project operational activities would not involve a large number of large trucks or uneven surfaces that could produce ground-borne vibration affecting nearby sensitive receptors. The Project's potential to result in near-term construction-related vibration impacts is discussed below.

Construction activity can result in varying degrees of ground vibration, depending on the equipment and methods used, distance to the affected structures, and soil type. It is expected that ground-borne vibration from Project construction activities would cause only intermittent, localized intrusion. Ground-borne vibration levels resulting from typical construction activities occurring within the Project site were estimated by data published by the FTA. However, while vehicular traffic is rarely perceptible, construction has the potential to result in varying degrees of temporary ground vibration, depending on the specific construction activities and equipment used. Ground vibration levels associated with various types of construction equipment are summarized on Table 11-4 of the Project's NIA (*Technical Appendix J*). Based on the representative vibration levels presented for various construction equipment types, it is possible to estimate the potential Project construction vibration levels using the vibration assessment methods defined by the FTA, as described in Subsection 11.5 of the Project's NIA. (Urban Crossroads, 2021d, p. 67)

Table 4.13-19*, Project Construction Vibration Levels*, presents the expected Project related vibration levels at the nearby receiver locations. At distances ranging from 141 to 881 feet from Project construction activities, construction vibration velocity levels are estimated to range from 0.000 to 0.005 in/sec RMS and would remain below the County of Riverside threshold of 0.01 in/sec RMS at all receiver locations, as shown on Table 4.13-19. Therefore, the Project-related vibration impacts would be less than significant during the construction activities at the Project site. Moreover, the impacts at the site of the nearest sensitive receiver locations are unlikely to be sustained during the entire construction period but will occur rather only during the times that heavy construction equipment is operating adjacent to the Project site perimeter. (Urban Crossroads, 2021d, p. 67)

Table 4.13-19 Project Construction Vibration Levels

Receiver[1]	Distance to Const. Activity (Feet)	Receiver Levels (in/sec) RMS[2]					Threshold (in/sec) RMS[4]	Threshold Exceeded?[5]
		Small Bulldozer	Jack-hammer	Loaded Trucks	Large Bulldozer	Peak Vibration		
R1	881'	0.000	0.000	0.000	0.000	0.000	0.01	No
R2	327'	0.000	0.001	0.001	0.001	0.001	0.01	No
R3	171'	0.000	0.001	0.003	0.004	0.004	0.01	No
R4	145'	0.000	0.002	0.004	0.005	0.005	0.01	No
R5	141'	0.000	0.002	0.004	0.005	0.005	0.01	No

[1] Receiver locations are shown on Figure 4.13-5.
[2] Based on the Vibration Source Levels of Construction Equipment included on Table 11-4 of the Project's NIA (*Technical Appendix J*). Vibration levels in PPV are converted to RMS velocity using a 0.71 conversion factor identified in the Caltrans Transportation and Construction Vibration Guidance Manual, September 2013.
[3] Source: County of Riverside General Plan Noise Element, Policy N 16.3.
[4] Does the vibration level exceed the maximum acceptable vibration threshold?
(Urban Crossroads, 2021d, Table 11-5)

4.13.7 Cumulative Impact Analysis

The cumulative study area for the issue of noise includes the Project vicinity as well as areas adjacent to roadways evaluated by the Project's TS (*Technical Appendix J*). Areas outside of the cumulative study area are too far away to be adversely impacted by noise and ground-borne vibration generated as a result of the proposed Project.

As indicated under the analysis of Threshold a. and b., the Project site is located outside of areas that would be subject to airport-related noise in excess of 55 dBA. There are no components of the proposed Project that would cause or contribute to increased airport-related noise in the area. As such, impacts would be less-than-cumulatively considerable.

Construction activities associated with the proposed Project and other construction projects in the area may overlap, resulting in construction noise in the area. However, construction noise impacts primarily affect the areas immediately adjacent to the construction site. Cumulative development in the vicinity of the Project site could result in elevated construction noise levels at sensitive receptors in the Project area. As previously indicated on Table 4.13-8, the construction noise levels are expected to range from 57.8 to 74.6 dBA Leq, and the highest construction levels are expected to range from 69.8 to 74.6 dBA Leq at the nearby receiver locations. Even when combined with construction noise associated with cumulative developments that may be under simultaneous construction in the Project area, the total noise levels affecting nearby sensitive receptors would not exceed 80 dBA Leq. Thus, cumulatively-considerable onsite construction noise impacts would be less than significant.

With respect to operational noise, Table 4.13-11 shows that the Project would not generate a measurable daytime operational noise level increase at the nearest receiver locations, and Table 4.13-12 shows that the Project would generate a nighttime operational noise level increases ranging from 0.0 to 4.8 dBA Leq at the

nearest receiver locations. Areas surrounding the Project site are primarily designated by the Riverside County General Plan for residential and open space uses, with commercial areas planned to the south of the Project site. However, as indicated in Table 4.13-11 and Table 4.13-12, operational noise associated with the proposed Project at nearby sensitive receptors would result in a projected increase of approximately 0.1 dBA during the daytime hours and 4.8 dBA during the nighttime hours. As such, even when combined with cumulative operational noise sources associated with future commercial retail land uses in the area, the Project operational noise impacts during daytime hours would be less than significant on a cumulatively-considerable basis. For nighttime hours, the Project would expose Receptor R2 to a projected noise increase of 4.8 dBA, which is below the threshold of significance of 5.0 dBA. As Receptor R2 is located east of the Project site and future commercial uses are planned to the south of the Project site, noise from the future commercial uses to the south, when combined with Project operational noise levels, would not result in an increase of more than 5.0 dBA at Receptor R2 or any other sensitive receptor location. As such, nighttime operational noise impacts would be less than significant on a cumulatively-considerable basis.

Table 4.13-14 and Table 4.13-15 (previously presented) show the predicted traffic noise levels under EAC (2028) and Horizon Year (2040) conditions, respectively, with the addition of traffic from the Project and other cumulative developments. As shown in Table 4.13-14 and Table 4.13-15, and based on the significance criteria for off-site traffic noise presented in Table 4.13-5, existing noise sensitive uses on the segment of Keller Road east of Leon Road (Segment #22) are shown to experience potentially significant offsite traffic noise level increases due to the proposed Project traffic and traffic for cumulative developments under both EAC (2028) and Horizon Year (2040) conditions. This is evaluated as a significant impact on a cumulatively-considerable basis.

Impacts associated with exterior and interior noise levels that would be experienced on site represent impacts to, rather than impacts from, the proposed Project. As such, impacts associated with interior and exterior noise impacts would be less than significant on a cumulatively-considerable basis.

As previously shown in Table 4.13-19, Project-related onsite construction vibration levels would be far below the identified threshold of significance of 0.01. Specifically, peak vibration levels affecting nearby sensitive receptors would range from 0.000 to 0.005 in/sec RMS. Even in the unlikely event that Project-related construction activities occur at the same time as construction on nearby properties, such cumulative development would need to more than double the vibration levels associated with the proposed Project in order to significantly affect nearby sensitive receptors. Given that construction activities on surrounding properties would occur in the same general manner as construction activities at the Project site, and given that vibration levels decrease with distance from the source, the Project would not cumulatively contribute to significant vibration impacts affecting nearby sensitive receptors. As such, Project-related vibration impacts associated with onsite construction activities would be less than significant on a cumulatively-considerable basis.

4.13.8 Significance Of Impacts Before Mitigation

Threshold a and Threshold b: Less-than-Significant Impact. The Project does not involve an airport-related component, and would not create or exacerbate aircraft-related noise in the local area. The Project site also occurs outside of the 55 dBA CNEL contours for the French Valley Airport and would not be exposed to substantial airport-related noise associated with French Valley Airport. Additionally, the Project would not be exposed to substantial noise levels associated with private airstrips. As such, the Project would not expose

people residing or working in the Project area to excessive airport-related noise levels, and impacts would be less than significant.

Threshold c: Significant Direct and Cumulatively-Considerable Impact. During onsite construction activities no individual or cumulative piece of construction equipment would exceed the FTA threshold of 80 dBA Leq at the nearest potential receptors to onsite construction; therefore, the noise impacts due to Project construction noise would be less than significant at all receiver locations. With respect to operational noise, Project operational activities would not exceed the identified thresholds of significance of 55.0 dBA Leq during the daytime or 45.0 dBA Leq during the nighttime at the nearest sensitive receptors. Additionally, Project-related operational noise increases would not exceed the thresholds of significance identified in Table 4.13-5. Therefore, Project operational noise levels would represent a less-than-significant impact. Project-related traffic under EAC (2028) and Horizon Year (2040) conditions would expose sensitive receptors along the roadway segment of Keller Road east of Leon Road (Segment #22) to noise level increases that exceed the significance criteria listed in Table 4.13-5. Therefore, Project-related transportation noise would result in a significant direct and cumulatively-considerable impact to sensitive receptors located along this segment of Keller Road. With respect to on-site traffic-related noise, prior to mitigation, future residential uses within Planning Areas 1, 2, and 4 would experience significant impacts due to exterior noise levels. Additionally, proposed single-family, multi-family, and commercial retail uses on site would be exposed to interior traffic noise levels that would exceed the County of Riverside 45 dBA CNEL interior noise level standard for residential development and the 50 dBA CNEL interior noise level threshold for commercial uses; thus, impacts due to interior noise levels would be significant prior to mitigation.

Threshold d Less-than-Significant Impact.: The proposed Project would only have the potential to result in excessive ground-borne vibration or ground borne noise levels during construction activities, as Project operational activities would not involve a large number of large trucks or uneven surfaces that could produce ground-borne vibration affecting nearby sensitive receptors. Project-related construction activities would result in construction vibration velocity levels estimated to range from 0.000 to 0.005 in/sec RMS, which would be below the County of Riverside threshold of 0.01 in/sec RMS at all receiver locations, as shown on Table 4.13-19. Therefore, the Project-related vibration impacts are considered less than significant during the construction activities at the Project site.

4.13.9 County Regulations, Design Requirements, And Mitigation

Applicable County Regulations and Design Requirements

The following are applicable regulations and design requirements within Riverside County. Although these requirements technically do not meet CEQA's definition for mitigation, they are imposed herein to ensure Project compliance with applicable County regulations and design requirements.

- All construction activities and haul truck deliveries shall adhere to Section 2.i of Riverside County Ordinance No. 847, which prohibits construction activities that make loud noise from occurring between 6:00 p.m. and 6:00 a.m. during the months of June through September, and between 6:00 p.m. and 7:00 a.m. during the months of October through May, and on Sundays and Federal holidays.

Mitigation

MM 4.13-1 Prior to final building inspection, and in order to reduce Project-related traffic noise impacts, the Project Applicant shall install rubberized asphalt as mitigation for traffic-related noise impacts along the segment of Keller Road east of Leon Road (Segment #22) and Keller Road between Pourroy Road and Winchester Road (SR 79).

MM 4.13-2 Prior to final building inspection, Riverside County shall verify that minimum 6-foot-tall noise barriers have been constructed between the outdoor living areas (backyards) of single-family residential uses in Planning Areas 1, 2 and 4 facing Keller Road. The required noise control barriers shall be constructed so that the top of each wall extends to the recommended height above the pad elevation of the lot it is shielding. When the road is elevated above the pad elevation, the barrier shall extend to the recommended height above the highest point between the residential home and the road. The barrier shall provide a weight of at least 4 pounds per square foot of face area with no decorative cutouts or line-of-sight openings between shielded areas and the roadways, or a minimum transmission loss of 20 dBA. The barrier must present a solid face from top to bottom. Unnecessary openings or decorative cutouts shall not be made. All gaps (except for weep holes) should be filled with grout or caulking. The noise barrier shall be constructed using one of the following materials:

- Masonry block;
- Stucco veneer over wood framing (or foam core), or one-inch-thick tongue and groove wood of sufficient weight per square foot;
- Glass (1/4-inch-thick), or other transparent material with sufficient weight per square foot capable of providing a minimum transmission loss of 20 dBA;
- Earthen berm; or
- Any combination of these construction materials.

MM 4.13-3 Prior to final building inspection, Riverside County shall ensure that all land uses incorporate a windows-closed condition and a means of mechanical ventilation (e.g. air conditioning). In addition, prior to final building inspection, Riverside County shall verify that the multi-family residential (HDR) land uses in Planning Area 6 and the commercial land uses in Planning Area 7 facing Winchester Road (SR-79) include upgraded windows and sliding glass doors with minimum Sound Transmission Class (STC) ratings of 34. The following requirements also shall apply:

- Windows/Sliding Glass Doors: All residential units require windows and sliding glass doors that have well-fitted, well-weather-stripped assemblies, and the following sound transmission class (STC) ratings:

  1. Multi-family residential (HDR) land uses in Planning Area 6 and the commercial land uses in Planning Area 7 facing Winchester Road (SR-79) require upgraded windows and sliding glass doors with minimum STC ratings of 34 (all windows/glass doors, all floors);

2. All other residential lots require windows and sliding glass doors with minimum sound transmission class (STC) ratings of 27.

- Exterior Doors (Non-Glass): All exterior doors shall be well weather-stripped and have well-sealed perimeter gaps around the doors to achieve the STC ratings recommended below:

  1. Residential land uses in Planning Area 6 require upgraded doors with minimum STC ratings of 34 (all floors);

  2. All other residential lots require doors with minimum sound transmission class (STC) ratings of 27.

- Exterior Walls: At any penetrations of exterior walls by pipes, ducts, or conduits, the space between the wall and pipes, ducts, or conduits shall be caulked or filled with mortar to form an airtight seal.

- Roof: Roof sheathing of wood construction shall be per manufacturer's specification or caulked plywood of at least one-half inch thick. Ceilings shall be per manufacturer's specification or well-sealed gypsum board of at least one-half inch thick. Insulation with at least a rating of R-19 shall be used in the attic space.

- Ventilation:

  1. Exterior vents of residential units in Planning Area 6 shall be oriented away from Winchester Road (SR-79). If such an orientation cannot be avoided, then an acoustical baffle shall be placed in the attic space behind the vents.

  2. Arrangements for any habitable room shall be such that any exterior door or window can be kept closed when the room is in use and still receive circulated air. A forced air circulation system (e.g., air conditioning) or active ventilation system (e.g., fresh air supply) shall be provided which satisfies the requirements of the Uniform Building Code.

MM 4.13-4 Prior to final building inspection, a final noise study shall be prepared to finalize the mitigation measures identified in Mitigation Measure MM 4.13-3 using the precise grading plans and actual building design specifications, and shall include modified or supplemental mitigation, if necessary, to meet the interior noise level standards for residential (45 dBA CNEL) and commercial (50 dBA CNEL) land uses.

4.13.10 Significance Of Impacts After Mitigation

Threshold c: Less-than-Significant Impact with Mitigation Incorporated. Implementation of MM 4.13-1 would ensure that the roadway segment of Keller Road between Leon Road and Winchester Road is paved with rubberized asphalt. Caltrans research has shown that rubberized asphalt can provide noise attenuation of approximately 4 dBA for automobile traffic noise levels. Changing the pavement type of a roadway has been shown to reduce the amount of tire/pavement noise produced at the source under both near-term and long-term conditions. With the minimum 4 dBA CNEL noise reduction provided by the rubberized asphalt mitigation,

Project-related off-site traffic noise level increases would be reduced to less-than-significant levels along the roadway segment of Keller Road between Leon Road and Winchester Road. (Urban Crossroads, 2021d, p. 47)

Implementation of Mitigation Measure MM 4.13-2 would ensure that minimum 6-foot-tall noise barriers are constructed between the outdoor living areas (backyards) of single-family residential uses in Planning Areas 1, 2 and 4 and Keller Road. As shown in Table 4.13-20, *Mitigated Future Exterior Noise Levels*, with construction of the required noise barriers, future residential uses within proposed Planning Areas 1, 2, and 4 of proposed SP 380A1 would experience exterior noise levels of less than 65.0 dBA CNEL. Accordingly, with implementation of the required mitigation, Project impacts due to exterior noise levels on site would be reduced to less-than-significant levels. (Urban Crossroads, 2021d, p. 50)

Table 4.13-20 Mitigated Future Exterior Noise Levels

Planning Area	Land Use[1]	Noise-Sensitive Land Use?	Mitigated Exterior Noise Level (dBA CNEL)[2]	Barrier Height (Feet)
PA 1	Single-Family Residential (MDR)	Yes	63.4	6'
PA 2	Single-Family Residential (MDR)	Yes	62.6	6'
PA 4	Single-Family Residential (MHDR)	Yes	62.6	6'
PA 6	Multi-Family Residential (VHDR)	Yes	-[3]	-[3]
PA 7	Commercial Retail (CR)	No	-[4]	-[4]

[1] Project land uses as previously shown on EIR Figure 3-2.
[2] Exterior on-site traffic noise level calculations are included in Appendix 8.1 of the Project's NIA (*Technical Appendix J*)
[3] Exterior noise mitigation is generally limited to single-family private outdoor living areas (backyards).
[4] Non-noise sensitive land use. No exterior noise mitigation is required.
(Urban Crossroads, 2021d, Table 8-2)

Implementation of Mitigation Measure MM 4.13-3 would ensure that all land uses incorporate a windows-closed condition and a means of mechanical ventilation (e.g., air conditioning), and would further ensure that the multi-family residential (HDR) land uses in Planning Area 6 and the commercial land uses in Planning Area 7 facing Winchester Road (SR-79) include upgraded windows and sliding glass doors with minimum STC ratings of 34. Furthermore, Mitigation Measure MM 4.13-4 would ensure that a final noise study is prepared prior to occupancy to verify that all land uses on site meet the interior noise level standards for residential (45 dBA CNEL) and commercial (50 dBA CNEL) land uses. Implementation of the required mitigation would reduce potential interior noise impacts to below a level of significance. (Urban Crossroads, 2021d, p. 52)

4.14 PALEONTOLOGICAL RESOURCES

The analysis in this Subsection is based in part on a Project-specific technical study entitled, "Paleontological Resource Impact Monitoring Program for the Keller Crossing Project" (herein, "PRIMP"), prepared by Brian F. Smith and Associates ("BFSA"), dated June 14, 2021, and appended to this EIR as *Technical Appendix K* (BFSA, 2021b). Refer to Section 7.0, *References*, for a complete list of reference sources.

4.14.1 EXISTING CONDITIONS

A. *Geology*

Geologically, the project lies within the Perris Block of the northern Peninsular Ranges batholith, which is bounded by the northwest- to southeast-trending San Jacinto and Elsinore fault zones. Geologic formations potentially impacted by earth disturbance activities are shown in Figures 3a, 3b, and 3c of the Project's PRIMP (*Technical Appendix K*). The key to the identification of the geologic formations is presented as Figure 3d of the CRA. As shown on Figure 3a of the Project's CRA, the Project site and off-site improvement areas are underlain by four geological units or formations. The majority of the Project site overlies Mesozoic-aged phyllite, a metamorphic rock (colored teal and labeled as "MZp" on Figure 3a of the Project's CRA). Variably around the western, southern, and eastern perimeter of the Project site are Quaternary (middle to early Pleistocene) very old sandy alluvial channel deposits (colored yellow and labeled as "Qvoaa" on Figure 3a of the Project's CRA) are fluvial sediments deposited on valley floors that consist of moderately to well indurated, reddish-brown, dissected gravel, sand, silt, and clay-bearing alluvium. The very old sandy alluvial channel deposits are overlain in places by thin, discontinuous alluvial deposits of Holocene age. At the Project site, the very old alluvial channel deposits overlie the phyllitic bedrock and are less than four feet thick. (BFSA, 2021b, pp. 9-10)

Most of the Project site is covered by approximately one to two feet of colluvium and topsoil deposits, with thicknesses locally of up to approximately nine feet. The sediments are described as mostly residual, as a result of weathering of the near-surface bedrock. The colluvium and topsoil generally consist of loose to medium dense, porous, sandy clays to clayey sands. (BFSA, 2021b, p. 10)

The geology at the off-site improvement areas is shown on Figures 3a to 3d of the Project's CRA (*Technical Appendix K*). The majority of the off-site areas are located within very old sandy alluvial channel/valley deposits ("Qvoaa" and "Qvova"). At the Leon Road/Scott Road junction (see Figure 3a of the CRA), very old sandy alluvial channel deposits pinch out where Cretaceous gabbro ("Kgb") and Holocene and late Pleistocene sandy young alluvial channel deposits ("Qyaa") are in contact. Holocene and late Pleistocene silty, sandy, young alluvial valley deposits ("Qyvsa") are mapped at the Winchester Road (SR 79)/Domenigoni Parkway intersection (see Figure 3b of the CRA). Gabbro is mapped at a portion of the Winchester Road (SR 79)/La Alba Drive junction (see Figure 3c of the CRA). (BFSA, 2021b, p. 10)

B. *Paleontological Resources*

1. *Definition*

Paleontological resources are the remains of prehistoric life that have been preserved in geologic strata. These remains are called fossils and include bones, shells, teeth, and plant remains (including their impressions, casts, and molds) in the sedimentary matrix, as well as trace fossils such as footprints and burrows. Fossils are

considered older than 5,000 years of age but may include younger remains (subfossils) when, for example, they are viewed in the context of local extinction of the organism or habitat Fossils are considered a nonrenewable resource under State and County guidelines. (BFSA, 2021b, p. 10).

2. Professional Standards

The Society of Vertebrate Paleontology (2010) drafted guidelines outlining procedures that include (BFSA, 2021b, p. 16):

> *"[E]valuating the potential for impacts of a proposed action on paleontological resources and for mitigating those impacts. Impact mitigation includes pre-project survey and salvage, monitoring and screen washing during excavation to salvage fossils, conservation and inventory, and final reports and specimen curation. The objective of these procedures is to offer standard methods for assessing potential impacts to fossils and mitigating these impacts."*

The guidelines include four categories of paleontological sensitivity for geologic units (formations) that might be impacted by a proposed project, as listed below (BFSA, 2021b, p. 16):

- *High Potential:* Rock units from which vertebrate or significant invertebrate, plant, or trace fossils have been recovered.

- *Undetermined Potential:* Rock units for which little information is available concerning their paleontological content, geologic age, and depositional environment, and that further study is needed to determine the potential of the rock unit.

- *Low Potential:* Rock units that are poorly represented by fossil specimens in institutional collections or based upon a general scientific consensus that only preserve fossils in rare circumstances.

- *No Potential:* Rock units that have no potential to contain significant paleontological resources, such as high-grade metamorphic rocks and plutonic igneous rocks

3. Fossil Records Search

A paleontological records search was performed by the paleontological collections manager of the Western Science Center in Hemet in Riverside County, and is attached in Appendix B of the Project's PRIMP (*Technical Appendix K*). Although no fossils are recorded from within the Project site, the records search indicated the presence of late Pleistocene vertebrate fossils associated with the Diamond Valley Lake project, located approximately three miles north of the Project site. The Diamond Valley Lake project contained hundreds of fossil localities and thousands of specimens including those associated with mammoth, mastodon, saber-toothed cat, ancient horse, and many other Pleistocene megafauna. The phyllitic rocks are considered to be of low paleontological sensitivity, but the Pleistocene alluvial units are considered to be of high paleontological sensitivity and compose many of the region's fossil bearing localities. (BFSA, 2021b, p. 15)

A records search conducted by the San Bernardino County Museum (SBCM) in 2009 found no nearby fossil localities held by the SBCM, but indicated the presence of the Diamond Valley Lake project fossils north of

the Project site that were recovered in alluvial deposits similar to those that occur on the Project site. A records search conducted by the Los Angeles County Natural History Museum (LACM) in 2009 similarly indicated the institution held no fossil locality records near the Project site. The record search by the LACM indicated that the closest locality in similar older Quaternary (Pleistocene) deposits is LACM locality number 7261, located about three miles south-southeast of the Project site in what is now Skinner Reservoir, which produced specimens of mammoth and bison fossils. The LACM records search indicated, "Shallow grading in the Quaternary deposits exposed in the lesser elevation portions is unlikely to encounter significant fossil vertebrate remains. Deeper excavations into the older Quaternary alluvium may, however, uncover significant fossil vertebrate remains". (BFSA, 2021b, p. 15)

C. *On-Site Survey Results*

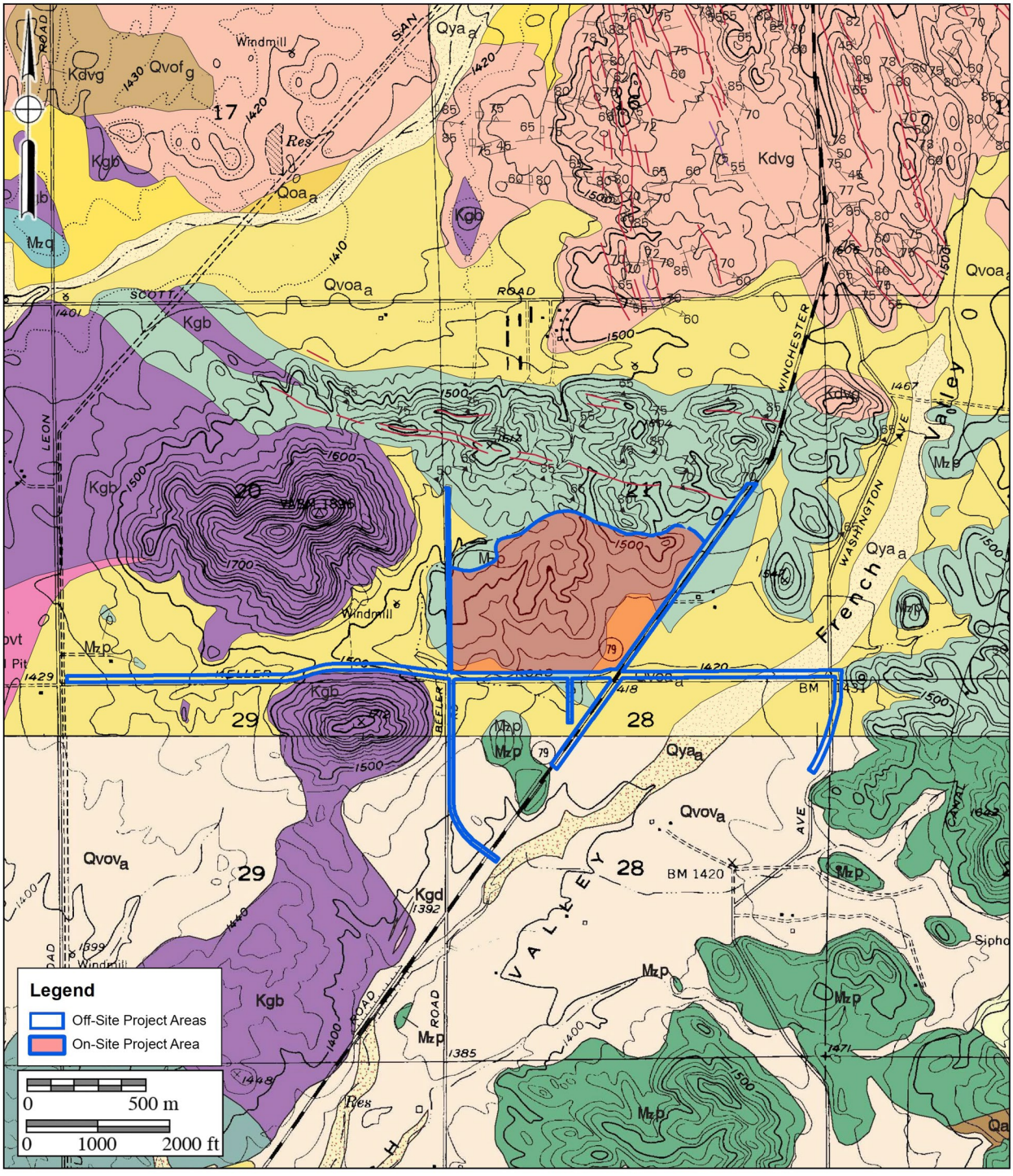
BFSA field technicians conducted a pedestrian survey of the on-site and off-site Project impact areas on April 13 and May 10, 2021, respectively. The survey was conducted in five- to 15-meter interval transects. Visibility of the natural ground surface ranged from fair to poor, with 50 to 60 percent of the ground surface visible. Rodent spoil piles and patches of turned soil were closely inspected for evidence of small vertebrate fossils. No evidence of paleontological resources was observed within the on-site or off-site Project impact areas. (BFSA, 2021b, p. 15)

D. *Paleontological Sensitivity*

A "paleontological sensitivity map and report" generated by the Riverside County Land Information System in April 2021, as shown on Figure 4.14-1, *Paleontological Sensitivity Map*, ranks the on-site portion of the Project as having an "undetermined" potential (dark green-tinted areas) to yield nonrenewable paleontological resources and, therefore, an undetermined paleontological sensitivity. The middle to early Pleistocene alluvial channel deposits and Mesozoic crystalline rocks underlying the Project site also are regarded as having an undetermined paleontological resource potential. (BFSA, 2021b, p. 17)

Although fossils are not expected to be found in the metamorphic rocks mapped at the Project site, older Pleistocene alluvial deposits in Riverside County are typically assigned a "High" paleontological resource sensitivity, which would normally indicate that those areas are paleontologically sensitive enough to justify paleontological monitoring of any earthmoving activities. These older Pleistocene sediments ("$Qvoa_a$") are regarded as being paleontologically sensitive, despite the County's ranking of an "undetermined" paleontological sensitivity, based on the abundance of fossil localities in western Riverside County that have yielded the remains of Ice Age terrestrial mammal remains. Areas with geologic formations accorded a High sensitivity by the County are shown in orange and red tints on Figure 4.14-1; however, as outlined above, the County's sensitivity ratings for geologic formations do not strictly adhere to the contacts of the formations as mapped, and so the assigned ratings may be inaccurately applied. (BFSA, 2021b, p. 17)

The off-site improvement areas variably overlie areas of "undetermined" (dark green), "low" (light green), "High B" (orange), and "High A" (red) paleontological sensitivity, as shown on Figure 4.14-1. Areas with the red tint are defined as indicating the presence of a geologic formation with the potential to have fossils at and below the surface ("High A"), while areas with an orange tint indicate a formation with the potential to only



Source: Brian F. Smith and Associates Inc. (11-05-2021)

Figure 4.14-1

Paleontological Sensitivity Map

yield fossils in the subsurface. A "low" sensitivity is defined as the fossil-yielding potential (none to low) of a geologic formation determined by a qualified vertebrate paleontologist after a literature search, records check, and a field survey. (BFSA, 2021b, p. 17)

As stated above, only the areas with the older Pleistocene sediments, mapped as "$Qvov_a$" or "$Qvoa_a$," are regarded as paleontologically sensitive. While the Winchester Road (SR 79)/Domenigoni Parkway intersection is within an area assigned a "High B" sensitivity, it is likely that these surficial sediments, mapped as Holocene and late Pleistocene young alluvial valley deposits ("Qyv_{sa}"), are too young to yield fossils. (BFSA, 2021b, p. 19)

Based on the analyses contained in the SBCM and LACM paleontological records searches conducted in 2009, the lower on-site areas covered by Pleistocene alluvium are determined to have high paleontological sensitivity and the Mesozoic metamorphic rocks to have a low paleontological sensitivity. Although no paleontological resources were identified on the surface during the field surveys, the results of the records search suggest that they may exist within the Project site at shallow undisturbed depths. (BFSA, 2021b, p. 19)

4.14.2 Applicable Environmental Regulations

The following is a brief description of the federal, State, and local environmental laws and related regulations related to paleontological resources.

A. Federal Regulations

1. Paleontological Resources Preservation Act

The Paleontological Resources Preservation Act (PRPA) was signed into law on March 30, 2009 (Public Law 111-11, Title VI, Subtitle D; 16 U.S.C. §§ 470aaa - 470aaa-11). PRPA directs the Department of Agriculture (U.S. Forest Service) and the Department of the Interior (National Park Service, Bureau of Land Management, Bureau of Reclamation, and Fish and Wildlife Service) to implement comprehensive paleontological resource management programs. Section 6310 of PRPA specifically states, "As soon as practical after the date of enactment of this Act, the Secretary shall issue such regulations as are appropriate to carry out this subtitle, providing opportunities for public notice and comment." (NPS, n.d.)

B. State Regulations

1. California Administrative Code, Title 14, Section 4308

Section 4308, *Archaeological Features*, of Title 14 of the California Administrative Code provides that: "No person shall remove, injure, disfigure, deface, or destroy any object of archaeological, or historical interest or value." (CDPR, n.d.)

2. California Public Resources Code

Public Resources Code § 5097.5 states that "A person shall not 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." Public Resources Code § 30244 states that, "Where development would adversely impact archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required." (FindLaw, n.d.)

C. Local Regulations

1. Riverside County Planning Department Procedures

In order to ensure the review and protection of paleontological resources for projects subject to CEQA and not otherwise categorically exempt, the Riverside County Geologist performs an initial review of the County of Riverside's database and mapped information for the subject site. When existing information indicates that a site proposed for development has high paleontological sensitivity, a paleontological resource impact mitigation program (PRIMP) is required for the project. The PRIMP shall specify the steps to be taken to mitigate impacts to paleontological resources. If the site warrants protection, then an "Environmental Constraint" is placed on the approved map for the project, stating that: (Riverside County, 2015, pp. 4.9-26 and -27)

> "This site, as delineated on this [Environmental Constraint Sheet] map and as indicated in the county's General Plan, has been mapped as having a high potential for containing significant nonrenewable fossil material. The proposed project's potential to impact paleontological resources has been determined to be possible. Therefore, mitigation of this potential impact in the form of monitoring of all site earth-moving activities and collection/curation of all significant fossils unearthed is required unless proven unnecessary through comprehensive literature research and site inspection."

When existing information indicates that a site proposed for development has low paleontological sensitivity, no direct mitigation is required unless a fossil is encountered during site development. Should a fossil be encountered, the Riverside County Geologist must be notified and a paleontologist must be retained by the project proponent. The paleontologist documents the extent and potential significance of the paleontological resources on the site and establishes appropriate mitigation measures for further site development. (Riverside County, 2015, p. 4.9-27)

When existing information indicates that a site proposed for development has undetermined paleontological sensitivity, a report is filed with the Riverside County Geologist documenting the extent and potential significance of the paleontological resources on site and identifying mitigation measures for the fossil and for impacts to significant paleontological resources. (Riverside County, 2015, p. 4.9-27)

4.14.3 Basis for Determining Significance

Section VII of Appendix G to the State CEQA Guidelines addresses typical adverse effects paleontological resources, and includes the following threshold question to evaluate the Project's impacts to paleontological resources (OPR, 2018a):

- Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Significance thresholds are set forth in Riverside County's Environmental Assessment Checklist, as modified based on the 2018 updates to Section VII of Appendix G to the State CEQA Guidelines (listed above), and indicate significant impacts would occur if the Project or any Project-related component would:

a. Directly or indirectly destroy a unique paleontological resources, site, or unique geologic feature.

The significance threshold set forth in Riverside County's Environmental Assessment Checklist, as modified by the 2018 updates to the State CEQA Guidelines, was used to evaluate the significance of the proposed Project's impacts on paleontological resources.

4.14.4 Impact Analysis

Threshold a:	***Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?***

There are no unique geologic features on site. Although the Project site features rolling hillsides in the northern portion of the site, these do not comprise unique geologic features as hillforms that occur on site are similar to existing off-site hillforms in the surrounding area. As such, no impacts to unique geologic features would occur with Project implementation.

Based on the findings of the Project's PRIMP, potentially fossiliferous Pleistocene very old sandy alluvial channel deposits occur around the Project's western, southern, and eastern perimeter and off-site alignments. The occurrence of terrestrial vertebrate fossils at shallow depths from Pleistocene, older alluvial fan sediments across the Inland Empire of western Riverside County and near the Project site is well documented. Therefore, the "High" paleontological sensitivity rating typically assigned to these Pleistocene older alluvial fan sediments for yielding paleontological resources indicates that the Project has the potential to result in adverse impacts (loss or destruction) to nonrenewable paleontological resources that may be buried beneath the surface of the Project site or off-site improvement areas. As such, implementation of the Project has the potential to result in direct and/or indirect impacts to unique paleontological resources. This is evaluated as a significant impact for which mitigation would be required. (BFSA, 2021b, p. 19)

4.14.5 Cumulative Impact Analysis

This cumulative impact analysis considers development of the proposed Project in conjunction with other development projects and planned development in the vicinity of the Project site, including buildout of the Riverside County General Plan Land Use Plan and the general plans of cities throughout western Riverside County. This cumulative study area was selected for analysis because it encompasses a region in which geological conditions, and thus paleontological sensitivity, are similar to what occurs in the immediate vicinity of the Project site.

As indicated under the analysis of Threshold a., the Project site is mapped as containing geological formations that have a "High" sensitivity for containing paleontological resources, and the Project has the potential to directly impact unique paleontological resources that may be present on the Project site or off-site improvement areas. Other developments within the region occurring on soils/geologic units with a "High" potential for containing paleontological resources also have the potential to impact subsurface unique paleontological

resources during grading and excavation. Therefore, the Project's potential impacts to paleontological resources on site would be cumulatively considerable.

4.14.6 Significance Of Impacts Before Mitigation

Threshold a.: Significant Direct and Cumulatively-Considerable Impact. The Project would not impact any known paleontological resources or unique geological features. However, the Project site is underlain by soils and geologic units with a "High" potential for containing unique paleontological resources. Thus, there is a potential for impacts to paleontological resources that during Project grading and excavation. This is evaluated as a significant impact on both a direct and cumulatively-considerable basis.

4.14.7 Applicable Regulations, Design Requirements, And Mitigation

Mitigation

MM 4.14-1 Prior to the issuance of grading permits, the County shall condition proposed grading permits to require implementation of the Project's Paleontological Resource Impact Monitoring Program (PRIMP), which is included as *Technical Appendix K* to the Project's EIR. Provided below is a summary of the requirements identified by the PRIMP:

1. All mass grading, excavation, drilling, and trenching activities within undisturbed Pleistocene very old sandy alluvial channel deposits at the on-site portion of the Project, starting at the surface, shall be monitored full-time for paleontological resources by a Riverside County-qualified paleontologist or a monitor supervised by a Riverside County-qualified paleontologist (Paleontological Monitor). The duration of monitoring may be increased or decreased at the discretion of the Paleontological Monitor based on observations of the geology, stratigraphy, and/or the presence of fossils discovered by the Paleontological Monitor.
2. Prior to the initiation of any grading, drilling, and/or excavation activities, a preconstruction meeting shall be held and attended by the Paleontological Monitor, representatives of the grading contractor and subcontractors, the Project owner or developer, and a representative of the Lead Agency (Riverside County). The nature of potential paleontological resources shall be discussed, as well as the protocol that is to be implemented following discovery of any fossiliferous materials.
3. In the field, the Paleontological Monitor shall be the responsible persons onsite with the assigned authority and responsibility to oversee all grading operations that might adversely affect any salvage efforts.
4. Any identified fossils shall be collected and placed in cardboard flats or plastic buckets and identified by field number, collector, and date collected. Notes shall be taken on the map location and stratigraphy of the site, and the site shall be photographed before it is vacated and the fossils are removed to a safe place.
5. During mass grading, any discovered fossil site shall be protected by red flagging to prevent it from being overrun by earthmovers (scrapers) before salvage begins. All grading

activities within 50 feet of the discovery site shall be suspended until fossil recovery has been completed.

6. If the site involves a large terrestrial vertebrate, for example, large bone(s) or a mammoth tusk, that is/are too large to be easily removed by a single monitor, a field crew shall be sent to the site to excavate around the find, encase the discovery within a plaster jacket, and remove it after the plaster has set. For large fossils, use of the contractor's construction equipment shall be solicited to remove the jacket to a safe location before it is returned to an appropriate laboratory facility.
7. In the event that fossils are found by construction workers when the Paleontological Monitor is not on-site or is occupied elsewhere, all work shall be halted within 50 feet of the discovery location until it can be properly evaluated by the Paleontological Monitor.
8. Sediments containing small invertebrate and/or vertebrate fossils also shall be collected as discussed below. When vertebrate fossil remains are recovered, additional sediment samples shall be taken from the same location to process for micro-vertebrate specimens.
9. Isolated fossils shall be collected by hand, wrapped in paper, and placed in temporary collecting flats or five-gallon buckets. Notes shall be taken on the map location and stratigraphy of the site, and the site shall be photographed before it is vacated and the fossils are removed to a safe place. As small invertebrate fossils typically represent multiple specimens of a limited number of organisms, a scientifically-suitable sample shall be obtained from one to several five-gallon buckets of fossiliferous sediment. If it is possible to dry-screen the sediment in the field, a concentrated sample shall consist of one or two buckets of material. For micro-vertebrate fossils, the standard test is usually the observed presence of small pieces of bone within the sediments. If bone is present, as many as 20 to 40 five-gallon buckets of sediment shall be collected and returned to a separate facility to wet screen the sediment. If, after five buckets have been wet-screened and have failed to yield any micro-vertebrate or other fossil material under microscopic examination, then this process can be terminated. In the laboratory, any recovered fossils shall be cleaned of extraneous matrix, any breaks repaired, and the specimen, if necessary, shall be stabilized by soaking in an archivally approved acrylic hardener (e.g., a solution of acetone and Paraloid B-72).
10. Fossils shall be identified by an adjunct invertebrate or vertebrate paleontology specialist, depending on the group of fossils needing identification (e.g., mollusks, reptiles, birds, mammals, or fish). Standard museum curation steps shall be utilized by, or under the direct supervision of, the principal investigator, who has a minimum nine years of paleontological curatorial experience. Curation steps shall include cleaning, preparing, sorting, identifying, painting, numbering, and labeling all specimens before submittal to the receiving institution.
11. Pursuant to the County of Riverside's "SABER" Policy, paleontological materials (fossils) found in Riverside County shall be directed to the Western Science Center on Searl Road in Hemet, Riverside County, California, unless otherwise directed by the County Geologist. A written agreement between the Project developer and the preferred archival institution shall be in place prior to commencement of grading activities. The Project

owner/developer shall assume financial responsibility for any institutional curation fees for the Project.

12. Prior to final grading inspection, a final written report shall be produced by an approved Riverside County paleontologist, and submitted to the County of Riverside Geologist at the conclusion of grading activities for the Project. The report shall include sections on general background information, previous studies (both geologic and paleontologic), results of findings and analysis, discussion of all recovered fossils, and a fossil list identified to the lowest taxonomic level possible, as well as a list of references cited and index and locality maps and graphics to show the locations of all fossil localities, etc. A letter documenting receipt and acceptance of the fossil collections by the receiving institution shall be included in the final report, a copy of which shall be archived with the fossil collection. If fossils are not recovered during the project, the final report shall be in a shortened letter format.

4.14.8 Significance of Impacts After Mitigation

Threshold a.: Less-than-Significant Impact with Mitigation Incorporated. Implementation of Mitigation Measure MM 4.14-1 would ensure that the Project's PRIMP is implemented as part of future site grading activities. Implementation of the Project's PRIMP would ensure that paleontological resources, if uncovered during site grading activities, are appropriately treated, and would reduce the Project's direct and cumulatively-considerable impacts to paleontological resources to less-than-significant levels.

4.15 POPULATION AND HOUSING

This Subsection provides analysis that discloses existing population and housing data from Riverside County and assess the potential for impacts on population and housing associated with implementation of the Project. The analysis in this Subsection is based on information contained in the Riverside County General Plan (including the Housing Element and Southwest Area Plan) and the Southern California Association of Governments (SCAG) 6th Cycle Final Regional Housing Needs Assessment (RHNA) Allocation Plan (SCAG, 2021). Refer to Section 7.0, *References*, for a complete list of reference sources.

4.15.1 EXISTING CONDITIONS

A. *Existing Site Conditions*

The Project site consists of undeveloped, vacant land and does not currently contain or support a population, nor does the Project site generate employees. The Project site is in unincorporated Riverside County, specifically within the French Valley Community of the Southwest Area Plan (SWAP). The Project site also is located within the boundaries of the Keller Crossing Specific Plan No. 380 (SP 380). Although the Project site is vacant and undeveloped under existing conditions, the General Plan, SWAP, and SP 380 designate the property for 3 "Very Low Density Residential (VLDR)" dwelling units on 9.9 acres; 25 "Low Density Residential (LDR)" dwelling units on 18.3 acres; 42 "Medium Density Residential (MDR)" dwelling units on 13.9 acres; 39.5 acres of "Mixed Use," including 250 dwelling units and 250,000 square feet (s.f.) building area; 400,000 s.f. of "Commercial Retail (CR)" uses on 37.8 acres; 61.1 acres of "Open Space – Conservation (OS-C)" uses; and 20.6 acres of major circulation facilities. (Riverside County, 2013)

B. *Population Projections*

The Project site is located within unincorporated Riverside County, northeast of the City of Murrieta. According to SCAG's 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy ("RTP/SCS"; also referred to as "Connect SoCal"), and as shown in Table 4.15-1, *SCAG Region Projected 2000-2045 Growth Forecast*, in 2000 the SCAG region had a population of approximately 16,574,000 persons. The population within the SCAG region is expected to increase to 22,504,000 persons by 2045, reflecting a 35.7% increase in population over the 45-year period. While the annual rate of household growth has steadily tracked upward since its low of 0.2 percent in 2010, household growth in the SCAG region remains much flatter than before the Great Recession (0.6 percent from 2017-2019). After losing over 700,000 jobs between 2007 and 2010, the region has experienced tremendous job growth between 2010 and 2019, reaching nearly 8.7 million jobs and cresting the previous high of 8.1 million reached in 2007. (SCAG, 2020a, Demographics and Growth Forecast Technical Appendix)

Table 4.15-1 SCAG Region Projected 2000-2045 Growth Forecast

	2000	2010	2016	2045
Population	16,574,000	18,076,000	18,832,000	22,504,000

(SCAG, 2020a, Demographics and Growth Forecast Technical Appendix, Table 3)

4.15.2 Applicable Environmental Regulations

A. Federal Plans, Policies, and Regulations

1. Fair Housing Act

The federal Fair Housing Act protects people from discrimination when they are renting or buying a home, getting a mortgage, seeking housing assistance, or engaging in other housing-related activities. Additional protections apply to federally-assisted housing. (HUD, n.d.)

2. U.S. Census Bureau

The U.S. Census Bureau is the leading source of statistical information about the nation's people. Population statistics come from decennial censuses, which count the entire U.S. population every ten years, along with several other surveys. The American Community Survey (ACS) is an ongoing annual survey intended to help communities decide where to target services and resources. Demographic surveys measure income, poverty, education, health insurance coverage, housing quality, crime victimization, computer usage, and many other subjects. Economic surveys are conducted monthly, quarterly, and yearly, and cover selected sectors of the nation's economy. (USCB, n.d.)

B. State and Regional Plans, Policies, and Regulations

1. State Housing Law

The State law regulating residential occupancies is entitled the "State Housing Law" and is found in Division 13, Part 1.5 of the California Health and Safety Code (HSC), Sections 17910 to 17998.3 Regulations implementing the State Housing Law mandate statewide residential building standards for new construction, which are found in the California Code of Regulations, Title 24, also referred to as the California Green Building Standards Code (CalGreen). (CA Legislative Info, n.d.)

2. Southern California Association of Governments (SCAG)

SCAG determines regional housing needs and the share of the regional needs to be addressed by Riverside County and its constituent cities. SCAG is a Joint Powers Agency and is the designated Council of Governments (COG), Regional Transportation Planning Agency (RTPA), and Metropolitan Planning Organization (MPO) for the six-county region of Los Angeles, Orange, Ventura, San Bernardino, Riverside, and Imperial counties. SCAG's Regional Comprehensive Plan and Guide (RCPG) and Regional Housing Needs Assessment (RHNA) are tools for coordinating regional planning and housing development strategies in southern California. (SCAG, n.d.)

3. Regional Housing Needs Assessment (RHNA)

State Housing Law (California Government Code Article 10.6, Sections 65580-65590) mandates that local governments, through COGs, identify existing and future housing needs in a Regional Housing Needs Assessment (RHNA). The RHNA provides recommendations and guidelines to identify housing needs within counties and cities. The County of Riverside addresses its RHNA allocation through its General Plan Housing Element. The RHNA prepared by SCAG projects the unincorporated County's share of regional housing need

for 2021-2029 as 40,647 homes, as summarized in Table 4.15-2, *Regional Housing Needs Allocation Unincorporated County (2021-2029).* (SCAG, 2021)

Table 4.15-2 Regional Housing Needs Allocation Unincorporated County (2021-2029)

Income Category	Allocation
Very Low	10,371
Low	6,627
Moderate	7,347
Above Moderate	16,302
Total	**40,647**

(SCAG, 2021)

4. Senate Bill 330 (Housing Accountability Act)

The Housing Accountability Act prohibits a local agency from disapproving, or conditioning approval in a manner that renders infeasible, a housing development project for very low, low-, or moderate-income households or an emergency shelter unless the local agency makes specified written findings based on a preponderance of the evidence in the record. The act specifies that one way to satisfy that requirement is to make findings that the housing development project or emergency shelter is inconsistent with both the jurisdiction's zoning ordinance and general plan land use designation as specified in any element of the general plan as it existed on the date the application was deemed complete. The act requires a local agency that proposes to disapprove a housing development project that complies with applicable, objective general plan and zoning standards and criteria that were in effect at the time the application was deemed to be complete, or to approve it on the condition that it be developed at a lower density, to base its decision upon written findings supported by substantial evidence on the record that specified conditions exist, and places the burden of proof on the local agency to that effect.

C. Regional and Local Plans, Policies, and Regulations

1. Riverside County General Plan Housing Element

The 2021-2029 Housing Element identifies and establishes policies intended to fulfill the housing needs of existing and future residents in Riverside County. It establishes policies that guide County decision-making and set forth an action plan to implement its housing goals. The Housing Element includes a review of previous housing goals, an assessment of the effectiveness of those goals, and an assessment of housing needs. Additionally, the Housing Element includes an inventory of resources and constraints related to meeting housing needs in Riverside County; an analysis of affordable housing developments and programs intended to preserve such housing; community goals for the maintenance, preservation, improvement and development of housing; and a program which sets forth a five-year schedule of actions that the County is undertaking or intends to undertake in implementing the polices set forth in the Housing Element. (Riverside County, 2021c, p. H-3)

2. SCAG Regional Transportation Plan/Sustainable Communities Strategy (Connect SoCal)

SCAG is a JPA under California State law, established as an association of local governments and agencies that convene as a forum to address regional issues. On September 3, 2020, SCAG's Regional Council adopted

Connect SoCal (2020-2045 Regional Transportation Plan/Sustainable Communities Strategy). Connect SoCal is intended to create a plan for defining and solving regional problems including housing, traffic, water, air quality, and other regional challenges. Connect SoCal builds upon the elements of existing local general plans and provides a blueprint for where and how the southern California area will grow. (SCAG, 2020)

4.15.3 Basis For Determining Significance

Section XIV of Appendix G to the State CEQA Guidelines addresses typical adverse effects due to population and housing, and includes the following threshold questions to evaluate the Project's impacts due to population and housing (OPR, 2018a):

- *Would the project induce substantial unplanned population growth in an area, either directly (for example by proposing new homes and businesses) or indirectly (for example, through the extension of infrastructure)?*

- *Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?*

Significance thresholds are set forth in Riverside County's Environmental Assessment Checklist, are derived from Section XIV of Appendix G to the State CEQA Guidelines (listed above), and state that the proposed Project would have a significant impact to population and housing if construction and/or operation of the Project would:

a. *Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere;*
b. *Create a demand for additional housing, particularly housing affordable to households earning 80% or less of the County's median income; or*
c. *Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).*

The significance thresholds set forth in Riverside County's Environmental Assessment Checklist were used to evaluate the significance of the proposed Project's impacts on population and housing.

4.15.4 Impact Analysis

Threshold a:	***Would the Project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?***

Under existing conditions, the Project site consists of undeveloped land with no dwelling units or structures located on the Project site. Accordingly, the Project would have no potential to displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere. No impacts would occur.

Threshold b.: Would the Project create a demand for additional housing, particularly housing affordable to households earning 80% or less of the County's median income?

The Project would entail future development of the Project site with up to 176,000 square feet (s.f.) of "Commercial Retail" land uses on 13.3 acres, 277 "Medium-Density Residential (MDR)" dwelling units on 61.2 acres, 76 "Medium-High-Density Residential (MHDR)" dwelling units on 14.1 acres, 80 "High-Density Residential (HDR)" dwelling units that would be age qualified on 7.3 acres, 1.0 acre of "Community Development-Very Low Density Residential (VLDR)" land uses (with no VLDR dwelling units proposed), 10.5 acres of "Open Space-Recreation (OS-R)" land uses, 11.2 acres of "Open Space-Water (OS-W)" land uses, 61.4 acres of "Open Space-Conservation Habitat (OS-CH)" land uses, and 16.0 acres of major circulation facilities. As discussed in EIR subsection 3.3.2, the commercial retail land uses proposed by the Project are expected to result in approximately 352 future employees. While commercial uses proposed as part of the Project would create a demand for additional housing, including affordable housing, the Project would accommodate a total of 433 dwelling units on site, including 80 age-qualified multi-family dwelling units. The proposed age-qualified units would provide for affordable housing, as the HDR land use designation represents one of the more affordable categories of housing under the General Plan Land Use Element. Furthermore, the Riverside County General Plan designates areas of the County in which lower-income housing can be accommodated to meet the County's RHNA obligations, and does not rely on residential development on the Project site in order to meet its RHNA obligations. Moreover, it is anticipated that any future employees generated by the Project could be accommodated by the dwelling units proposed on site, existing residential communities, and/or by future residential uses to be constructed in accordance with the General Plan Land Use Plan or the general plans of cities within the County, and that no additional housing, including housing affordable to households earning 80% or less of the County's median income, would be required to accommodate Project-related employees. Impacts would be less than significant.

Threshold c: Would the Project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Under existing conditions, the Project site is designated for future development as a master-planned residential community that includes residential, commercial, recreational, and open space uses. The Project Applicant proposes to amend the land use designations for the 196.0-acre Project site to provide for a mixture of MDR, MHDR, HDR, VLDR, CR, OS-R, and OS-CH land uses. Although the Project would result in a change in planned land uses, the Project site already is targeted for urban development under existing conditions, and the land uses proposed as part of the Project would be similar in nature to the adopted SP 380. Specifically, the adopted SP 380 allows for 320 dwelling units and 650,000 s.f. of commercial retail land uses, while the Project would entail future development of 433 dwelling units and 176,000 s.f. of commercial retail land uses. Because the Project would redesignate lands planned for urban uses with similar urban land uses, and because the Project would result in a substantial reduction in areas designated for CR land uses as compared to the site's existing SP 380 land use designations, the Project would not directly induce substantial unplanned population growth in the area, and impacts would be less than significant. Thus, the Project would not result in substantial unplanned population growth in the area. Additionally, the Project's proposed roadway and other infrastructure (e.g., water, sewer, etc.) improvements have been designed and sized to serve the proposed Project, and would not indirectly induce growth in the local area. Thus, the Project would not induce

substantial unplanned population growth in the area, either directly or indirectly, and impacts would be less than significant.

4.15.5 Cumulative Impact Analysis

For purposes of analysis, the cumulative study area for the issue of population and housing encompasses western Riverside County as well as the various cities within western Riverside County. This study area is appropriate because growth in the region is largely controlled by the Riverside County General Plan and the general plans of the various cities within the County.

The Project site does not contain any existing residential units on site under existing conditions. As such, the Project would not result in the displacement of existing residents or housing, and cumulatively-considerable impacts would not occur.

While commercial uses proposed as part of the Project would create a demand for additional housing, including affordable housing, the Project would accommodate a total of 433 dwelling units on site, including 80 age-qualified multi-family dwelling units. The proposed age-qualified units would provide for affordable housing, as the HDR land use designation represents one of the more affordable categories of housing under the General Plan Land Use Element. Furthermore, the Riverside County General Plan designates areas of the County in which lower-income housing can be accommodated to meet the County's RHNA obligations, and does not rely on residential development on the Project site in order to meet its RHNA obligations. Moreover, it is anticipated that any future employees generated by the Project could be accommodated by the dwelling units proposed on site, existing residential communities, and/or by future residential uses to be constructed in accordance with the General Plan Land Use Plan or the general plans of cities within the County, and that no additional housing, including housing affordable to households earning 80% or less of the County's median income, would be required to accommodate Project-related employees. As such, the Project's contribution to cumulatively-considerable impacts due to the creation of demand for additional housing, including affordable housing, would be less than significant.

The land uses proposed as part of the Project generally would conform to the site's existing General Plan and Specific Plan land use designations, and would not induce substantial unplanned population growth in the area. Infrastructure improvements proposed by the Project also would not indirectly induce substantial unplanned population growth. Cumulatively-considerable impacts would be less than significant.

4.15.6 Significance Of Impacts Before Mitigation

Threshold a: No Impact. The Project site does not contain any existing residences or housing, and the Project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

Threshold b: Less-than-Significant Impact. While commercial uses proposed as part of the Project would create a demand for additional housing, including affordable housing, the Project would accommodate a total of 433 dwelling units on site, including 80 age-qualified multi-family dwelling units. The proposed age-qualified units would provide for affordable housing, as the HDR land use designation represents one of the more affordable categories of housing under the General Plan Land Use Element. Furthermore, the Riverside County

General Plan designates areas of the County in which lower-income housing can be accommodated to meet the County's RHNA obligations, and does not rely on residential development on the Project site in order to meet its RHNA obligations. Moreover, it is anticipated that any future employees generated by the Project could be accommodated by the dwelling units proposed on site, existing residential communities, and/or by future residential uses to be constructed in accordance with the General Plan Land Use Plan or the general plans of cities within the County, and that no additional housing, including housing affordable to households earning 80% or less of the County's median income, would be required to accommodate Project-related employees. Impacts would be less than significant.

Threshold c: Less-than-Significant Impact. The intensity and density of land uses proposed by the Project generally would conform to the site's existing General Plan and Specific Plan land use designations. Because the Project would redesignate lands planned for urban uses with similar urban uses, and because the Project would result in a substantial reduction in areas designated for CR land uses as compared to the site's existing Specific Plan land use designations, the Project would not directly induce substantial unplanned population growth in the area, and impacts would be less than significant. The Project also would not indirectly induce substantial unplanned population growth due to infrastructure improvements, and impacts would be less than significant.

4.15.7 County Regulations, Design Requirements, and Mitigation

No significant environmental impacts related to population and housing would occur due to the Project. No mitigation measures are required.

4.16 PUBLIC SERVICES

This Subsection provides information on existing public services and service levels for fire protection, police protection, schools, libraries, and public health facilities, and evaluates impacts to the environment that may result from the demand the Project may have on such services.

4.16.1 EXISTING CONDITIONS

A. Fire Protection/Emergency Medical Services

Fire protection services for the Project site are provided by the Riverside County Fire Department (RCFD). The RCFD provides a full range of fire services within the County and contracting cities. The level of service provided is dependent on response times, travel distance, and staffing workload levels established in the Riverside County Fire Protection and Emergency Medical Aid Plan. The Fire Protection and Emergency Medical Aid Plan contains four fire response categories that are used to determine the response times/travel distances for primary and secondary fire stations. The response categories are based on the amount of community build-out presumed in the Fire Protection and Emergency Medical Aid Plan. The Fire Department assumes in any given region that three or more fire engines respond to any reported fire.

The fire stations that would serve the Project as the first responder are RCFD Station #83 located at 37500 Sky Canyon Dr, Murrieta, CA, approximately 4.6 miles and nine (9) minutes driving time to the furthest point in the Project site, and RCFD Station #34, located at 32655 Haddock St, Winchester, CA, approximately 5.8 miles and nine (9) minutes driving time to the furthest point in the Project site. (FireWise, 2021, p. 12) According to Riverside County GIS, the Project site is not located within a State Responsibility Area/Federal Responsibility Area, however, the northeast corner of Project site, along with lands abutting the Project site to the west, north, and east are classified as having a "Very High" susceptibility to wildfire hazards (RCIT, 2021).

B. Sheriff Services

The Riverside County Sheriff's Department (RCSD) provides community policing for the Project area. The Sheriff Station serving the Project area is the Murrieta Station, located at 30755 Auld Road Suite A in Murrieta, CA, 92563. The Station is approximately 4.6 miles south of the Project site (Google Earth, 2021). In addition to community policing, other services provided by the Sheriff's Department include, but are not limited to, operating of the emergency 911 system, operating correctional facilities, performing traffic control, and providing crime prevention education. Also, the Sheriff's Department coordinates with volunteer groups such as Neighborhood Watch Programs and the Community Oriented and Policing Problem Solving (COPPS) Program and the Community Oriented Policing (COP) Program. COPPS shifts the focus of police work from a solely reactive mode by supplementing traditional law enforcement methods with proactive problem-solving approaches that involve the community as well as the police.

Unincorporated Riverside County has set a minimum standard of 1.0 deputy per 1,000 residents. This standard was adopted as part of the "Commitment to Public Safety and Citizens' Option for Public Safety," by the Board of Supervisors on September 17, 1996. The Sheriff's Department has indicated that their desired staffing level is 1.2 deputies per 1,000 residents, while Mitigation Measure 4.15.C of EIR No. 441 establishes a standard of 1.5 sworn peace officers per 1,000 population.

C. Schools

The Project site is located in the attendance boundary of the Menifee Union School District (MUSD) for K-8 school services, and the Perris Union High School District (PUHSD) for high school services. The nearest school within the MUSD is Harvest Hill Steam Academy, which provides K-8 school services and is located at 31600 Pat Road in Winchester, or approximately 0.5-mile southwest of the Project site. The nearest high school within the PUHSD is the Liberty High School, located at 32255 Leon Road in Winchester, or approximately 3.6 miles northwest of the Project site. (Google Earth, 2021) In the 2010-2011 school year, the MUSD had a total enrollment of 8,884 students, while the PUHSD had an enrollment of 10,610 students. (Riverside County, 2015, Table 4.17-Q)

D. Libraries

The Project site is located within the Riverside County Public Library System (RCPLS) service area. The County of Riverside operates a system of 35 libraries and two book mobiles (one serving Coachella Valley and one serving western Riverside County) to serve unincorporated populations. In addition, the Riverside County Library System operates an automated network that currently deploys over 350 computer/terminal workstations in the library branches of the Riverside County Library System, Riverside Public Library, Moreno Valley Library, Murrieta Public Library, Murrieta Valley High School, and College of the Desert. The network can also be accessed by Riverside County residents via the Internet. The library system manages the library catalog of the 1.3 million items in the library system and the annual checkout of over 3.5 million books, audios, and videos. For 2010, the Riverside County Library System reported a total of 681,117 'registered borrowers' utilizing County library services. (Riverside County, 2015, pp. 4.17-65 and 4.17-66)

The Riverside County library system does not maintain a specific numerical factor to analyze the needs created by new development. However, the American Library Association suggests that an appropriate service criterion would be availability of convenient library facilities and book reserves at a rate of 0.5 square foot of library space and 2.5 volumes per capita. The County's ability to support the needs of future growth is dependent upon its ability to secure sites for, construct, and stock new libraries on a timely basis. As of 2015, there was no specific funding mechanism for expansion of library facilities. Based on 2010 reported registered borrowers (681,117) and current square footage of library facilities available (333,884), as of 2015 facilities provided approximately 0.49 square feet of space per registered borrower (not the Riverside County population as a whole). (Riverside County, 2015, p. 4.17-66)

The nearest library servicing the proposed Project site is the Menifee Library, located at 28798 La Piedra Road in the City of Menifee. The Menifee Library is located approximately 5.7 miles northwest of the Project site. (Google Earth, 2021) It is also worth noting that the French Valley Public Library is under construction and will be located 1.8 miles south of the Project site.

E. Health Services

Public health services in Riverside County are provided by the County Department of Public Health. However, most health services are provided by the private sector. The nearest medical facility to the Project site is the Riverside Medical Clinic located at 33040 Antelope Road in Murrieta. The Riverside Medical Clinic is located approximately 5.5 miles northwest of the Project site. (Google Earth, 2021) The Riverside Medical Clinic provides a comprehensive range of health services and medical programs.

4.16.2 Applicable Environmental Regulations

A. State Regulations

1. Fire Protection Services Regulations and Plans

- **Public Resources Code (PRC) Sections 4290-4299**

These sections establish minimum statewide fire safety provisions pertaining to: roads for fire equipment access; signs identifying streets, roads, and buildings; minimum private water supply reserves for emergency fire use; and fire fuel breaks and greenbelts. With certain exceptions, all new construction after July 1, 1991, in potential wildland fire areas, is required to meet these statewide standards. The state requirements, however, do not supersede more restrictive local regulations. (CA Legislative Info, n.d.)

As defined by CalFire, wildland areas defined as State Responsibility Areas (SRAs) may contain substantial wildfire risks and hazards. They consist of lands exclusive of cities, and federal lands regardless of ownership. The primary financial responsibility for preventing and suppressing fires within wildlands belongs to the State of California. However, it is not the State of California's responsibility to provide fire protection services to buildings or structures located within the wildlands unless CalFire has entered into a cooperative agreement with a local agency for those purposes pursuant to PRC Section 4142. As such, wildland areas require disclosure of these fire hazards in real estate transactions, and owners of properties in wildland areas are subject to PRC Section 4291 maintenance requirements. The law requires CalFire every five years (1991, 1996, 2001, etc.) to provide maps identifying the boundaries of lands classified as SRAs to the Riverside County Assessor. (CA Legislative Info, n.d.)

- **PRC Sections 4102 and 4127 - State Responsibility Areas (SRAs)**

PRC Section 4102 specifies that "'State responsibility areas' means areas of the state in which the financial responsibility of preventing and suppressing fires has been determined by the [State Fire] Board pursuant to Section 4125, to be primarily the responsibility of the state." These areas may contain state or privately-owned forest, watershed, and rangeland. §§ 4126-4127 of the PRC further specify the standards that define what does and does not constitute an SRA. (CA Legislative Info, n.d.)

- **California Code of Regulations (CCR) Title 24, Parts 2 and 9 – Fire Codes**

Part 2 of Title 24 of the CCR refers to the California Building Code which contains complete regulations and general construction building standards of State of California adopting agencies, including administrative, fire, and life safety and field inspection provisions. Part 2 was updated in 2019 to reflect changes in the base document from the Uniform Building Code to the 2018 International Building Code. Part 9 refers to the California Fire Code, which contains other fire safety-related building standards. In particular, Chapter 7A, "Materials and Construction Methods for Exterior Wildfire Exposure," in the 2019 California Building Code addresses fire safety standards for new construction and Section 701A.3.1 addresses "New Buildings Located in Any Fire Hazard Severity Zone." Additionally, Chapter 49 specifies fuel modification requirements for wildland-urban interface areas that are prone to fire hazards. (BSC, n.d.)

❑ **CCR Title 14 – Natural Resources**

These regulations constitute the basic wildland fire protection standards of the California Board of Forestry. They were prepared and adopted to establish minimum wildfire protection standards in conjunction with building, construction, and development within SRAs. Among other things, Title 14 requires the design and construction of structures, subdivisions, and developments in an SRA provide for basic emergency access and perimeter wildfire protection measures (fire fuel modification zones, etc.). (Westlaw, n.d.)

❑ **California Government Code (CGC) Sections 51178-51179 – Very High Fire Hazard Severity Zones**

Section 51178 specifies that the Director of CalFire, in cooperation with local fire authorities, must identify areas that are Very High Fire Hazard Severity Zones (VHFHSZs) in Local Responsibility Areas (LRAs), based on consistent statewide criteria and the expected severity of fire hazard. It further specifies that VHFHSZs "shall be based on fuel loading, slope, fire weather and other relevant factors," including areas subject to Santa Ana winds which are a "major cause of wildfire spread." Section 51179 states that a local agency (such as a county) must also designate (and map) the VHFHSZs in its jurisdiction by ordinance. (See the discussion on Ordinance No. 787, below, regarding Riverside County's VHFHSZs). Other portions of the Government Code outline when a local agency may use its discretion to exclude areas from VHFHSZ requirements or add areas not designated by the State of California to its VHFHSZ areas. (CA Legislative Info, n.d.)

❑ **CGC Section 51182 – Defensible Space**

Pursuant to this code, a person who "owns, leases, controls, operates or maintains an occupied dwelling or occupied structure in, upon or adjoining a mountainous area, forest-covered land, brush-covered land, grass-covered land or land that is covered with flammable material" in a very high fire hazard severity zone designated by the local agency pursuant to § 51179, shall at all times maintain a specified amount of "defensible space" to protect structures in high fire hazard areas. (CA Legislative Info, n.d.)

❑ **PRC Section 4213 - Fire Prevention Fees**

Pursuant to PRC Section 4213, in July of 2011, the State of California began assessing an annual "Fire Prevention Fee" for all habitable structures within the State's Responsibility Area (SRA) to pay for fire prevention services. The SRA is the portion of the state where the State of California is financially responsible for the prevention and suppression of wildfires. The SRA does not include lands within incorporated city boundaries, Tribal or federally owned land. As a result of AB 398, California Global Warming Solutions Act of 2006, the fire prevention fee was suspended as of July 1, 2017. (FindLaw, n.d.)

2. School Services Regulations and Plans

❑ **Assembly Bill (AB) 16**

In 2002, AB 16 created the Critically Overcrowded School Facilities program, which supplements the new construction provisions within the School Facilities Program (SFP). The SFP provides State of California funding assistance for new facility construction projects and modernization projects. The Critically Overcrowded School Facilities program allows school districts with critically overcrowded school facilities, as determined by the California Department of Education (CDE), to apply for new construction projects in

advance of meeting all SFP new construction program requirements. Districts with SFP new construction eligibility and school sites included on a CDE list of source schools may apply. (CA Legislative Info, n.d.)

❑ Leroy F. Greene School Facilities Act of 1998 (Senate Bill [SB] 50)

Senate Bill 50 (SB 50) was enacted by the State Legislature in 1998, which amended existing state law governing school fees. In particular, SB 50 amended prior California Government Code (CGC) Section 65995(a) to prohibit state or local agencies from imposing school impact mitigation fees, dedications, or other requirements in excess of those provided in the statute in connection with "any legislative or adjudicative act...by any state or local agency involving...the planning, use, or development of real property...." (CA Legislative Info, n.d.)

The legislation also amended CGC Section 65996(b) to prohibit local agencies from using the inadequacy of school facilities as a basis for denying or conditioning approvals of any "legislative or adjudicative act [involving] the planning, use or development of real property." Further, SB 50 established the base amount of allowable developer fees: $1.93 per square foot for residential construction and $0.31 per square foot for commercial. These base amounts are commonly called "Level 1 fees" and are the same caps that were in place at the time SB 50 was enacted. Level 1 fees are subject to inflation adjustment every two years. (CA Legislative Info, n.d.)

In certain circumstances, for residential construction, school districts can impose fees that are higher than Level 1 fees. School districts can impose Level 2 fees, which are equal to 50% of land and construction costs if they: (1) prepare and adopt a school needs analysis for facilities; (2) are determined by the State Allocation Board to be eligible to impose these fees; and (3) meet at least two of the following four conditions: (CA Legislative Info, n.d.)

- At least 30% of the district's students are on a multi-track year-round schedule.
- The district has placed on the ballot within the previous four years a local school bond that received at least 50% of the votes cast.
- The district has passed bonds equal to 30% of its bonding capacity.
- Or, at least 20% of the district's teaching stations are relocatable classrooms.

Additionally, if the State of California's bond funds are exhausted, a school district that is eligible to impose Level 2 fees is authorized to impose even higher fees. Commonly referred to as "Level 3 fees," these fees are equal to 100% of land and construction costs of new schools required as a result of new developments. (CA Legislative Info, n.d.)

4.16.3 Basis for Determining Significance

Section XV of Appendix G to the State CEQA Guidelines addresses typical adverse effects to public services, and includes the following threshold question to evaluate a project's impacts to public services (OPR, 2018a):

- Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered government 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 public services:

- Fire Services;
- Sheriff Services;
- Schools;
- Parks; or
- Other Public Facilities?

Significance thresholds are set forth in Riverside County's Environmental Assessment Checklist, have been updated to reflect the 2018 revisions to Appendix G to the State CEQA Guidelines, and state that the proposed Project would result in a significant impact to public services if the Project or any Project-related component would:

a. *Result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities or the need for new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection facilities;*

b. *Result in substantial adverse physical impacts associated with the provision of new or physically altered sheriff facilities or the need for new or physically altered sheriff facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for sheriff services;*

c. *Result in substantial adverse physical impacts associated with the provision of new or physically altered school facilities or the need for new or physically altered school facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for school services;*

d. *Result in substantial adverse physical impacts associated with the provision of new or physically altered library facilities or the need for new or physically altered library facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for library services; or*

e. *Result in substantial adverse physical impacts associated with the provision of new or physically altered health care facilities or the need for new or physically altered health care facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for health care services.*

The significance thresholds set forth in Riverside County's Environmental Assessment Checklist, as modified/updated per the 2018 updates to the State CEQA Guidelines, were used to evaluate the significance of the proposed Project's impacts on public services.

4.16.4 IMPACT ANALYSIS

Threshold a:	***Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities or the need for new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection facilities?***

The Project would entail development of the 196.0-acre Project site with up to 176,000 square feet (s.f.) of "Commercial Retail" land uses on 13.3 acres, 277 "Medium-Density Residential (MDR)" dwelling units on 61.2 acres, 76 "Medium-High-Density Residential (MHDR)" dwelling units on 14.1 acres, 80 "High-Density Residential (HDR)" dwelling units that would be age qualified on 7.3 acres, 1.0 acre of "Community Development-Very Low Density Residential (VLDR)" land uses (with no dwelling units proposed within the VLDR area), 10.5 acres of "Open Space-Recreation (OS-R)" land uses, 11.2 acres of "Open Space-Water (OS-W)" land uses, 61.4 acres of "Open Space-Conservation Habitat (OS-CH)" land uses, and 16.0 acres of major circulation facilities. The Project would place additional demand on the RCFD, which provides fire protection services in the Project area. Implementation of the Project would cumulatively affect the Department's ability to service the planned population.

The Project would require an "Urban – Category II" level of service as defined by the Riverside County Fire Protection Master Plan. This classification requires a fire station to be within three roadway miles of all areas of the Project and a full first alarm assignment team operating on the scene of a fire within 15 minutes of dispatch. The primary station serving the Project area (RCFD Station #83) is located approximately 4.6 miles and nine (9) minutes driving time to the furthest point in the Project site, while RCFD Station #34, located approximately 5.8 miles and nine (9) minutes driving time to the furthest point in the Project site, would provide secondary fire protection services to the Project site. Although the distance to the nearest fire stations slightly exceeds the stated goal of having a fire station within 3.0 roadway miles, based on the travel distance between the Project site and Stations #83 and #34, the first unit should arrive at the proposed Project site within approximately nine minutes after dispatch. The estimated response time is approximate but demonstrates that the RCFD would be able meet the Urban Land Use protection goals of the Fire Protection Master Plan for the Project. (RCFD, n.d.; FireWise, 2021, p. 12)

As a condition of Project approval, the proposed Project would be required to conform to all mandatory local, State, and federal laws, ordinances, and standards relating to fire safety. Among other items, these requirements include conformance with Chapter 7A of the California Building Code, which requires that all buildings be constructed with fire retardant roofing material, as well as standard Riverside County Fire Department conditions of approval (COAs) for specific plans, which prohibit flag lots and require alternative/secondary access routes to neighborhoods. The alternative/secondary access routes would be required to be maintained throughout construction and buildout of the Project. Additionally, the Project would be subject to the fire code standards established as part of Riverside County Ordinance No. 787 (Fire Code Standards).

Nonetheless, development of the proposed Project would impact fire services by placing an additional demand on existing County Fire Department resources and personnel. In accordance with the Riverside County Fire Protection Master Plan, a new fire station and/or appropriate fire company is required for the development of

2,000 dwelling units or more. The Project proposes the development of only 433 dwelling units, and as such, the Project would not result in the need for a new fire station in the local area. The Project would result in an increased number of emergency and public service calls due to the increased presence of structures, traffic, residents, and employees. Although new fire protection facilities ultimately may be needed in the Project area to serve the Project and other future development in the area, it is not possible to identify environmental impacts that may be associated with the development of any new fire protection facilities until a specific proposal and design for the facility is prepared by the RCFD. Accordingly, impacts due to the construction of new or expanded fire protection facilities are too speculative for evaluation in this EIR (State CEQA Guidelines § 15145). Environmental effects of such fire protection facilities and any associated mitigation would be identified through a future CEQA process required in association with any future proposals for new or expanded fire protection facilities.

The Project also would be required to adhere to Riverside County Ordinance No. 659, which requires payment of a Development Impact Fee (DIF) to assist the County in providing for fire protection facilities, including fire stations. Payment of the DIF fee would ensure that funds are available for capital improvements, such as land/equipment purchases and fire station construction. Accordingly, Project-related impacts to fire protection services are evaluated as less than significant and no mitigation beyond payment of DIF fees would be required.

Threshold b:	***Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered sheriff facilities or the need for new or physically altered sheriff facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for sheriff services?***

The Project would result in an approximate population increase of 1,288 residents and approximately 352 employees. The incremental increase in population and jobs to the region could result in an incremental increase in criminal activity such as burglaries, thefts, auto thefts, vandalism, etc. However, according to the RCSD, there is not a direct correlation between population growth, the number of crimes committed, and the number of RCSD personnel needed to respond to these increases. As the population and use of an area increases, however, additional financing of equipment and manpower needs are required to meet the increased demand.

The proposed Project would result in an increase in the cumulative demand for services from the RCSD, which provides police protection services to the Project area. Specifically, the Project would generate a demand for approximately 3 new sworn officers ((1,288 residents + 352 employees) x 1.5 officers/1,000 population = 2.5 officers), based on the 1.5 per 1,000 population service standard (Riverside County, 2015, Table 4.17-H). Staff necessary to support the additional deputies would include an appropriate level of civilian, investigation, and supervisory personnel. The proposed Project would not, however, in and of itself result in the need for new or expanded sheriff facilities.

The Project is required to adhere to Riverside County Ordinance No. 659, which requires payment of DIF fees to assist the County in providing for sheriff protection services, including new or expanded facilities. Payment of the DIF fee would ensure that funds are available for capital improvements, such as land/equipment purchases and fire station construction. Accordingly, Project-related impacts to fire protection services are evaluated as less than significant and no mitigation beyond payment of DIF fees would be required.

Therefore, implementation of the Project would not result in the need for new or expanded sheriff facilities, and impacts would be less than significant. The Project's incremental demand for sheriff protection services also would be less than significant because the Project would be required to contribute DIF fees. Accordingly, a less-than-significant impact would occur with respect to sheriff protection services or facilities as a result of implementation of the proposed Project.

Threshold c:	***Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered school facilities or the need for new or physically altered school facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for school services?***

Although the Project would result in the future development of 433 dwelling units on site, 80 of the proposed dwelling units would consist of age-restricted units that would not generate a student-aged population. The remaining 353 dwelling units would, however, generate a student-aged population. The construction of 353 single-family dwelling units as planned under the proposed Project would increase the population in the County of Riverside and would consequently place greater demand on the existing public-school system by generating additional students to be served by the MUSD and/or PUHSD.

As indicated in Table 4.16-1*, Project-Related Student Generation*, and based on the student generation rates used in Riverside County EIR No. 521, the Project would generate 130 elementary school students within the MUSD; 71 middle school students within the MUSD; and 87 high school students within the PUHSD. In total, the Project would generate approximately 288 students. (Riverside County, 2015, Table 4.17-R)

Table 4.16-1 Project-Related Student Generation

School District	School Type	Grades Served	Student Generation Rate	Dwelling Units	Project-Generated Students
MUSD	Elementary School	K-6	0.369 students/du	353	130
	Middle School	7-9	0.201 students/du	353	71
PUHSD	High School	10-12	0.246 students/du	353	87
			Totals:	**353 du**	**288 students**

Notes: MUSD = Menifee Union School District; PUHSD = Perris Union High School District; du = dwelling units.
(Riverside County, 2015, Table 4.17-R)

Based on the scale of the proposed Project, there is a potential that existing elementary, middle, and high schools within the Project vicinity would not be able to accommodate students generated by the proposed Project. New school facilities may be needed to either serve future students generated by the Project, or to shift attendance boundaries to free up capacity at one or all of the schools that may serve the Project. Although the MUSD and/or PUHSD may need to construct new school facilities to meet the growing demand within this portion of unincorporated Riverside County, there are no current publicly-available plans detailing where such facilities would be built. Although the Project may cause or contribute to the need for new or expanded school facilities, it is not possible to identify environmental impacts that may be associated with the construction of new or expanded school facilities until a specific proposal and design for the facility is prepared by the

applicable school district, and an analysis of potential physical environmental impacts resulting from the construction and operation of new or expanded school facilities would be speculative in nature (see State CEQA Guidelines § 15145). Environmental effects of such school facilities and any associated mitigation would be identified through a future CEQA process required in association with any future proposals for new or expanded school facilities. Any mitigation measures required for new or expanded school facilities could be funded, in part, from property taxes and/or through payment of school impact fees (as discussed below).

Although it is not possible to identify physical environmental effects that may result from new or expanded school facilities, the Project would be required to contribute school impact fees to the MUSD and PUHSD in accordance with Riverside County Ordinance No. 575. Pursuant to the Leroy F. Greene School Facilities Act of 1998, payment of school impact fees constitutes full and complete mitigation for project-related impacts to school services. Although the Project's demand for school services likely would not be accommodated by existing facilities or staffing levels, mandatory payment of school impact fees still would be required and would ensure that the Project's impacts to school facilities and services would be less than significant.

Threshold d:	***Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered library facilities or the need for new or physically altered library facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for library services***

Development of the proposed Project would increase the region's population, creating an additional demand for library facilities and services. Development of the site with 433 residential homes would result in an increase in the area's population by approximately 1,288 residents (Riverside County, 2021, Appendix E1, p. 2).

Although use of the internet has resulted in decreased demand being placed on library services nation-wide, the County continues to maintain its standards for book titles and library square footage. Library services in the County of Riverside are provided by the Riverside County Public Library System (RCPLS). To attain the RCPLS level of service standard of 2.5 titles-per-capita, the Project-generated population would require an additional 3,220 book titles (2.5 titles-per-capita x 1,288 residents = 3,220 titles). To attain the RCPLS standard of 0.5 square foot of library space per capita, the Project would create the demand for 644 square feet of additional library space (0.5 s.f. of library space per capita x 1,288 residents = 644 s.f. of library space). (Riverside County, 2015, Table 4.17-W)

Development of the Project would contribute to an existing deficiency in library service standards. The provision of additional library space would be addressed through the County's compliance with the adopted level of service standards. Additionally, mandatory compliance with Riverside County Ordinance No. 659 would require the payment of DIF fees. These fees would provide funding for library books and library expansion projects. Although new library facilities may be under consideration by the RCPLS in the Project area, it is not possible to identify environmental impacts that may be associated with the development of any new library facilities until a specific proposal and design for the facility is prepared by the RCPLS. Accordingly, impacts due to the construction of new or expanded library facilities are too speculative for evaluation in this EIR (State CEQA Guidelines § 15145). Environmental effects of such library facilities and any associated mitigation would be identified through a future CEQA process required in association with any

future proposals for new or expanded library facilities. Any mitigation measures required for new or expanded library facilities could be funded, in part, from property taxes, including increased property taxes resulting from buildout of the Project site. As such, Project impacts to library facilities and resources are evaluated as less than significant.

Threshold e:	***Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered health care facilities or the need for new or physically altered health care facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for health care services?***

The nearest medical facility to the Project site is the Riverside Medical Clinic located at 33040 Antelope Road in Murrieta. The Project would introduce approximately 1,288 new residents and 352 employees to the area. According to Section 4.17, *Public Facilities*, of EIR No. 521, a population of 1,000 persons generates the need for 1.9 hospital beds (Riverside County, 2015, p. 4.17-79). Using the 1.9 hospital beds per 1,000 persons generation factor, the Project would generate the need for approximately 3 additional hospital beds ((1,288 residents + 353 employees) x 1.9 beds/1,000 population = 3.1 hospital beds).

The provision of private health care is largely based on economic factors and demand and is beyond the scope of analysis required for this EIR. However, EIR No. 521 concluded impacts associated with buildout of the General Plan would be less than significant, and further notes that: "compliance with…existing General Plan policy and existing Mitigation Measures 4.15.7A and 4.15.7B from EIR No. 441, would further reduce or avoid the insignificant impacts…" (Riverside County, 2015, p. 4.17-18). Mitigation Measure 4.15.7A requires the County to perform periodic medical needs assessments to evaluate the current medical demand and level of medical service provided within each Area Plan every three years. Mitigation Measure 4.15.7B requires the County to fund the new construction and/or expansion of existing medical facilities according to the level of demand for medical services based on the needs assessment required as part of Mitigation Measure 4.15.7A.

Furthermore, mandatory compliance with County Ordinance No. 659 requires a DIF fee payment to the County that is partially allocated to public health services and facilities. While new or expanded health care facilities may ultimately be needed within the County due to the anticipated growth in population, it is not possible to identify environmental impacts that may be associated with the development of any new health care facilities until a specific proposal and design for the facility is prepared. Accordingly, impacts due to the construction of new or expanded health care facilities are too speculative for evaluation in this EIR (State CEQA Guidelines § 15145). As such, impacts to public medical facilities and resources associated with the proposed Project would be less than significant.

4.16.5 Cumulative Impact Analysis

The cumulative study area for public services encompasses the service area of the RCFD, RCSD, MUSD, PUHSD, and/or RCPLS, and assumes full buildout of the General Plans for jurisdictions within these service areas.

Although the proposed Project would be adequately served by fire protection services, based on the response times estimated from nearby fire station facilities, the Project would nonetheless result in an incremental

increase in requests for service, which would affect the fire department's ability to provide acceptable levels of service. These impacts include an increased number of emergency and public service calls due to the increased presence of structures, increased traffic volumes, and increased population. When considered in the context of on-going cumulative development throughout western Riverside County, such impacts would be cumulatively considerable. However, the proposed Project and all cumulative developments within unincorporated Riverside County would be required to contribute DIF fees pursuant to County Ordinance No. 659. Mandatory DIF fee contributions by the Project and cumulative developments would ensure that adequate funding is provided to the Riverside County Fire Department for the acquisition of additional facilities, equipment, and personnel. Accordingly, the proposed Project's impact to the RCFD is evaluated as less-than-cumulatively considerable.

Although the Project site would be adequately served by sheriff facilities, the increased population that would be generated by the Project, when considered in conjunction with other on-going development throughout western Riverside County, has the potential to adversely affect service response times. However, the proposed Project and all cumulative developments would be required to contribute DIF fees pursuant to County Ordinance No. 659, which would help to provide for adequate equipment and personnel in the Project area. Therefore, with mandatory payment of DIF fees, Project impacts to police protection services would be less-than-cumulatively considerable.

The proposed Project would generate approximately 288 school-age children, and thus would result in an increase in demand for school services. The proposed Project, when considered in conjunction with on-going development throughout the service area for the MUSD and PUHSD would cumulatively affect the ability of these school districts to provide school services. However, the Project and all cumulative developments would be required to contribute fees to these school districts in accordance with Riverside County Ordinance No. 575. Pursuant to the Leroy F. Greene School Facilities Act of 1998, payment of school impact fees constitutes complete mitigation for project-related impacts to school services. Therefore, although the Project's impacts to school services would be cumulatively considerable, cumulatively-considerable impacts would be less than significant with contribution of mandatory school impact fees.

The proposed Project, when considered in conjunction with on-going development throughout western Riverside County, would cumulatively affect the ability of the RCPLS to serve the local community with library services. It is not possible to identify environmental impacts that may be associated with such new or expanded library facilities until a specific proposal and design for such facilities are prepared by the RCPLS. Accordingly, impacts due to the construction of new or expanded library facilities are too speculative for evaluation in this EIR (State CEQA Guidelines § 15145). Environmental effects of such library facilities and associated mitigation would be identified through a future CEQA process required in association with any future proposals for new or expanded library facilities. However, the Project and all cumulative developments would contribute property taxes and would be required to contribute DIF fees to Riverside County pursuant to County Ordinance No. 659, which could be used for the purpose of acquiring book titles and/or additional library square footage. Any mitigation measures required for new or expanded library facilities also could be funded, in part, from property taxes allocated by Riverside County to such purposes. Therefore, because environmental impacts associated with new or expanded library facilities cannot be known at this time and would be determined in the future once Riverside County identifies a specific proposal for new or expanded

library facilities, Project impacts to library services and facilities are evaluated as less than significant on a cumulatively-considerable basis.

The proposed Project, when considered in conjunction with on-going growth and development in western Riverside County, would cumulatively impact the ability of local medical facilities that provide health services. However, the Project and all cumulative developments would be required to comply with County Ordinance No. 659, which requires a development impact fee payment to the County that is partially allocated to public health services and facilities. With mandatory compliance with Ordinance No. 659, the Project's impacts to health services and facilities would be less than significant on a cumulatively-considerable basis.

4.16.6 Significance Of Impacts Before Mitigation

Threshold a: Less-than-Significant Impact. With payment of mandatory DIF fees, the proposed Project's potential direct and cumulatively-considerable impacts to the Riverside County Fire Department would be reduced to less-than-significant levels, and the Project would not result in or require the construction of new fire protection facilities that could result in a significant impact to the environment.

Threshold b: Less-than-Significant Impact. With payment of mandatory DIF fees, the proposed Project's potential direct and cumulatively-considerable impacts to the Riverside County Sheriff's Department would be reduced to less-than-significant levels, and the Project would not result in or require the construction of new police protection facilities that could result in a significant impact to the environment.

Threshold c: Less-than-Significant Impact. The Project would generate approximately 288 students on an annual basis. Although the MUSD and PUHSD may need to construct new school facilities to meet the growing demand within this part of Riverside County, the payment of mandatory school impact fees would ensure that the Project would not result in significant direct or cumulatively-considerable impacts to the ability of the MUSD and/or PUHSD to provide for school services. As such, the Project impacts would be less than significant.

Threshold d: Less-than-Significant Impact. Although the Project would contribute to a need for new or expanded library facilities, the Project would be required to contribute DIF fees, which would be used in part to provide for library space and/or new book volumes. Accordingly, with payment of DIF fees, Project impacts to library services and facilities are evaluated as less than significant on both a direct and cumulatively-considerable basis.

Threshold e: Less-than-Significant Impact. With payment of mandatory DIF fees, the Project would result in less-than-significant direct and cumulatively-considerable impacts to health services facilities, and the Project would not result in or require the construction of new health services facilities that could result in a significant impact to the environment.

4.16.7 County Regulations, Design Requirements, and Mitigation

Applicable County Regulations and Design Requirements

The following are applicable regulations and design requirements within Riverside County. Although these requirements technically do not meet CEQA's definition for mitigation, they are imposed herein to ensure Project compliance with applicable County regulations and design requirements.

- As a condition of Project approval, the proposed Project would be required to conform to all mandatory local, State, and federal laws, ordinances, and standards relating to fire safety. Among other items, these requirements include conformance with the Uniform Building Code Section 1503, which requires that all buildings be constructed with fire retardant roofing material, as well as standard Riverside County Fire Department conditions of approval (COAs) for specific plans, which prohibit flag lots and require alternative/secondary access routes to neighborhoods. The alternative/secondary access routes would be required to be maintained throughout construction and buildout of the proposed Project.

- The Project would be required to adhere to Riverside County Ordinance No. 659, which requires payment of a development impact fee (DIF) to assist the County in providing for fire protection facilities (including fire stations), sheriff protection facilities (including sheriff stations), library facilities, and health facilities.

- The Project is required to comply with Riverside County Ordinance No. 575, which requires mandatory payment of school impact fees pursuant to Public Education Code § 17072.10-18.

Mitigation

Impacts would be less-than-significant; therefore, no mitigation is required.

4.17 RECREATION

This Subsection provides an overview of the existing parks and recreational facilities that exist within the Project vicinity and that could potentially be directly or indirectly physically affected by implementation of the proposed Project. The analysis herein is based in part on the Riverside County General Plan Multipurpose Open Space Element and Healthy Communities Element. Refer to Section 7.0, *References*, for a complete list of reference sources.

4.17.1 EXISTING CONDITIONS

A. Federal Parks

The only federal park within the Project vicinity is the San Bernadino National Forest, located approximately 12.0 miles east of the Project site. The San Bernardino National Forest spans both Riverside and San Bernardino Counties. Of the National Forest's 823,816 total acres, approximately 241,600 acres occur within Riverside County, in three discontinuous locations (223,980 acres, 17,453 acres and 167 acres, respectively). The U.S. Forest Service manages this resource. (Riverside County, 2015, p. 4.16-2)

B. State Parks

There are no State parks within the Project vicinity. The nearest State Park is the Lake Perris State Recreation Area, located approximately 14.5 miles northwest of the Project site. The Lake Perris State Recreation Area comprises 9,615 acres and provides recreational activities such as hiking, horseback riding, camping and bird watching as well as numerous recreational water activities on Lake Perris. (Riverside County, 2015, p. 4.16-8; Google Earth, 2021)

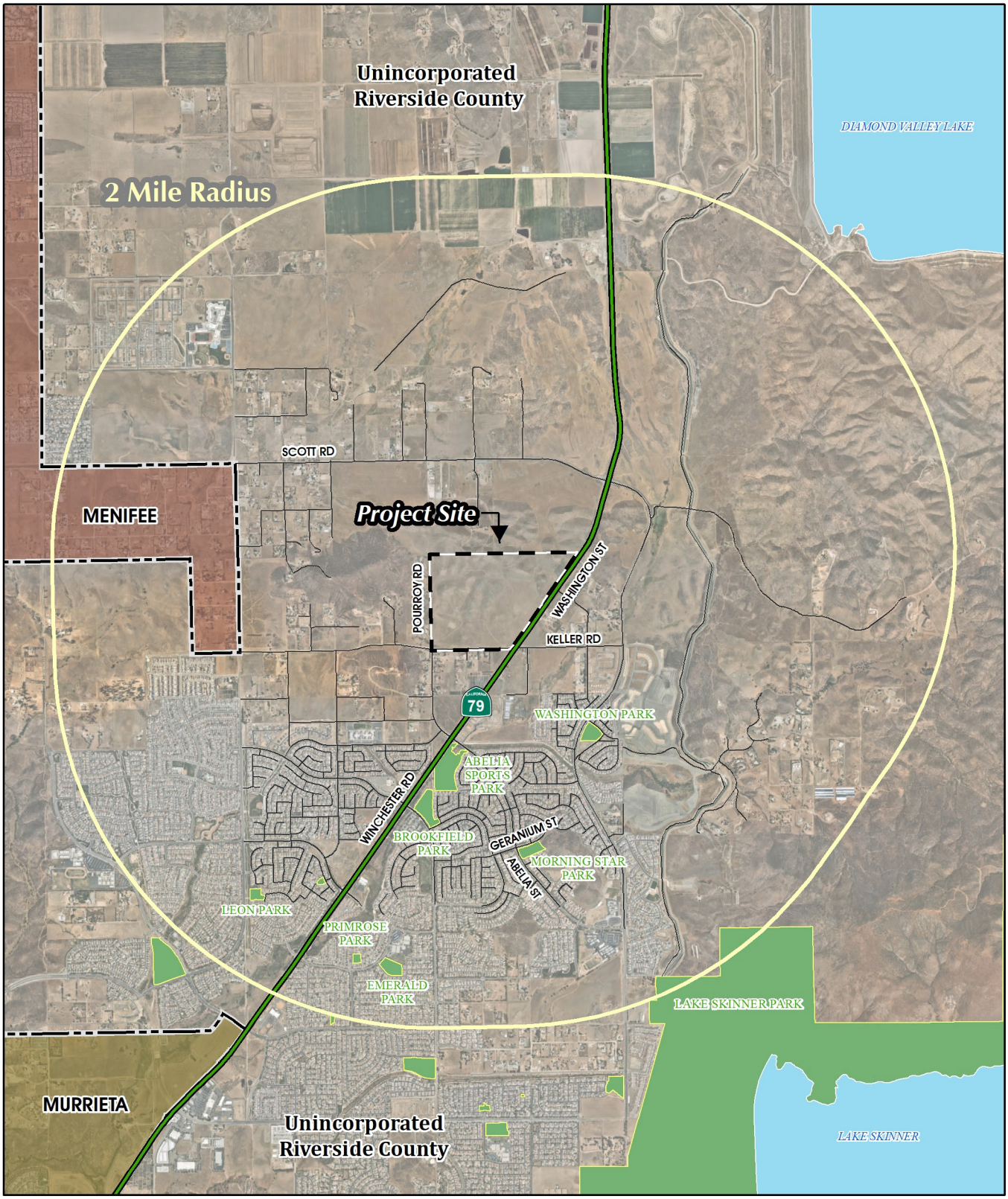
C. Regional and Local Parks

Several regional and local parks occur within a two-mile radius of the Project site. These facilities are depicted on Figure 4.17-1, *Existing Local and Regional Recreation Facilities*, and are described below:

- **Washington Park**. Washington Park is a local park and is located approximately 0.6 mile southeast of the Project site. This facility features one full ball field, two basketball courts, one soccer field, an open play field, a playground, and picnic areas. (Google Earth, 2021)

- **Abelia Sports Park.** Abelia Sports Park is a local park and is located approximately 0.6 mile south of the Project site. This facility includes two full ball fields, a lighted field, one soccer field, a tennis/pickle ball combo court, two basketball courts, one volleyball court, an open play field, a playground, and picnic areas. (Google Earth, 2021)

- **Brookfield Park.** Brookfield Park is a local park located approximately 0.9 mile south of the Project site. This facility includes one full ball field, one soccer field, two basketball courts, one volleyball court, an open play field, a playground, and picnic areas. (Google Earth, 2021)



Source(s): ESRI, Nearmap Imagery (2021), RCTLMA (2021)

0 1,000 2,000 4,000 Feet

Figure 4.17-1

Existing Local and Regional Recreation Facilities

- **Leon Park.** Abelia Sports Park is a local park managed by the Valley Wide Parks and Recreation District (VWPRD) and is located approximately 1.6 miles southwest of the Project site. This facility includes two basketball courts, two playgrounds, and picnic areas. (Google Earth, 2021)

- **Morning Star Park**. Morning Start Park is located at the southwest corner of Geranium Street and Abelia Street, approximately 1.0 mile south of the Project site, and includes a tot lot, two half-court basketball area, and open play fields. (Google Earth, 2021)

- **Emerald Park**. Emerald Park is located east of the intersection of Algarve Avenue and Emerald Drive, approximately 1.7 miles southwest of the Project site, and includes a tot lot, half-court basketball area, a baseball diamond, and an open play area. (Google Earth, 2021)

- **Primrose Park**. Primrose Park is located north of the intersection of McCartney Drive and Cloche Drive, approximately 1.7 mile southwest of the Project site, and includes a tot lot, shaded picnic area, and an open play field. (Google Earth, 2021)

D. Regional and Local Trails

The Southwest Area Plan (SWAP) identifies the County's long-term objectives for recreational trails and bikeways within the Project area. As shown on Figure 8 of the SWAP, there are proposed Community Trails along Leon Road, Keller Road, and Pourroy Road and a proposed regional trail along Abelia Street. (Riverside County, 2021, Figure 8)

4.17.2 Applicable Environmental Regulations

A. State Regulations

1. Quimby Act, California Government Code § 66477

The State of California's Quimby Act was established by the California Legislature for the purpose of preserving open space and providing park facilities for California's growing communities. The Quimby Act allows local agencies to establish ordinances requiring residential subdivisions to provide land or "in-lieu-of" fees for park and recreation purposes. This State Act requires the dedication of land and/or imposes a requirement of fees for park and recreational purposes as a condition of approval of tentative tract map or parcel map.

B. Local Regulations

1. Riverside County Ordinance No. 460

Riverside County Ordinance No. 460 establishes the key provisions addressing the division of land in Riverside County. Among other things, in Section 10.35 (Park and Recreation Fees and Dedications), it specifies that: "Whenever land that is proposed to be divided for residential use lies within the boundaries of a public agency designated to receive dedications and fees pursuant to this section, a fee and/or the dedication of land shall be required as a condition of approval of the division of land." It further specifies that dedication of 3 acres of parkland per 1,000 population, or payment of a fee in-lieu of such dedication, is necessary for the "public interest, convenience, health, welfare and safety." The fee and/or land dedications or improvements can only

be used to provide neighborhood and community parks that would serve the proposed development. (Riverside County, 2015, p. 4.16-17)

2. Valley-Wide Recreation and Park District Master Plan

The VWRPD adopted a Master Plan in 2020 in order to provide a guide for the VWRPD for future years. The VWRPD Master Plan sets goals for future parks and recreation development by examining existing needs within the community. The plan also provides population growth generation numbers, along with the park standard of providing five acres of parkland for every 1,000 residents. Because the proposed Project is located within the VWRPD, the Project would dedicate parkland or pay fees to the VWRPD based on the standards identified in the VWRPD Master Plan. (VWRPD, 2020, Exhibit 1)

4.17.3 Basis For Determining Significance

Section XVI of Appendix G to the CEQA Guidelines addresses typical adverse effects to parks and recreation, and includes the following threshold questions to evaluate the Project's impacts to recreational resources (OPR, 2017a):

- *Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?*

- *Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?*

Significance thresholds are set forth in Riverside County's Environmental Assessment Checklist, are derived from Section XVI of Appendix G to the CEQA Guidelines (listed above), and state that the proposed Project would have a significant impact to parks and recreation if construction and/or operation of the Project would:

a. *Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?*

b. *Increase the use of existing neighborhood or regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?*

c. *Be located within a Community Service Area (CSA) or recreation and park district with a Community Parks and Recreation Plan (Quimby fees)?*

d. *Include the construction or expansion of a trail system?*

The significance thresholds set forth in Riverside County's standard Environmental Assessment Checklist were used to evaluate the significance of the proposed Project's impacts on parks and recreation.

4.17.4 IMPACT ANALYSIS

Threshold a:	***Would the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?***
Threshold d:	***Would the Project include the construction or expansion of a trail system?***

The Project Applicant proposes a total of 10.5 acres of "Open Space – Recreation (OS-R)" land uses as part of the Project, including a 6.4-acre active park within Planning Area 8 of proposed SP 380A1 and a recreational paseo on 4.1 acres within proposed Planning Area 9. Additionally, and as previously depicted on EIR Figure 3-5, an 8-foot-wide decomposed granite (d.g.) trail is proposed along the northern edge of Keller Road, an 8-foot-wide sidewalk is proposed along the site's frontage with Winchester Road, and 5-foot sidewalks are proposed along major internal roadways. The physical construction of the on-site recreational facilities is addressed under the relevant issue areas identified throughout this EIR (e.g., air quality, biological resources, cultural resources). Under each relevant topic, the Project's impacts are determined to be less than significant, or mitigation measures are identified to reduce impacts to the maximum feasible extent. There are no components of the proposed recreational facilities that would result in physical environmental impacts that have not already been addressed and accounted for throughout this EIR. Accordingly, Project impacts due to parkland development on-site would be less than significant, requiring no mitigation beyond that which is identified in other portions of the EIR.

Threshold b:	***Would the Project include the use of existing neighborhood or regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?***
Threshold c:	***Is the Project located within a Community Service Area (CSA) or recreation and park district with a Community Parks and Recreation Plan (Quimby fees)?***

The Project site is within the boundaries of the Valley Wide Recreation and Park District (VWRPD), which adopted its 2020 Master Plan in January 2021. The Master Plan establishes a standard of 5.0 acres of parkland for each 1,000 residents. It should be noted that the VWRPD utilizes a different person per household (pph) value than is identified in the Riverside County General Plan; however, for purposes of analysis herein, the VWRPD population generation rates have been utilized for purposes of calculating future population associated with the Project's proposed single-family residential land uses.

Based the VWRPD Master Plan, the VWRPD assumes a population generation factor of 3.12 for single-family residential uses, but does not specify a population generation rate for age-restricted high-density dwelling units. Future population associated with the age-restricted housing component was modeled based on an average persons per household figure obtained from the National Association of Home Builders (NAHB) publication, "Approving 55+ Housing: Facts That Matter," which indicates that age-restricted housing generates approximately 2.11 persons per household. Based on these population generation factors, Table 4.17-1, *Anticipated Project Parkland Demand*, provides a summary of the anticipated Project population and associated parkland demand. (NAHB, n.d., Figure I-2)

As shown in Table 4.17-1, and based on VWRPD's population generation factor for single-family residential uses, the Project's proposed 433 dwelling units would generate a future population of approximately 1,270 persons, resulting in a parkland demand of 6.4 acres. The Project would accommodate a 6.4-acre active park

within Planning Area 8 of proposed SP 380A1 and a recreational paseo on 4.1 acres within proposed Planning Area 9. Thus, in total the Project would accommodate 10.5 acres of parkland, which would exceed the Project's demand for 6.4 acres of parkland by 4.1 acres.

Table 4.17-1 Anticipated Project Parkland Demand

Proposed Land Use	Proposed Dwelling Units	Persons per Household (pph)	Estimated Project Population	Project Parkland Demand (5 acres/ 1,000 persons)[1]
Single Family Residential	353	3.12	1,101	5.5 acres
Age-Qualified High-Density Residential	80	2.11	169	0.9 acres
Totals:	**433**	**--**	**1,270**	**6.4 acres**

1. Totals reflect rounding.
(VWRPD, 2020, p. 13)

Accordingly, because the Project would accommodate 4.1 acres of excess park and recreational facilities, it can be concluded that any use of off-site parks and recreational facilities by future Project residents would be off-set by County residents utilizing on-site recreational facilities. As a result, the Project would not increase the use of existing neighborhood or regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated, and impacts would be less than significant. Additionally, because the Project would exceed the VWRPD parkland standards by 4.1 acres, the Project would be fully consistent with the VWRPD 2020 Master Plan and no in-lieu fee payments (Quimby fees) would be required. Thus, the Project would not conflict with the VWRPD 2020 Master Plan, and impacts would be less than significant and no Quimby fees would be required.

4.17.5 Cumulative Impact Analysis

This cumulative impact analysis considers development of the proposed Project in conjunction with other development projects and planned development within 2.0 miles of the Project site. This cumulative study area was selected due to people's tendency to utilize community recreation facilities near where they reside. The study area also includes portions of the VWRPD Master Plan boundaries, because the Project has a potential to conflict with the VWRPD standard of 5.0 acres of parkland per 1,000 persons, which could represent a cumulatively-considerable impact.

As discussed under the analysis of Thresholds a. and d., cumulatively-considerable impacts associated with the construction of proposed recreational facilities on site have been evaluated throughout this EIR under the appropriate subject heading (e.g., air quality, biological resources, etc.). Where cumulatively-considerable impacts have been identified associated with Project implementation, mitigation measures have been identified to reduce construction-related impacts to the maximum feasible extent. There are no components of the planned trails or recreational facilities on site that have not already been addressed and accounted for throughout this EIR for the Project site. Accordingly, cumulatively-considerable impacts due to the construction of on-site trails and recreational facilities would be less than significant.

As discussed under the analysis of Thresholds b. and c., the Project would accommodate 10.5 acres of recreational facilities on site, which would exceed the VWRPD 2020 Master Plan requirements to provide a

minimum of 6.4 acres of recreational facilities. Because the Project would exceed the VWRPD 2020 Master Plan requirements by approximately 4.1 acres, it can be concluded that any use of off-site recreational facilities by Project residents would be offset by County residents utilizing the proposed recreational facilities on site. Other developments within the region similarly would be required to accommodate adequate parkland on site, or to pay in-lieu fees to be used for acquiring and improving recreational resources within the County. As such, cumulatively-considerable impacts due to the physical deterioration of existing off-site recreational resources would be less than significant.

Additionally, because the Project would accommodate 4.1 acres of excess parkland, the Project would be fully consistent with the VWRPD 2020 Master Plan and no in-lieu fees (Quimby fees) would be required. Other developments within the cumulative study area would similarly be required to comply with the VWRPD 2020 Master Plan or the County's parkland requirements for areas located outside of the VWRPD or would be required to contribute in-lieu fees. As such, Project impacts due to a conflict with the VWRPD 2020 Master Plan would be less-than-cumulatively considerable.

4.17.6 Significance Of Impacts Before Mitigation

Thresholds a and d: Less-than-Significant Impact. The physical construction of the on-site recreational facilities has been addressed under the relevant issue areas identified throughout this EIR (e.g., air quality, biological resources, cultural resources). Under each of these topics, Project impacts are determined to be less than significant, or mitigation measures have been identified to reduce impacts to the maximum feasible extent. There are no components of the planned recreational facilities on site that have not already been addressed and accounted for throughout this EIR. Accordingly, Project impacts due to parkland development on site would be less than significant, requiring no mitigation beyond that which is identified in other portions of this EIR.

Thresholds b. and c.: Less-than-Significant Impact. Because the Project would accommodate 4.1 acres of excess park and recreational facilities, it can be concluded that any use of off-site parks and recreational facilities would be offset by County residents utilizing on-site recreational facilities. As a result, the Project would not increase the use of existing neighborhood or regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated, and impacts would be less than significant. Additionally, because the Project would exceed the VWRPD parkland standards by 4.1 acres, the Project would be fully consistent with the VWRPD 2020 Master Plan and no in-lieu fee payments (Quimby fees) would be required. Thus, the Project would not conflict with the VWRPD 2020 Master Plan, and impacts would be less than significant and no Quimby fees would be required.

4.17.7 County Regulations, Design Standards, and Mitigation

Applicable County Regulations and Design Requirements

The following are applicable regulations and design requirements within Riverside County. Although these requirements technically do not meet CEQA's definition for mitigation, they are imposed herein to ensure Project compliance with applicable County regulations and design requirements.

- The Project would be required to comply with the VWRPD 2020 Master Plan, which sets forth a parkland standard of 5.0 acres per 1,000 residents, specifies parkland dedication requirements, and imposes in-lieu park impact fees to address potential parkland deficiencies.

Mitigation

Impacts to parks and recreation facilities as a result of Project implementation would be less than significant, and mitigation is not required.

4.18 TRANSPORTATION AND TRAFFIC

The following analysis is based on technical reports prepared by Urban Crossroads, Inc. The first report, entitled, "Keller Crossing Specific Plan No. 380 Amendment No. 1 Vehicle Miles Travelled (VMT) Analysis" (herein, "VMT Analysis"), is dated June 22, 2021 and included as *Technical Appendix L1* to this EIR (Urban Crossroads, 2021e). The VMT Analysis assesses the Project's potential impacts due to VMT, as required pursuant to State Senate Bill 743 (SB 743). The second report is entitled, "Keller Crossing Specific Plan Traffic Study" (herein, "TS"), is dated January 20, 2022, and is included as *Technical Appendix L2* to this EIR (Urban Crossroads, 2022). The TS evaluates the potential operating deficiencies of transportation facilities in the proposed Project's Study Area and identifies improvements that would be needed to relieve operational deficiencies.

On December 28, 2018, updates to the California Environmental Quality Act (CEQA) Guidelines were approved by the Office of Administrative Law (OAL). As part of the updates to the State CEQA Guidelines, thresholds of significant for evaluation of impacts to transportation have changed. As required by SB 743, new Threshold b. of the State CEQA Guidelines for Transportation requires an evaluation of impacts due to VMT, which replaced the Level of Service (LOS) criteria (i.e., automobile delay) that has been utilized in the past to evaluate potential effects to transportation under CEQA. Accordingly, although this Subsection discusses the Project's potential effects to LOS and associated consistency with the LOS standards identified in the Riverside County General Plan, Caltrans, and the general plans of cities within the Project's Study Area, it should be noted that pursuant to State CEQA Guidelines Section 15064.3(a), "…a project's effect on automobile delay shall not constitute a significant environmental impact."

4.18.1 EXISTING CONDITIONS

A. *Existing Vehicle Miles Traveled*

Table 4.18-1, *Existing VMT per Capita and Total VMT*, provides a summary of the Existing (2012) VMT per capita and total VMT, and also summarizes the projected VMT per capita and total VMT for Cumulative Year (2040) conditions.

Table 4.18-1 Existing VMT per Capita and Total VMT

	Existing (2012) Conditions		Cumulative Year (2040) Without Project	
	Residential VMT per Capita	Total VMT	VMT per Capita	Total VMT
Riverside County	15.19	53,661,883	16.37	92,554,131

(Urban Crossroads, 2021e, Tables 3 through 6)

B. *Definition of Level of Service (LOS)*

Traffic operations of roadway facilities are described using the term "Level of Service" (LOS). LOS is a qualitative description of traffic flow based on several factors such as speed, travel time, delay, and freedom to maneuver. Six levels are typically defined ranging from LOS A, representing completely free-flow conditions, to LOS F, representing breakdown in flow resulting in stop-and-go conditions. LOS E represents operations at or near capacity, an unstable level where vehicles are operating with the minimum spacing for maintaining uniform flow. (Urban Crossroads, 2022, p. 27)

C. Study Area Description

The 33 Study Area intersections shown on Figure 4.18-1, *Study Area Intersections*, and listed in Table 4.18-2, *Intersection Analysis Locations*, were selected for evaluation in the Project's TS based on consultation with County of Riverside staff. The Study Area includes intersections where the Project is anticipated to contribute 50 or more peak hour trips per the County of Riverside's traffic study guidelines. Refer to Subsection 1.4 of the Project's TS (*Technical Appendix L2*) for further discussion of the intersections evaluated as part of the TS. (Urban Crossroads, 2022, p. 8)

D. Area Conditions

1. Existing (2021) Transportation Facilities Analysis

Refer to Subsections 3.7 through 3.9 of the Project's TS (*Technical Appendix L2*) for a description of the results of the intersection operations analysis, traffic signal warrants analysis, and queuing analysis for Existing (2021) conditions (Urban Crossroads, 2022, p. 55).

2. General Plan Circulation Element

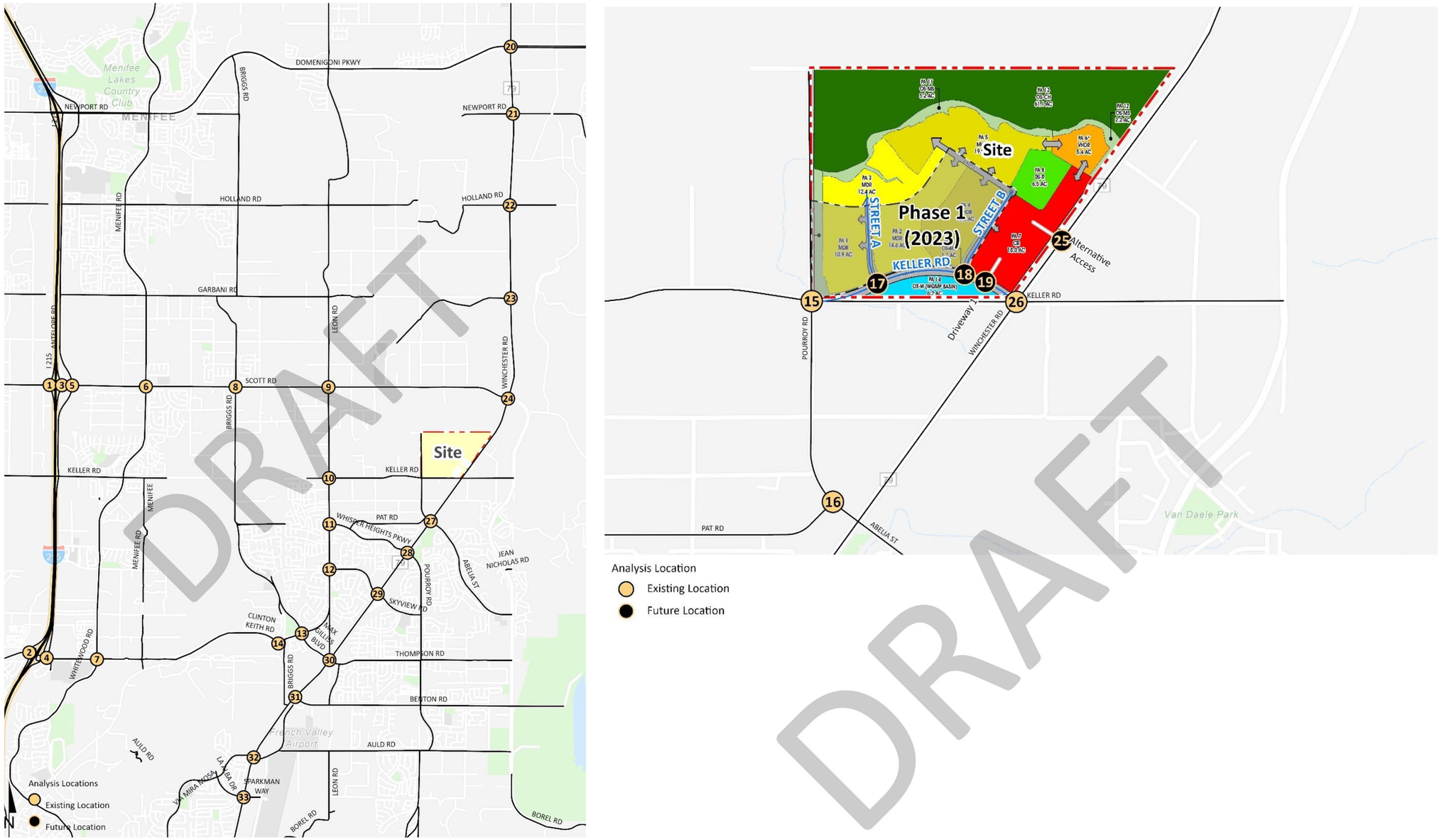
The Project site is located within Riverside County. The roadway classifications and planned (ultimate) roadway cross-sections of the major roadways within the study area, as identified in the Riverside County General Plan Circulation Element, are described in Subsection 3.2 of the Project's TS (*Technical Appendix L2*). Exhibit 3-2 of the TS shows the Riverside County General Plan Circulation Element and Exhibit 3-3 of the TS illustrates the Riverside County General Plan roadway cross-sections. (Urban Crossroads, 2022, pp. 35-40)

3. Bicycle and Pedestrian Facilities

The County of Riverside bike and community pedestrian networks are shown on Exhibit 3-8 of the Project's TS (*Technical Appendix L2*). There are proposed Community Trails along Leon Road, Keller Road, and Pourroy Road and a proposed regional trail along Abelia Street. Exhibit 3-9 of the Project's TS illustrates the existing crosswalks while Exhibit 3-10 of the TS shows the existing sidewalks throughout the Study Area. As shown on Exhibit 3-9 and Exhibit 3-10, there are limited pedestrian facilities in the vicinity of the Project site. The City of Menifee bikeways map and City of Murrieta bikeways map are shown on Exhibits 3-11 and 3-12, respectively, of the Project's TS. (Urban Crossroads, 2022, p. 40)

4. Transit Service

The Study Area is currently served by Riverside Transit Agency (RTA) with bus service along Winchester Road. RTA Route 79 runs along portions of Winchester Road. The transit services are illustrated on Exhibit 3-13 of the Project's TS (*Technical Appendix L2*). Transit service is reviewed and updated by RTA periodically to address ridership, budget, and community demand needs. Changes in land use can affect these periodic adjustments which may lead to either enhanced or reduced service where appropriate. (Urban Crossroads, 2022, p. 40)



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Source(s): Urban Crossroads (08-10-2021)

Figure 4.18-1

Not to Scale

Study Area Intersections

Table 4.18-2 Intersection Analysis Locations

ID	Intersection Location	Jurisdiction	CMP?
1	I-215 SB Ramps & Scott Rd.	Menifee, Caltrans	No
2	I-215 SB Ramps & Clinton Keith Rd.	Murrieta, Caltrans	No
3	I-215 NB Ramps & Scott Rd.	Menifee, Murrieta, Caltrans	No
4	I-215 NB Ramps & Clinton Keith Rd.	Murrieta, Caltrans	No
5	Antelope Rd. & Scott Rd.	Menifee, Murrieta	No
6	Menifee Rd. & Scott Rd.	Menifee, County of Riverside	No
7	Whitewood Rd. & Clinton Keith Rd.	Murrieta	No
8	Briggs Rd. & Scott Rd.	Menifee, County of Riverside	No
9	Leon Rd. & Scott Rd.	Menifee, County of Riverside	No
10	Leon Rd. & Keller Rd.	County of Riverside	No
11	Leon Rd. & Whisper Heights Pkwy.	County of Riverside	No
12	Leon Rd. & Jean Nicholas Rd.	County of Riverside	No
13	Briggs Rd. & Leon Rd.	County of Riverside	No
14	Leon Rd. & Clinton Keith Rd.	County of Riverside	No
15	Pourroy Rd. & Keller Rd.	County of Riverside	No
16	Pourroy Rd. & Pat Rd.	County of Riverside	No
17	Street A & Keller Rd. - Future Intersection	County of Riverside	No
18	Street B & Keller Rd. - Future Intersection	County of Riverside	No
19	Driveway 1 & Keller Rd. - Future Intersection	County of Riverside	No
20	Winchester Rd. (SR-79) & Domenigoni Pkwy.	County of Riverside	No
21	Winchester Rd. (SR-79) & Newport Rd.	County of Riverside	No
22	Winchester Rd. (SR-79) & Holland Rd.	County of Riverside	No
23	Winchester Rd. (SR-79) & Garbani Rd.	County of Riverside	No
24	Winchester Rd. (SR-79) & Scott Rd.	County of Riverside	No
25	Winchester Rd. (SR-79) & Driveway 2 - Future Intersection	County of Riverside	No
26	Winchester Rd. (SR-79) & Keller Rd.	County of Riverside	No
27	Winchester Rd. (SR-79) & Abelia St.	County of Riverside	No
28	Winchester Rd. (SR-79) & Whisper Heights Pkwy./Pourroy Rd.	County of Riverside	No
29	Winchester Rd. (SR-79) & Jean Nicholas Rd./Skyview Rd.	County of Riverside	No
30	Winchester Rd. (SR-79) & Max Gilliss Bl./Thompson Rd.	County of Riverside, Murrieta	No
31	Winchester Rd. (SR-79) & Benton Rd.	County of Riverside, Murrieta	No
32	Winchester Rd. (SR-79) & Via Mira Mosa/Auld Rd.	County of Riverside, Murrieta	No
33	Winchester Rd. (SR-79) & La Alba Dr./Winchester Rd.	County of Riverside, Murrieta	No

(Urban Crossroads, 2022, Table 1-1)

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4.18.2 Applicable Environmental Regulations

A. State Regulations

1. Assembly Bill 1358 (AB 1358) – Complete Streets Act

In September 2008, Governor Schwarzenegger signed into law Assembly Bill 1358 (AB 1358), the Complete Streets Act. AB 1358 requires that the legislative body of a city or county, upon any substantive revision of the circulation element of the general plan, modify the circulation element to plan for a balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways, defined to include motorists, pedestrians, bicyclists, children, persons with disabilities, seniors, movers of commercial goods, and users of public transportation, in a manner that is suitable to the rural, suburban, or urban context of the general plan. By requiring new duties of local officials, AB 1358 imposes a State-mandated local program. AB 1358 required the Office of Planning and Research (OPR) to prepare or amend guidelines for a legislative body to accommodate the safe and convenient travel of users of streets, roads, and highways in a manner that is suitable to the rural, suburban, or urban context of the general plan, and in doing so to consider how appropriate accommodation varies depending on its transportation and land use context. AB 1358 authorized OPR, in developing these guidelines, to consult with leading transportation experts, including, but not limited to, bicycle transportation planners, pedestrian planners, public transportation planners, local air quality management districts, and disability and senior mobility planners. (CA Legislative Info, n.d.)

2. Statewide Transportation Improvement Program (STIP)

The Statewide Transportation Improvement Program (STIP) is a multi-year capital improvement program of transportation projects on and off the State Highway System, funded with revenues from the Transportation Investment Fund and other funding sources. STIP programming generally occurs every two years. The programming cycle begins with the release of a proposed fund estimate in July of odd-numbered years, followed by California Transportation Commission (CTC) adoption of the fund estimate in August (odd years). The fund estimate serves to identify the amount of new funds available for the programming of transportation projects. Once the fund estimate is adopted, Caltrans and the regional planning agencies prepare transportation improvement plans for submittal by December 15th (odd years). Caltrans prepares the Interregional Transportation Improvement Plan (ITIP) and regional agencies prepare Regional Transportation Improvement Plans (RTIPs). Public hearings are held in January (even years) in both northern and southern California. The STIP is adopted by the CTC by April (even years). (Caltrans, n.d.)

3. Senate Bill 743 (SB 743)

Senate Bill 743 (SB 743, Steinberg, 2013), which was codified in Public Resources Code Section 21099, required changes to the implementing State CEQA Guidelines regarding the analysis of transportation impacts. As one appellate court explained: "During the last 10 years, the Legislature has charted a course of long-term sustainability based on denser infill development, reduced reliance on individual vehicles and improved mass transit, all with the goal of reducing greenhouse gas emissions. Section 21099 is part of that strategy…" (*Covina Residents for Responsible Development v. City of Covina* (2018) 21 Cal.App.5th 712, 729.) Pursuant to Section 21099, the criteria for determining the significance of transportation impacts must "promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses." (*Id*., subd. (b)(1); see generally, adopted State CEQA Guidelines, § 15064.3, subd. (b) [Criteria for Analyzing Transportation Impacts].) To that end, in developing the criteria, OPR has proposed, and the

California Natural Resources Agency (CRNA) has certified and adopted, changes to the State CEQA Guidelines that identify VMT as the most appropriate metric to evaluate a project's transportation impacts. With the CRNA's certification and adoption of the changes to the State CEQA Guidelines, automobile delay, as measured by LOS and other similar metrics, generally no longer constitutes a significant environmental effect under CEQA as of July 1, 2020. (Public Resources Code § 21099, subd. (b)(3).) (OPR, 2018b)

4. Senate Bill 325 (SB 325) - Transportation Development Act (TDA, Mills-Alquist-Deddeh Act)

The Mills-Alquist-Deddeh Act (SB 325) was enacted by the California Legislature to improve existing public transportation services and encourage regional transportation coordination. Known as the Transportation Development Act (TDA) of 1971, this law provides funding to be allocated to transit and non-transit related purposes that comply with regional transportation plans. TDA established two funding sources; the Local Transportation Fund (LTF), and the State Transit Assistance (STA) fund. Providing certain conditions are met, counties with a population under 500,000 (according to the 1970 federal census) may also use the LTF for local streets and roads, construction, and maintenance. The STA funding can only be used for transportation planning and mass transportation purposes. (Caltrans, n.d.)

5. Road Repair and Accountability Act of 2017 (Senate Bill 1 (SB 1))

On April 28, 2017, Governor Brown signed Senate Bill 1 (SB 1) (Chapter 5, Statutes of 2017), known as the Road Repair and Accountability Act of 2017. SB 1 augments the base of the State Transit Assistance program essentially doubling the funding for this program. To provide for SB 1 reporting and transparency, transit agencies are asked to work with Caltrans to report on planned expenditures for these augmented funds. (Caltrans, n.d.)

B. Regional Regulations

1. SCAG Regional Transportation Plan/Sustainable Communities Strategy (Connect SoCal)

The Southern California Association of Governments (SCAG) is a regional agency established pursuant to California Government Code § 6500, also referred to as the Joint Powers Authority law. SCAG is designated as a Council of Governments (COG), a Regional Transportation Planning Agency (RTPA), and a Metropolitan Planning Organization (MPO). The Project site is within SCAG's regional authority. On September 3, 2020, SCAG adopted the *2020-2045 Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS)* ("RTP/SCS"; also referred to herein as "Connect SoCal") with goals to: 1) Encourage regional economic prosperity and global competitiveness; 2) Improve mobility, accessibility, reliability, and travel safety for people and goods; 3) Enhance the preservation, security, and resilience of the regional transportation system; 4) Increase person and goods movement and travel choices within the transportation system; 5) Reduce greenhouse gas emissions and improve air quality; 6) Support healthy and equitable communities; 7) Adapt to a changing climate and support an integrated regional development pattern and transportation network; 8) Leverage new transportation technologies and data-driven solutions that result in more efficient travel; 9) Encourage development of diverse housing types in areas that are supported by multiple transportation options; and 10) 10. Promote conservation of natural and agricultural lands and restoration of habitats (SCAG, 2020, p. 9). Performance measures and funding strategies also are included to ensure that the adopted goals are achieved through implementation of the RTP.

Connect SoCal includes long-range regional transportation plans, regional transportation improvement programs, regional housing needs allocations, and other plans for the region. Connect SoCal also provides objectives for meeting emissions reduction targets set forth by the California Air Resources Board (CARB); these objectives were provided in a direct response to Senate Bill 375 (SB 375) which was enacted to reduce greenhouse gas emissions from automobiles and light trucks through integrated transportation, land use, housing, and environmental planning (SCAG, 2020). Connect SoCal is updated periodically to allow for the consideration and inclusion of new transportation strategies and methods.

2. Riverside County Congestion Management Program (CMP)

The intent of a Congestion Management Program (CMP) is to more directly link land use, transportation, and air quality, thereby prompting reasonable growth management programs that will effectively utilize new transportation funds, alleviate traffic congestion and related deficiencies, and improve air quality. The Riverside County CMP became effective with the passage of Proposition 111 in 1990 and updated most recently in 2011. The RCTC adopted the 2011 CMP for Riverside County in December 2011. CMP intersections are identified in Table 4.18-2. There are no Study Area intersections identified as a Riverside County CMP facility. (Urban Crossroads, 2022, p. 9)

C. Western Riverside County Association of Governments Transportation Uniform Mitigation Fee

The Western Riverside Council of Governments (WRCOG) established a consolidated Transportation Uniform Mitigation Fee (TUMF) program for all of western Riverside County, which commenced in 2003. The establishment of TUMF was based on the desire to establish a single, uniform fee program to mitigate the cumulative impacts of new development on the western Riverside County sub-region's arterial highway system rather than having multiple and potentially uncoordinated fee programs across the region. WRCOG is responsible for establishing and updating TUMF payment rates, based on a TUMF Program Nexus Study, which is periodically updated to consider the impact of future development on the subregion's system of highways and arterial roads. The most recent Nexus Study update was approved by the WRCOG Executive Committee in July 2017. The updated Nexus Study continues to demonstrate the relationship between the TUMF fee levels and the cost of anticipated improvements to the Regional System of Highways and Arterials (RSHA) necessitated by new development throughout western Riverside County. (WRCOG, 2018, p. 3)

D. Local Regulations

Ordinances specifically applicable to the circulation system are presented below (Riverside County, 2015, p. 4.18-28):

- Ordinance No. 413 – Vehicle Parking: Ordinance No. 413 establishes regulations to vehicle parking on Riverside County roadways.

- Ordinance No. 452 – Speed Limits: Ordinance No. 452 pertains to prima facie speed limits on Riverside County roadways and establishes or amends prima facie speed limits on certain Riverside County roads.

- Ordinance No. 460 – Subdivision of Land: Ordinance No. 460, in conjunction with the Subdivision Map Act, establishes regulations for the division of land and describes procedures. The ordinance also includes the provisions for the establishment of Road and Bridge Benefit Districts and associated fees.

- Ordinance No. 461 – Road Improvement Standards and Specifications: Ordinance No. 461 adopts Road Improvement Standards and Specifications.

- Ordinance No. 499 – Encroachments in County Highways: Ordinance No. 499, subject to the control of the Board of Supervisors, delegates to the Riverside County Transportation Director the administration of the use of county highways, including county roads, for excavations and encroachments; construction, operation, and maintenance of utility facilities; planting, maintenance, and removal of trees; and the issuance, modification, and revocation of permits for such uses.

- Ordinance No. 659 – Development Mitigation Fee for Residential Development (DIF Program): Ordinance No. 659 establishes a development impact fee (DIF) for the development of infrastructure, including County roadways and the installation of traffic signals.

- Ordinance No. 671 – Consolidated Fees for Land Use and Related Functions: Ordinance No. 671 establishes a consolidated fee program for land use and related functions. This is a deposit-based fee program and provides for unused fees to be refunded to the applicant.

- Ordinance No. 748 – Mitigation of Traffic Congestion Through Signalization: Ordinance No. 748 establishes a fee program for the installation of traffic signals based on a priority list. The fee would also have a component for the installation of traffic signal interconnect, and a component for the application of intelligent transportation systems technologies.

- Ordinance No. 824 – Western Riverside County Transportation Uniform Mitigation Fee (TUMF) Program: Ordinance No. 824 establishes a TUMF program for western Riverside County. The fees are collected by Riverside County and administered by WRCOG to make roadway improvements in the WRCOG area. TUMF funds are intended for use solely for the engineering, construction, and right-of-way acquisition for regional facilities. TUMF funds may not be used to defray operational and maintenance expenses. Facilities eligible for TUMF are designated by WRCOG and updated periodically. They include streets, arterials, and road improvements as defined in the ordinance.

4.18.3 Basis for Determining Significance

A. Thresholds of Significance

Section XVII of Appendix G to the State CEQA Guidelines addresses typical adverse effects to transportation, and includes the following threshold questions to evaluate a project's impacts to transportation (OPR, 2018a):

- Would the project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

- Would the project conflict with or be inconsistent with State CEQA Guidelines Section 15064.3, subdivision (b)?
- Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?
- Would the project result in inadequate emergency access or access to nearby uses?

The following thresholds are derived from Riverside County's Environmental Assessment Checklist, which incorporate the current Appendix G thresholds pursuant to the 2018 changes to the State CEQA Guidelines, in order to evaluate the significance of the proposed Project's impacts on transportation. The proposed Project would result in a significant impact to transportation if the Project or any Project-related component would:

a. *Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities;*

b. *Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b);*

c. *Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment);*

d. *Cause an effect upon, or a need for new or altered maintenance of roads;*

e. *Cause an effect upon circulation during the project's construction;*

f. *Result in inadequate emergency access or access to nearby uses; or*

g. *Include the construction or expansion of a bike system or bike lanes.*

The significance thresholds set forth in Riverside County's Environmental Assessment Checklist, as modified/updated per the 2018 updates to the State CEQA Guidelines, were used to evaluate the significance of the proposed Project's impacts on transportation.

B. *Thresholds of Significance for Vehicle Miles Traveled (VMT)*

As outlined in the County Guidelines, mixed-use projects should evaluate each land use component of the project separately and apply the relevant significance threshold for each land use type (i.e., residential, office, retail, etc.). Thresholds of significance based on the adopted County Guidelines are provided below in Table 4.18-3, *VMT Thresholds of Significance*. (Urban Crossroads, 2021e, pp. 1-2)

Table 4.18-3 VMT Thresholds of Significance

Land Use	VMT Threshold[1]	Basis
Residential	15.19 VMT/capita	Existing county-wide average VMT per capita
Retail	Net Regional Change	Using the County as the basis

(Urban Crossroads, 2021e, Table 1)

C. Level of Service Standards and Criteria

1. Applicable Level of Service (LOS) Standards

The definition of an intersection deficiency has been obtained from each of the applicable surrounding jurisdictions. Refer to Subsection 2 of the Project's TS (*Technical Appendix L2*) for a description of the LOS standards applicable to study area facilities within unincorporated Riverside County, the City of Menifee, the City of Murrieta, and Caltrans. As previously indicated, intersection deficiencies based on delay (LOS) shall not constitute a significant environmental impact under CEQA (see State CEQA Guidelines § 15064.3).

2. Project Fair Share Calculation Methodology

Improvements found to be included in the County Transportation Uniform Mitigation Fee (TUMF) and/or Development Impact Fee (DIF) programs are identified as such in the Project's TS (*Technical Appendix L2*). For improvements that do not appear to be in either of the pre-existing fee programs, a fair share contribution based on the Project's proportional share may be imposed in order to address the Project's share of deficiencies in lieu of construction. It should be noted that fair share calculations are for informational purposes only and the County Traffic Engineer would determine the appropriate improvements to be implemented by a project (to be identified in the conditions of approval). The Project's fair share cost of improvements would be determined based on the following equation, which is the ratio of Project traffic to new traffic, where new traffic is total future traffic less existing baseline traffic: (Urban Crossroads, 2022, p. 33)

Project Fair Share % = Project Traffic / (Horizon Year (2040) Total Traffic – Existing (2021) Traffic)

4.18.4 Methodology for Determining Transportation Effects

This subsection presents the methodologies used to perform the traffic analyses summarized in the Project's TS and VMT Analysis. The methodologies described for analysis of LOS generally are consistent with Riverside County and Caltrans traffic study guidelines.

A. Analysis Methodologies

1. Vehicle Miles Travelled (VMT) Evaluation Criteria and Methodology

The Riverside County Transportation Analysis Model (RIVTAM) is a useful tool to estimate VMT as it considers interaction between different land uses based on socio-economic data such as population, households, and employment. RIVTAM is a travel forecasting model that represents a sub-area (Riverside County) of the Southern California Association of Governments (SCAG) regional traffic model. RIVTAM was designed to provide a greater level of detail and sensitivity in the Riverside County area as compared to the regional SCAG model. County Guidelines identifies RIVTAM/RIVCOM (a future model release) as the appropriate tool for conducting VMT modeling for land use projects within the County of Riverside. (Urban Crossroads, 2021e, p. 2)

Project VMT has been calculated using the most current version of RIVTAM. Adjustments in socio-economic data (SED) (i.e., population, households, and employment) have been made to separate traffic analysis zones (TAZs) within the RIVTAM model to reflect the Project's proposed land uses (i.e., residential, age restricted

(60+) housing, and retail). Consistent with County Guidelines the VMT analysis was conducted for the following existing and cumulative scenarios: (Urban Crossroads, 2021e, p. 2)

- Existing Conditions – RIVTAM base year (2012) traffic model conditions.
- Existing Plus Project Conditions – RIVTAM base year (2012) traffic model plus the proposed Project land uses.
- Cumulative No Project Conditions – RIVTAM cumulative model (2040) without the proposed Project land use changes (i.e., adopted land use assumptions).
- Cumulative Plus Project Conditions - RIVTAM cumulative model (2040) plus the proposed Project land use changes.

For non-residential land uses such as the proposed commercial retail uses, land use information in terms of building square footage is converted into employees, which is the non-residential input for the travel demand model. The conversion factors used by County of Riverside's most recent General Plan Update, which are contained in *Appendix E-2: Socioeconomic Build-Out Assumptions and Methodology* of the County's General Plan, were used to convert building square footage to employees. (Urban Crossroads, 2021e, p. 3)

For residential land uses including single-family residential and age-restricted residential, a conversion from dwelling units to population was used for each residential land use type. For the market rate single family residential land use, the County's General Plan Update data was used consistent with the source used for residential development. However, as the County's General Plan land use conversion data does not contain a relevant conversion factor for age-restricted housing, the age restricted housing component was modeled based on an average persons per household figure obtained from the National Association of Home Builders (NAHB) *Approving 55+ Housing: Facts That Matter*. Table 4.18-4, *Land Use to SED Conversion Factors and Resulting SED*, summarizes the resulting conversion of land use information to SED used to adjust RIVTAM to reflect the Project. As shown, the Project is estimated to generate a population of 1,298 and an employment of 352. It should be noted that the Project's VMT Analysis and the values shown in Table 4.18-4 assume the Project would include 356 single-family dwelling units, while only 353 single family dwelling units are proposed. (Urban Crossroads, 2021e, p. 3)

Table 4.18-4 Land Use to SED Conversion Factors and Resulting SED

	Residential	Age-Restricted Residential	Retail
Units	356 dwelling units	80 dwelling units	176,000 SF
Conversion Factor	3.17 persons per household	2.11 persons per household	1 employee/500 SF
SED Model Input	1,129 population	169 population	352 employees

(Urban Crossroads, 2021e; Riverside County, 2021, Appendix E, Table E-2; NAHB, n.d., Figure I-2)

2. Intersection Capacity Analysis

The definitions of LOS for interrupted traffic flow (flow restrained by the existence of traffic signals and other traffic control devices) differ slightly depending on the type of traffic control. The LOS is typically dependent on the quality of traffic flow at the intersections along a roadway. The Highway Capacity Manual (HCM) methodology expresses the LOS at an intersection in terms of delay time for the various intersection approaches. The HCM uses different procedures depending on the type of intersection control. Refer to

Section 2 of the Project's TS (*Technical Appendix L2*) for a description of the methodology and LOS definitions/criteria used to evaluate operational deficiencies to signalized intersections, unsignalized intersections, due to traffic signal warrants, and freeway off-ramp queuing locations. (Urban Crossroads, 2022, pp. 27-31)

B. Traffic Modeling Inputs

Traffic modeling inputs are based on the Project's anticipated operational characteristics, which were previously described in detail in EIR subsection 3.6.2. Specifically, EIR subsection 3.6.2.C provides an overview of the proposed Project's trip generation and the expected trip distribution for the Project. Subsection 4.5 of the Project's TS (*Technical Appendix L2*) provides an overview of background traffic assumed for each of the analysis scenarios presented in the Project's TS, while EIR subsection 4.0.2 provides a summary of cumulative developments assumed as part of the TS.

4.18.5 IMPACT ANALYSIS

Threshold a:	***Would the Project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?***

In addition to LOS standards established by the Riverside County General Plan, City of Menifee General Plan, City of Murietta General Plan, and Caltrans, which are discussed below, the only applicable programs, plans, ordinances, or policies addressing the circulation system are the County's General Plan, Southwest Area Plan (SWAP), Riverside County ordinances, and the Riverside County Congestion Management Plan (CMP). Future development on site would be required to comply with all applicable Riverside County ordinances related to the circulation system, including, but not limited to, Ordinance No. 460 (relating to required access, roadway dedications, roadway design, etc.) and Ordinance No. 726 (relating to transportation demand management). In addition, EIR *Technical Appendix P* includes a detailed analysis of the proposed Project's consistency with the Riverside County General Plan and SWAP policies. As demonstrated in the analysis therein, with approval of the Project's proposed General Plan Amendment No. 210004, the proposed Project would not conflict with any applicable policies of the General Plan or SWAP, including policies within the General Plan Circulation Element and SWAP that relate to the circulation system, transit, roadway, bicycle, and/or pedestrian facilities. Based on the detailed analysis contained in EIR *Technical Appendix P*, the proposed Project clearly would be compatible with the objectives, policies, and programs specified in the Riverside County General Plan and SWAP, and also would be in general agreement and harmony with the terms and requirements of the General Plan and SWAP. Additionally, none of the Project's study area intersections are identified as CMP facilities, and as such the Project has no potential to conflict with the CMP. Accordingly, impacts would be less than significant.

With respect to the LOS standards, the Project's TS (*Technical Appendix L2*) was prepared in order to demonstrate compliance with the LOS standards established by the Riverside County General Plan, City of Menifee General Plan, the City of Murrieta General Plan, and Caltrans with respect to LOS standards. Refer to the Project's TS for a discussion of the methodology used to evaluate the Project's effects on LOS, a summary of existing traffic conditions within the Study Area, and for the results of the analysis of the Project's effects to study area intersections, traffic signal warrants, and off-ramp queuing locations for Existing Plus Ambient Plus Project (EAP) 2023, EAP 2028, Existing Plus Ambient Plus Project Plus Cumulative (EAPC) 2023, EAPC 2028, and Horizon Year (2040) conditions.

As indicated in the Project's TS, although the Project would contribute to projected LOS deficiencies and the need for signalization of Study Area facilities, the Project would be conditioned to require construction of improvements, payment of DIF and TUMF fees, and payment of fair-share contributions towards improvements not included in any existing fee programs. Table 1-3 of the Project's TS (*Technical Appendix L2*) provides a summary of the required improvements, identifies improvements that would be constructed as part of the Project, identifies improvements that are planned as part of the DIF and/or TUMF fee programs, and identifies fair-share contributions (including fair-share percentages) for improvements not included in the County's DIF or TUMF fee programs. With exception of facilities under the jurisdiction of Caltrans, the improvements to be constructed as part of the Project, as part of the DIF or TUMF programs, or as the result of Project fair-share contributions would provide for an acceptable LOS at all Study Area facilities. Although it is expected that intersections with I-215 and other Caltrans facilities within the Study Area may not achieve Caltrans' LOS standards under near- or long-term conditions, Caltrans does not have any fee programs in place to address deficiencies along Caltrans facilities. Additionally, the LOS standards identified by the Riverside County General Plan, City of Menifee General Plan, the City of Murrieta General Plan, and Caltrans are aspirational, and indirect effects associated with the Project's contribution to LOS deficiencies already are addressed throughout this EIR (refer specifically to EIR Subsections 4.3, *Air Quality*, 4.6, *Energy*, 4.8, *Greenhouse Gas Emissions*, and 4.13, *Noise*). Furthermore, pursuant to SB 743 and State CEQA Guidelines § 15064.3(a), "…a project's effect on automobile delay shall not constitute a significant environmental impact." Therefore, for purposes of CEQA, the Project's contribution to the projected LOS deficiencies at Study Area facilities would be less than significant.

Accordingly, and based on the preceding analysis, the proposed Project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. Impacts would be less than significant.

Threshold b:	***Would the Project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?***

State CEQA Guidelines § 15064.3 requires an evaluation of a project's environmental impacts due to VMT. As described in the County Guidelines, VMT significance thresholds are based on land use type, which for purposes of analysis are separated into efficiency or net change metrics. Efficiency metrics include either VMT per capita (residential-based VMT) or VMT per employee (employee-based VMT). "Net Change" refers to the net change in regional VMT. Net change is used for elements that include a significant customer base such as retail uses. (Urban Crossroads, 2021e, p. 3)

The calculation of VMT efficiency metrics such as VMT per capita has two components – the total number of trips generated and the average trip length of each vehicle. As the proposed Project has both residential and non-residential trips, vehicle trip productions and attractions were used from the all-home-based trip purposes and home-based-work trip purpose matrices. Using the peak and off-peak person trip matrices, skim (distances) matrices, and appropriate occupancy rates, VMT was calculated for the Project's Traffic Analysis Zones (TAZs). Table 4.18-5, *Existing Plus Project VMT per Capita Comparison*, presents the Existing plus Project VMT per capita calculation for the Project's residential component as compared to the County's adopted impact threshold for residential land use. The Project is calculated to exceed the County's impact threshold for

residential land use by 53.9%, which results in a potentially significant impact. (Urban Crossroads, 2021e, pp. 3-4)

Table 4.18-5 Existing Plus Project VMT per Capita Comparison

Analysis Scenario	Residential VMT per Capita	Threshold Comparison
Riverside County Threshold	15.19	0.0%
Existing Plus Project	23.38	+53.9%

(Urban Crossroads, 2021e, Table 3)

As the Project also includes a retail land use component, it is important to also consider this element's potential impact on VMT. Local-serving retail under 50,000 s.f. per store, per County Guidelines, is presumed to have a less than significant impact. Regional-serving retail (i.e., retail with stores larger than 50,000 square feet) or other unique land uses will need to be evaluated on their own merits as detailed project descriptions become available in the future. If a future retail project includes stores larger than 50,000 square feet exceeding the County's screening threshold, there is potential for a significant impact. As the Project does not contain a specific retail development proposal, an assessment of potential impacts to VMT related to the Project's retail component has been provided for informational purposes only. (Urban Crossroads, 2021e, p. 4)

Consistent with County Guidelines, it is appropriate to measure the net regional change in VMT related to the implementation of a retail land use project using the entire Riverside County area as the regional boundary. A net increase in regional total VMT is identified as the County's adopted impact threshold for retail land uses. To make this assessment, total link-level VMT was extracted from the "with Project" model runs for the base year (2012) model. This calculation is commonly referred to as the "boundary method" and includes the total VMT for all vehicle trips with one or both trip ends within a specific geographic area. (Urban Crossroads, 2021e, p. 4)

As shown in Table 4.18-6, *Net Change in Total Regional VMT*, there is a de minimis increase in total regional VMT for base year (2012) with the addition of the Project's retail component. This finding would seem intuitive as the RIVTAM base year (2012) model includes sparse levels of development in the Project's vicinity, which results in slightly longer trips for customers of the shopping center to travel to the proposed retail shopping component. As identified previously, the retail component of the Project has the potential to have a significant impact if a single retail building is larger than 50,000 s.f. Additional analysis would need to be completed as part of future implementing developments (e.g., plot plans) prior to the development of the retail components to determine potential impacts to VMT. As such, because it cannot be assured that buildings

Table 4.18-6 Net Change in Total Regional VMT

	Riverside County
Base Year (2012) No Project	53,661,883
Base Year (2012) With Project	53,692,655
Change in VMT	+30,772
Percent Change	+0.06%

(Urban Crossroads, 2021e, Table 4)

within proposed Planning Area 7 of SP 380A1 would all be smaller than 50,000 s.f., it is conservatively assumed herein that the Project's commercial retail component would result in a significant impact due to VMT. (Urban Crossroads, 2021e, p. 4)

Appendix E of the County Guidelines states the following:

> "for Specific Plans and Community Plans, Riverside County requires that Cumulative analysis be completed irrespective of the findings of Baseline Plus Project conditions. Additionally, No Project and Plus Project conditions under both the Baseline and Cumulative must provide total Regional VMT values. Note that the Regional VMT values are for informational purposes and are not used as the basis for the determination of a significant impact." (Riverside County, 2020, p. 33)

Table 4.18-7, *Cumulative Project VMT per Capita Comparison*, provides a comparison of VMT per capita for cumulative no Project and plus Project scenarios. As indicated previously, the Project results in an increase in VMT per capita as compared to the Riverside County regional average. However, and because the "Cumulative Year (2040) No Project" assumes buildout of the adopted SP 380 land use plan, the proposed changes to the adopted land uses for the Project site would result in a decrease in VMT per capita as compared to the adopted SP 380. (Urban Crossroads, 2021e, p. 5)

Table 4.18-7 Cumulative Project VMT per Capita Comparison

	Cumulative Year (2040) No Project	Cumulative Year (2040) Plus Project
Project Area	25.58	21.95
Riverside County	16.37	16.37

(Urban Crossroads, 2021e, Table 5)

Total link-level VMT was also extracted from the "No Project" and "Plus Project" cumulative year (2040) models. As shown in Table 4.18-8, *Riverside County Total VMT*, there is a de minimis net decrease in regional total VMT for cumulative year (2040). (Urban Crossroads, 2021e, p. 5)

Table 4.18-8 Riverside County Total VMT

	Riverside County
Cumulative Year (2040) No Project	92,554,131
Cumulative Year (2040) With Project	92,545,829
Change	- 8,302
Percent Change	-0.01%

(Urban Crossroads, 2021e, Table 6)

In summary, buildout of the residential uses proposed as part of the Project would result in a VMT per capita that is 53.9% above the County's VMT per capita threshold of significance, while buildout of the commercial retail component has the potential to result in VMT impact in the event any individual commercial retail

building exceeds 50,000 s.f. in size. Accordingly, prior to mitigation, the proposed Project would result in a significant impact due to VMT.

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

The Project would involve residential and commercial retail development within an area that is characterized and/or planned for a mixture of residential and commercial retail uses interspersed with open space. As such, the land uses proposed by the Project would not comprise an incompatible use with existing and planned land uses in the surrounding area. During the County's review process for the Project's proposed SP 380A1 and Tentative Tract Map No. 38163 (TTM 38163), the County reviewed the proposed design plans to ensure that no hazardous roadway features would be implemented. In fact, the Project would result in the realignment of the Keller Road/Winchester Road (Highway 79) intersection, which would ensure that Keller Road intersects with Winchester Road at an approximate 90-degree angle, rather than the skewed intersection configuration that occurs under existing conditions. Accordingly, the proposed Project would not create or substantially increase safety hazards due to a geometric design feature or incompatible use. Impacts associated with this issue would be less than significant.

Threshold d: ***Would the Project cause an effect upon, or a need for new or altered maintenance of roads?***

Implementation of the proposed Project would generate traffic along local roadways, and therefore would incrementally increase the need for maintenance of local roadway facilities. Although the Project would result in the increased maintenance of roadways and would increase traffic on existing and planned roadways, any incremental increase in the need to maintain public roadway facilities would be offset by tax revenue generated by the Project's proposed land uses. There are no components of the proposed Project that would result in or require a substantial increase in expenditures by Riverside County for public road maintenance such that environmental impacts would result. As such, Project impacts would be less than significant.

Threshold e: ***Would the Project cause an effect upon circulation during the project's construction?***

The Project has the potential to adversely impact circulation in the local area during the construction of Keller Road through the Project site, and during frontage improvements to Winchester Road (Highway 79). The Project's potential impacts to circulation along Keller Road and/or Winchester Road during construction is conservatively evaluated as a significant impact for which mitigation would be required in the form of a traffic control plan for implementing developments affecting Keller Road.

Threshold f: ***Would the Project result in inadequate emergency access or access to nearby uses?***

Under long-term operating conditions, the Project would have no effect on emergency access in the local area, and impacts would be less than significant. However, during proposed improvements to Keller Road along the Project frontage, there is a potential that the Project could adversely affect emergency access or access to nearby uses. This is conservatively evaluated as a significant impact for which mitigation would be required in the form of a traffic control plan for implementing developments.

Threshold g: ***Would the Project include the construction or expansion of a bike system or bike lanes?***

No construction or expansion of facilities for bicycles is proposed as part of the Project, although proposed improvements to Keller Road, Winchester Road, and other on-site roadways could accommodate bicycle lanes. Impacts associated with proposed improvements to roadways have been evaluated throughout this EIR, and impacts were determined to be less than significant or would be reduced to less-than-significant levels with the incorporation of mitigation measures. As such, the Project would not include the construction or expansion of a bike system or bike lanes that could result in physical environmental impacts not already addressed by this EIR, and impacts would therefore be less than significant.

4.18.6 Cumulative Impact Analysis

Cumulative impacts associated with transportation were largely evaluated in the preceding subsection 4.18.5. A summary of the impacts identified therein is provided below. Direct impacts are identified in subsection 4.18.5 and are not discussed below.

As discussed under the analysis of Threshold a., future development on site would be required to comply with all applicable Riverside County ordinances related to the circulation system. In addition, EIR *Technical Appendix P* demonstrates that with approval of the Project's proposed General Plan Amendment No. 210004, the proposed Project would not conflict with any applicable policies of the General Plan or SWAP, including policies within the General Plan Circulation Element and SWAP that relate to the circulation system, transit, roadway, bicycle, and/or pedestrian facilities. Other cumulative projects similarly would be required to comply with all applicable ordinances, and would be required to comply with all applicable General Plan and SWAP policies (or the policies of the general plans of cities within the Project's Study Area). Impacts would be less-than-cumulatively considerable

With respect to LOS standards established by Riverside County General Plan, City of Menifee General Plan, the City of Murrieta General Plan, and Caltrans, the Project would cause or contribute to LOS deficiencies at a number of Study Area facilities. In addition to physical construction of required improvements to achieve an acceptable LOS, the Project Applicant also would be conditioned to contribute TUMF and DIF fees as well as fair-share contributions for required improvements that are not currently included in existing fee programs. The Project-related improvements as well as improvements to occur as part of existing fee programs and/or Project fair-share contributions would achieve an acceptable LOS at all Study Area facilities, with potential exceptions of facilities under the jurisdiction of Caltrans. Other projects within the cumulative study area similarly would be required to construct improvements, pay fair-share fees, or contribute funds to existing fee programs as necessary to achieve acceptable LOS. As such, the Project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities, and impacts would be less-than-cumulatively considerable. Furthermore, pursuant to SB 743 and State CEQA Guidelines § 15064.3(a), "…a project's effect on automobile delay shall not constitute and environmental impact." As such, for purposes of CEQA, the Project's contribution to the projected LOS deficiencies would be less-than-cumulatively considerable.

As indicated under the analysis of Threshold b., the VMT per capita for the Project's proposed residential uses would exceed the County's threshold of significance by 53.9%. Additionally, the Project's commercial retail component has the potential to result in significant VMT impacts if future buildings within the commercial

portion of the Project were to exceed 50,000 s.f. in size. Other cumulative developments within the Project region also have the potential to exceed the County's thresholds of significance for VMT. Accordingly, VMTs associated with the Project's residential and commercial retail components (under both near- and long-term conditions) would result in cumulatively-considerable impacts due to VMT.

As indicated under the analysis of Threshold c., the Project would involve residential and commercial retail development within an area that is characterized and/or planned for a mixture of residential and commercial retail uses interspersed with open space. As such, the land uses proposed by the Project would not comprise an incompatible use with existing and planned land uses in the surrounding area. Additionally, during the County's review process for the Project's proposed SP 380A1 and Tentative Tract Map No. 38163, the County reviewed the proposed design plans to ensure that no hazardous roadway features would be implemented. Other cumulative developments would similarly be required to demonstrate that no hazards would occur due to incompatible land uses or due to a geometric design feature or incompatible use. As such, cumulatively-considerable impacts would be less than significant.

As indicated under the analysis of Threshold d., there are no components of the proposed Project that would result in or require a substantial increase in expenditures by Riverside County for public road maintenance such that environmental impacts would result. As such, cumulatively-considerable impacts would be less than significant.

As indicated under the analysis of Threshold e., the Project has the potential to adversely impact circulation in the local area during the construction of Keller Road through the Project site and during construction of frontage improvements along Winchester Road. There is a potential that other cumulative developments could be under simultaneous construction in the local area, and may adversely affect traffic along local roadways, including Keller Road. Both the Project and other cumulative developments would be required to implement appropriate traffic control measures during construction so as not to significantly adversely affect the circulation system. Nonetheless, in the absence of mitigation, the Project's potential impacts during construction would be cumulatively considerable.

As indicated under the analysis of Threshold f., under long-term operating conditions, the Project would have no effect on emergency access in the local area, and impacts would be less than significant. However, during proposed improvements to Keller Road along the Project frontage, there is a potential that temporary lane closures that may occur during the Project's construction phase could overlap with construction activities associated with cumulative developments. Although it is anticipated a less-than-significant impact would occur, out of an abundance of caution, a significant temporary impact is identified. Accordingly, impacts would be cumulatively-considerable prior to mitigation.

As discussed under the analysis of Threshold g., no construction or expansion of facilities for bicycles is proposed as part of the Project, although proposed improvements to Keller Road, Winchester Road, and other on-site roadways could accommodate bicycle lanes. Impacts associated with proposed roadway improvements have been evaluated throughout this EIR, and cumulatively-considerable impacts were determined to be less than significant or would be reduced to less-than-significant levels with the incorporation of mitigation measures. As such, the Project would not result in any cumulatively-considerable impacts due to the construction or expansion of a bike system or bike lanes.

4.18.7 Significance Of Impacts Before Mitigation

Threshold a.: Less-than-Significant Impact. The proposed development on site would be required to comply with all applicable Riverside County ordinances related to the circulation system. In addition, EIR *Technical Appendix P* includes a detailed analysis of the proposed Project's consistency with the Riverside County General Plan and SWAP policies. As demonstrated in the analysis therein, with approval of the Project's proposed General Plan Amendment No. 210004, the proposed Project would not conflict with any applicable policies of the General Plan or SWAP, including policies within the General Plan Circulation Element and SWAP that relate to the circulation system, transit, roadway, bicycle, and/or pedestrian facilities. With respect to the LOS standards, the Project would be conditioned to require construction of improvements, payment of DIF and TUMF fees, and payment of fair-share contributions towards improvements not included in any existing fee programs. The improvements to be constructed as part of the Project, as part of the DIF or TUMF programs, or as the result of Project fair-share contributions would provide for an acceptable LOS at all Study Area facilities, with possible exception of facilities under the jurisdiction of Caltrans. Although it is expected that intersections with I-215 and other Caltrans facilities within the Study Area may not achieve Caltrans' LOS standards under near- or long-term conditions, Caltrans does not have any fee programs in place to address deficiencies along Caltrans facilities. Furthermore, pursuant to SB 743 and State CEQA Guidelines § 15064.3(a), "…a project's effect on automobile delay shall not constitute and environmental impact." As such, for purposes of CEQA, the Project's contribution to the projected LOS deficiencies at Study Area facilities would be less than significant.

Threshold b.: Significant Direct and Cumulatively-Considerable Impact. Buildout of the residential uses proposed as part of the Project would result in a VMT per capita that is 53.9% above the County's VMT per capita threshold of significance, while buildout of the commercial retail component has the potential to result in VMT impact in the event any individual commercial retail building exceeds 50,000 s.f. in size. Accordingly, prior to mitigation, the proposed Project would result in a significant impact due to VMT.

Threshold c.: Less-than-Significant Impact. The Project would not substantially increase hazards due to a geometric design feature or due to incompatible land uses. Impacts would be less than significant.

Threshold d.: Less-than-Significant Impact. Although the Project would result in the increased maintenance of roadways and would increase traffic on existing and planned roadways, any incremental increase in the need to maintain public roadway facilities would be offset by tax revenue generated by the Project's proposed land uses. There are no components of the proposed Project that would result in or require a substantial increase in expenditures by Riverside County for public road maintenance such that environmental impacts would result. As such, Project impacts would be less than significant.

Threshold e.: Significant Direct and Cumulatively-Considerable Impact. The Project has the potential to adversely impact circulation in the local area during the construction of Keller Road through the Project site, and during construction of frontage improvements along Winchester Road. The Project's potential impacts to circulation along Keller Road and/or Winchester Road during construction is conservatively evaluated as a significant impact for which mitigation would be required in the form of a traffic control plan for implementing developments affecting Keller Road or Winchester Road.

Threshold f.: Significant Direct and Cumulatively-Considerable Impact. During proposed improvements to Keller Road along the Project frontage, there is a potential that the Project could adversely affect emergency access or access to nearby uses. This is conservatively evaluated as a significant impact for which mitigation would be required in the form of a traffic control plan for implementing developments.

Threshold g.: No Impact. No construction or expansion of facilities for bicycles is proposed as part of the Project, aside from bicycle facilities that could be accommodated along Keller Road, Winchester Road, and along on-site roadways. Impacts associated with proposed improvements to roadways have been evaluated throughout this EIR, and impacts were determined to be less than significant or would be reduced to less-than-significant levels with the incorporation of mitigation measures.

4.18.8 Applicable Regulations, Design Requirements, And Mitigation

Applicable Regulations and Design Requirements

The following are applicable regulations and design requirements within Riverside County. Although these requirements technically do not meet CEQA's definition for mitigation, they are imposed herein to ensure Project compliance with applicable Riverside County regulations and design requirements.

- Prior to issuance of building permits, the Project Applicant shall pay appropriate Development Impact Fee Program (DIF) fees at the rates then in effect in accordance with Riverside County Ordinance No. 659.

- Prior to final building inspection, the Project Applicant shall pay appropriate Western Riverside County Transportation Uniform Mitigation Fee Program Ordinance (TUMF) fees at the rates then in effect in accordance with Riverside County Ordinance No. 824.

- Prior to final building inspection for each phase of the proposed Project, the Project Applicant shall construct the improvements identified in Table 1-3 of the Project's Traffic Study (*Technical Appendix L2* to this EIR).

- Prior to final building inspection for each phase of the proposed Project, the Project Applicant shall make fair-share contributions towards required transportation improvements, in accordance with Table 1-3 of the Project's Traffic Study (*Technical Appendix L2* to this EIR).

Mitigation

MM 4.18-1 Prior to the issuance of grading permits or improvement plans affecting public roadways, the Project Applicant shall prepare and Riverside County shall approve a temporary traffic control plan. The temporary traffic control plan shall comply with the applicable requirements of the California Manual on Uniform Traffic Control Devices (CMUTCD). A requirement to comply with the temporary traffic control plan shall be noted on all grading and building plans and also shall be specified in bid documents issued to prospective construction contractors.

MM 4.18-2 Prior to approval of any future implementing discretionary applications (e.g., plot plans, conditional use permits) for the proposed commercial retail uses that include buildings larger than 50,000 square feet in size, and prior to approval of future implementing discretionary applications (e.g., tentative maps, plot plans) for the proposed multi-family uses within Planning Area 6 of SP 380A1, the Project Applicant shall prepare a project-level Vehicle Miles Travelled (VMT) analysis to identify site-specific Transportation Demand Management (TDM) measures to reduce VMT associated with the Project's proposed commercial retail and multi-family uses to the maximum feasible extent. TDM strategies that may be applicable at the implementing project level may include, but are not necessarily limited to, the following:

- Collaborate with the Riverside Transit Authority (RTA) to determine the feasibility of providing new bus stops for RTA Route 79 along Winchester Road (SR-79) adjacent to the Project site.
- Reduce the amount of parking associated with the proposed commercial retail uses in order to discourage passenger vehicle traffic.
- Implement a local shuttle service (grouped strategy with transit system improvements).

Any feasible TDM strategies identified as part of the future-required VMT analysis shall be imposed as conditions of approval on the implementing discretionary application(s).

4.18.9 Significance Of Impacts After Mitigation

Threshold b: Significant and Unavoidable Direct and Cumulatively-Considerable Impact. The proposed Project has been designed to provide for residential land uses in close proximity to the proposed on-site commercial retail uses within Planning Area 7 of proposed SP 380A1. Additionally, the Project would be required to comply with the development standards and design guidelines pursuant to SP 380A1, which includes requirements to provide minimum 8-foot-wide decomposed granite (DG) meandering trails within proposed Planning Area 9 and along the on-site portions of Keller Road, and to provide for minimum 8-foot-wide sidewalks along the boundary of proposed Planning Areas 6 and 7 along Winchester Road. The Project also would accommodate bike lanes along the on-site portions of Keller Road, and planned improvements to Winchester Road along the Project's frontage also would accommodate bicycle lanes. The Project's remaining on-site local roadways also would accommodate bicycle uses. Additionally, the Project would be subject to compliance with Mitigation Measure MM 4.18-2, which requires the identification of site-specific TDM measures to reduce VMT prior to approval of implementing multi-family or commercial retail developments associated with the Project. Notwithstanding, even with the implementation of all feasible VMT reduction measures, Project-generated VMT cannot be reduced to a level of less than significant.

Threshold e.: Less-than-Significant Impact with Mitigation Incorporated. Mitigation Measure MM 4.18-1 requires the Project Applicant to prepare and obtain Riverside County approval of a temporary traffic control plan prior to issuance of grading permits or improvement plans affecting public roadways. Implementation of the required mitigation would ensure that Project-related construction activities would not substantially affect circulation during the Project's construction. With implementation of the required mitigation, impacts would be reduced to less-than-significant levels.

Threshold f.: Less-than-Significant Impact with Mitigation Incorporated. Mitigation Measure MM 4.18-1 requires the Project Applicant to prepare and obtain Riverside County approval of a temporary traffic control plan prior to issuance of grading permits. With implementation of the required mitigation, the Project would not result in inadequate emergency access or access to nearby uses during the Project's construction phase. Accordingly, with implementation of the required mitigation, impacts would be reduced to less-than-significant levels.

4.19 TRIBAL CULTURAL RESOURCES

The analysis in this Subsection documents the results of the County's consultation with local Native American Tribes. It should be noted that much of the written and oral communication between Native American tribes and Riverside County is considered confidential in respect to places that have traditional tribal cultural significance (Gov. Code § 65352.4), and although relied upon in part to inform the preparation of this EIR Subsection, those communications are treated as confidential and are not available for public review. Under existing law, environmental documents must not include information about the location of archeological sites or sacred lands or any other information that is exempt from public disclosure pursuant to the Public Records Act (Cal. Code Regs. § 15120(d)).

4.19.1 EXISTING CONDITIONS

Refer to EIR subsection 4.5.1 for a complete description of the cultural setting, existing site conditions, and the archaeological and historical resources assessment.

4.19.2 REGULATORY SETTING

The following is a brief description of the State environmental laws and related regulations addressing Tribal Cultural Resources (TCRs). Refer also to EIR subsection 4.5.2 for a complete description of federal, State, and local environmental laws and regulations governing the protection of cultural resources.

4.19.3 REGULATORY SETTING

The following is a brief description of the State environmental laws and related regulations addressing Tribal Cultural Resources (TCRs). Refer also to EIR subsection 4.5.2 for a complete description of federal, State, and local environmental laws and regulations governing the protection of cultural resources.

A. Traditional Tribal Cultural Places Act (Senate Bill 18, "SB 18")

Senate Bill 18 (SB 18) requires local (city and county) governments to consult with California Native American Tribes to aid in the protection of traditional tribal cultural places ("cultural places") through local land use planning. SB 18 also requires the Governor's Office of Planning and Research (OPR) to include in the General Plan Guidelines advice to local governments for how to conduct these consultations. (OPR, 2005)

The intent of SB 18 is to provide California Native American Tribes an opportunity to participate in local land use decisions at an early planning stage, for the purpose of protecting, or mitigating impacts to, cultural places. The purpose of involving tribes at these early planning stages is to allow consideration of cultural places in the context of broad local land use policy, before individual site-specific, project-level land use decisions are made by a local government. (OPR, 2005)

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 adoption and amendment of both general plans (defined in Government Code § 65300 et seq.) and specific plans (defined in Government Code § 65450 et seq.). Although SB 18 does not specifically mention consultation or notice requirements for adoption or amendment of specific plans, existing state planning law requires local governments to use the same processes for adoption and amendment of specific

plans as for general plans (see Government Code § 65453). Therefore, where SB 18 requires consultation and/or notice for a general plan adoption or amendment, the requirement extends also to a specific plan adoption or amendment. (OPR, 2005)

1. Assembly Bill 52 (AB 52)

California Assembly Bill 52 (AB 52) (2014) Chapter 532 amended Section 5097.94 of, and added Sections 21073, 21074, 21080.3.1, 21080.3.2, 21802.3, 21083.09, 21084.2 and 21084.3 to the California Public Resources Code, relating to Native Americans. AB 52 was approved on September 25, 2014. By including tribal cultural resources early in the CEQA process, the legislature intended to ensure that local and Tribal governments, public agencies, and project proponents would have information available, early in the project planning process, to identify and address potential adverse impacts to tribal cultural resources. By taking this proactive approach, the legislature also intended to reduce the potential for delay and conflicts in the environmental review process. (OPR, 2017b)

The Public Resources Code now establishes that "[a] project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment." (Pub. Resources Code, § 21084.2.) To help determine whether a project may have such an effect, the Public Resources Code requires a lead agency to consult with any California Native American tribe that requests consultation and is traditionally and culturally affiliated with the geographic area of a proposed project. That consultation must take place prior to the determination of whether a negative declaration, mitigated negative declaration, or environmental impact report is required for a project. (Pub. Resources Code, § 21080.3.1.) (OPR, 2017b)

If a lead agency determines that a project may cause a substantial adverse change to tribal cultural resources, the lead agency must consider measures to mitigate that impact. Public Resources Code § 20184.3 (b)(2) provides examples of mitigation measures that lead agencies may consider to avoid or minimize impacts to tribal cultural resources. These rules apply to projects that have a notice of preparation for an environmental impact report or negative declaration or mitigated negative declaration filed on or after July 1, 2015. (OPR, 2017b)

§ 21074 of the Public Resources Code defines "tribal cultural resources." In brief, in order to be considered a "tribal cultural resource," a resource must be either:

(1) listed, or determined to be eligible for listing, on the national, state, or local register of historic resources, or

(2) a resource that the lead agency chooses, in its discretion, to treat as a tribal cultural resource. (OPR, 2017b)

In the latter instance, the lead agency must determine that the resource meets the criteria for listing in the state register of historic resources. In applying those criteria, a lead agency must consider the value of the resource to the tribe. (OPR, 2017b)

4.19.4 Basis for Determining Significance

Section XVIII of Appendix G to the State CEQA Guidelines addresses typical adverse effects on tribal cultural resources, and includes the following threshold question to evaluate the Project's impacts to tribal cultural resources (OPR, 2018a):

- Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code 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 California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?
  - A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?

Significance thresholds are set forth in Riverside County's Environmental Assessment Checklist, as modified based on the 2018 updates to Section XVIII of Appendix G to the State CEQA Guidelines, and indicate significant impacts would occur if the Project or any Project-related component would:

a. Cause a substantial adverse change in the significance of a Tribal Cultural Resource, defined in Public Resources Code 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

1. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1 (k); or

2. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

4.19.5 Impact Analysis

Threshold a:	***Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code 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:***
>
> ***1. Listed or eligible for listing in the California Register of Historical resources or in a local register of historical resources as defined in Public Resources Code section 5020.1(k); or***
>
> ***2. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1?***

As previously indicated, changes in the California Environmental Quality Act, effective July 2015, require that the County address a new category of cultural resources, tribal cultural resources, not previously included within the law's purview. Tribal Cultural Resources are those resources with inherent tribal values that are difficult to identify through the same means as archaeological resources. These resources can be identified and understood through direct consultation with the tribes who attach tribal value to the resource. Tribal cultural resources may include Native American archaeological sites, but they may also include other types of resources such as cultural landscapes or sacred places. The appropriate treatment of tribal cultural resources is determined through consultation with tribes.

On May 17, 2021 a Sacred Lands File Search and consultation list request was sent to the NAHC. A response was received on June 1, 2021 with a list of 17 contacts and the results of the Sacred Lands File Search which was negative. Notices were sent to all contacts on June 2, 2021. The Quechan Tribe responded in an email dated June 2, 2021 deferring to closer tribes. The Rincon Band requested consultation in a letter dated June 29, 2021. The Agua Caliente Band of Cahuilla Indians requested consultation in a letter dated June 30, 2021, and Pechanga responded on July 29, 2021, requesting consultation. No response was received from the remaining tribes.

In compliance with Assembly Bill 52 (AB52), notices regarding this project were mailed to all requesting tribes on June 14, 2021 and August 11, 2021. No response was received from the Ramona Band, the Cahuilla Band of Indians, the Morongo, the Colorado River Indian Tribes, the Santa Rosa Band, or the Pala Band of Mission Indians.

Consultation was requested by the Agua Caliente Band of Cahuilla Indians, Soboba Band of Indians, the Pechanga Band of Luiseno Indians and the Rincon Band of Luiseno Indians.

Soboba Band responded in an email dated March 22, 2021. This Project was discussed during a meeting on June 09, 2021. Soboba provided information that the Project location is in proximity to known sites, is a shared use area that was used in ongoing trade between the tribes, and is considered to be culturally sensitive by the people of Soboba. Further, the Soboba Band asserted that the _Project is in a National Register Traditional Cultural Property (TCP) Landscape. The cultural report and the conditions of approval were provided to the tribe on August 24, 2021. Consultation was concluded on September 08, 2021.

The Rincon Band responded in an email letter dated February 26, 2021. The cultural report was provided to the tribe on August 24, 2021. Rincon provided information that the Project location is within the Traditional Use Area (TUA) of the Luiseño people and within the Band's specific Area of Historic Interest (AHI). As such, Rincon is traditionally and culturally affiliated to the Project area. The cultural report was provided to

the tribe. After review of the cultural report the Band provided recommendations for archaeological and tribal monitoring during grading activities. Consultation was concluded on September 30, 2021.

The Pechanga Band of Luiseno Indians responded in an email letter dated July 16, 2021 requesting consultation. Pechanga told Riverside County Planning staff that the Project area is part of 'Ataaxum (Luiseño), and therefore part of the Tribe's aboriginal territory as evidenced by the existence of cultural resources, named places, tóota yixélval (rock art, pictographs, petroglyphs), and an extensive 'Ataaxum artifact record in the vicinity of the Project. This culturally sensitive area is affiliated with the Pechanga Band of Luiseño Indians because of the Tribe's cultural ties to this area. Consultation was initiated on February 17, 2021 and the Project was discussed during meetings on September 15, 2021 and October 08, 2021. During this meeting the tribe provided information regarding the sensitivity of the area although nothing specific about this particular property, the band told Planning that nearby is the "place the little people went over the hill." Although the ground has been disturbed, Pechanga feels there is still the potential for grading into native soils and the band recommended that a tribal monitor be present during grading activities. They also requested that an area be identified for reburial of any artifacts that may be identified during grading. This was completed and consultation was concluded on December 13, 2021.

Although no specific Tribal Cultural Resources were identified, all of the consulting tribes expressed concerns that the Project has the potential for as yet unidentified subsurface tribal cultural resources. The tribes request that a Native American monitor be present during ground disturbing activities so any unanticipated finds will be handled in a timely and culturally appropriate manner. The Project would be subject to compliance with EIR Mitigation Measures MM 4.5-1 through MM 4.5-8, which were identified to address the Project's potential impacts to historical resources. In particular, Mitigation Measure MM 4.5-1 requires the Project Applicant to retain a qualified archaeologist to monitor site grading, while Mitigation Measure MM 4.5-2 requires full-time monitoring of Project grading activities by a Native American monitor. Mandatory compliance with EIR Mitigation Measures MM 4.5-1 through MM 4.5-8 would ensure that Project impacts to tribal cultural resources would be less than significant.

4.19.6 Cumulative Impact Analysis

This cumulative impact analysis considers development of the proposed Project in conjunction with other development projects and planned development within western Riverside County. This study area was selected for evaluation because it encompasses a broad region with similar geological, biological, and climatic conditions.

As indicated under the analysis of Threshold a., although no specific Tribal Cultural Resources were identified, the Project would be subject to compliance with EIR Mitigation Measures MM 4.5-1 through MM 4.5-8, which were identified to address the Project's potential impacts to historical resources. In particular, Mitigation Measure MM 4.5-1 requires the Project Applicant to retain a qualified archaeologist to monitor site grading, while Mitigation Measure MM 4.5-2 requires full-time monitoring of Project grading activities by a Native American monitor. Mandatory compliance with EIR Mitigation Measures MM 4.5-1 through MM 4.5-8 would ensure that Project impacts to tribal cultural resources would be less than significant on a cumulatively-considerable basis.

4.19.7 Significance of Impacts Before Mitigation

Threshold a.: Less-than-Significant Impact. Although no specific Tribal Cultural Resources were identified, the Project would be subject to compliance with EIR Mitigation Measures MM 4.5-1 through MM 4.5-8, which were identified to address the Project's potential impacts to historical resources. In particular, Mitigation Measure MM 4.5-1 requires the Project Applicant to retain a qualified archaeologist to monitor site grading, while Mitigation Measure MM 4.5-2 requires full-time monitoring of Project grading activities by a Native American monitor. Mandatory compliance with EIR Mitigation Measures MM 4.5-1 through MM 4.5-8 would ensure that Project impacts to tribal cultural resources would be less than significant.

4.19.8 County Regulations, Design Requirements, and Mitigation

Applicable County Regulations and Design Requirements

The following are applicable regulations and design requirements within Riverside County. Although these requirements technically do not meet CEQA's definition for mitigation, they are imposed herein to ensure Project compliance with applicable County regulations and design requirements.

- Unless otherwise required by law, the site of any reburial of Native American human remains or associated grave goods shall not be disclosed and shall not be governed by public disclosure requirements of the California Public Records Act. The Coroner, pursuant to the specific exemption set forth in California Government Code Section 6254 (r), parties, and Lead Agencies, will be asked to withhold public disclosure information related to such reburial, pursuant to the specific exemption set forth in California Government Code Section 6254 (r).

- In the event that human remains are encountered during ground-disturbing construction activities on site or within the Project's off-site improvement areas, compliance with California Health and Safety Code § 7050.5 and Public Resources Code § 5097 et. seq. shall be required. State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the Riverside County Coroner has made the necessary findings as to origin. Further, pursuant to Public Resource Code Section 5097.98(b) remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. The County Coroner shall determine that no investigation of the cause of death is required, and determine if the remains are of Native American origin. In the event that the remains are determined to be of Native American origin, the Native American Heritage Commission (NAHC) shall be contacted within the period specified by law (24 hours). Subsequently, the Native American Heritage Commission shall identify the "Most Likely Descendant." The Most Likely Descendant shall then make recommendations and engage in consultation concerning the treatment of the remains as provided in Public Resources Code Section 5097.98. If the NAHC is unable to identify a Most Likely Descendant, or if the Most Likely Descendant failed to make a recommendation within 48 hours after being notified by the NAHC, or the Project Applicant rejects the recommendation of the Most Likely Descendent, the Project Applicant shall rebury the Native American human remains and associated grave goods on the property in a location not subject to further ground disturbance.

Mitigation

Mitigation Measures MM 4.5-1 through MM 4.5-8 shall apply (refer to EIR Subsection 4.5, *Cultural Resources*). The mitigation measures included in EIR Subsection 4.5 have been drafted to include all of the mitigation requirements requested during the Project's Tribal Consultation process. No additional mitigation measures are required.

4.20 UTILITIES AND SERVICE SYSTEMS

The analysis in this Subsection is based in part on a Water Supply Assessment (WSA) prepared by the Eastern Municipal Water District (EMWD). The WSA is entitled, "Water Supply Assessment Report, Keller Crossing (Specific Plan No. 380)," is dated December 15, 2021, and is included as *Technical Appendix M* to this EIR (EMWD, 2021d). Refer to Section 7.0, *References*, for a complete list of reference sources.

4.20.1 EXISTING CONDITIONS

The Project site is located within the service boundaries of the Eastern Municipal Water District (EMWD) for water and sewer service, Southern California Edison (SCE) for electricity, and the Southern California Gas Company (SoCal Gas) for natural gas, with numerous service providers for cable television and telephone services. Solid waste hauling service to the Project site is provided by the Waste Management of the Inland Empire.

A. Water Service and Supply

Water service to the Project area is provided by the EMWD. EMWD provides potable water, recycled water, and wastewater services to an area of approximately 555 square miles in western Riverside County. EMWD is both a retail and wholesale agency, serving a population of over 800,000 people. Approximately half of EMWD's retail demands are supplied using local sources, while the balance is served by imported water purchased from the Metropolitan Water District (MWD). EMWD also purchases imported water from MWD to supplement the local supplies of its wholesale customers. Imported water is delivered to EMWD either as potable water treated by MWD, or as raw water that EMWD can either treat at one of its two local filtration plants or deliver as raw water for non-potable uses. (EMWD, 2021e, p. 3-2)

EMWD's local supplies include groundwater, desalinated groundwater, and recycled water. Groundwater is pumped from the Hemet/San Jacinto and West San Jacinto areas of the San Jacinto Groundwater Basin. Groundwater in portions of the West San Jacinto Basin is high in salinity and requires desalination for potable use. EMWD owns and operates two desalination plants that convert brackish groundwater from the West San Jacinto Basin into potable water. EMWD also owns, operates, and maintains its own recycled water system that consists of four Regional Water Reclamation Facilities and several storage ponds spread throughout EMWD's service area that are all connected through the recycled water system. EMWD's goal is to beneficially use 100 percent of the recycled water it produces. (EMWD, 2021e, p. 3-2)

Potable imported water is treated and delivered to EMWD directly from MWD's two large filtration plants. The Henry J. Mills (Mills) Water Treatment Plant treats water from Northern California and provides it to EMWD through two connection points located in the northeast portion of EMWD's service area. The Robert F. Skinner (Skinner) Water Treatment Plant treats a blend of Colorado River water and water from Northern California and provides it to EMWD through a connection point in the southwest portion of EMWD's service area. (EMWD, 2021e, p. 3-3)

EMWD owns and operates two microfiltration plants that filter raw imported water delivered through MWD, removing particulate contaminants to achieve potable water standards. The two treatment plants, the Perris Water Filtration Plant and the Hemet Water Filtration Plant, are located in Perris and Hemet, respectively. Raw water from MWD also is used for groundwater replenishment in the eastern part of EMWD. EMWD and others

can extract this water at a later date for beneficial uses. Untreated water from MWD used for agricultural purposes is delivered in the northeast for use by EMWD retail and wholesale accounts and in the south for Rancho California Water District (RCWD) agricultural accounts. (EMWD, 2021e, p. 3-3)

EMWD produces potable and brackish groundwater from the San Jacinto Groundwater Basin that underlies the EMWD service area. EMWD's groundwater wells pump primarily from the eastern portion of EMWD, with the largest amount of production taking place around the cities of Hemet and San Jacinto. EMWD owns and operates two desalination plants in Sun City, the Menifee Desalter and the Perris I Desalter, which treat brackish groundwater through reverse osmosis to achieve potable water standards. (EMWD, 2021e, p. 3-3)

In addition to the potable water system, EMWD maintains a regional recycled water system that provides tertiary-treated recycled water to customers for agricultural, landscape irrigation, environmental, and industrial use. EMWD's recycled water system consists of four regional water reclamation facilities (RWRFs) that treat municipal sewage and produce water for recycling. The four RWRFs, the San Jacinto Valley RWRF, the Moreno Valley RWRF, the Temecula Valley RWRF, and the Perris Valley RWRF, are spread throughout EMWD's service area. A network of pipelines connects the four RWRFs, as well as several distribution storage ponds, to manage the delivery of recycled water. (EMWD, 2021e, p. 3-3)

Table 4.20-1, *Actual Demands for Potable and Raw Water Within the EMWD Service Area*, depicts the recent water deliveries within the EMWD urban water service area. The values shown in Table 4.20-1 do not include water transfers to other agencies or imported water used to recharge the Hemet/San Jacinto groundwater basins. As shown, in 2020 the EMWD delivered approximately 84,673 acre-feet of water in 2020. Additionally, Table 4.20-2, *EMWD Projected Demand for Potable and Raw Water*, presents projected water demand within the EMWD service area through year 2045. As shown, EMWD anticipates that the total demand for water within its service area would increase to 123,000 acre-feet by 2045.

Table 4.20-3, *EMWD Projected Water Supplies*, presents the projected water supply available to EMWD through 2045. As shown, the EMWD projects that it will have access to 187,100 acre-feet per year (AFY) by 2045, which is adequate to meet the EMWD's projected demand (as shown in Table 4.20-2) through 2045.

B. Sewer Service and Treatment

EMWD provides wastewater collection, treatment, and recycled water services throughout the Project area. Four (4) operational RWRFs are operated throughout EMWD, and include the San Jacinto Valley RWRF, the Moreno Valley RWRF, the Temecula Valley RWRF, and the Perris Valley RWRF. As shown below in Table 4.20-4, *Wastewater Treatment Capacity*, the four RWRFs have a combined capacity of 86,300 AFY, or approximately 77.0 million gallons per day (MGD). In addition to treatment facilities, EMWD has several recycled water storage ponds throughout EMWD service area. (EMWD, 2021e, p. 6-12)

Collectively, the RWRFs within EMWD collected and treated approximately 48,200 AFY in 2020, or approximately 43.0 MGD. Sewer flows from the Project site would be treated by the Temecula Valley RWRF, which has a daily capacity of 23.0 MGD and typical daily flows of 14.0 MGD (EMWD, 2021). EMWD treats all of the wastewater collected in its service area to tertiary standards, which is suitable for all permitted uses, including irrigation of food crops and full-body contact. (EMWD, 2021e, p. 6-12)

Table 4.20-1 Actual Demands for Potable and Raw Water Within the EMWD Service Area

USE TYPE	ADDITIONAL DESCRIPTION	LEVEL OF TREATMENT WHEN DELIVERED	2020 VOLUME
Single Family		Drinking Water	52,162
Multi-Family		Drinking Water	6,535
Commercial		Drinking Water	4,267
Industrial		Drinking Water	571
Institutional/Governmental		Drinking Water	1,629
Landscape		Drinking Water	8,155
Agricultural irrigation		Drinking Water	1,114
Agricultural irrigation		Raw Water	446
Other		Drinking Water	1,287
Non-Revenue	System losses & unbilled, authorized consumption	Drinking Water	8,507
		TOTAL:	**84,673**

1) Passive water savings due to the restrictions outlined in the Administrative Code are included in the demand projections for EMWD's retail service area.

2) Landscape demands remain constant/decrease over time as landscape accounts are offset by conversion to the recycled water system.

3) Projections for losses in the table include system losses (real and apparent) and unbilled, authorized consumption. EMWD's water loss audits are completed on a fiscal year basis (rather than calendar year) and report estimated system losses.

(EMWD, 2021e, Table 4-1)

Table 4.20-2 EMWD Projected Demand for Potable and Raw Water

-		PROJECTED WATER USE				
USE TYPE	ADDITIONAL DESCRIPTION	2025	2030	2035	2040	2045
Single Family		66,900	71,700	76,700	80,500	84,000
Multi-Family		8,500	9,100	9,700	10,200	10,600
Commercial		6,100	6,500	7,000	7,300	7,600
Industrial		600	600	700	700	700
Institutional/Governmental		2,700	2,900	3,100	3,200	3,400
Landscape		8,400	7,600	6,800	6,200	5,500
Agricultural irrigation	Potable Water	1,500	1,500	1,500	1,500	1,500
Agricultural irrigation	Raw Water	500	500	500	500	500
Other		0	0	0	0	0
Non-Revenue	System losses & unbilled, authorized consumption	7,400	7,900	8,400	8,800	9,200
	TOTAL:	**102,600**	**108,300**	**114,400**	**118,900**	**123,000**

1) Passive water savings due to the provisions outlined in the Administrative Code are included in the demand projections for EMWD's retail service area.

2) Landscape demands remain constant/decrease over time as landscape accounts are offset by conversion to the recycled water system.

3) Projections for losses in the table include system losses (real and apparent) and unbilled, authorized consumption.

(EMWD, 2021e, Table 4-3)

Table 4.20-3 EMWD Projected Water Supplies

		PROJECTED WATER SUPPLY (AFY)				
		REASONABLY AVAILABLE VOLUME				
WATER SUPPLY	ADDITIONAL DETAIL ON WATER SUPPLY	2025	2030	2035	2040	2045
Purchased or Imported Water	Metropolitan Treated/ Untreated	66,447	72,147	70,247	74,747	78,847
Groundwater (not desalinated)	Pumped from the Hemet/San Jacinto Basin	7,303	7,303	7,303	7,303	7,303
Groundwater (not desalinated)	Pumped from the West San Jacinto Basin	11,450	11,450	11,450	11,450	11,450
Desalinated Water - Groundwater	Desalinated water from the West San Jacinto Basin	13,400	13,400	13,400	13,400	13,400
Recycled Water	Excludes Storage Pond Incidental Recharge / Evaporation	43,330	49,020	54,500	59,800	64,100
Other	Purified Water Replenishment (IPR)	4,000	4,000	12,000	12,000	12,000
	TOTAL:	**145,930**	**157,320**	**168,900**	**178,700**	**187,100**

The projected recycled water supply total is inclusive of recycled water that is required to be recharged as part of EMWD's planning Purified Water Replenishment (PWR) Program – an Indirect Potable Reuse project with multiple phases. This recharge volume is reported under the groundwater recharge line item in Table 6-7 (DWR 6-4R) as a demand/beneficial use of EMWD's recycled water supply. The projected supply total under the "other" category reflects the volume of water produced by PWR that will be used to meet demands on EMWD's potable water system.

(EMWD, 2021e, Table 6-15)

Table 4.20-4 Wastewater Treatment Capacity

FACILITY	TREATMENT CAPACITY (AFY)
San Jacinto Valley	15,700
Moreno Valley	17,900
Temecula Valley	25,800
Perris Valley	26,900
TOTAL	**86,300**

(EMWD, 2021e, Table 6-3)

C. *Storm Water Drainage*

The Project site currently consists of vacant, undeveloped land is relatively flat topography in the southern portions of the site, with undulating hill forms occurring in the north and northeastern portions of the Project site. Elevations on site range from 1,422 feet above mean sea level (amsl) in the southeast corner of the Project site to 1,587 feet amsl near the northeast corner of the Project site. (Google Earth, 2021) As previously depicted on EIR Figure 4.10-2, the existing pre-developed condition of the Project site displays the natural water courses of the site in which drainage water courses flow from the northerly higher elevation to south and southeasterly of the Project, which ultimately flow offsite toward and through several existing Caltrans reinforced concrete pipe (RCP) culvert-under-crossings along Winchester Road (Highway-79). Refer to EIR Subsection 4.10, *Hydrology and Water Quality*, for a more detailed description of the existing drainages on site. (K&A, 2021a, p. 3)

D. *Solid Waste Collection and Disposal*

Solid waste collection and disposal is provided by the Riverside County Department of Waste Resources (RCDWR) through a franchise agreement with a private company, Waste Management Inc. (WMI), with the bulk of recyclable waste and green waste delivered to the Moreno Valley Solid Waste Recycling and Transfer Station (MVTS) for processing. The facility is located at 17700 Indian Street in Moreno Valley. It is permitted for a 2,500 tons per day (tpd) operation. (RCDWR, 2021)

WMI uses the El Sobrante landfill for disposal, but may also utilize the Badlands and/or Lamb Canyon landfills for disposal of the waste generated from the proposed Project. The following is a description of these facilities:

- El Sobrante Landfill. The El Sobrante Landfill is located east of Interstate 15 and Temescal Canyon Road to the south of the City of Corona and Cajalco Road at 10910 Dawson Canyon Road. The landfill is owned and operated by USA Waste of California, a subsidiary of WMI, and encompasses 1,322 acres, of which 645 acres are permitted for landfill operation. The El Sobrante Landfill has a total disposal capacity of approximately 209.9 million cubic yards and can receive up to 70,000 tons per week (tpw) of refuse. USA Waste must allot at least 28,000 tpw for County refuse. The landfill's permit allows a maximum of 16,054 tons per day (tpd) of waste to be accepted into the landfill, due to the limits on vehicle trips. If needed, 5,000 tpd must be reserved for County waste, leaving the maximum commitment of non-County waste at 11,054 tpd. Per the 2020 Annual Report, the landfill had a remaining in-County disposal capacity of approximately 51.4 million tons. In 2020, the El Sobrante Landfill accepted a daily average of 10,710 tons with a period total of approximately 3,298,730 tons. The landfill is expected to reach capacity in approximately 2055. (RCDWR, 2021)

- Lamb Canyon Landfill. The Lamb Canyon Landfill is located between the City of Beaumont and City of San Jacinto at 16411 Lamb Canyon Road (State Route 79), south of Interstate 10 and north of Highway 74. The landfill is owned and operated by Riverside County. The landfill property encompasses approximately 1,189 acres, of which 703.4 acres encompass the current landfill permit area. Of the 703.4-acre landfill permit area, approximately 144.6 acres are permitted for waste disposal. The landfill is currently permitted to receive 5,000 tpd of Municipal Solid Waste (MSW) for disposal and 500 tpd for beneficial reuse. The site has an estimated total disposal capacity of approximately 20.7 million tons. As of January 1, 2021 (beginning of day), the landfill had a total remaining capacity of approximately 8.1 million tons. The current landfill remaining disposal capacity is estimated to last, at a minimum, until approximately 2029. From January 2020 to December 2020, the Lamb Canyon Landfill accepted a daily average of 1,926 tpd with a period total of approximately 593,215 tons. Landfill expansion potential exists at the Lamb Canyon Landfill site. (RCDWR, 2021)

- Badlands Landfill. The Badlands Landfill is located northeast of the City of Moreno Valley at 31125 Ironwood Avenue and accessed from State Highway 60 at Theodore Avenue. The landfill is owned and operated by Riverside County. The existing landfill encompasses 1,168.3 acres, with a total permitted disturbance area of 278 acres, of which 150 acres are permitted for refuse disposal. The landfill is currently permitted to receive 4,500 tpd of MSW for disposal and 300 tpd for beneficial reuse. The site has an estimated total capacity of approximately 20.5 million tons. As of January 1, 2021 (beginning of day), the landfill had a total remaining disposal capacity of approximately 4.3 million tons. The current landfill remaining disposal capacity is estimated to last, at a minimum, until approximately 2022. From January 2020 to December 2020, the Badlands Landfill accepted a daily average of 2,740 tons with a period total of approximately 844,010 tons. Landfill expansion potential exists at the Badlands Landfill site. (RCDWR, 2021)

4.20.2 Applicable Environmental Regulations

The following is a brief description of the federal, State, and local environmental laws and related regulations related to utilities and service systems.

A. Federal Regulations

1. Applicable Water Supply Regulations

❑ Clean Water Act

The Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. The basis of the CWA was enacted in 1948 and was called the Federal Water Pollution Control Act, but the Act was substantially reorganized and expanded in 1972. "Clean Water Act" became the Act's common name with amendments in 1972. Under the CWA, the Environmental Protection Agency (EPA) has implemented pollution control programs such as setting wastewater standards for industry, and also has set water quality standards for all contaminants 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) permit program controls discharges. Point sources are discrete conveyances such as pipes or man-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 permits if their discharges go directly to surface waters. (EPA, 2020e)

❑ Safe Drinking Water Act

The Safe Drinking Water Act (SDWA) was established to protect the quality of drinking water in the U.S. This law focuses on all waters actually or potentially designed for drinking use, whether from above ground or underground sources. The Act authorizes EPA to establish minimum standards to protect tap water and requires all owners or operators of public water systems to comply with these primary (health-related) standards. The 1996 amendments to SDWA require that EPA consider a detailed risk and cost assessment, and best available peer-reviewed science, when developing these standards. State governments, which can be approved to implement these rules for EPA, also encourage attainment of secondary standards (nuisance-related). Under the Act, EPA also establishes minimum standards for state programs to protect underground sources of drinking water from endangerment by underground injection of fluids. (EPA, 2020j)

B. State Regulations

1. Applicable Water Supply Regulations

❑ Water Conservation in Landscaping Act

The Water Conservation in Landscaping Act was established to ensure adequate water supplies are available for future uses. To promote the conservation and efficient use of water, the Act requires local agencies to adopt a water efficient landscape ordinance. When such an ordinance had not been adopted, a finding as to why (based on the climatic, geologic, or topographical conditions) such an ordinance is not necessary, must be adopted. In the absence of such an ordinance or findings, the policies and requirements contained in the "model" ordinance drafted by the State of California shall apply within the affected jurisdiction. (CA Legislative Info, n.d.)

❑ Water Recycling in Landscaping Act

In 2000, Senate Bill 2095 (Water Recycling in Landscaping Act) was approved by Governor Davis requiring any local public or private entity that produces recycled water and determines that within 10 years it will provide recycled water within the boundaries of a local agency, to notify the local agency of that fact. In turn, local agencies are required to adopt and enforce within 180 days a specified recycled water ordinance, unless the local agency adopted a recycled water ordinance or other regulation requiring the use of recycled water in its jurisdiction prior to January 1, 2001. (CA Legislative Info, n.d.)

❑ Urban Water Management Planning Act

The Urban Water Management Planning Act (UWMP Act) was proposed and adopted to ensure that water planning is conducted at the local level, as the State of California recognized that two water agencies in the same region could have very different impacts from a drought. The UWMP Act requires water agencies to develop Urban Water Management Plans (UWMPs) over a 20-year planning horizon, and further required UWMPs to be updated every five years. UWMPs are exempt from compliance with CEQA. (DWR, 2016, p. 1-2)

The UWMPs provide a framework for long term water planning and inform the public of a supplier's plans for long-term resource planning that ensures adequate water supplies for existing and future demands. This part of the California Water Code (CWC) requires urban water suppliers to report, describe, and evaluate:

- Water deliveries and uses;
- Water supply sources;
- Efficient water uses;
- Demand management measures; and
- Water shortage contingency planning. (DWR, 2016, p. 1-3)

The UWMP Act has been modified over the years in response to the State's water shortages, droughts, and other factors. A significant amendment was made in 2009, after the drought of 2007-2009 and as a result of the governor's call for a statewide 20 percent reduction in urban water use by the year 2020. This was the Water Conservation Act of 2009, also known as SB X7-7. This Act required agencies to establish water use targets for 2015 and 2020 that would result in statewide savings of 20 percent by 2020. Beginning in 2016, retail water suppliers are required to comply with the water conservation requirements in SB X7-7 in order to be eligible for State water grants or loans. Retail water agencies are required to set targets and track progress toward decreasing daily per capita urban water use in their service area, which will assist the State in meeting its 20 percent reduction goal by 2020. (DWR, 2016, p. 1-2)

❑ Government Code § 66473.7(b)(2) (Senate Bill 221)

Under Senate Bill (SB) 221, approval by a city or county of certain residential subdivisions requires an affirmative written verification of sufficient water supply. SB 221 is intended as a 'fail safe' mechanism to ensure that collaboration on finding the needed water supplies to serve a new large subdivision occurs before construction begins. SB 221 requires the legislative body of a city or county or the advisory agency, to the extent that it is authorized by local ordinance to approve, conditionally approve, or disapprove a tentative map,

must include as a condition in any tentative map that includes a subdivision a requirement that a sufficient water supply shall be available. Proof of the availability of a sufficient water supply must be requested by the subdivision applicant or local agency, at the discretion of the local agency, and id based on written verification from the applicable public water system within 90 days of a request. SB 221 does not apply to any residential project proposed for a site that is within an urbanized area and has been previously developed for urban uses, or where the immediate contiguous properties surrounding the residential project site are, or previously have been, developed for urban uses, or housing projects that are exclusively for very low and low-income households. (DWR, 2003; CA Legislative Info, n.d.)

❑ California Senate Bill 610

The California Water Code (Water Code) §§ 10910 through 10915 were amended by the enactment of SB 610 in 2002. SB 610 requires an assessment of whether available water supplies are sufficient to serve the demand generated by a proposed project, as well as the reasonably foreseeable cumulative demand in the region over the next 20 years under average normal year, single dry year, and multiple dry year conditions. Under SB 610, water assessments must be furnished to local governments for inclusion in any environmental documentation for certain projects (as defined in Water Code 10912 [a]) subject to CEQA. (DWR, 2003; CA Legislative Info, n.d.) For the purposes of SB 610, "project" means any of the following:

(1) A proposed residential development of more than 500 dwelling units.
(2) A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space.
(3) A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space.
(4) A proposed hotel or motel, or both, having more than 500 rooms.
(5) 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.
(6) A mixed-use project that includes one or more of the projects specified in this subdivision.
(7) 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. (DWR, 2003; CA Legislative Info, n.d.)

Because the Project proposes 436 residential dwelling units and 176,000 s.f. of commercial retail land uses, the Project would have a demand for water that is greater than the amount of water required by a 500-dwelling unit project. As such, a Water Supply Assessment was required and is included in EIR *Technical Appendix M*.

❑ CA. Water Code § 10610 et seq. (Senate Bill 901)

Signed into law on October 16, 1995, Senate Bill (SB) 901 required every urban water supplier to identify as part of its urban water management plan, the existing and planned sources of water available to the supplier over a prescribed 5-year period. The code requires the water service purveyor to assess the projected water demand associated with a proposed project under environmental review. Later provisions of SB 901 required compliance in the event that the proposed Project involved the adoption of a specific plan, amendment to, or revision of the land use element of a general plan or specific plan that would result in a net increase in the state

population density. Upon completion of the water assessment, cities and counties may agree or disagree with the conclusions of the water service purveyors, but cannot approve projects in the face of documented water shortfalls without first making certain findings. (CA Legislative Info, n.d.)

❑ Executive Order B-29-15

Executive Order (EO) B-29-15 ordered the State Water Resources Control Board (SWRCB) to impose restrictions to achieve a 25-percent reduction in potable urban water usage through February 28, 2016; directed the California Department of Water Resources (DWR) to lead a statewide initiative, in partnership with local agencies, to collectively replace 50 million square feet of lawns and ornamental turf with drought tolerant landscapes; and directed the California Energy Commission to implement a statewide appliance rebate program to provide monetary incentives for the replacement of inefficient household devices. (SWRCB, 2020)

❑ Executive Order B-37-16

Signed on May 9, 2016, EO B-37-16 established a new water use efficiency framework for California. The order bolstered the state's drought resilience and preparedness by establishing longer-term water conservation measures that include permanent monthly water use reporting, new urban water use targets, reducing system leaks and eliminating clearly wasteful practices, strengthening urban drought contingency plans, and improving agricultural water management and drought plans. (SWRCB, 2020)

❑ Executive Order B-40-17

Signed on April 7, 2017, EO B-40-17 ended the drought state of emergency in all California counties except Fresno, Kings, Tulare, and Tuolumne, where emergency drinking water projects will continue to help address diminished groundwater supplies. It maintains water reporting requirements and prohibitions on wasteful practices. The order was built on actions taken in Executive Order B-37-16, which remains in effect. In a related action, state agencies, including the Department of Water Resources (DWR), released a plan to continue making water conservation a way of life. (SWRCB, 2020)

❑ Sustainable Groundwater Management Act (SGMA)

The Sustainable Groundwater Management Act (SGMA) established a new structure for managing California's groundwater resources at a local level by local agencies. SGMA required, by June 30, 2017, the formation of locally-controlled groundwater sustainability agencies (GSAs) in the State's high- and medium-priority groundwater basins and subbasins (basins). A GSA is responsible for developing and implementing a groundwater sustainability plan (GSP) to meet the sustainability goal of the basin to ensure that it is operated within its sustainable yield, without causing undesirable results. The GSP Emergency Regulations for evaluating GSPs, the implementation of GSPs, and coordination agreements were adopted by DWR and approved by the California Water Commission on May 18, 2016. (DWR, n.d.)

2. Applicable Solid Waste Regulations

❑ California Solid Waste Integrated Waste Management Act (AB 939, 1989)

The Integrated Waste Management Act (IWMA) established an integrated waste management hierarchy to guide the California Integrated Waste Management Board (CIWMB) and local agencies in implementation, in

order of priority: (1) source reduction, (2) recycling and composting, and (3) environmentally safe transformation and land disposal (it should be noted that the CIWMB no longer exists, and its duties have been assumed by CalRecycle). As part of the IWMA, the CIWMB was given a purpose to mandate the reduction of disposed waste. (CalRecycle, 2018a) The IWMA also required:

- the establishment of a task force to coordinate the development of city Source Reduction and Recycling Elements (SRREs) and a countywide siting element. (CalRecycle, 2018a)

- each city, by July 1, 1991, to prepare, adopt and submit a SRRE to the county which includes the following components: waste characterization; source reduction; recycling; composting; solid waste facility capacity; education and public information; funding; special waste (asbestos, sewage sludge, etc.); and household hazardous waste. (CalRecycle, 2018a)

- each county, by January 1, 1991, to prepare a SRRE for its unincorporated area, with the same components described above, and a countywide siting element, specifying areas for transformation or disposal sites to provide capacity for solid waste generated in the jurisdiction which cannot be reduced or recycled for a 15-year period.

- each county to prepare, adopt, and submit to the Board an Integrated Waste Management Plan (IWMP), which includes all of the elements described above. (CalRecycle, 2018a)

- each city or county plan to include an implementation schedule which shows: diversion of 25 percent of all solid waste from landfill or transformation facilities by January 1, 1995 through source reduction, recycling, and composting activities; and, diversion of 50 percent of all solid waste by January 1, 2000 through source reduction, recycling, and composting activities. (CalRecycle, 2018a)

- the CIWMB to review the implementation of each SRRE at least once every two years. (CalRecycle, 2018a)

- The IWMA required the CIWMB, in conjunction with an inspection conducted by a Lead Enforcement Agency (LEA), to conduct at least one inspection per year of each solid waste facility in the state. (CalRecycle, 2018a)

Additionally, the IWMA established a comprehensive statewide system of permitting, inspections, enforcement, and maintenance for solid waste facilities. (CalRecycle, 2018a)

❑ Waste Reuse and Recycling Act (AB 1327)

The Waste Reuse and Recycling Act (WRRA) required the CIWMB to approve a model ordinance for adoption by any local government for the transfer, receipt, storage, and loading of recyclable materials in development projects by March 1, 1993. The WRRA also required local agencies to adopt a local ordinance by September 1, 1993 or allow the model ordinance to take effect. The WRRA requires all development projects that are commercial, industrial, institutional, or marina in nature and where solid waste is collected and loaded, to

provide an adequate area for collecting and loading recyclable materials over the lifetime of the project. The area is required to be provided before building permits are issued. (CalRecycle, 2018b)

- **Mandatory Commercial Recycling Program (AB 341)**

Assembly Bill (AB) 341 (Chapter 476, Statutes of 2011 [Chesbro, AB 341]) directed CalRecycle to develop and adopt regulations for mandatory commercial recycling. CalRecycle initiated formal rulemaking with a 45-day comment period beginning Oct. 28, 2011. The final regulation was approved by the Office of Administrative Law on May 7, 2012. AB-341 was designed to help meet California's recycling goal of 75% by the year 2020. AB 341 requires all commercial businesses and public entities that generate 4 cubic yards or more of waste per week to have a recycling program in place. In addition, multi-family apartments with five or more units are also required to form a recycling program. (CalRecycle, 2020)

- **2016 California Green Building Standards Code (CAL Green; Part 11 of Title 24, California Code of Regulations)**

California Code of Regulations, Title 24, Part 11 is referred to as the California Green Building Standards Code (CALGreen Code). CALGreen became effective January 1, 2017, and is applicable to the planning, design, operation, construction, use, and occupancy of every newly constructed building or structure throughout the State of California (including residential structures and elementary schools). The purpose of the CALGreen Code is to "improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories: (1) Planning and design; (2) Energy efficiency; (3) Water efficiency and conservation; (4) Material conservation and resource efficiency; and (5) Environmental air quality." The CALGreen Code is not intended to substitute or be identified as meeting the certification requirements of any green building program that is not established and adopted by the California Building Standards Commission (CBSC). Section 5.408.3 of the CALGreen Code requires that 100 percent of trees, stumps, rocks, and associated vegetation and soils resulting from land clearing shall be reused or recycled. For a phased project, such material may be stockpiled on-site until the storage site is developed. Unless otherwise noted in the regulation, all newly constructed buildings in California are subject of the requirements of the CALGreen Code. (CEC, 2020)

3. *Applicable Energy Conservation Regulations*

- **California Energy Efficiency Standards for Residential and Nonresidential Buildings (24 CA. Code Regs. 6)**

The Building Energy Efficiency Standards were first adopted in 1976 and have been updated periodically since then as directed by statute. In 1975 the Department of Housing and Community Development adopted rudimentary energy conservation standards under their State Housing Law authority that were a precursor to the first generation of the Standards. However, the Warren-Alquist Act was passed one year earlier with explicit direction to the Energy Commission (formally titled the State Energy Resources Conservation and Development Commission) to adopt and implement the Standards. The Energy Commission's statute created separate authority and specific direction regarding what the Standards are to address, what criteria are to be met in developing the Standards, and what implementation tools, aids, and technical assistance are to be provided. (CEC, 2020)

The Standards contain energy and water efficiency requirements (and indoor air quality requirements) for newly constructed buildings, additions to existing buildings, and alterations to existing buildings. Public Resources Code Sections 25402 subdivisions (a)-(b) and 25402.1 emphasize the importance of building design and construction flexibility by requiring the Energy Commission to establish performance standards, in the form of an "energy budget" in terms of the energy consumption per square foot of floor space. For this reason, the Standards include both a prescriptive option, allowing builders to comply by using methods known to be efficient, and a performance option, allowing builders complete freedom in their designs provided the building achieves the same overall efficiency as an equivalent building using the prescriptive option. Reference Appendices are adopted along with the Standards that contain data and other information that helps builders comply with the Standards. (CEC, 2020)

The 2019 update to the Building Energy Efficiency Standards focuses on several key areas to improve the energy efficiency of newly constructed buildings and additions and alterations to existing buildings. The most significant efficiency improvements to the residential Standards include the introduction of photovoltaic into the prescriptive package, improvements for attics, walls, water heating, and lighting. The most significant efficiency improvements to the nonresidential Standards include alignment with the ASHRAE 90.1 2017 national standards. The 2019 Standards also include changes made throughout all of its sections to improve the clarity, consistency, and readability of the regulatory language. (CEC, 2020)

Public Resources Code Section 25402.1 also requires the Energy Commission to support the performance standards with compliance tools for builders and building designers. The Alternative Calculation Method (ACM) Approval Manual adopted by regulation as an appendix of the Standards establishes requirements for input, output, and calculational uniformity in the computer programs used to demonstrate compliance with the Standards. From this, the Energy Commission develops and makes publicly available free, public domain building modeling software in order to enable compliance based on modeling of building efficiency and performance. The ACM Approval Manual also includes provisions for private firms seeking to develop compliance software for approval by the Energy Commission, which further encourages flexibility and innovation. (CEC, 2020)

❑ California Solar Rights and Solar Shade Control Acts

The Solar Rights Act sets parameters for establishing solar easements, prohibits ordinances and private covenants which restrict solar systems, and requires communities to consider passive solar and natural heating and cooling opportunities in new construction. This Act is applicable to all California cities and counties. California's solar access laws appear in the state's Civil, Government, Health and Safety, and Public Resources Codes. California Pub Res Code § 25980 sets forth the Solar Shade Control Act, which encourages the use of trees and other natural shading except in cases where the shading may interfere with the use of active and passive solar systems. (EPIC, 2014; EPIC, 2010)

❑ Alternative Fuels Plan

On September 24, 2009, the California Air Resources Board (CARB) adopted amendments to the "Pavley" regulations that reduce greenhouse gas (GHG) emissions in new passenger vehicles from 2009 through 2016. These amendments are part of California's commitment toward a nation-wide program to reduce new passenger vehicle GHGs from 2012 through 2016. CARB's September amendments will cement California's

enforcement of the Pavley rule starting in 2009 while providing vehicle manufacturers with new compliance flexibility. The amendments will also prepare California to harmonize its rules with the federal rules for passenger vehicles. (CARB, n.d.)
The U.S. EPA granted California the authority to implement GHG emission reduction standards for new passenger cars, pickup trucks, and sport utility vehicles On June 30, 2009. The first California request to implement GHG standards for passenger vehicles, known as a waiver request, was made in December 2005, and was denied by the U.S. EPA in March 2008. That decision was based on a finding that California's request to reduce GHG emissions from passenger vehicles did not meet the Clean Air Act requirement of showing that the waiver was needed to meet "compelling and extraordinary conditions." (CARB, n.d.)

The ARB's Board originally approved regulations to reduce GHGs from passenger vehicles in September 2004, with the regulations to take effect in 2009. These regulations were authorized by the 2002 legislation Assembly Bill 1493 (Pavley). (CARB, n.d.)

The regulations had been threatened by automaker lawsuits and were stalled by the U.S. EPA's delay in reviewing and then initially denying California's waiver request. The parties involved entered a May 19, 2009 agreement to resolve these issues. With the granting of the waiver on June 30, 2009, it is expected that the Pavley regulations will reduce GHG emissions from California passenger vehicles by about 22 percent in 2012 and about 30 percent in 2016, all while improving fuel efficiency and reducing motorists' costs. (CARB, n.d.)

The CARB has adopted a new approach to passenger vehicles – cars and light trucks – by combining the control of smog-causing pollutants and greenhouse gas emissions into a single coordinated package of standards. The new approach also includes efforts to support and accelerate the numbers of plug-in hybrids and zero-emission vehicles in California. (CARB, n.d.)

4.20.3 Basis For Determining Significance

Section XIX of Appendix G to the State CEQA Guidelines addresses typical adverse effects to utilities and service systems, and includes the following threshold questions to evaluate a project's impacts on utilities and service systems (OPR, 2018a):

- *Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects;*
- *Would the project have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years;*
- *Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments;*
- *Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals; or*
- *Would the project fail to comply with federal, State, and local management and reduction statutes and regulations related to solid waste.*

Significance thresholds are set forth in Riverside County's Environmental Assessment Checklist, are derived from Section XIX of Appendix G to the State CEQA Guidelines (listed above), and state that the proposed Project would result in a significant impact to utilities and service systems if the Project or any Project-related component would:

a. *Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage systems, whereby the construction or relocation would cause significant environmental effects;*

b. *Have insufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years;*

c. *Require or result in the construction of new wastewater treatment facilities, including septic systems, or expansion of existing facilities, whereby the construction or relocation would cause significant environmental effects;*

d. *Result in a determination by the wastewater treatment provider that serves or may service the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments;*

e. *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;*

f. *Fail to comply with federal, State, and local management and reduction statutes and regulations related to solid wastes including the CIWMP (County Integrated Waste Management Plan);*

g. *Impact the following facilities requiring or resulting in the construction of new facilities or the expansion of existing facilities, whereby the construction or relocation would cause significant environmental effects:*

    1. *Electricity;*
    2. *Natural Gas;*
    3. *Communications systems;*
    4. *Street lighting;*
    5. *Maintenance of public facilities, including roads; or*
    6. *Other governmental services.*

The significance thresholds set forth in Riverside County's Environmental Assessment Checklist were used to evaluate the significance of the proposed Project's impacts on utilities and service systems.

4.20.4 IMPACT ANALYSIS

Threshold a:	***Would the Project require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage systems, whereby the construction or relocation would cause significant environmental effects?***

As discussed in EIR subsection 3.5.3, potable and recycled water service to the Project would be provided from EMWD. As part of the Project, and as previously depicted on EIR Figure 3-7, a 24-inch water main would be constructed in Pourroy Road that would connect to the existing 18-inch line at the intersection of Ruft Road and Pourroy Road. The 24-inch water main would extend north within Pourroy Road and east within proposed Keller Road to its intersection with Street A. A series of domestic water lines ranging in size from 8 to 12 inches in size are proposed within Keller Road and internal roadways on site. The proposed 30-inch domestic water line within Keller Road would extend east within Keller Road and would connect to an existing 12-inch water line just west of the intersection of Keller Road and Washington Street. Additionally, a recycled water line is proposed to be constructed within Keller Road between Leon Road and Street "B," with an on-site reclaimed water system being extended on site via an 8-inch looped recycled water system.

As also discussed in EIR subsection 3.5.3, and as previously depicted on EIR Figure 3-9, sewer service for the proposed Project would be provided by EMWD from an existing 18-inch gravity sewer main and existing manhole located southeast of Winchester Road in Abelia Street. The on-site sewer system would consist of 8-inch gravity sewer lines connecting to a proposed 12-inch gravity sewer line within Keller Road, which would extend south in Pourroy Road to the point of connection at the intersection of Winchester Road and Abelia Street.

EIR subsection 3.5.3 also includes a description of the Project's proposed stormwater drainage system. As previously depicted on EIR Figure 3-6, runoff generated within the developed portions of the Project site would be collected via a series of on-site catch basins and storm drain lines ranging in size from 18 inches to 54 inches, which would convey flows into proposed detention basins in proposed Planning Areas (PAs) 11A and 11B of SP 380A1, which ultimately would discharge flows into their respective existing pre-developed water courses. Hillside storm flows from the open space in PA 10 would be intercepted and conveyed through a bypass storm drain line directly into the detention basins (low flow and storm water) proposed within PA 11A, adjacent to Winchester Road. The basin also would accommodate storm flows and runoff from the portion of PA 5 located north of Street "C," storm flows from PA 6, and runoff from the slopes along the northern boundary of the park proposed in PA 8. A basin proposed in PA 6 would detain flows from the northeastern portion of PA 6. Outflows from PA 6 and the detention basin in PA 11A would be conveyed through 24-inch storm drain lines to three points of connection within the existing 24-inch Reinforced Concrete Pipes (RCPs) in Winchester Road.

The detention basin within PA 11B at the southern edge of the Project would detain and provide water quality treatment for the remaining portions of the Project's runoff. At the southwest corner of the Project site, a storm drain would intercept the natural drainage course traversing the southern tip of PA 9 and convey these flows under Old Keller Road in reinforced box culverts ("RCB"; 5' x 7' into 5' x 8' RCB) to bypass the PA 11B basin. These flows would then combine with flows leaving the PA 11B basin. The bypass flows and the flows discharged from PA 11B ultimately would be conveyed to the natural drainage course at one of two locations. Under Option A, the outflow from this basin would flow south into a 5-foot x 87-foot RCB culvert within an

easement through private property to the pre-developed natural drainage course south of the Project boundary. Alternatively, under Option 2, the 5'x 8' RCB would continue eastward under Old Keller Road, and then be conveyed south within Winchester Road until reaching a point of connection with either the existing 60" RCB or existing 84" RCB, and then would outlet into the existing streambed. The line size of the segment of the proposed storm drain line within Winchester Road is not determined at this time.

Impacts associated with the above-described Project-related water, sewer, and drainage facilities are inherent to the Project's construction phase, and impacts have been evaluated throughout this EIR under the appropriate subject headings (e.g., air quality, biological resources, etc.). Where significant direct or cumulative impacts are identified, mitigation measures have been imposed to reduce the Project's impacts to the maximum feasible extent. There are no environmental impacts that would occur specifically related to the Project's proposed water, sewer, and drainage improvements. As such, with the mitigation measures specified throughout this EIR, Project impacts due to water, sewer, and drainage improvements would be less than significant.

With respect to wastewater treatment capacity, wastewater generated by the Project would be conveyed to the Temecula Valley RWRF, which has a daily capacity of 23.0 MGD and typical daily flows of approximately 14.0 MGD, with an ultimate capacity of 28 MGD (EMWD, 2021). Thus, the existing excess capacity at the Temecula Valley RWRF is approximately 9.0 MGD, with an ultimate excess capacity of 14.0 MGD. As shown in Table 4.20-5, *Project-Related Wastewater Generation*, at buildout the Project is anticipated to generate approximately 115,550 gpd of wastewater requiring treatment, or approximately 42.2 million gallons per year, based on the rates used in Riverside County EIR No. 521, which was prepared in conjunction with the County's 2015 General Plan Update. The Project's wastewater generation would represent approximately 1.3% of the Temecula Valley RWRF's current excess capacity, and would represent 0.8% of the ultimate planned excess capacity. Accordingly, the Project would not result in or require the expansion of the existing facilities at the Temecula Valley RWRF, and impacts would therefore be less than significant. (Riverside County, 2015, Table 4.19-5)

Table 4.20-5 Project-Related Wastewater Generation

Land Use	Dwelling Units/ Acreage	Generation Factors	Wastewater Generation (gpd)
Residential	433 du	230 gpd/du	99,590
Commercial	13.3 acres	1,200 gpd/acre	15,960
Total:	--	--	**115,550**

Notes: du = dwelling units; gpd = gallons per day.
(Riverside County, 2015, Table 4.19-5)

Threshold b: ***Would the Project have insufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years?***

EMWD is responsible for supplying the region with its potable and non-potable water needs. July 1, 2021, the EMWD Board of Directors adopted the 2020 UWMP. This plan provides information on EMWD's projected supplies and demands in five-year increments through the year 2045, and reports EMWD's progress on water use efficiency targets as defined in the Water Conservation Act of 2009. The 2020 UWMP shows that the majority of EMWD's existing and future planned demand is to be met through imported water delivered by MWD. Demand for EMWD shown in the 2020 UWMP is projected across the EMWD service area as a

whole and is not project specific. The 2020 UWMP is herein incorporated by reference and is available for public review at EMWD, 2270 Trumble Road, Perris, California 92570.

To assess the ultimate effect of the Project's water demands and service needs, the EMWD has prepared a WSA for the Project (included as *Technical Appendix M* to this EIR), in accordance with Senate Bill 610 (SB 610) and Senate Bill 221 (SB 221). SB 610 requires the preparation of a water supply assessment report for projects that propose to construct the equivalent of 500 or more residential dwelling units. SB 221 requires affirmative written verifications of sufficient water supply. Provided below is a summary of EMWD's water supplies and water demand projections based on the UWMP and the Project-specific WSA.

Population Projection

The population projections for EMWD's service area were updated in the 2020 UWMP using information obtained from the most recent regional transportation plan/sustainable communities strategy completed by the Southern California Association of Governments (SCAG). This study, known as Connect SoCal, forecasted regional growth through 2045, and was adopted by SCAG on September 3, 2020. The data available from Connect SoCal includes projections of population, households, and employment within each of SCAG's Traffic Analysis Zones, which closely resemble block groups in the United States Census. (EMWD, 2021d, p. 4)

Consistent with the significant percentage of undeveloped land within EMWD's service area, growth is anticipated to continue throughout the 2020 UWMP's 25-year planning horizon, as shown in Table 4.20-6, *EMWD Service Area Projected Population – 2020-2045*. Currently, approximately 40 percent of the District's service area is built out. As population and the associated water demands increase, EMWD will continue to proactively manage its water supply portfolio through the development of local resources in conjunction with additional imported water purchases from MWD as outlined in the 2020 UWMP. (EMWD, 2021d, p. 4)

Table 4.20-6 EMWD Service Area Projected Population – 2020-2045

Population Served	2020	2025	2030	2035	2040	2045
Retail	603,950	649,700	695,500	741,300	774,300	807,200
Wholesale	255,210	271,500	287,800	304,000	314,000	324,100
Total	**859,160**	**921,200**	**983,300**	**1,045,300**	**1,088,300**	**1,131,300**

(EMWD, 2021d, Table 1)

Overview of EMWD Supplies

EMWD has four sources of water supply: imported water purchased from MWD, potable groundwater, desalinated brackish groundwater, and recycled water (EMWD, 2021d, p. 4).

Approximately half of EMWD's retail demands are supplied through local water sources, which consists of potable groundwater, desalinated brackish groundwater, and recycled water. The remaining demands are supplied by a mix of raw and treated water purchased from MWD. EMWD treats most of its raw water for potable use at two water filtration plants, located in Perris and Hemet. A small quantity of raw water is supplied directly to agricultural customers. Over the past five years, EMWD's retail water supply portfolio averaged approximately 49 percent imported water, 11 percent groundwater, 6 percent desalinated brackish

groundwater, and 34 percent recycled water. An annual breakdown of EMWD's retail water supplies over this five-year period is shown in Table 4.20-7, *EMWD Retail Water Supply Portfolio (2016-2020)*. The proportions of local to imported water supplies are impacted by EMWD's participation in MWD's cyclic storage program in 2019, where MWD offered an incentive for member agencies to voluntarily reduce local groundwater production and purchase additional imported water due to wet hydrologic conditions at the time. (EMWD, 2021d, pp. 4-5)

Table 4.20-7 EMWD Retail Water Supply Portfolio (2016-2020)

Type	Source	2016	2017	2018	2019	2020
Imported – Treated[1]	Metropolitan Water District	38,157	47,527	42,419	41,167	44,726
Imported – EMWD Treated	Metropolitan Water District	15,546	12,860	18,288	18,969	17,584
Imported – Raw[2]	Metropolitan Water District	697	407	503	501	642
Groundwater[3],[4]	San Jacinto Groundwater Basin	14,864	13,270	13,605	8,044	14,410
Desalination	San Jacinto Groundwater Basin	6,454	6,342	7,544	7,433	7,310
Recycled Water[5]	Regional Water Reclamation Facilities	43,388	42,746	44,016	40,676	39,642
	Total	**119,106**	**123,152**	**126,375**	**116,790**	**124,314**

1. EMWD increased treated imported water purchases in 2019 to offset groundwater pumping reductions made as part of its participation in MWD's Cyclic Storage Program.
2. Raw water total does not include replenishment water recharged under the Soboba Settlement Agreement.
3. Groundwater totals may include raw, brackish groundwater used to augment recycled water system for agricultural use.
4. A portion of the San Jacinto Groundwater Basin is adjudicated under the Hemet-San Jacinto Watermaster. EMWD pumping in this portion is subject to an adjusted base production right. EMWD also receives pumping credits for a portion of any Soboba Settlement recharge water unused by the Soboba Tribe.
5. Recycled water total excludes discharge but includes system losses (such as storage pond evaporation and incidental recharge). Due to the interconnected nature of EMWD's recycled water system, it is difficult to split retail and wholesale losses, therefore all recycled water losses are reported with the retail portfolio.

(EMWD, 2021d, Table 2)

EMWD imports raw and treated water from MWD to supplement the local water supplies of its wholesale agencies. In addition, EMWD has agreements to provide recycled water to some of its wholesale agencies. An annual breakdown of EMWD sales to wholesale agencies is shown in Table 4.20-8, *EMWD Wholesale Water Supply Portfolio (2016-2020)*. Note that Table 4.20-8 only documents sources of water sold by EMWD on a wholesale basis and does not include local supplies (such as groundwater) available and used by EMWD's wholesale agencies to meet customer demands. (EMWD, 2021d, p. 5)

Table 4.20-8 EMWD Wholesale Water Supply Portfolio (2016-2020)

Type	Source	2016	2017	2018	2019	2020
Imported – Treated	Metropolitan Water District	13,034	14,103	14,672	11,070	15,008
Imported – Raw	Metropolitan Water District	12,558	10,448	14,385	11,293	14,909
Imported – Recharge (Raw)	Metropolitan Water District	12,657	19,686	4,783	20,730	6,647
Recycled Water	Regional Water Reclamation Facilities	1,834	1,387	1,878	1,619	1,285
	Total	**40,083**	**45,624**	**35,718**	**44,712**	**37,669**

1. Table does not include local supply sources used by suppliers to which EMWD provides wholesale service.
2. Raw water is imported and recharged by EMWD, LHMWD, and the Cities of Hemet and San Jacinto for the Soboba Tribe under the Soboba Settlement Agreement, which requires a long-term average of 7,500 AFY to be recharged. MWD can pre-deliver recharge water. The annual volume of the 7,500 AFY requirement unused by the Soboba Tribe is credited to the agencies for use.
3. Due to the interconnected nature of EMWD's recycled water system, it is difficult to distinguish between retail and wholesale losses, therefore, all recycled water losses are reported in Table 4.20-7, which documents retail water supplies.

(EMWD, 2021d, Table 3)

As development increases the water demands within EMWD's service area, it is anticipated that new demands will be met through a combination of additional imported water from MWD and the development of local supply projects including increased production of potable groundwater, desalination of brackish groundwater, and use of recycled water. EMWD also plans to continue its efforts to enhance water use efficiency within its service area. Table 4.20-9, *EMWD Projected Water Supplies – Average Year Hydrology*, and Table 4.20-10, *EMWD Projected Wholesale Water Supplies – Average Year Hydrology*, show EMWD's projected water supplies for both retail and wholesale service throughout the planning horizon set within its UWMP. These estimates do not account for all potential new local supply projects that could potentially be developed by EMWD or by agencies to which EMWD provides wholesale service. (EMWD, 2021d, p. 6)

EMWD Projected Demands

EMWD's primary retail customers for potable and raw water can be divided into residential, commercial, industrial, institutional, landscape, and agricultural sectors. The residential sector is EMWD's largest customer segment; however, each sector plays a role in the growth and development of EMWD's service area. The historic and projected customer water use by the various potable/raw retail customer types are shown in Table 4.20-11, *EMWD Retail Potable/Raw Water Use by Customer Type*. (EMWD, 2021d, p. 16)

EMWD also provides wholesale water service to a number of sub-agencies, serves recycled water, and imports water for recharge purposes. These demands are shown in Table 4.20-12, *EMWD Wholesale Deliveries to Other Agencies* (EMWD, 2021d, p. 17).

Table 4.20-9 EMWD Projected Water Supplies – Average Year Hydrology

Type	Source	2025	2030	2035	2040	2045
Imported	Metropolitan Water District	66,447	72,147	70,247	74,747	78,847
Groundwater	San Jacinto Groundwater Basin	18,753	18,753	18,753	18,753	18,753
Desalination	San Jacinto Groundwater Basin	13,400	13,400	13,400	13,400	13,400
Other	Purified Water Replenishment	4,000	4,000	12,000	12,000	12,000
Recycled Water	Regional Water Reclamation Facilities	39,230	44,920	42,200	47,500	51,800
	Total	**141,830**	**153,220**	**156,600**	**166,400**	**174,800**

1. Imported water total represents planned EMWD purchases, not the maximum volume of water available from MWD.
2. Groundwater total includes only 7,303 AFY of pumping from the adjudicated Hemet/San Jacinto Management Plan Area, which is EMWD's long term adjusted base production right. EMWD is also able to pump a portion of water recharged under the Soboba Settlement Agreement that is not used by the Soboba Tribe. EMWD is also able to carry over production rights into future years. As of the end of calendar year 2020, EMWD has accrued a carry-over credit balance of over 25,000 acre-feet.
3. Purified Water Replenishment is a planned indirect potable reuse project.
4. Recycled water supply total excludes volumes to be recharged under Purified Water Replenishment to avoid double counting as well as projected losses due to evaporation and incidental storage pond percolation.

(EMWD, 2021d, Table 4)

Table 4.20-10 EMWD Projected Wholesale Water Supplies – Average Year Hydrology

Type	Source	2025	2030	2035	2040	2045
Imported	Metropolitan Water District	50,700	44,900	46,900	49,200	51,300
Imported	Soboba Settlement Water	7,500	7,500	7,500	7,500	7,500
Recycled Water	Regional Water Reclamation Facilities	4,770	5,180	5,600	5,600	5,600
	Total	**62,970**	**57,580**	**60,000**	**62,300**	**64,400**

1. Imported water total represents planned EMWD purchases, not the maximum volume of water available from MWD.
2. Under the Soboba Settlement Agreement, MWD must provide an annual average of 7,500 AFY of recharge water, however, this water can be pre- or post-delivered based on supply availability and coordination between MWD and EMWD.
3. Due to the interconnected nature of EMWD's recycled water system, losses can be hard to allocate between retail and wholesale service – for simplicity, all recycled water losses are excluded from wholesale and shown in the retail table instead.

(EMWD, 2021d, Table 5)

Table 4.20-11 EMWD Retail Potable/Raw Water Use by Customer Type

	Actual Water Use - AFY				Projected Water Use - AFY				
Use Type	2005	2010	2015	2020	2025	2030	2035	2040	2045
Single Family	62,300	54,000	45,700	52,200	66,900	71,700	76,700	80,500	84,000
Multi-Family	5,500	6,100	5,800	6,500	8,500	9,100	9,700	10,200	10,600
Commercial	3,900	4,200	4,600	4,300	6,100	6,500	7,000	7,300	7,600
Industrial	400	400	300	600	600	600	700	700	700
Institutional	2,900	2,300	2,000	1,600	2,700	2,900	3,100	3,200	3,400
Landscape	7,500	8,900	7,700	8,200	8,400	7,600	6,800	6,200	5,500
Agricultural	2,500	2,300	2,800	1,600	2,000	2,000	2,000	2,000	2,000
Total	**85,000**	**78,200**	**68,900**	**75,000**	**95,200**	**100,400**	**106,000**	**110,100**	**113,800**

(EMWD, 2021d, Table 6)

Table 4.20-12 EMWD Wholesale Deliveries to Other Agencies

	Actual Deliveries - AFY				Projected Deliveries - AFY				
Supplier	2005	2010	2015	2020	2025	2030	2035	2040	2045
City of Hemet	100	0	0	0	0	0	0	0	0
City of Perris	1,900	1,700	1,500	1,685	1,800	1,900	2,100	2,200	2,300
City of San Jacinto	0	0	0	0	0	0	0	0	0
LHMWD	100	1,300	4,300	986	5,100	5,500	5,900	6,300	6,700
NWC	800	600	200	409	500	1,000	1,100	1,200	1,200
RCWD	26,300	21,900	15,000	25,028	42,300	35,200	36,200	37,500	38,800
WMWD (Murrieta)	100	1,600	700	1,809	1,000	1,300	1,600	2,000	2,300
Recharge (Soboba)	0	0	0	6,467	7,500	7,500	7,500	7,500	7,500
Total	**29,300**	**27,100**	**21,700**	**36,384**	**58,200**	**52,400**	**54,400**	**56,700**	**58,800**

1. The Cities of Hemet and San Jacinto plan to meet 100% of demands using local groundwater supplies, however, EMWD can deliver water to the cities during high demand periods or when city wells are undergoing maintenance.
2. Under the Soboba Settlement Agreement, MWD must provide an annual average of 7,500 AFY of water to be recharged in the Hemet/San Jacinto Management Plan Area by EMWD, LHMWD, and the Cities of Hemet and San Jacinto to fulfill the Soboba Tribe's water right. Actual deliveries will vary from year to year, and MWD has the option to pre-deliver water. Recharge water unused by the Soboba Tribe is proportioned between the four agencies.

(EMWD, 2021d, Table 7)

Other water demands including recycled water use, recharge that occurred prior to or outside the scope of the Soboba Settlement Agreement, system losses, non-revenue water deliveries, and other, miscellaneous water usage are shown in Table 4.20-13, *Other Potable and Non-Potable Water Usage*. (EMWD, 2021d, p. 18)

Total demands on EMWD's water system are summarized in Table 4.20-14, *Summary of Total EMWD System Water Demands* (EMWD, 2021d, p. 18).

Table 4.20-13 Other Potable and Non-Potable Water Usage

	Actual Water Use - AFY				Projected Water Use - AFY				
Use Type	2005	2010	2015	2020	2025	2030	2035	2040	2045
Recycled[1],[2]	32,600	28,200	46,100	40,900	44,000	50,100	47,800	53,100	57,400
Recharge[3]	7,000	0	0	0	0	0	0	0	0
Other / Losses[4]	7,700	8,400	9,100	9,800	7,400	7,900	8,400	8,800	9,200
Total	**47,300**	**36,600**	**55,200**	**50,700**	**51,400**	**58,000**	**56,200**	**61,900**	**66,600**

1. Recycled water projections include recycled water that is delivered to sub-agencies but excludes the volume of recycled water that is planned to be recharged as part of EMWD's Purified Water Replenishment (indirect potable reuse) project to avoid double counting.
2. Recycled water supply may be supplemented by brackish groundwater or raw water during high demand months.
3. Volume of recharge water excludes water that is imported under the Soboba Settlement Agreement (shown in prior table).
4. Other/losses category includes unbilled, authorized consumption use as well as real and apparent losses in the potable system.

(EMWD, 2021d, Table 8)

Table 4.20-14 Summary of Total EMWD System Water Demands

	Actual Water Use - AFY				Projected Water Use - AFY				
Category	2005	2010	2015	2020	2025	2030	2035	2040	2045
Retail	85,000	78,200	68,900	75,000	95,200	100,400	106,000	110,100	113,800
Wholesale	29,300	27,100	21,700	36,384	58,200	52,400	54,400	56,700	58,800
Other	47,300	36,600	55,200	50,700	51,400	58,000	56,200	61,900	66,600
Total	**161,600**	**141,900**	**145,800**	**162,084**	**204,800**	**210,800**	**216,600**	**228,700**	**239,200**

(EMWD, 2021d, Table 9)

Project Water Demands

As shown in Table 4.20-15, *2020 UWMP Land Use Demand Estimate for Project Site*, in the 2020 UWMP, the demand projections for the parcels covering the project site were estimated based on Commercial Retail, Mixed Use Policy, Medium-High Density Residential, Medium Density Residential, Low Density Residential, and Very Low Density Residential land uses, with a total demand of 277.73 AFY.

Table 4.20-15 2020 UWMP Land Use Demand Estimate for Project Site

Land Use Category	Average Day Demand (gpd)	Annual Demand (AFY)
Very Low Density Residential	6,904	7.74
Low Density Residential	21,603	24.22
Medium Density Residential	26,987	30.25
Medium-High Density Residential	12,576	14.10
Mixed Use Policy Area	89,144	99.92
Commercial Retail	90,552	101.50
Total	**247,766**	**277.73**

(EMWD, 2021d, Table 10)

The Projects WSA (*Technical Appendix M*) assumes the Project site would be developed with 436 residential dwelling units at varying housing densities, 17.7 acres of commercial retail use, and a total of 77.4 acres of open space use, including 9.5 acres of parks. It should be noted that since the Project's WSA was prepared, the Project now includes only 433 dwelling units, 13.3 acres of commercial retail uses, and 83.1 acres of open space, including 10.5 acres of parks. As such, the WSA slightly overestimates the Project's actual water demands, and the WSA therefore provides a conservative analysis of the Project's potential effects on water supplies. As shown in Table 4.20-16, *Project-Specific Water Demand Estimate*, and based on the land uses assumed in the Project's WSA, the total water demand for the proposed Project is estimated to be 267.06 acre-feet per year (AFY), which is less than the 2020 UWMP assumed for the Project site. (EMWD, 2021d, pp. 18-19)

Table 4.20-16 Project-Specific Water Demand Estimate

Land Use Category	Average Day Demand (gpd)	Annual Demand (AFY)
Medium Density Residential	123,200	138.10
Medium-High Density Residential	30,400	34.08
High Density Residential	24,800	27.80
Commercial Retail	38,940	43.65
Open Space Recreation	20,900	23.43
Total	**238,240**	**267.06**

(EMWD, 2021d, Table 11)

Evaluation of Supply and Demand

EMWD's 2020 UWMP includes an evaluation of EMWD's water supply reliability under a range of potential hydrologic conditions. The results for normal year conditions are shown in Table 12 and Table 13 of the Project's WSA (*Technical Appendix M*) for EMWD's retail and wholesale service respectively. The single dry year evaluation is documented in Table 14 and Table 15 of the WSA, and the results of the multiple dry year evaluation are shown in Table 16 and Table 17 of the WSA. The supply totals shown in the tables reflect EMWD's planned production and not EMWD's supply capacity. Under drought conditions, EMWD may increase local supply production, pump from stored water supplies, or purchase additional imported water from MWD if necessary. (EMWD, 2021d, p. 20)

EMWD's 2020 UWMP discusses the supply reliability for EMWD during dry years. EMWD expects its local supplies to remain highly reliable and resilient, even under severe hydrologic conditions. Similarly, MWD's UWMP shows that MWD would have the ability to meet all of its member agencies' project supplemental demand through 2045, even under a repeat of historic drought scenarios. (EMWD, 2021d, p. 22)

EMWD maintains a Water Shortage Contingency Plan (WSCP) that aims to reduce demand during water shortage using significant penalties for wasteful water use. EMWD's WSCP details demand reductions for several stages of shortage through a 50 percent or greater reduction. Additional information about contingency planning is included in Chapter 8 of EMWD's 2020 UWMP. The WSCP was last updated on June 30, 2021, and is located in Title 5, Article 10 of the EMWD Administrative Code, which is available on EMWD's website

(www.emwd.org). EMWD continues to encourage voluntary reduction of water use and is currently in Stage 2 of the WSCP based on statewide water supply conditions. (EMWD, 2021d, p. 22)

Water Supply Assessment

❑ Potable Water

From a facilities perspective, the Project may be conditioned to construct off-site and on-site water facilities needed to distribute water throughout the Project area. Prior to construction, the developer would be required contact EMWD staff to establish development design conditions and determine if any revisions are required to the master plan. Figure 2 of the Project's WSA shows existing water facilities in relation to the Project, while EIR Figure 3-6 depicts the Project's proposed water improvements. EMWD plans to supply new water demands in its service area, including the Project, through a combination of additional imported water purchases from MWD and the ongoing development of EMWD's local supply resources. (EMWD, 2021d, p. 22)

❑ Recycled Water

EMWD policy recognizes recycled water as the preferred source of supply for all non-potable water demands, including irrigation of recreation areas, greenbelts, open space common areas, commercial landscaping, and supply for aesthetic impoundment or other water features. According to the District's policies, the Project would be conditioned to construct a recycled water system separately from the potable water system. The Project's conceptual recycled water system is depicted on EIR Figure 3-8. The system would need to be constructed to recycled water standards. The Project may also be conditioned to construct off-site recycled water facilities. EMWD would make a final determination on requirements for recycled water use and facilities during the development design conditions phase of the Project. However, as it is not currently known whether such facilities would be required or what such facilities would consist of beyond what is already identified as part of SP 380A1 (refer to EIR Figure 3-8), it is not possible to assess environmental effects that may be associated with such improvements (State CEQA Guidelines § 15145). Such improvements may be subject to additional evaluation per CEQA as appropriate with future discretionary review for future implementing developments. (EMWD, 2021d, p. 22)

Conclusion

EMWD relies on MWD and local resources to meet the needs of its growing population. MWD demonstrated in the 2020 MWD UWMP that with the addition of all water supplies, existing and planned, MWD has the ability to meet all of its member agencies' projected supplemental demand through 2045, even under a repeat of historic multiple-year drought scenarios. (EMWD, 2021d, p. 23)

In the event that the lead agency determines adequate water supply exists for the Project, the developer of this Project would be required to meet with EMWD Development Services Staff to establish development design conditions. The development design conditions would detail water, wastewater, and recycled water requirements to serve the Project. An agreement developed prior to construction would determine whether additional funding will be required to reduce existing customer demand on imported supplies through the expansion of local resources. The reduction of existing customer demand on imported water supplies would free up allocated imported water to be used to serve this Project under multiple dry year conditions. The amount

of funding would be determined by EMWD (if required) and may take the form of a new component of connection fees or a separate charge. (EMWD, 2021d, p. 23)

Based on present information and the assurance that MWD is engaged in identifying solutions that, when combined with the rest of its supply portfolio, will ensure a reliable long-term water supply for its member agencies, EMWD has determined that it would be able to provide adequate water supplies to meet the potable water demand for this Project as part of its existing and future demands. (EMWD, 2021d, p. 23) Accordingly, sufficient water supplies are available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years. The Project's effect on EMWD's regional water network would be less than significant.

Threshold c:	***Would the Project require or result in the construction of new wastewater treatment facilities, including septic systems, or expansion of existing facilities, whereby the construction or relocation would cause significant environmental effects?***
Threshold d:	***Would the project result in a determination by the wastewater treatment provider that serves or may service the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments?***

As discussed under the analysis of Threshold a., the Project would be provided sanitary sewer service by the EMWD, and no septic tanks are proposed as part of the Project. A description of proposed sewer improvements is provided in EIR subsection 3.5.3, which are graphically depicted on EIR Figure 3-9. As discussed therein, sewer service for the proposed Project would be provided by EMWD from an existing 18-inch gravity sewer main and existing manhole located southeast of Winchester Road in Abelia Street. The on-site sewer system would consist of 8-inch gravity sewer lines connecting to a proposed 12-inch gravity sewer line within Keller Road, which would extend south in Pourroy Road to the point of connection at the intersection of Winchester Road and Abelia Street.

Impacts associated with the above-described improvements are inherent to the Project's construction phase, and impacts have been evaluated throughout this EIR under the appropriate subject headings (e.g., air quality, biological resources, cultural resources). Where significant direct or cumulative impacts are identified, mitigation measures have been imposed to reduce the Project's impacts to the maximum feasible extent. There are no environmental impacts that would occur specifically related to the Project's proposed sewer improvements. As such, with the mitigation measures specified in this EIR, Project impacts due to proposed sewer improvements would be less than significant.

With respect to wastewater treatment capacity, and as also discussed under the analysis of Threshold a., wastewater generated by the Project would be conveyed to the Temecula Valley RWRF. As previously indicated, the Temecula Valley RWRF receives typical flows of 14.0 MGD with an overall capacity of 23.0 MGD, resulting in an excess capacity of 9.0 MGD. As previously shown in Table 4.20-5, at buildout the Project is anticipated to generate approximately 115,550 gpd of wastewater. The Project's wastewater generation would represent approximately 1.3% of the Temecula Valley RWRF's current excess capacity, and would represent 0.8% of the ultimate planned excess capacity. Accordingly, the Project would not result in or require the expansion of the existing facilities at the Temecula Valley RWRF, and impacts would therefore be less than significant.

Threshold e:	***Would the Project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?***

Solid waste generated by the Project would be disposed of at the El Sobrante Landfill, although the Lamb Canyon Landfill and the Badlands Landfill also could handle solid waste generated by the Project. The El Sobrante Landfill is permitted to receive up to 70,000 tons per week (tpw), or 16,054 tpd. In 2020, the El Sobrante Landfill accepted a daily average of 10,710 tons with a period total of approximately 3,298,730 tons. The Badlands Landfill is permitted to receive 4,500 tpd of MSW and 300 tpd for beneficial reuse. In 2020, the Badlands Landfill received a daily average of 2,740 tpd with a period total of approximately 844,010 tons. The Lamb Canyon Landfill is currently permitted to receive 5,000 tpd of MSW for disposal and 500 tpd for beneficial reuse. In 2020, the Lamb Canyon Landfill received a daily average of 1,926 tons, with a period total of 593,215 tons. (RCDWR, 2021)

Solid Waste Impacts During Construction

Table 4.20-17, *Estimated Construction Solid Waste Generation*, provides an estimate of the amount of construction debris that would be generated by the Project, based on residential and non-residential construction waste generation factors provided by the U.S. Environmental Protection Agency (EPA). Table 4.20-17 does not account for the construction of site improvements other than buildings. Proposed non-building features (e.g., roads, utilities, etc.) would produce nominal amounts of construction waste that would not substantially exceed the solid waste totals (by phase) listed in Table 4.20-17.

Table 4.20-17Estimated Construction Solid Waste Generation

Land Use	Construction Rate[1]	Estimated Building Size[1]	Solid Waste Generation Rate	Total	
				lbs/Day	Tons/Day
Single-Family Residential	0.72 dwelling units/day	1,800 s.f.	4.39 lbs/s.f.	5,689.4	2.84
Multi-Family Residential	0.16 dwelling units/day	1,000 s.f.	4.39 lbs/s.f.	702.4	0.35
Commercial/Non-Residential	356 s.f./day	176,000 s.f.	4.34 lbs/s.f.	1,545.0	0.78
			Total Solid Waste Generation:	**7,936.8**	**3.97**

1. Based on information presented in the Project's Energy Analysis technical report (EIR *Technical Appendix E*), which indicates that building construction would occur between February 6, 2023 and December 27, 2024, with an average single family home size of 1,800 s.f. and an average multi-family home size of 1,000 s.f.
2. Source: U.S. Environmental Protection Agency. *Estimating 2003 Building-Related Construction and Demolition Materials Amounts*. Available online at: https://www.epa.gov/smm/estimating-2003-building-related-construction-and-demolition-materials-amounts. Accessed: November 2, 2021.

As presented in Table 4.20-17, and based on a worst-case analysis of potential building rates, construction of the Project is anticipated to generate approximately 7,936.8 pounds per day (lbs/day) of construction waste requiring disposal, or approximately 3.97 tpd. The Project's worst-case daily construction waste would represent 0.2% of the permitted daily capacity at the MVTS (2,500 tpd), 0.07% of the available 5,344 tpd

excess daily disposal capacity at the El Sobrante Landfill[1], 0.18% of the 2,260 tpd excess daily disposal capacity at the Lamb Canyon Landfill[2], and 0.13% of the 3,074 tpd excess daily disposal capacity at the Badlands Landfill[3].

Given the estimated solid waste quantity generated by the Project on a daily basis during construction, it is estimated that the MVTS, El Sobrante Landfill, Lamb Canyon Landfill, and Badlands Landfill would have sufficient daily capacity to accept the construction waste generated by the proposed Project. Furthermore, all applicants for proposed development within the County are required to submit a Waste Recycling Plan (WRP). To verify AB 341 compliance for recycling of construction materials, the County requires accurate records for construction material recycling and solid waste disposal. According to County procedures, County occupancy permits (i.e., building final inspection) would not be cleared for issuance unless the required evidence (e.g., receipts) demonstrating appropriate WRP compliance is presented to the RCDWR. Mandatory compliance with the WRP requirements would further reduce Project impacts to solid waste by ensuring that 50% of the nonhazardous construction waste is recycled or reused. Based on the foregoing analysis, the Project would not cause or contribute to the need for new or expanded solid waste facilities during construction, and impacts would therefore be less than significant.

Solid Waste Impacts During Operation

As shown in Table 4.20-18, *Estimated Operational Solid Waste Generation*, buildout and occupancy of the Project is estimated to produce approximately 1.65 tpd of solid waste, or approximately 599.9 tpy. Per the Riverside Countywide Integrated Waste Management Plan (CIWMP), which applies to the Project, up to 50 percent of its solid waste would need to be diverted from area landfills. In conformance with the CIWMP, the Project Applicant is required to work with future contract refuse haulers to implement recycling and waste reduction programs for solid wastes.

Table 4.20-18 Estimated Operational Solid Waste Generation

Land Use	Dwelling Unit (d.u.)/Square Footage (s.f.)	Generation Factors	Total Solid Waste Generated (tpy)	Average Solid Waste per Day (tpd)
Residential	433 d.u.	0.41 tons/d.u.	177.5 tpy	0.49 tpd
Commercial	176,000 s.f.	2.4 tons/1,000 s.f.	422.4 tpy	1.16 tpd
Totals:	**--**	**--**	**599.9 tpy**	**1.65 tpd**

Notes: s.f. = square feet; tpy = tons per year; tpd = tons per day.
(Riverside County, 2015, Table 4.17-N)

Solid waste generated by the Project would be transported to a local solid waste transfer facility, the MVTS. At full buildout, waste generated by the Project would represent approximately 0.07% of the permitted daily capacity at the MVTS (2,500 tpd). Given the estimated volume of solid waste generated by the Project on a

[1] The El Sobrante Landfill has a permitted capacity of 16,054 tpd, and received 10,710 tpd on average in 2021, resulting in an excess daily capacity of 5,344 tpd.
[2] The Lamb Canyon Landfill has a permitted capacity of 5,000 tpd, and received 2,740 tpd on average in 2021, resulting in an excess daily capacity of 2,260 tpd.
[3] The Badlands Landfill has a permitted capacity of 5,000 tpd, and received 1,926 tpd on average in 2021, resulting in an excess daily capacity of 3,074 tpd.

daily basis during the buildout condition, it is anticipated that the MVTS would have sufficient capacity to accept solid waste to be disposed by the Project. As noted above, the CIWMP would require that up to 50 percent of the solid waste be diverted from area landfills, which would further ensure the Project's solid waste generation does not exceed available landfill capacity.

Waste from the MVTS ultimately would be disposed at either the El Sobrante Landfill, Lamb Canyon Landfill, and/or Badlands Landfill. As previously indicated, the El Sobrante Landfill has an excess daily capacity of approximately 5,344 tpd[1], the Lamb Canyon Landfill has an excess daily capacity of 2,260 tpd[2], and the Badlands Landfill has an excess daily capacity of 3,074 tpd[3]. In the buildout condition, the Project would generate 0.03% of the excess daily disposal capacity at the El Sobrante Landfill, 0.07% of the excess daily disposal capacity at the Lamb Canyon Landfill, and 0.05% of the excess daily disposal capacity at the Badlands Landfill. Because the Project would generate a relatively small amount of solid waste per day, as compared to the permitted daily capacities for the El Sobrante Landfill, Lamb Canyon Landfill, and Badlands Landfill, it is anticipated that these regional landfill facilities would have sufficient daily capacity to accept solid waste generated by the Project.

Summary of Project Solid Waste Impacts

As indicated above, regional solid waste facilities would have adequate capacity to handle solid waste generated by the Project's construction and operational phases. Accordingly, impacts would be less than significant.

Threshold f:	***Fail to comply with federal, State, and local management and reduction statutes and regulations related to solid wastes including the CIWMP (County Integrated Waste Management Plan)?***

The proposed Project would be regulated by the Riverside Countywide Integrated Waste Management Plan (RCWRMD, 1996). The CIWMP outlines goals, policies, and programs Riverside County and its cities would implement to create an integrated and cost-effective waste management system that complies with the provisions of AB 939 and its diversion mandates. Additionally, AB 341 made a legislative declaration 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, although the California Department of Resources Recycling and Recovery may not establish or enforce a diversion rate greater than the 50 percent diversion rate as set forth by the CIWMP (per Public Resources Code § 41780.01[b]).

The proposed Project would be regulated by the RCDWR and would be required to comply with the CIWMP's requirement to divert up to 50 percent of its solid waste from area landfills. In conformance with the CIWMP, the Project Applicant is required to work with future contract refuse haulers to implement recycling and waste reduction programs for solid wastes. Implementation of a waste disposal strategy for the proposed Project would assist Riverside County in achieving the mandated goals of the Integrated Waste Management Act by developing feasible waste programs that encourage source reduction, recycling, and composting. The RCDWR is specifically charged with the responsibility of implementing programs that ensure that unincorporated Riverside County achieves 50% diversion of solid waste from landfill disposal as well as monitoring and reporting unincorporated Riverside County's compliance with CIWMB and AB 939. With mandatory compliance to AB 939, AB 341, and RCDWR's programs and policies, the Project would result in

a less-than-significant impact due to a conflict with federal, State, and local management and reduction statutes and regulations related to solid wastes, including the CIWMP.

Threshold g:	***Would the Project impact the following facilities requiring or resulting in the construction of new facilities or the expansion of existing facilities, whereby the construction or relocation would cause significant environmental effects:***
	Electricity?
	Natural gas?
	Communications systems?
	Street lighting?
	Maintenance of public facilities, including roads?
	Other governmental services?

Electric service is currently available to the Project site through Southern California Edison (SCE), although existing facilities would need to be expanded as necessary to provide service to the Project. However, the Project area already is served by existing electrical lines; therefore, the construction of electricity facilities as necessary to serve the proposed Project would occur within the areas already planned for impact by the Project or within existing, improved roadways. Therefore, the construction of electrical facilities necessary to serve the proposed Project would not result in any significant impacts to the environment that are not already addressed by this EIR. No additional mitigation would be required.

There are no anticipated capacity restrictions which could limit the ability of the SoCal Gas Company to provide service to the proposed Project. Points of connection to SoCal Gas Company main lines would be resolved as the proposed Project and other projects planned for the area commence their utility design and interconnection plans. It is anticipated that construction of any off-site natural gas utility connections would occur within existing disturbed public rights-of-way. As such, the construction of these utility connections is evaluated under the appropriate subject headings within this EIR, and no new impacts would occur specifically related to natural gas service that have not already been addressed.

Due to long-range planning efforts by the energy purveyors, Project implementation is not anticipated to result in the need for the construction or expansion of off-site gas generation facilities, although some new distribution lines would be necessary (as discussed above). Any future need for regional energy facilities related to cumulative growth in the service areas of SoCal Gas would be determined by the service agencies as part of their long-range growth projections. Accordingly, provision of gas service to the proposed Project site would not result in any significant environmental impacts not already addressed under relevant sections of this EIR.

Points of connection to telecommunication facilities would be resolved as the proposed Project and other projects planned for the area commence their utility design and interconnection plans. It is anticipated that any off-site construction of communication utility connections would occur within existing disturbed public rights-of-way. As such, the construction of communication utility connections is evaluated under the appropriate subject headings within this EIR. No environmental impacts would occur from the provision of

these utilities, as all lines would be installed within the disturbance areas of existing roadway rights-of-way and/or on site within areas already planned for physical impacts as part of the Project.

The Project would require a number of drainage features on site, including a series of catch basins and detention and water quality basins proposed throughout the Project site. Refer to the discussion of Threshold a., above, for a description of the Project's proposed drainage improvements. The proposed drainage improvements would be located in on-site areas, impacts to which have been evaluated throughout this EIR, and mitigation is identified where necessary to reduce impacts to a level below significance. Therefore, the construction of storm water drainage facilities needed to serve the Project would not result in any impacts to the environment beyond what is evaluated, disclosed, and mitigated by other sections of this EIR. Additional mitigation would not be required.

The Project would provide street lighting as required by the County in accordance with Ordinance No. 461 (Roadway Standards) and Ordinance No. 460 (Subdivision of the Land) along on-site segments of Keller Road and along internal roadways within the Project site. All physical environmental impacts associated with street lighting and maintenance would occur within the boundaries of the on-site improvement areas, the impacts of which are described throughout this EIR. Therefore, no additional impacts to the environment would occur that are not already addressed by this EIR, and additional mitigation would not be required.

Implementation of the proposed Project would result in the realignment of Keller Road through the Project site, and the construction of approximately 24 feet of the western 30-foot half-width section of Pourroy Road, site-adjacent improvements to Winchester Road (Highway 79), and internal roadways (including Streets "A" through "C"). Maintenance of these proposed public roadways would not result in any significant impacts to the environment. Impacts associated with the proposed improvements already are evaluated in appropriate sections of this EIR, and any identified impacts have been mitigated to the maximum feasible extent. Maintenance of these proposed public roadways would be funded through the Project developer's payment of Development Impact Fees (DIF) and future building owners' payment of property taxes. Therefore, the maintenance of proposed roadways on and adjacent to the Project site would not result in any new impacts to the environment beyond that which is already disclosed and mitigated by this EIR, and a less-than-significant impact would occur.

No known other facilities would require off-site construction or maintenance as a result of the proposed Project.

Based on the foregoing analysis, impacts associated with the construction or expansion of utility facilities would be less than significant or otherwise mitigated to the maximum feasible extent by this EIR. No additional mitigation would be required.

4.20.5 Cumulative Impact Analysis

The cumulative study area used for the analysis of water and wastewater includes areas within EMWD's service area for water and wastewater services, and is based on the buildout of the County General Plan and the general plans of cities within EMWD's service area. The cumulative study area for solid waste comprises western Riverside County, as all areas of western Riverside County are served by WMIE, based on the buildout of the County General Plan and the general plans of cities within western Riverside County. For the remaining

issue areas, the cumulative impact analysis considers development of the Project in conjunction with other development projects and planned development in the vicinity of the Project site.

As discussed under the analysis of Threshold a., the Project would require a number of improvements related to water, wastewater treatment, and storm drainage systems, although such improvements are inherent to the Project's construction phase. Cumulatively-considerable impacts associated with Project construction activities have been evaluated throughout this EIR, and where necessary mitigation measures have been identified to reduce the Project's cumulatively-considerable effects to the maximum feasible extent. There are no components of the Project's proposed water, wastewater, or storm drainage systems that could result in impacts not already evaluated by other sections of this EIR. Accordingly, impacts associated with the construction of new or expanded water, wastewater treatment, and stormwater drainage systems would be less-than-cumulatively considerable.

The analysis of Threshold b., which is based on the Project-specific WSA (*Technical Appendix M*), demonstrates that the EMWD would have sufficient water supplies available to serve the Project as well as other reasonably foreseeable future development during normal, dry, and multiple dry years. Because the WSA evaluates the water demands of both the Project and other cumulative developments within EMWD's service area, the WSA demonstrates that cumulatively-considerable impacts due to water supply would be less than significant.

As discussed under the analysis of Threshold c. and d., the Project would require a number of improvements to provide sewer service to the Project site, although impacts associated with such improvements are inherent to the Project's construction phase. Cumulatively-considerable impacts associated with Project construction activities have been evaluated throughout this EIR, and where necessary mitigation measures have been identified to reduce the Project's cumulatively-considerable effects to the maximum feasible extent. There are no components of the Project's proposed wastewater improvements that could result in impacts not already evaluated by other sections of this EIR. Accordingly, impacts associated with the construction of new or expanded wastewater treatment conveyance facilities would be less-than-cumulatively considerable.

Although the Project and other cumulative developments ultimately would contribute to the need for expanded capacity at the Temecula Valley RWRF, impacts associated with such expansion would be subject to CEQA once plans for such expansion have been prepared by the EMWD. As no such plans are currently available, it would be speculative to evaluate potential cumulatively-considerable impacts associated with the proposed expansion. As such, Project impacts due to wastewater capacity would be less-than-cumulatively considerable.

As previously discussed in the analysis provided under Threshold e., solid waste generated by construction and operation of the Project would represent nominal proportions of the daily disposal capacity at the MVTS, El Sobrante Landfill, Lamb Canyon Landfill, and Badlands Landfill. The transfer station and landfills are currently projected to remain open until as far into the future as 2055 (El Sobrante Landfill) and have sufficient daily capacity to handle solid waste generated by the Project and other cumulative developments both during construction and long-term operation. The Project would not directly result in the need for expanded solid waste disposal facilities, as the MVTS, El Sobrante Landfill, Lamb Canyon Landfill, and Badlands Landfill have sufficient existing capacity to handle solid waste generated by the Project. Rather, the Project's incremental contribution to solid waste generation may contribute to an ultimate need for expanding the solid

waste disposal facilities that would serve the Project and/or the construction of additional solid waste disposal facilities. Moreover, it is possible that as other developments in the region are proposed, the RCDWR and WMIE may opt to construct new solid waste disposal facilities to serve those developments, and such facilities may or may not receive solid waste generated by the Project. Although the Project has the potential to cumulatively contribute to the demand for new or expanded solid waste disposal facilities, the construction of which could significantly impact the environment, it is too speculative for evaluation in the absence of a proposed expansion or development plan (State CEQA Guidelines § 15145). Therefore, the Project's cumulative impacts to solid waste disposal facilities are evaluated as less than significant.

The Project would adhere to regulations set forth by local and State regulations (including AB 341 and AB 939) during both construction and long-term operations. Other cumulative developments also would be required to comply with such regulations. As such, the Project as well as other cumulative developments in the area would not result in cumulative impacts with respect to compliance with federal, State, and local statutes and regulations related to solid wastes. Impacts would be less-than-cumulatively considerable.

Cumulatively-considerable impacts associated with the provision of facilities for electricity, natural gas, communications systems, storm water drainage, street lighting, maintenance of facilities, construction of off-site sewer and water lines, and other governmental services are evaluated throughout the appropriate issue areas in this EIR. In all cases, where cumulatively-considerable impacts associated with any Project component are identified, mitigation measures have been imposed to reduce such impacts to the maximum feasible extent. Accordingly, cumulatively-considerable impacts associated with the provision of utility facilities to serve the proposed Project would be less than significant.

4.20.6 Significance Of Impacts Before Mitigation

Threshold a.: Less-than-Significant Impact. Although the Project would require construction of new or expanded water, wastewater conveyance, and storm water drainage systems, impacts associated with the construction of such facilities have been evaluated throughout this EIR under the appropriate subject headings (e.g., air quality, biological resources, etc.). Where significant direct or cumulative impacts are identified, mitigation measures have been imposed to reduce the Project's impacts to the maximum feasible extent. There are no environmental impacts that would occur specifically related to the Project's proposed water, sewer, and drainage improvements. As such, with the mitigation measures specified in this EIR, Project impacts due to water, sewer, and drainage improvements would be less than significant. Additionally, the Project's wastewater generation would represent approximately 1.3% of the Temecula Valley RWRF's current excess capacity, and would represent 0.8% of the ultimate planned excess capacity. Accordingly, the Project would not result in or require the expansion of the existing facilities at the Temecula Valley RWRF, and impacts would therefore be less than significant.

Threshold b.: Less-than-Significant Impact. Based on present information and the assurance that MWD is engaged in identifying solutions that, when combined with the rest of its supply portfolio, will ensure a reliable long-term water supply for its member agencies, EMWD has determined that it will be able to provide adequate water supplies to meet the potable water demand for the proposed Project as part of its existing and future demands. (EMWD, 2021d) Accordingly, sufficient water supplies are available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years. Furthermore, the use

of recycled water on-site would serve to further reduce the Project's water demand. The Project's effect on EMWD's regional water network would be less than significant.

Thresholds c. and d.: Less-than-Significant Impact. Impacts associated with proposed sewer facilities are inherent to the Project's construction phase, and impacts have been evaluated throughout this EIR under the appropriate subject headings (e.g., air quality, biological resources, etc.). Where significant direct or cumulative impacts are identified, mitigation measures have been imposed to reduce the Project's impacts to the maximum feasible extent. There are no environmental impacts that would occur specifically related to the Project's proposed sewer improvements. As such, with the mitigation measures specified in this EIR, Project impacts due to proposed sewer improvements would be less than significant. Additionally, the Project's wastewater generation would represent approximately 1.3% of the Temecula Valley RWRF's current excess capacity, and would represent 0.8% of the ultimate planned excess capacity. Accordingly, the Project would not result in or require the expansion of the existing facilities at the Temecula Valley RWRF, and impacts would therefore be less than significant.

Threshold e.: Less-than-Significant Impact. Regional solid waste facilities would have adequate capacity to handle solid waste generated by the Project's construction and operational phases. 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. Accordingly, impacts would be less than significant.

Threshold f.: Less-than-Significant Impact. With mandatory compliance to AB 939, AB 341, and RCDWR's programs and policies, the Project would not result in a significant impact due to noncompliance with regulations related to solid waste. A less-than-significant impact would occur.

Threshold g.: Less-than-Significant Impact. Impacts associated with the construction or expansion of utility facilities would be less than significant or otherwise mitigated to the maximum feasible extent by this EIR. No additional mitigation would be required.

4.20.7 County Regulations, Design Requirements, And Mitigation

Applicable County Regulations and Design Requirements

The following are applicable regulations and design requirements within Riverside County. Although these requirements technically do not meet CEQA's definition for mitigation, they are imposed herein to ensure Project compliance with applicable County regulations and design requirements.

- The Project is required to comply with the provisions of the California Solid Waste Integrated Waste Management Act, (AB 939, 1989) which mandates a reduction of disposed waste throughout California.

- The Project is required to comply with the provisions of the California Solid Waste Reuse and Recycling Act (AB 1327) which developed a model ordinance for adoption of recyclable materials in development projects. This Act requires all development projects that are commercial, industrial, institutional, or marina in nature and where solid waste is collected and loaded, to provide an adequate

area for collecting and loading recyclable materials over the lifetime of the project. The area is required to be provided before building permits are issued.

- The Project is required to comply with the provisions of the Mandatory Commercial Recycling Program (AB 341). AB 341 made a legislative declaration that it is the policy goal of the State that not less than 75% of solid waste generated be source reduced, recycled, or composted by the year 2020, and required the Department of Resources Recycling and Recovery, by January 1, 2014, to provide a report to the Legislature that provides strategies to achieve that policy goal and also includes other specified information and recommendations.

- The Project would be subject to the following applicable standard conditions of approval imposed on the Project by the RCDWR:
  - Prior to issuance of a building permit, a Waste Recycling Plan (WRP) shall be submitted to the Riverside County Department of Waste Resources for approval. At a minimum, the WRP must identify the materials (i.e., cardboard, concrete, asphalt, wood, etc.) that will be generated by construction and development, the projected amounts; the measures/methods that will be taken to recycle, reuse, and/or reduce the amount of materials; the facilities and/or haulers that will be utilized; and the targeted recycling or reduction rate. During Project construction, the Project site shall have, at a minimum, two (2) bins: one for waste disposal and the other for the recycling of Construction and Demolition (C&D) materials. Additional bins are encouraged to be used for further source separation of C&D recyclable materials. Accurate record keeping (receipts) for recycling of C&D recyclable materials and solid waste disposal must be kept. Arrangements can be made through the franchise hauler.
  - Prior to final building inspection, evidence (i.e., receipts or other type of verification) to demonstrate Project compliance with the approved WRP shall be presented by the Project proponent to the Planning Division of the Riverside County Department of Waste Resources in order to clear the Project for occupancy permits. Receipts must clearly identify the amount of waste disposed and Construction and Demolition (C&D) materials recycled.
  - Hazardous materials are not accepted at Riverside County landfills. In compliance with federal, state, and local regulations and ordinances, any hazardous waste generated in association with the Project shall be disposed of at a permitted Hazardous Waste disposal facility. Hazardous waste materials include, but are not limited to, paint, batteries, oil, asbestos, and solvents.

Mitigation

The mitigation measures identified throughout this EIR for Project-related construction impacts (e.g., air quality, etc.) shall apply. Project impacts to utilities and service systems would be less than significant with implementation of the mitigation measures identified throughout this EIR; therefore, no additional mitigation is required.

4.21 WILDFIRE

Information in this Subsection is also based in part on a technical study for wildfire protection titled, "Fuel Modification Plan Keller Crossing" (herein, "FMP"), prepared by Firewise 2000, LLC, dated April 7, 2022, and included as *Technical Appendix N*. (Firewise, 2022) Refer to Section 7.0*, References*, for a complete list of reference sources.

4.21.1 EXISTING CONDITIONS

A. *Fire Hazard Classification*

Under existing conditions, the Project site consists of vacant and undeveloped land currently used for agricultural production. Areas surrounding the Project site to the north, west, east, and south consist of undeveloped lands with natural vegetation along with numerous rural residential uses. According to Riverside County GIS, and as shown on Figure 4.21-1, *Wildfire Susceptibility*, the northeast corner of the Project site is classified as having a "Very High" susceptibility to wildland fire hazards. Areas to the north, east, and west of the Project site also are classified as having a "Very High" susceptibility to wildland fire hazards. A majority of the areas to the south of the Project site are not identified as being susceptible to wildland fire hazards. (RCIT, 2021)

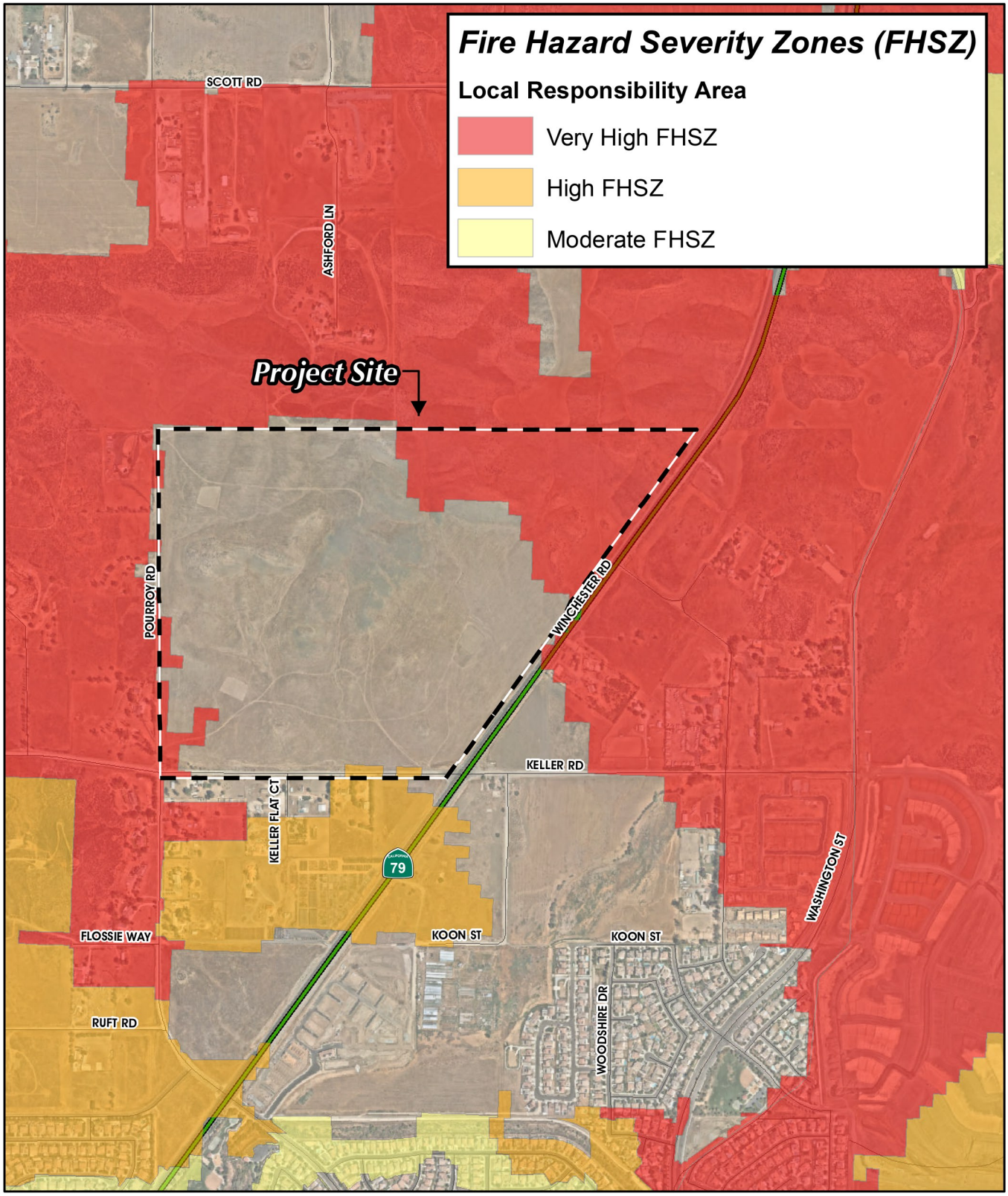
B. *Topography*

As previously shown on EIR Figure 2-8, the southern portion of the Project site exhibits relatively level topography, with the remaining northern portions of the site containing undulating small hill forms. Elevations on site range from approximately 1,587 feet above mean sea level (amsl) near the northeastern corner of the Project site to 1,422 feet amsl at the southeastern corner of the Project site. The overall topographic relief is approximately 165 feet. (GeoTek, Inc, 2021)

C. *Climate*

Weather has a dramatic influence on wildland fire behavior. The most critical weather pattern to the Project area is a hot, dry offshore wind, typically called a Santa Ana. Such wind conditions are usually associated with strong (>50 MPH), hot, dry winds with very low (<15%) relative humidity. Santa Ana winds originate over the dry desert land and can occur anytime of the year; however, they generally occur in the late fall (September through November). This is also when non-irrigated vegetation is at its lowest moisture content. Riverside County is one of the areas in southern California that is strongly influenced by powerful Santa Ana winds. (Firewise, 2022)

Fire Agencies throughout the western United States rely on a sophisticated system of Remote Automated Weather Stations (RAWS) to monitor weather conditions and aid in the forecasting of fire danger. The closest RAWS to the Project is the Clark RAWS located at Latitude 33° 52' 36" N and Longitude 117° 18' 32" W at an elevation of 1,720 feet. This is approximately 240 feet higher than the Project location. Data for all RAWS is archived in the Western Region Climate Center in Reno, Nevada. (Firewise, 2022)



Source(s): CalFire, ESRI, Nearmap Imagery (2021), RCTLMA (2021)

0 275 550 1,100 Feet

Figure 4.21-1

Wildfire Susceptibility

The typical prevailing summer time wind pattern is out of the west/southwest and normally is of a much lower velocity (5-10 MPH with occasional gusts to 20 MPH) and is associated with relative humidity reading ranging between 20% and occasionally more than 50% due to the sites proximity to onshore winds from the ocean. (Firewise, 2021, pp. 3-4)

In addition to Santa Ana winds, there is a historic pattern of wildland fires burning from the southwest to northeast. Every 5-10 years, a "rare event" hot dry, southwest to west wind of 30 MPH will occur. This moderately strong, dry wind condition usually occurs in the late afternoon or early evenings on very hot days, especially during the normal summertime (June through September) months. (Firewise, 2021, p. 4)

All other (northwest, southeast and south) wind directions may be occasionally strong and gusty; however, they are generally associated with cooler moist air and have higher relative humidity (>40%). They are considered a serious wildland fire weather condition when wind speeds reach >20-MPH. (Firewise, 2021, p. 5)

D. Vegetation

1. Fuels (Vegetation)

The Project site supports both native and exotic grass and weeds, buckwheat, sage, mustard and a few cacti. The more level parts of the site have been used for agricultural purposes for decades thus the lack of higher order plants and shrubs. All the native and exotic vegetation within the project area has been cleared and graded. Therefore, there are no significant wildland fire issues within the flatter portions of the Project site. (Firewise, 2022, p. 6)

E. Fire History

The last major wildland fire to burn over the area was in 1993 explaining to some degree that lack of a more mature vegetative cover on the hillsides. The past few decades have also had multi-year droughts that further reduce the speed of plant recovery following a wildfire. (Firewise, 2021)

F. Project Area Fire Risk Assessment

All the native and exotic vegetation within the Project area has been cleared and graded. Therefore, there are no significant wildland fire issues within the development footprint. The greatest fire concern for the Project interior are embers from a fire burning outside the tract or a structure fire within the tract that could land on homes or vegetation within the tract, especially during high winds and periods of low humidity. With respect to off-site fire susceptibility, the northern Project boundary abuts protected open space and habitat along the entire length of the northern boundary. The open space is lightly vegetated without any trees. The eastern boundary abuts Highway 79, which is approximately 80 feet in width, shoulder to shoulder. Slopes are nearly level where the homes are to be built and range from 15 - 35 percent in the protected open space area. Plant species that grow on the site include both native and exotic grass and weeds, buckwheat, sage, mustard and a few cacti. The more level parts of the site have been used for agricultural purposes for decades thus the lack of higher order plants and shrubs. The typical fuel model is a combined fuel model of SCAL 18 – Sage/Buckwheat with 1- hour fuels of 5.5 tons/acre and 10- hour fuels of .8 tons/acre and gr2 – Low Load Dry Climate Grass with 1- hour fuels of 0.1 tons/acre and no 10-hour fuels. In most wind conditions a fire beginning in the open space area north of the project will burn downhill on manufactured slopes towards the

homes and or be pushed parallel to the northern subdivision boundary and therefore are a lesser concern than areas where slopes are uphill into the development. (Firewise, 2022, pp. 6-8)

4.21.2 Applicable Environmental Regulations

The following is a brief description of the federal, State, and local environmental laws and related regulations related to wildfire hazards.

1. Federal Regulations

- **Healthy Forests Restoration Act of 2003**

On August 22, 2002, President Bush established the Healthy Forests Initiative, directing the Departments of Agriculture and the Interior, and the Council on Environmental Quality, to improve regulatory processes to ensure more timely decisions, greater efficiency, and better results in reducing the risk of catastrophic wildland fires. On June 5, 2003, the Departments of Agriculture and the Interior adopted two new categorical exclusions from documentation in an environmental assessment or environmental impact statement (EIS): an exclusion for hazardous-fuel reduction and another for rehabilitation of resources and infrastructure damaged by wildfire (68 FR 33814).

2. State Regulations

- **Public Resources Code (PRC) Section 4290-4299**

These sections establish minimum statewide fire safety provisions pertaining to: roads for fire equipment access; signs identifying streets, roads, and buildings; minimum private water supply reserves for emergency fire use; and fire fuel breaks and greenbelts. With certain exceptions, all new construction after July 1, 1991, in potential wildland fire areas, is required to meet these statewide standards. The state requirements, however, do not supersede more restrictive local regulations. (CA Legislative Info, n.d.)

As defined by CalFire, wildland areas defined as State Responsibility Areas (SRAs) may contain substantial wildfire risks and hazards. They consist of lands exclusive of cities, and federal lands regardless of ownership. The primary financial responsibility for preventing and suppressing fires within wildlands belongs to the State of California. However, it is not the State of California's responsibility to provide fire protection services to buildings or structures located within the wildlands unless CalFire has entered into a cooperative agreement with a local agency for those purposes pursuant to PRC Section 4142. As such, wildland areas require disclosure of these fire hazards in real estate transactions, and owners of properties in wildland areas are subject to PRC Section 4291 maintenance requirements. The law requires CalFire every five years (1991, 1996, 2001, etc.) to provide maps identifying the boundaries of lands classified as SRAs to the Riverside County Assessor. (CA Legislative Info, n.d.)

- **PRC Section 4213 – Fire Prevention Fees**

Pursuant to PRC Section 4213, in July of 2011, the State of California began assessing an annual "Fire Prevention Fee" for all habitable structures within SRAs to pay for fire prevention services. SRAs are the portions of California where the State of California is financially responsible for the prevention and suppression of wildfires. The SRA does not include lands within incorporated city boundaries, Tribal or

federally owned land. As of 2013, the fee is up to $150 per habitable structure (i.e., a building that can be occupied for residential use, which does not include incidental buildings such as detached garages, barns, outdoor bathrooms, sheds, etc.). (CA Legislative Info, n.d.)

❑ California Government Code (CGC) Section 51178

This section specifies that the Director of CalFire, in cooperation with local fire authorities, shall identify areas that are Very High Fire Hazard Severity Zones (VHFHSZ) in Local Responsibility Areas (LRAs), based on consistent statewide criteria, and the expected severity of fire hazard. Per CGC § 51178, a local agency may, at its discretion, exclude from the requirements of § 51182 an area within its jurisdiction that has been identified as a VHFHSZ, if it provides substantial evidence in the record that the requirements of § 51182 are not necessary for effective fire protection within the area. Alternatively, local agencies may include areas not identified as VHFHSZ by CalFire, following a finding supported by substantial evidence in the record that the requirements of § 51182 are necessary for effective fire protection within the new area. According to § 51182, such changes made by a local agency shall be final, and shall not be rebuttable by CalFire. (CA Legislative Info, n.d.)

❑ California Code of Regulations (CCR) Title 14 – Natural Resources

These regulations constitute the basic wildland fire protection standards of the California Board of Forestry. They were prepared and adopted to establish minimum wildfire protection standards in conjunction with building, construction, and development within SRAs. Among other things, Title 14 requires the design, and construction of structures, subdivisions, and developments in an SRA provide for basic emergency access and perimeter wildfire protection measures (fire fuel modification zones, etc.). (Westlaw, n.d.)

❑ CCR Title 24, Parts 2 and 9 – Fire Codes

Part 2 of Title 24 of the CCR refers to the California Building Code, 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. Part 9 refers to the California Fire Code, which contains other fire safety-related building standards. In particular, Chapter 7A, "Materials and Construction Methods for Exterior Wildfire Exposure," in the 2010 California Building Code addresses fire safety standards for new construction. In addition, Section 701A.3.2, "New Buildings Located in Any Fire Hazard Severity Zone," states: (BSC, n.d.)

> *"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."*

4.21.3 Basis for Determining Significance

Section XX of Appendix G to the State CEQA Guidelines addresses typical adverse effects due to wildfire hazards, and includes the following threshold questions to evaluate the Project's impacts due to wildfire hazards (OPR, 2017a).

- *If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project substantially impair an adopted emergency response plan or emergency evacuation plan?*
- *If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations for a wildfire or the uncontrolled spread of a wildfire?*
- *If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project require the installation or maintenance of associate3d infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?*
- *If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?*

Significance thresholds are set forth in Riverside County's Environmental Assessment Checklist, are derived from Section XX of Appendix G to the State CEQA Guidelines (listed above), and state that the proposed Project would have a significant impact due to wildfires if construction and/or operation of the Project would:

a. *If located in or near a State Responsibility Area ("SRA"), lands classified as very high fire hazard severity zone, or other hazardous fire areas that may be designated by the Fire Chief, substantially impair an adopted emergency response plan or emergency evacuation plan;*

b. *If located in or near a State Responsibility Area ("SRA"), lands classified as very high fire hazard severity zone, or other hazardous fire areas that may be designated by the Fire Chief, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire;*

c. *If located in or near a State Responsibility Area ("SRA"), lands classified as very high fire hazard severity zone, or other hazardous fire areas that may be designated by the Fire Chief, require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment;*

d. *If located in or near a State Responsibility Area ("SRA"), lands classified as very high fire hazard severity zone, or other hazardous fire areas that may be designated by the Fire Chief, 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; or*

e. *If located in or near a State Responsibility Area ("SRA"), lands classified as very high fire hazard severity zone, or other hazardous fire areas that may be designated by the Fire Chief, expose people*

or structures either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.

The significance thresholds set forth in Riverside County's standard Environmental Assessment Checklist were used to evaluate the significance of the proposed Project's impacts due to wildfire hazards.

4.21.4 METHODOLOGY

The BEHAVE Plus 5.0.5 Fire Behavior Prediction and Fuel Modeling System developed by USDA–Forest Service research scientists Patricia L. Andrews and Collin D. Bevins at the Intermountain Forest Fire Laboratory, Missoula, Montana, is one of the best systematic methods for predicting wildland fire behavior. The BEHAVE Plus fire behavior computer modeling system is utilized by wildland fire experts nationwide. Wildland fire managers use the BEHAVE Plus modeling system to project expected fire intensity, rate-of-spread and flame lengths with a reasonable degree of certainty for use in Fire Protection Planning purposes. Firewise used the BEHAVE Plus 5.0.5 Fire Behavior Prediction Model to make the fire behavior assessments for the Keller Crossing project discussed below.

Wildland fire behavior calculations have been projected for the hazardous vegetative fuels located adjacent to and bordering the proposed Project. These projections were based on "worst case" Riverside County fire weather assumptions in the vicinity of the Project area and from project site observations and fuel moisture levels typically observed during the local fire season. Weather data was obtained from the RAWS (Remote Automatic Weather Station) network stations closest to the project area.

Four (4) scenarios are depicted in the FMP (EIR *Technical Appendix N*), for four (4) separate BEHAVE PLUS Fire Modeling System computer calculations of the wildland and treated fuels. All tables included in the FMP (refer specifically to FMP Tables 3.1.1 through 3.1.4) display the expected Rate of Fire Spread (expressed in feet/minute), Flame Length (expressed in feet), and Fireline Intensity (expressed in British Thermal Units/foot/second and include the calculation inputs used in the BEHAVE Plus program. The tables also show the effect of fuel treatment on the Rate of Fire Spread, Flame Length, and Fireline Intensity following the completion of the required fuel treatments. (Firewise, 2022, p. 8)

4.21.5 IMPACT ANALYSIS

Threshold a:	***If located in or near a State Responsibility Area ("SRA"), lands classified as very high fire hazard severity zone, or other hazardous fire areas that may be designated by the Fire Chief, would the Project substantially impair an adopted emergency response plan or emergency evacuation plan?***

The Project site is not located within an SRA, however the northeast corner of Project site, along with lands abutting the Project site to the west, north, and east are classified as having a "Very High" susceptibility to wildfire hazards (RCIT, 2021). The Project site does not contain any emergency facilities nor does it serve as an emergency evacuation route. Additionally, there are no emergency response plans or emergency evacuation plans in effect in the local area. During construction and long-term operation of the Project, adequate emergency access for emergency vehicles would be required to be maintained along public streets that abut the Project site. Furthermore, improvements planned as part of the Project are not anticipated to adversely affect traffic operations in the local area, including planned improvements to Keller Road. As part of the

County's review process for future implementing developments (e.g., grading and building permits), Riverside County would review the Project's application materials to ensure that appropriate emergency ingress and egress would be available to-and-from the Project site and that circulation on the Project site is adequate for emergency vehicles. Accordingly, implementation of the proposed Project would not impair implementation of or physically interfere with an adopted emergency response plan or an emergency evacuation plan, and no impact would occur.

Threshold b:	***If located in or near a State Responsibility Area ("SRA"), lands classified as very high fire hazard severity zone, or other hazardous fire areas that may be designated by the Fire Chief, would the Project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?***
Threshold e:	***If located in or near a State Responsibility Area ("SRA"), lands classified as very high fire hazard severity zone, or other hazardous fire areas that may be designated by the Fire Chief, would the Project expose people or structures either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?***

The northeastern portion of the Project site is located within an LRA, and is classified as having a "Very High" susceptibility to wildfire hazards (RCIT, 2021). The remaining portion of the Project is not designated. In order to evaluate the Project's potential to exacerbate wildfire risks, a Project-specific Fuel Modification Plan (FMP) was prepared for the Project, the results and recommendations of which are discussed below. Refer to Section 3 of the Project's FMP (*Technical Appendix N*) for a discussion of the methodology and computer software used to assess fire risks in the local area.

Based on the results of the Project's FPP, Firewise recommends implementation of Fuel Modification Zones (FMZs) between proposed development on site and open space areas subject to wildland fire hazards. These recommendations have been incorporated into Section 2.A. of proposed SP 380A1 and would be enforced by the County as part of their review of future implementing actions (e.g., grading permits and building permits). As required by proposed SP 380A1, the Project would incorporate three FMZs as depicted on Figure 2-10, *Fuel Modification Plan,* of SP 380A1. The required FMZs would consist of the following:

- **Fuel Modification Zone 1A**: Fuel Modification Zone 1A would be homeowner maintained within individual lots and shall be free of all combustible construction and materials. Zone 1A generally would be located within the rear yard and side yards of the homes within all residential Planning Areas. It would consist of an irrigated zone surrounding the building pad as measured from the exterior walls of the building or from the most distal point of a combustible projection or an accessory structure within 10 feet of the main building to the lot boundary. This distance area provides the best protection against the high radiant heat produced by a wildfire and also provides a generally open area in which fire suppression forces can operate during wildfire events. This zone would include a level or level-graded area around the structure and minimum 10-foot setbacks between buildings and trees. Landscaping in this zone shall be in accordance with Table IV-1 (Community Plant Palette) Table IV-2 (Prohibited Plant List) of proposed SP 380A1.

- **Fuel Modification Zone 1B**: Fuel Modification Zone 1B would be maintained by the Valley-Wide Recreation and Park District and would consist of irrigated and fire-resistant landscaping and manufactured slopes that extend from residential property lines. Zone 1B generally would be located in landscaping areas outside of homeowner lots, starting from the lot parcel line extending 30 feet outwards, within parks, roadway landscaping, and manufactured slopes. This zone would be planted with fire resistant shrubs, trees, and groundcovers and would be irrigated and maintained by the Valley-Wide Recreation and Park District year-round. Landscaping in this zone would be in accordance with Table IV-1 (Community Plant Palette) Table IV-2 (Prohibited Plant List) of proposed SP 380A1.

- **Fuel Modification Zone 2**: Fuel Modification Zone 2 would be maintained by the Valley-Wide Recreation and Park District and would consist of thinning treatment to ensure that areas in this zone contain 50% open space and are free of any dead and dying combustible vegetation. Zone 2 generally would begin at the outer edge of Zone 1A and Zone 1B landscaping. This zone would consist of a non-irrigated area and must be maintained yearly prior to fire season to clear out any dead, dying, and invasive material. Landscaping in this zone shall be in accordance with Table IV-1 (Community Plant Palette) Table IV-2 (Prohibited Plant List) of proposed SP 380A1.

- **Roadside Fuel Treatment**: Roadside fuel treatment would be managed by the Valley-Wide Recreation and Park District and would include all public roads, which shall have a minimum of 20 feet of combustible vegetation clearance on each side of the roadway. Temporary roadside fuel treatment maintenance would be applied to public roads until adjoining properties are developed. Sidewalks and related non-combustible improvements are encouraged in fuel treatment areas to enhance the level of protection. Landscaping for roadside fuel treatment shall be in accordance with Table IV-1 (Community Plant Palette) Table IV-2 (Prohibited Plant List) of proposed SP 380A1.

Within Planning Areas 3 and 5 of proposed SP 380A1, some homes would not be able to achieve the full 100-foot FMZs. In those areas where 100 feet of fuel modification zones cannot be achieved due to open space protection issues or property boundary limitations, alternative protection measures would be implemented to help protect the homes from wildfire. These protection measures would be based on worst case scenarios (slope, wind, native vegetation, fuel moisture, humidity, etc.) and fire fuel modeling. The affected lots may include measures consisting of, but not limited to, non-combustible fire deflection walls, increased width of required irrigated landscaping, or additional ignition resistant construction requirements greater than the required building codes.

The above-described requirements have been incorporated into Chapter 2 of proposed SP 380A1, and would be enforced by the County as part of the Project's Conditions of Approval and through the County's future review of implementing developments, which would include a review for consistency with the requirements of SP 380A1. As concluded by the Project's FPP, implementation of the SP 380A1 requirements for fire abatement, including the provision of FMZs and additional measures where a 100-foot FMZ cannot be accommodated, as well as site design features (e.g., asphalt roads, parking areas, irrigated landscaping), would reduce the risk of wildfire hazards occurring on site to acceptable levels. Thus, with compliance with the fire abatement requirements of SP 380A1, the Project would not exacerbate wildfire risks, and would not expose Project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.

Additionally, the Project would not expose people or structures either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires. Impacts would be less than significant.

Threshold c:	***If located in or near a State Responsibility Area ("SRA"), lands classified as very high fire hazard severity zone, or other hazardous fire areas that may be designated by the Fire Chief, would the Project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?***

The northeastern portion of the Project site is located within an LRA, and is classified as having a "Very High" susceptibility to wildfire hazards (RCIT, 2021). As described under the analysis of Thresholds b. and e., the Project would accommodate 100-foot wide FMZs from future buildings where feasible, and would include additional fire protection measures for buildings where the 100-foot wide FMZ cannot be achieved. The proposed fire abatement measures would reduce the risk of fire in the local area as compared to existing conditions. While FMZs would be required throughout the proposed development, areas subject to fuel modification would occur in areas already planned for impact as part of site development. Thus, impacts to areas requiring FMZs have been evaluated throughout this EIR under the appropriate subject heading (e.g., biological resources, cultural resources), and where impacts are identified mitigation measures are identified to reduce impacts to the extent feasible. There are no components of the proposed FMZs that would result in impacts not already addressed by this EIR. Accordingly, the Project would not exacerbate fire risk, and would not result in temporary or ongoing impacts to the environment beyond what is already evaluated and disclosed by this EIR. Impacts would be less than significant

Threshold d:	***If located in or near a State Responsibility Area ("SRA"), lands classified as very high fire hazard severity zone, or other hazardous fire areas that may be designated by the Fire Chief, 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?***

The northeastern portions of the Project site are located within an LRA, and the northeastern portions of the Project site are classified as having a "Very High" susceptibility to wildfire hazards (RCIT, 2021). As discussed under the analysis of Thresholds b. and e., pursuant to SP 380A1 the Project would accommodate 100-foot wide FMZ from future buildings where feasible, and would include additional fire protection measures for buildings where the 100-foot wide FMZ cannot be achieved. Implementation of the measures detailed in proposed SP 380A1 would reduce the risk of wildfire in the local area and would improve the ability of firefighters to fight fires on the properties and protect property and neighboring resources, irrespective of the cause or location of ignition. Although during extreme fire conditions there still would remain a potential for wildland fires to affect future buildings on site, implementation of the required enhanced construction features provided by the applicable codes and the fuel modification requirements required by SP 380A1 would reduce the site's vulnerability to wildfire to less-than-significant levels.

Based on the site's hydrologic conditions, the Project site would not be subject to flood hazards associated with fire events, and with development of the site runoff on the site would be controlled by the Project's proposed drainage system, thereby precluding fire-related flooding impacts downstream. There are no prominent hillsides in areas surrounding the Project site that could be subject to mass wasting (landslides) in the event of a wildfire. Therefore, the Project would not expose people or structures to significant risks,

including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes, and impacts would be less than significant.

4.21.6 Cumulative Impact Analysis

The cumulative study area for the issue of wildfire includes areas within a five-mile radius of the Project site. This study area is appropriate for analysis because fire events located more than five miles from the Project site are unlikely to affect the Project, and any fires starting in the Project area likely would not affect lands located more than five miles away.

The Project site does not contain any emergency facilities nor does it serve as an emergency evacuation route, and the Project would not serve as an evacuation route under long-term conditions. During construction and at Project build-out, the proposed Project would be required to maintain adequate access for emergency vehicles. Other cumulative developments similarly would be required to accommodate emergency access and facilities. As such, cumulatively-considerable impacts would be less than significant.

As indicated under the discussion of Thresholds b. and e., future development on site would be required to comply with the fire abatement requirements specified by proposed SP 380A1, which includes the provision of FMZs, and special building requirements for future buildings that cannot accommodate a full 100-foot wide FMZ. Compliance with the requirements of SP 380A1 would ensure that the Project does not exacerbate wildfire hazards or expose people or structures to a significant risk of loss, injury, or death involving wildland fire hazards. Other developments within the cumulative study area would similarly be required to address fire hazards as appropriate and to provide measures to avoid or reduce the potential risk of wildfire in the region. As such, Project impacts due to wildfire hazards would be less-than-cumulatively considerable.

As discussed under the analysis of Threshold c., although the Project would require FMZs, areas requiring fuel modification occur in areas already planned for impact as part of site development. Thus, cumulatively-considerable impacts to areas requiring FMZs have been evaluated throughout this EIR under the appropriate subject heading (e.g., biological resources, cultural resources), and where impacts are identified mitigation measures are identified to reduce cumulative impacts to the extent feasible. Other future developments in the cumulative study area that contain fire protection infrastructure similarly would be required to identify and mitigate any physical impacts to the environment resulting from fire protection measures. Thus, with the mitigation measures presented throughout this EIR to address cumulatively-considerable impacts, the Project's cumulatively-considerable impacts due to the installation or maintenance of fire protection infrastructure would be less than significant.

As indicated under the discussion of Threshold d., with implementation of the Project the risk of wildfire hazards occurring on the Project site would be substantially reduced. Additionally, Project-related runoff, including runoff following fire events, would be controlled by the Project's proposed drainage system, which includes water quality/detention basins to preclude a substantial increase in the rate of runoff. There are no components of the Project that would result in increased potential for landslides, including during fire events. Thus, cumulatively-considerable impacts due to the exposure of 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, would be less than significant.

4.21.7 Significance of Impacts Before Mitigation

Threshold a: Less than Significant Impact. The Project site and surrounding areas are not identified as evacuation routes, and there are no adopted emergency response plans or emergency evacuation plans applicable to the Project area. During construction and at Project build-out, the Project would be required to maintain adequate access for emergency vehicles. Accordingly, the Project would not impair implementation of or physically interfere with an adopted emergency response plan or an emergency evacuation plan. Impacts would be less than significant.

Thresholds b. and e.: Less than Significant Impact. The Project would be subject to the fire abatement requirements specified by SP 380A1, which includes requirements for the provision of a 100-foot wide FMZ around all buildings, and specifies additional fire protection measures for buildings where the 100-foot wide FMZ cannot be achieved. With mandatory compliance with the fire abatement requirements of SP 380A1, the Project would not exacerbate wildfire risks, and would not expose Project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. Additionally, the Project would not expose people or structures either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires with implementation of the Project's proposed fire protection measures, and the Project would accommodate adequate circulation facilities to allow for evacuation of the site in the event of wildfires in the area. Impacts would be less than significant.

Threshold c: Less than Significant Impact. Impacts to areas requiring FMZs have been evaluated throughout this EIR under the appropriate subject heading (e.g., biological resources, cultural resources), and where impacts are identified mitigation measures are identified to reduce impacts to the extent feasible. There are no components of the proposed FMZs that would result in impacts not already addressed by this EIR. Accordingly, the Project would not exacerbate fire risk, and would not result in temporary or ongoing impacts to the environment beyond what is already evaluated and disclosed by this EIR. Impacts would be less than significant.

Threshold d: Less than Significant Impact. Although during extreme fire conditions there still would remain a potential for wildland fires to affect future buildings on site, implementation of the required enhanced construction features provided by the applicable codes and the fuel modification requirements required by SP 380A1 would reduce the site's vulnerability to wildfire to less-than-significant levels. Additionally, with development of the site runoff on the site would be controlled by the Project's proposed drainage system, thereby precluding fire-related flooding impacts downstream. In addition, the Project site would not cause or be affected by fire-induced landslides. Therefore, the Project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes, and impacts would be less than significant.

4.21.8 Applicable Regulations, Design Requirements, and Mitigation

Applicable Regulations and Design Requirements

The following are applicable regulations and design requirements within Riverside County. Although these requirements technically do not meet CEQA's definition for mitigation, they are imposed herein to ensure Project compliance with applicable County regulations and design requirements.

- Future implementing developments within the Project site (e.g., plot plans, building permits, etc.) shall be reviewed by Riverside County for compliance with the fire protection measures included in Section 2.H, *Fuel Modification Plan*, of SP 380A1.

Mitigation

No significant environmental impacts related to wildfire hazards would occur due to the Project. No mitigation measures are required.

5.0 OTHER CEQA CONSIDERATIONS

5.1 SIGNIFICANT ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED IF THE PROPOSED PROJECT IS IMPLEMENTED

The CEQA Guidelines require that an EIR disclose the significant environmental effects of a project which cannot be avoided if the proposed project is implemented (State CEQA Guidelines § 15126[b]). As described in detail in Section 4.0 of this EIR, the proposed Project is anticipated to result in impacts to the environment that cannot be reduced to below a level of significance after the implementation of relevant standard conditions of approval, compliance with applicable laws and regulations, and application of feasible mitigation measures. The significant environmental effects of the proposed Project that cannot be feasibly mitigated are as follows:

- Air Quality: Significant and Unavoidable Direct and Cumulatively-Considerable Impact. Project operational emissions would exceed the SCAQMD Regional Threshold for VOCs. Mitigation measures are not available to reduce the Project's operational-related VOC emissions, as the majority of the Project's operational emissions (i.e., more than 72.9%) are associated with vehicular-related traffic. Mobile source emissions are regulated by standards imposed by federal and State agencies, not local governments. No other mitigation measures related to vehicle tailpipe emissions are available that are within Riverside County's jurisdictional authority and that are feasible for Riverside County to enforce and have a proportional nexus to the Project's level of impact. Additionally, the remaining Project-related operational emissions of VOCs are due to area source emissions (i.e., consumer products, such as solvents used in cleaning supplies, kitchen aerosols, cosmetics, and toiletries). As with mobile sources, consumer products cannot be regulated by the County of Riverside. CARB is primarily responsible for controlling pollution from consumer products. As such, it is concluded that operation of the Project would generate VOC emissions that would exceed the applicable SCAQMD Regional Threshold for this pollutant on a daily basis. The Project's operational-related VOC emissions would cumulatively contribute to an existing air quality violation in the SoCAB (i.e., ozone concentrations), as well as cumulatively contribute to the net increase of a criteria pollutant for which the SCAB is non-attainment (i.e., federal and State ozone concentrations). Accordingly, the Project's long-term operational-related emissions of VOCs are concluded to result in a significant and unavoidable impact on both a direct and cumulatively-considerable basis.

- Air Quality: Significant and Unavoidable Direct and Cumulatively-Considerable Impact. Project operational emissions would exceed the SCAQMD Regional Threshold for VOCs. Mitigation measures are not available to reduce the Project's operational-related VOC emissions, as discussed above. Accordingly, the proposed Project would conflict with the 2016 SCAQMD AQMP, and impacts would be significant and unavoidable on both a direct and cumulatively-considerable basis.

- Transportation: Significant and Unavoidable Direct and Cumulatively-Considerable Impact. Buildout of the residential uses proposed as part of the Project would result in a Vehicle Miles Traveled (VMT) per capita that is 53.9% above the County's VMT per capita threshold of significance, while buildout of the commercial retail component has the potential to result in VMT impact in the event any individual commercial retail building exceeds 50,000 s.f. in size. The proposed Project has been designed to provide for residential land uses in close proximity to the proposed on-site commercial

retail uses within Planning Area 7 of proposed SP 380A1. Additionally, the Project would be required to comply with the development standards and design guidelines pursuant to SP 380A1, which includes requirements to provide trails, sidewalks, and bike lanes within the proposed development. Additionally, the Project would be subject to compliance with Mitigation Measure MM 4.18-2, which requires the identification of site-specific TDM measures to reduce VMT prior to approval of implementing multi-family or commercial retail developments associated with the Project. Notwithstanding, even with the implementation of all feasible VMT reduction measures, Project-generated VMT cannot be reduced to a level of less than significant.

5.2 Significant Irreversible Environmental Impacts Which Would Be Involved In The Proposed Action Should It Be Implemented

The State CEQA Guidelines require EIRs to address any significant irreversible environmental changes that would be involved in the proposed action should it be implemented (State CEQA Guidelines §15126.2(c)). An environmental change would fall into this category if: a) the project would involve a large commitment of non-renewable resources; b) the primary and secondary impacts of the project would generally commit future generations to similar uses; c) the project involves uses in which irreversible damage could result from any potential environmental accidents; or d) the proposed consumption of resources is not justified (e.g., the project results in the wasteful use of energy).

Determining whether the proposed Project may result in significant irreversible environmental changes requires a determination of whether key non-renewable resources would be degraded or destroyed in such a way that there would be little possibility of restoring them. Natural resources in the form of construction materials and energy resources would be used in the construction of the proposed Project, but development of the Project site as proposed would have no measurable adverse effect on the availability of such resources, including resources that may be non-renewable (e.g., fossil fuels). Construction and operation of the proposed Project would not involve the use of large sums or sources of non-renewable energy. Additionally, the Project is required by law to comply with the California Building Standards Code (CALGreen), compliance with which reduces a building operation's energy demand. The Project also would be subject to regulations to reduce the Project's reliance on non-renewable energy sources, and would be subject to the Energy Independence and Security Act of 2007, which contains provisions designed to increase energy efficiency and availability of renewable energy. The Project also would be subject to California Energy Code, or Title 24, which contains measures to reduce natural gas and electrical demand, thus requiring less non-renewable energy resources. The Project would avoid the inefficient, wasteful, and unnecessary consumption of energy during Project construction, operation, maintenance, and/or removal, as more fully documented in EIR Subsection 4.6, *Energy*. With mandatory compliance to applicable energy efficiency regulations, the Project would not involve the use of large sums or sources of non-renewable energy.

EIR Subsection 4.8, *Hazards and Hazardous Materials*, provides an analysis of the proposed Project's potential to transport or handle hazardous materials which, if released into the environment, could result in irreversible damage to the environment. As concluded in the analysis, compliance with federal, State, and local regulation related to hazardous materials would be required of all contractors working on the property during the Project's construction and of all the residents that occupy the Project's buildings. As such,

construction and long-term operation of the proposed Project would not have the potential to cause significant irreversible damage to the environment, including damage that may result from upset or accident conditions.

5.3 GROWTH INDUCING IMPACTS OF THE PROPOSED PROJECT

CEQA requires a discussion of the ways in which the proposed Project would be growth inducing. The State CEQA Guidelines identify a project as growth inducing if it would foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment (State CEQA Guidelines § 15126.2(d)). New employees and new residential developments represent direct forms of growth. These direct forms of growth have a secondary effect of expanding the size of local markets and including additional economic activity in the area.

A project could indirectly induce growth at the local level by increasing the demand for additional goods and services associated with an increase in population or employment and thus reducing or removing the barriers to growth. This typically occurs in suburban or rural environments where population or employment growth results in increased demand for service and commodity markets responding to the new population of residents or employees. Economic growth would likely take place as a result of the proposed Project's operation as a residential development. The Project's construction-related employees and operational-related residents and employees would purchase goods and services in the region, but any secondary increase in employment associated with meeting these goods and services needs would be marginal, accommodated by existing goods and service providers, and highly unlikely to result in any new physical impacts to the environment. Therefore, while the Project would create economic opportunities caused by introducing new residents to the Project site, this change would not induce substantial new growth in the region.

Under CEQA, growth inducement is not considered necessarily detrimental, beneficial, or of significance to the environment. Typically, growth-inducing potential of a project would be considered significant if it fosters growth or a concentration of population in excess of what is assumed in pertinent master plans, land use plans, or in projections made by regional planning agencies such as the Southern California Association of Governments. Significant growth impacts also could occur if a project provides infrastructure or service capacity to accommodate growth beyond the levels currently permitted by local or regional plans and policies. In general, growth induced by a project is considered a significant impact if it directly or indirectly affects the ability of agencies to provide needed public services, or if it can be demonstrated that the potential growth significantly affects the environment is some other way.

The area surrounding the Project site is primarily characterized by residential, agricultural, open space uses, and undeveloped land within unincorporated Riverside County. Development of the Project site with residential and commercial land uses would not directly induce surrounding properties to develop, because several areas surrounding the Project site to the east and south east are already developed with residential uses, while other lands in the Project vicinity already are planned for urban development. Accordingly, the growth-inducing impacts of the Project would be less than significant. The Project is not expected to induce growth of land uses changes on the other parcels in the vicinity, as other lands surrounding the site are either already developed or planned to be developed consistent with their General Plan land use designations.

Furthermore, the proposed Project's improvements to the public infrastructure, including roads, drainage infrastructure, and other utility improvements are consistent with Riverside County's General Plan and would not indirectly induce substantial and unplanned population growth in the local area.

5.4 EFFECTS FOUNDS NOT TO BE SIGNIFICANT DURING THE INITIAL STUDY PROCESS

An Initial Study was not prepared and was not required for the Project. In accordance with CEQA requirements, this Project EIR evaluates all of the environmental topics contained in Appendix G to the State CEQA Guidelines, as well as the supplemental topics and thresholds of significance included in Riverside County's Environmental Assessment Checklist.

6.0 ALTERNATIVES

State CEQA Guidelines § 15126.6(a) describes the scope of analysis that is required when evaluating alternatives to proposed projects, as follows:

> *"An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. An EIR is not required to consider alternatives which are infeasible. The lead agency is responsible for selection of a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason."*

As discussed in EIR Section 4.0, *Environmental Analysis*, the proposed Project would result in significant adverse environmental effects that cannot be mitigated to below levels of significance after the implementation of Project design features, mandatory regulatory requirements, and feasible mitigation measures. The unavoidable significant impacts are:

- Air Quality: Significant and Unavoidable Direct and Cumulatively-Considerable Impact. Project operational emissions would exceed the SCAQMD Regional Threshold for VOCs. Mitigation measures are not available to reduce the Project's operational-related VOC emissions, as the majority of the Project's operational emissions (i.e., more than 72.9%) are associated with vehicular-related traffic. Mobile source emissions are regulated by standards imposed by federal and State agencies, not local governments. No other mitigation measures related to vehicle tailpipe emissions are available that are within Riverside County's jurisdictional authority and that are feasible for Riverside County to enforce and have a proportional nexus to the Project's level of impact. Additionally, the remaining Project-related operational emissions of VOCs are due to area source emissions (i.e., consumer products, such as solvents used in cleaning supplies, kitchen aerosols, cosmetics, and toiletries). As with mobile sources, consumer products cannot be regulated by the County of Riverside. CARB is primarily responsible for controlling pollution from consumer products. As such, it is concluded that operation of the Project would generate VOC emissions that would exceed the applicable SCAQMD Regional Threshold for this pollutant on a daily basis. The Project's operational-related VOC emissions would cumulatively contribute to an existing air quality violation in the SoCAB (i.e., ozone concentrations), as well as cumulatively contribute to the net increase of a criteria pollutant for which the SCAB is non-attainment (i.e., federal and State ozone concentrations). Accordingly, the Project's long-term operational-related emissions of VOCs are concluded to result in a significant and unavoidable impact on both a direct and cumulatively-considerable basis.

- Air Quality: Significant and Unavoidable Direct and Cumulatively-Considerable Impact. Project operational emissions would exceed the SCAQMD Regional Threshold for VOCs. Mitigation measures are not available to reduce the Project's operational-related VOC emissions, as discussed

above. Accordingly, the proposed Project would conflict with the 2016 SCAQMD AQMP, and impacts would be significant and unavoidable on both a direct and cumulatively-considerable basis.

- Transportation: Significant and Unavoidable Direct and Cumulatively-Considerable Impact. Buildout of the residential uses proposed as part of the Project would result in a Vehicle Miles Traveled (VMT) per capita that is 53.9% above the County's VMT per capita threshold of significance, while buildout of the commercial retail component has the potential to result in VMT impact in the event any individual commercial retail building exceeds 50,000 s.f. in size. The proposed Project has been designed to provide for residential land uses in close proximity to the proposed on-site commercial retail uses within Planning Area 7 of proposed SP 380A1. Additionally, the Project would be required to comply with the development standards and design guidelines pursuant to SP 380A1, which includes requirements to provide trails, sidewalks, and bike lanes within the proposed development. Additionally, the Project would be subject to compliance with Mitigation Measure MM 4.18-2, which requires the identification of site-specific TDM measures to reduce VMT prior to approval of implementing multi-family or commercial retail developments associated with the Project. Notwithstanding, even with the implementation of all feasible VMT reduction measures, Project-generated VMT cannot be reduced to a level of less than significant.

6.1 ALTERNATIVES UNDER CONSIDERATION

State CEQA Guidelines § 15126.6(e) requires that an alternative be included that describes what would reasonably be expected to occur on the property in the foreseeable future if the Project were not approved, based on current plans and consistent with available infrastructure and community services (i.e., "no project" alternative). For development projects that include a revision to an existing land use plan, the "no project" alternative is considered to be the continuation of the existing land use plan into the future. For projects other than a land use plan, such as a development project on an identifiable property, the "no project" alternative is considered to be a circumstance under which the project does not proceed (State CEQA Guidelines § 15126.6(e)(3)(A-B). For the alternatives analysis in this EIR, the potential scenario where the Project site remains in its current undeveloped condition is considered to be the "No Development Alternative (NDA)," while the potential scenario where the existing General Plan land use plan is implemented is considered to be the "No Project (Adopted Specific Plan) Alternative."

The following scenarios are identified by the County of Riverside as potential alternatives to implementation of the proposed Project. The Reduced Project Alternative (RPA) is considered the Environmentally Superior Alternative pursuant to State CEQA Guidelines § 15126.6.

6.1.1 NO DEVELOPMENT ALTERNATIVE (NDA)

The No Development Alternative (NDA) considers no development/disturbance on the Project site beyond that which occurs under existing conditions. As such, the Project site would continue to consist of 196.0 acres of vacant and undeveloped land, portions of which would continue to be used for dryland farming. Under the NDA, no improvements would be made to the Project site and none of the Project's roadway, utility, or other infrastructure improvements would occur. This alternative was selected by the Lead Agency to compare the environmental effects of the proposed Project with an alternative that would leave the Project site in its existing condition.

6.1.2 No Project (Adopted Specific Plan) Alternative (NPA)

The No Project (Existing Specific Plan) Alternative (herein, "NPA"), assumes development of the Project site in accordance with the site's existing General Plan and Specific Plan land uses. Figure 2-5 in EIR Subsection 2.0 depicts the site's existing Specific Plan land use designations. Thus, under this alternative, and consistent with the adopted Keller Crossing Specific Plan No. 380 (SP 380), the Project site would be developed with 3 Very Low Density Residential dwelling units on 9.9 acres (minimum 2-acre lot sizes); 25 Low Density Residential dwelling units on 18.3 acres (minimum 20,000 s.f. lot sizes); 42 Medium Density Residential dwelling units on 13.9 acres (minimum 5,000 s.f. lot sizes); Mixed Use on 39.5 acres, which would include up to 250 dwelling units (including up to 225 "Continuing Care Retirement Community [CCRC]" dwelling units) and up to 250,000 s.f. of commercial/office land uses; Commercial Retail uses on 37.8 acres, which would include up to 400,000 s.f. of building area; Open Space/Conservation land uses on 61.1 acres; and major circulation facilities on 20.6 acres. This alternative was selected by the Lead Agency to compare the environmental effects of the proposed Project with an alternative that would allow for buildout of the Project site in accordance with the site's existing General Plan and SP 380 land use designations.

6.1.3 Reduced Project Alternative (RPA)

The Reduced Project Alternative (RPA) was selected to evaluate an alternative that is less intensive than the proposed Project and that would reduce the Project's significant and unavoidable impacts to transportation by reducing the total amount of Vehicle Miles Traveled (VMT) that would be generated by the Project site. Specifically, the RPA assumes the Project site would be developed with approximately 33% fewer residential dwelling units and 33% less commercial retail building area. As summarized in Table 6-1, *Reduced Project Alternative (RPA)*, the RPA would allow for development of the Project site with 185 "Medium Density Residential" dwelling units on 61.2 acres; 104 "Medium High Density Residential (MHDR)" dwelling units on 21.4 acres; 1.0-acre of "Community Development – Very Low Density Residential (CD-VLDR), with no dwelling units allocated or proposed within the CD-VLDR areas; and 117,339 s.f. of "Commercial Retail (CR)" land uses on 13.3 acres. All remaining land uses would be the same as the proposed Project, including 10.5 acres of "Open Space – Recreation (OS-R)," 61.4 acres of "Open Space – Conservation Habitat (OS-CH)," 11.2 acres of "Open Space – Water (OS-W)," and major circulation facilities on 16.0 acres. All other components of the RPA would be identical to the proposed Project.

6.2 Alternatives Considered and Rejected

An EIR is required to identify any alternatives that were considered by the Lead Agency but were rejected as infeasible. Among the factors described by State CEQA Guidelines § 15126.6 in determining whether to exclude alternatives from detailed consideration in the EIR are: a) failure to meet most of the basic project objectives, b) infeasibility, or c) inability to avoid significant environmental impacts. With respect to the feasibility of potential alternatives to the proposed Project, State CEQA Guidelines § 15126.6(f)(1) notes:

> *"Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries…and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site…"*

Table 6-1 Reduced Project Alternative (RPA)

Planning Area	Land Use Designation	Units	Acres	Residential Density	Commercial Building Area
1	Medium Density Residential (MDR)	31	10.6	3.0	--
2	Medium Density Residential (MDR)	48	15.4	3.1	--
-3	Medium Density Residential (MDR)	39	14.4	2.7	--
4	Medium High Density Residential (MHDR)	51	14.1	3.6	--
5	Medium Density Residential (MDR)	66	20.8	3.2	--
6*	Medium High Density Residential (MHDR)	53	7.3	7.3	--
12**	Community Development – Very Low Density Residential (CD-VLDR)	--	1.0	--	--
	Residential Subtotal:	**289**	**83.6**	**3.5**	--
7	Commercial Retail (CR)	--	13.3	--	117,339 s.f.
	Commercial Subtotal:	**--**	**13.3**	**--**	**117,339 s.f.**
8	Open Space – Recreation (OS-R)	--	6.4	--	--
9	Open Space – Recreation (OS-R)	--	4.1	--	--
10	Open Space – Conservation Habitat (OS-CH)	--	61.4	--	--
11A	Open Space – Water (OS-W)	--	4.3	--	--
11B	Open Space – Water (OS-W)	--	6.9	--	--
	Open Space Subtotal:	**--**	**83.1**	**--**	**--**
Circulation***	N/A	--	16.0		--
	Circulation Subtotal:	**--**	**16.0**	**--**	**--**
	Reduced Project Alternative Total:	**289**	**196.0**	**1.5**	**117,339 s.f.**

In determining an appropriate range of alternatives to be evaluated in this EIR, a number of possible alternatives were initially considered and, for a variety of reasons, rejected. Alternatives were rejected because either: 1) they could not accomplish the basic objectives of the Project, 2) they would not have resulted in a reduction of significant adverse environmental impacts, and/or 3) they were considered infeasible to construct or operate. A summary of the alternatives that were considered buy rejected are described below.

6.2.2 Alternative Sites

CEQA does not require that an analysis of alternative sites always be included in an EIR. However, if the surrounding circumstances make it reasonable to consider an alternative site, then this alternative should be considered and analyzed in the EIR. In making the decision to include or exclude analysis of an alternative site, the *"key question and first step in analysis is whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location. Only locations that would avoid or substantially lessen any of the significant effects of the project need to be considered for inclusion in the EIR"* (State CEQA Guidelines § 15126.6(f) (2)).

Based on a review of aerial photography, the Riverside County General Plan land use map, and a list of approved/pending development proposals within Riverside County and nearby jurisdictions, there are no other available, undeveloped properties of similar size (i.e., approximately 196.0 acres) that are zoned for and adjacent to other properties designated for urban development and that would reduce or avoid the Project's significant and unavoidable impacts due to VMT. Construction of the Project at a different site location likely would result in similar or more severe impacts at off-site locations that are located further from regional transportation facilities and/or urban areas. Furthermore, there are no properties under the control of the Project

Applicant of sufficient size (i.e., approximately 196.0 acres) and that are located within areas of Riverside County that exhibit a low average VMT. Furthermore, even if the proposed Project were to be developed at a different site location, it is likely that development on the Project site still would occur in conformance with the Project site's existing General Plan and SP 380 land use designations, and such development also would result in unavoidable impacts due to VMT. For these reasons, Riverside County finds that evaluation of an alternative site location is not required for the Project because alternative site locations would not feasibly reduce or avoid the Project's significant environmental effects due to VMT.

6.3 ALTERNATIVE ANALYSIS

The following discussion compares the impacts of each alternative considered by the Lead Agency with the impacts of the proposed Project, as detailed in EIR Subsection 4.0, *Environmental Analysis*. A conclusion is provided for each impact as to whether the alternative results in one of the following (1) reduction or elimination of the proposed Project's impact, (2) a greater impact than would occur under the proposed Project, (3) the same impact as the proposed Project, or (4) a new impact in addition to the proposed Project's impacts. Table 6-2, *Alternatives to the Proposed Project – Comparison of Environmental Impacts*, located at the end of this Section, compares the environmental hazard and resource impacts of the alternatives with those of the proposed Project and identifies the ability of the alternative to meet the basic objectives of the Project. As described in EIR Subsection 3.1, the underlying purposes of the proposed Project are to develop a mixed-use community that incorporates single-family and multi-family land uses along with commercial areas, recreational areas, and open space areas, and to comply to the greatest feasible extent with applicable Riverside County standards, codes, and policies. The following is a list of specific objectives that the Project Applicant intends to achieve.

A. To efficiently develop an underutilized property with a complementary mix of land uses, including residential, commercial, recreational, and open space land uses.

B. To establish a master-planned community in a manner that is sensitive to the environment as well as visually and functionally compatible with surrounding existing and proposed land uses.

C. To develop a mixed-use community with a design that takes topographic, geologic, hydrologic, and environmental opportunities and constraints into consideration.

D. To increase the available housing supply within the region by providing detached single-family homes and age-qualified multi-family homes that will be marketable within the evolving economic profile of Riverside County and surrounding communities.

E. To construct commercial uses within proximity to regional transportation facilities that will provide for employment opportunity and that can attract tenants at competitive lease rates to help ensure that the uses are occupied and positively contribute to the local economy.

F. To provide a system of public and community facilities, including recreational facilities, in an efficient and timely manner and meet the needs of Project residents and residents of surrounding communities.

G. To require project design elements such as architecture, landscaping, color, paving, walls, fencing, signage, entry treatments, and other similar design features that would ensure the community is developed in a manner that is aesthetically pleasing.

H. To establish development phasing that results in logical coordinated growth.

6.3.1 No Development Alternative

The No Development Alternative (NDA) considers no development/disturbance on the Project site beyond that which occurs under existing conditions. As such, the Project site would continue to consist of 196.0 acres of vacant and undeveloped land, portions of which would continue to be used for dryland farming. Under the NDA, no improvements would be made to the Project site and none of the Project's roadway, utility, or other infrastructure improvements would occur. This alternative was selected by the Lead Agency to compare the environmental effects of the proposed Project with an alternative that would leave the Project site in its existing condition.

A. Aesthetics

The NDA considers no development or disturbance on the Project site beyond that which occurs under existing conditions. As such, the 196.0-acre site would remain vacant and undeveloped. Thus, the Project's less-than-significant impacts to scenic vistas would be avoided under this Alternative. The Project site is not visible from any officially-designated scenic highways; thus, no impacts to scenic highways would occur and impacts would be similar to the proposed Project. Although the Project is not expected to degrade the existing visual character or quality of the site or its surroundings, implementation of the NDA would retain the site's existing visual character and impacts would be reduced in comparison to the Project. Although the Project would be subject to compliance with Riverside County Ordinance Nos. 655 and 915 and would result in less-than-significant light and glare impacts, no new lighting sources or sources of potential glare would occur on site under the NDA; thus, impacts associated with light and glare would be reduced in comparison to the proposed Project.

B. Agriculture and Forestry Resources

Under the NDA, no new development would occur on site. Thus, implementation of the NDA would avoid the Project's less-than-significant impacts due to the conversion of approximately 162.6 acres of "Farmland of Local Importance" and 33.4 acres of "Other Lands" to non-agricultural use. Neither the Project nor the NDA would result in a conflict with existing agricultural zoning, land subject to a Williamson Act, or a Riverside County Agricultural Preserve, and impacts would be less than significant and similar. Although the Project would be subject to compliance with Riverside County Ordinance No. 625, because no new development would occur under the NDA, the NDA would avoid the Project's less-than-significant impacts due to a conflict with off-site agricultural zoning on properties located within 300 feet of the Project site. Implementation of the NDA also would avoid the Project's less-than-significant impacts due to the conversion of existing agricultural uses on site to non-agricultural use. The Project site and surrounding areas are not zoned for 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 Govt. Code section 51104(g)). As such, neither the Project nor the NDA would result in impacts to forestry resources, and impacts would be the same.

C. *Air Quality*

Under the NDA, there would be no new construction or development on the Project site. As such, implementation of the NDA would avoid the Project's significant and unavoidable impact due to a conflict with the South Coast Air Quality Management District (SCAQMD) Air Quality Management Plan (AQMP). Additionally, the NDA would not result in any construction or operational emissions, and therefore would avoid the Project's significant and unavoidable impact due to a cumulatively considerable net increase of VOCs during long-term operations. Implementation of the NDA also would avoid the Project's less-than-significant impacts due to localized construction and operational emissions, and also would avoid the Project's less-than-significant operational impacts due to CO "hot spots" and construction-related impacts due to Toxic Air Contaminants (TACs). Similarly, the Project's less-than-significant impacts due to construction or operational related odor emissions would be avoided under the NDA.

D. *Biological Resources*

With implementation of the NDA, there would be no new construction or development on the Project site. As such, the NDA would avoid all of the Project's significant but mitigable impacts to biological resources. Specifically, the NDA would avoid the Project's potential conflict with the MSHCP (prior to mitigation). The NDA also would not result in any construction-related impacts to nesting birds or the burrowing owl. The NDA also would avoid the Project's significant but mitigable impacts to 0.38-acre of Regional Board Waters of the State, 0.48 acre of CDFW jurisdiction, and 0.48-acre of MSHCP riparian/riverine resources.

E. *Cultural Resources*

Under the NDA, no new development would occur on site. Although the Project would not result in impacts to any known historical resources, the NDA would nonetheless avoid the Project's less-than-significant impacts (following mitigation) to subsurface historical resources that may be encountered during grading activities. Similarly, although there are no known archaeological resources on site, the NDA would avoid the Project's less-than-significant impacts to subsurface archaeological resources that may be impacted during site grading operations. Additionally, because there would be no new grading on site, the NDA would avoid the Project's less-than-significant impacts to buried human remains that may be uncovered during site grading activities. Thus, impacts to cultural resources would be reduced under the NDA in comparison to the Project.

F. *Energy*

Under the NDA, there would be no increase in demand from the Project site for energy resources. As such, the NDA would avoid the Project's less-than-significant impacts due to the wasteful, inefficient, or unnecessary consumption of energy resources. Neither the Project nor the NDA would conflict with a State or local plan for renewable energy or energy efficiency, although impacts would be reduced under the NDA in comparison to the Project because the NDA would not result in an increase in use of energy resources.

G. *Geology and Soils*

Under the NDA, there would be no new development on site. There are no known faults on or trending towards the Project site; thus, impacts associated with rupture of a known fault would be less than significant and similar under the proposed Project and the NDA. However, because the Project would involve a substantial

increase in the number of residents and employees on site, the Project's less-than-significant impacts (with mitigation) due to strong seismic ground shaking would be reduced under the NDA. Because no new development would occur, the NDA would result in reduced impacts as compared to the Project's less-than-significant impacts (with mitigation) due to unstable geologic units or soils that are unstable and that potentially could result in on- or off-site landslide, lateral spreading, collapse, or rockfall hazard. The Project's less-than-significant impacts (with mitigation) due to ground subsidence also would be reduced under the NDA. Neither the Project nor the NDA would be subject to geologic hazards, such as seiches, mudflow, or volcanic hazards; impacts would be less than significant and the level of impact would be similar. Because there would be no new development on site, the NDA would avoid the Project's less-than-significant impacts (after mitigation) due to cut or fill slopes higher than 10 feet. Neither the Project nor the NDA would result in grading that affects or negates subsurface sewage disposal systems, and neither the Project nor the NDA would require septic tanks or alternative waste water disposal systems on unsuitable soils; thus, impacts would be less than significant and similar under the NDA and proposed Project. During construction of the proposed Project vegetative cover would be removed, increasing the potential for erosion as compared to the site's existing conditions; thus, the NDA would avoid the Project's less-than-significant erosion impacts during construction. However, for the proposed Project under long-term conditions, the Project site's potential for erosion would be substantially reduced as compared to existing conditions due to the introduction of impervious surfaces and landscaped areas on site; thus, impacts under long-term conditions due to erosion would be increased under the NDA as compared to long-term operations associated with the Project. Lastly, the NDA would avoid the Project's less-than-significant impacts (after mitigation) due to expansive soils.

H. Greenhouse Gas Emissions

Under the NDA, there would be no new development or construction activities on site. As such, the NDA would completely avoid the Project's less-than-significant impacts due to Greenhouse Gas (GHG) emissions. Similarly, the Project's less-than-significant impacts due to a conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs also would be avoided with implementation of the NDA.

I. Hazards and Hazardous Materials

Under the NDA, there would be no new development on site. The NDA would avoid the Project's less-than-significant impacts due to the creation of a significant hazard to the public or environment through the routine transport, use, or disposal of hazardous materials. There would be no construction activities or changes to operational conditions on site under the NDA; thus, the NDA would result in reduced impacts in comparison to the Project's less-than-significant construction and operational impacts due to hazardous materials. Neither the Project nor the NDA would impair implementation of or physically interfere with an adopted emergency response plan or an emergency evacuation plan; thus, impacts under the NDA and proposed Project would be less than significant and the level of impact would be similar. Although neither the Project nor the NDA would emit hazardous emissions, or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school, because there would be no change in the site's existing conditions impacts to nearby schools would be reduced in comparison to the Project's less-than-significant impacts. The Project site is not identified on any lists of hazardous materials sites compiled pursuant to Government Code Section 65962.5; thus, no impact would occur under the Project or NDA, and the level of impact would be similar. In addition, the Project site is not located within two miles of a public or private

airport and is not located within an airport land use plan; thus, no impacts due to airport-related safety hazards would occur under the NDA or proposed Project, and the level of impact would be similar.

J. Hydrology and Water Quality

With respect to water quality, the NDA would not involve any new development on site. With exception of erosion potential, the NDA would result in reduced impacts to water quality as compared to the proposed Project's less-than-significant water quality impacts. While the risk of erosion would increase during construction of the proposed Project, under long-term operating conditions the Project would result in the introduction of impervious surfaces and landscaped areas; thus, long-term operational erosion impacts would be increased under the NDA due to the lack of vegetative cover on portions of the Project site. While the Project would result in less-than-significant impacts due to groundwater recharge, impacts to groundwater recharge would be reduced under the NDA because there would be no new impervious surfaces on site. Although the Project would result in less-than-significant impacts to the site's existing drainage pattern, because there would be no changes to the site's drainage patterns under the NDA impacts would be reduced in comparison to the proposed Project. Similarly, although the Project would not exceed the capacity of any existing or planned stormwater drainage systems, because there would be no changes to site drainage under the NDA impacts would be reduced in comparison to the Project. The portions of the Project site proposed for development as part of the Project are not subject to flood hazards; thus, impacts due to flooding would be less than significant and would be similar under the Project and NDA. The Project site is not subject to inundation from flood hazards, tsunamis, or seiches; thus, impacts would be less than significant and would be similar under the Project and NDA.

K. Land Use and Planning

The NDA would not be consistent with the land use designations applied to the property by the Riverside County General Plan, Southwest Area Plan (SWAP), and SP 380, and impacts would be increased as compared to the proposed Project. Neither the Project nor the NDA would conflict with the Southern California Association of Governments (SCAG) 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). Additionally, neither the Project nor the NDA would disrupt or divide the physical arrangement of an established community; thus, impacts would be less than significant and the level of impact would be similar.

L. Mineral Resources

The Project site does not contain any known mineral resources that would be of value to the region or the residents of the State. Accordingly, no impacts to mineral resources would occur under the Project or the NDA, and the level of impact would be similar. Additionally, neither the Project nor the NDA would represent an incompatible land use located adjacent to a State classified or designated area or existing surface mine, and the NDA and Project would not expose people or property to hazards from proposed, existing, or abandoned quarries or mines. No impacts would occur, and the level of impact would be similar.

M. Noise

The Project site is located outside of areas subject to public and private airport-related noise levels exceeding 55 dBA CNEL; thus, impacts due to airport-related noise would be less than significant under both the Project

and the NDA. The NDA also would avoid the Project's less-than-significant impacts due to construction and long-term operational noise levels, and would avoid the Project's less-than-significant impacts (with mitigation) due to off-site traffic-related noise levels. Additionally, the NDA would avoid the Project's less-than-significant impacts due to construction-related vibration, and also would avoid the Project's less-than-significant impacts due to operational-related vibration.

N. Paleontological Resources

Under the NDA, there would be no new construction or development on site. Therefore, the NDA would avoid the Project's less-than-significant construction-related impacts (after mitigation) to paleontological resources that may be buried beneath the site's surface.

O. Population and Housing

Neither the Project nor the NDA would eliminate any residents or housing or generate any demand for additional housing. Thus, impacts due to the displacement of substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere, would be less than significant under both the Project and the NDA. The NDA would not generate any demand for additional housing, including affordable housing, while the Project would accommodate 433 dwelling units on site, including 80 High Density Residential units that would be affordable to lower-income residents; thus, impacts due to the displacement of substantial numbers of people or housing would be less than significant under both the NDA and the Project, and the level of impact would be similar. Although the Project would result in less-than-significant impacts due to substantial unplanned population growth, the NDA would not result in any new development on site; thus, impacts under the NDA would be reduced in comparison to the proposed Project.

P. Public Services

There would be no new development on site under the NDA; thus, the NDA would avoid the Project's less-than-significant impacts to fire protection, police protection, school services, library services, and health services.

Q. Recreation

The NDA would not result in any new development on site and thus would not generate any increase in demand for recreational resources, nor would any recreational resources be constructed on site under the NDA. Although the Project would accommodate sufficient parkland to accommodate future residents of the Project, the NDA would avoid the Project's physical impacts due to construction of recreational resources; thus, impacts to recreation would be reduced under the NDA in comparison to the proposed Project. Additionally, the NDA would avoid the Project's less-than-significant impacts due to increased use of existing recreational resources and due to Quimby fees.

R. Transportation

Under the NDA, there would be no new development on site and thus there would be no increase in traffic generated by the site. As such, the NDA would avoid the Project's significant and unavoidable impacts due to VMT and would avoid the Project's less-than-significant impacts due to a conflict with a program, plan, ordinance, or policy addressing the circulation system. Additionally, due to the lack of improvements, the

NDA would avoid the Project's less-than-significant impacts due to increased hazards due to a geometric design feature or incompatible uses. The NDA also would avoid the Project's less-than-significant impacts due to the need for new or altered maintenance of roads. The NDA would not involve a construction phase, and thus would avoid the Project's less-than-significant impacts (after mitigation) to circulation during construction activities on site. The NDA would not result in any impacts due to emergency access or access to nearby uses; thus, the NDA would avoid the Project's less-than-significant (after mitigation) impacts to emergency access during construction activities. No new bike lanes or trails would be constructed under the NDA; thus, the NDA would avoid the Project's less-than-significant impacts due to trail construction.

S. Tribal Cultural Resources

There would be no new development on site under the NDA. Accordingly, the NDA would avoid the Project's less-than-significant impacts (after mitigation) to tribal cultural resources.

T. Utilities and Service Systems

Under the NDA, there would be no increased demand for water, wastewater treatment, or storm water drainage; thus, the NDA would avoid the Project's less-than-significant impacts due to the construction of such facilities and due to the provision of water or wastewater treatment services. There would be no increase in demand for water resources under the NDA; thus, the NDA would avoid the Project's less-than-significant impacts to water supply. Additionally, the NDA would avoid the Project's less-than-significant impacts due to the construction of wastewater conveyance facilities on and off site, and would avoid the Project's less-than-significant impacts to wastewater treatment capacity. There would be no increase in solid waste generated on site; thus, the NDA would avoid the Project's less-than-significant impacts due to solid waste. There are no components of the NDA or the proposed Project that would conflict with federal, State, and local management and reduction statutes and regulations related to solid wastes, including the CIWMP (County Integrated Waste Management Plan); thus, impacts would be less than significant and the level of impact would be similar. The NDA also would avoid the Project's less-than-significant impacts due to the construction of facilities for electricity, natural gas, communication systems, street lighting, or due to increased roadway maintenance.

U. Wildfire

Under the NDA, there would be no new development on site. Although impacts due to wildfire would be less than significant under the proposed Project, the NDA would result in reduced impacts due to wildfires because the NDA would not involve the construction of any new structures on site. However, under the NDA the Project site would remain in its existing undeveloped condition, and the natural vegetation that occurs on site under existing conditions could serve as potential fuel for future wildfires in the local area; thus, impacts due to wildland fire hazards associated with existing vegetation at the site would be increased under the NDA as compared to the proposed Project.

V. Conclusion

Implementation of the NDA would result in no physical environmental impacts beyond those that have historically occurred on the property. Almost all effects of the proposed Project would be avoided or lessened by the selection of this Alternative, although a few new impacts, such as sedimentation impacts, General Plan land use consistency, and wildfire hazards (on site) would be increased under this Alternative. Because this

Alternative would avoid most of the Project's impacts, it warrants consideration as the "environmentally superior alternative." However, pursuant to State CEQA Guidelines § 15126.6(e)(2), if a no project alternative is identified as the environmentally superior alternative, then the EIR shall also identify an environmentally superior alternative among the other alternatives. Accordingly, the Reduced Project Alternative, as discussed in subsection 6.3.3, is identified as the environmentally superior alternative.

The NDA would fail to meet most of the Project's objectives. The NDA would not meet the Project's objective to efficiently develop an underutilized property with a complementary mix of land uses, including residential, commercial, recreational, and open space land uses. The NDA also would not meet the Project's objective to establish a master-planned community on site that is sensitive to the environment as well as visually and functionally compatible with surrounding existing and proposed land uses. Although the NDA would not adversely affect topographic, geologic, hydrologic, and environmental opportunities and constraints on site and would not result in alterations to natural landforms, the NDA would not meet the Project's objective to develop the property with a mixed-use community. Additionally, the NDA would not meet the Project's objective to increase the available housing supply within Riverside County, and would not meet the Project's objective to provide commercial uses within proximity to regional transportation facilities that will provide for employment opportunity and that can attract tenants at competitive lease rates to help ensure that the uses are occupied and positively contribute to the local economy. The NDA also would not meet the Project's objective to provide a system of public and community facilities, including recreational facilities, in an efficient and timely manner and meet the needs of Project residents and residents of surrounding communities. The NDA would not meet the Project's objective to require project design elements to ensure the community is developed in a manner that is aesthetically pleasing and visually compatible with surrounding communities. The NDA also would not meet the Project's objective to establish development phasing that results in coordinated growth.

6.3.2 No Project (Adopted Specific Plan) Alternative (NPA)

The No Project (Existing Specific Plan) Alternative (herein, "NPA"), assumes development of the Project site in accordance with the site's existing General Plan and Specific Plan land uses. Figure 2-5 in EIR Subsection 2.0 depicts the site's existing Specific Plan land use designations. Thus, under this alternative, and consistent with the adopted Keller Crossing Specific Plan No. 380 (SP 380), the Project site would be developed with 3 Very Low Density Residential dwelling units on 9.9 acres (minimum 2-acre lot sizes); 25 Low Density Residential dwelling units on 18.3 acres (minimum 20,000 s.f. lot sizes); 42 Medium Density Residential dwelling units on 13.9 acres (minimum 5,000 s.f. lot sizes); Mixed Use on 39.5 acres, which would include up to 250 dwelling units (including up to 225 "Continuing Care Retirement Community [CCRC]" dwelling units) and up to 250,000 s.f. of commercial/office land uses; Commercial Retail uses on 37.8 acres, which would include up to 400,000 s.f. of building area; Open Space/Conservation land uses on 61.1 acres; and major circulation facilities on 20.6 acres. This alternative was selected by the Lead Agency to compare the environmental effects of the proposed Project with an alternative that would allow for buildout of the Project site in accordance with the site's existing General Plan and SP 380 land use designations.

A. Aesthetics

The Project site is not located within the viewshed of any officially designated or eligible State or County scenic highways or State-Eligible scenic highways. Thus, no impacts to scenic corridors would occur under

the Project or NPA, and the level of impact would be similar. As with the proposed Project, the NPA would not substantially damage scenic resources; obstruct any prominent scenic vista or view open to the public; result in the creation of an aesthetically offensive site open to public view; or conflict with applicable zoning and other regulations governing scenic quality. Mandatory compliance with the adopted or proposed SP 380 also would ensure that the Project and NPA do not substantially degrade the existing visual character or quality of public views of the site and its surroundings, and both the Project and the NPA would be required to comply with all applicable zoning and other regulations governing scenic quality. Impacts would be less than significant, and the level of impact would be similar. Both the Project and NPA would be subject to compliance with Riverside County Ordinance Nos. 348, 655, and 915, as well as the development standards and design guidelines of the approved or proposed SP 380, which would ensure that light and glare impacts would be less than significant under both the Project and the NPA, and the level of impact would be similar.

B. Agriculture and Forestry Resources

Areas proposed for physical impact under the NPA would be similar to the proposed Project. Neither the Project nor the NPA would result in impacts to Prime Farmland, Unique Farmland, or Farmland of Statewide Importance; thus, no impact would occur under either the Project or the NPA, and the level of impact would be similar. Neither the Project nor the NPA would result in a conflict with existing agricultural zoning or land subject to a Williamson Act or Riverside County Agricultural Preserve, and impacts would be less than significant and similar. Both the Project and NPA would entail development of urban land uses within 150 feet of agriculturally-zoned property; however, both the Project and the NPA would be subject to compliance with Riverside County Ordinance No. 625. Mandatory compliance with Ordinance No. 625 would ensure that indirect impacts to agricultural lands are less than significant, and impacts would be the same under the Project and NPA. There are no other components of the Project or NPA that could result in the conversion of Farmland to non-agricultural use; thus, impacts would be less than significant and the level of impact would be similar. Neither the Project nor the NPA would result in impacts due to the conversion of forest land to non-forest uses, and the level of impact would be the same.

C. Air Quality

A majority of the air quality emissions that would be associated with the Project and the NPA would be associated with vehicular traffic. Based on a traffic impact analysis prepared in conjunction with the adoption of the original SP 380, the adopted land uses for the Project site would generate approximately 20,317 Average Daily Trips (ADT), whereas the proposed Project would result in approximately 6,298 ADT (refer to EIR Table 3-6). As such, it can be concluded that overall operational air quality emissions would be increased under the NPA as compared to the proposed Project, and that such increased emissions likely would exceed the SCAQMD Regional Thresholds for Volatile Organic Compounds (VOCs) and Oxides of Nitrogen (NO_X). Thus, implementation of the NPA likely would result in a significant and unavoidable impact due to a conflict with the SCAQMD AQMP. While construction-related emissions would be similar under the Project and NPA and would not exceed the SCAQMD Regional Thresholds, because the NPA would exceed the SCAQMD Regional Thresholds for VOCs and NO_X under long-term operational conditions, the NPA would result in a cumulatively-considerable net increase of criteria pollutants for which the Project region is non-attainment. Impacts would be increased as compared to the Project's significant and unavoidable operational impact due to regional VOC emissions. Localized air quality impacts during construction would be similar under the proposed Project and NPA, and would be less than significant. For long-term operations, neither the Project

nor the NPA would exceed the SCAQMD Localized Significance Thresholds (LSTs); thus, localized operational impacts would be less than significant under both the Project and NPA, although the level of impact would be increased under the NPA due to the increase in traffic. Neither the Project nor the NPA would result in significant impacts due to odors, and the level of impact would be similar.

D. Biological Resources

Under the NPA, a total of 61.1 acres of the Project site would be preserved as natural open space, while a total of 61.4 acres would be preserved as natural open space under the proposed Project. Additionally, areas subject to physical impacts off site would be similar under the NPA and proposed Project. As such, and similar to the proposed Project, the NPA would result in similar significant but mitigable impacts due to a conflict with the MSHCP; impacts to nesting birds and the burrowing owl; and impacts to 0.38-acre of Waters of the State under Regional Board jurisdiction, 0.48-acre of CDFW jurisdiction, and a total of 0.48-acre of MSHCP Riparian/Riverine areas. Impacts would be mitigated to below a level of significance, and the level of impact would be similar to the proposed Project. Neither the Project nor the NPA would result in a conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, and the level of impact would be similar.

E. Cultural Resources

Areas proposed for physical impact under the NPA would be slightly increased by 0.3 acre as compared to the proposed Project, as the Project would preserve 61.4 acres of open space while the NPA would preserve 61.1 acres of open space in the northern portions of the Project site. Thus, the NPA would result in impacts to 134.9 acres on site, while the Project would result in impacts to 134.6 acres of the Project site. Both the Project and NPA would result in significant but mitigable impacts due to potential impacts to previously-undiscovered subsurface historical resources, and the level of impact would be similar. Additionally, because no archaeological resources are known to occur on site and because both the Project and NPA would be subject to the mitigation measures identified by this EIR to address potential impacts to historical resources, impacts to archaeological resources under both the Project and NPA would be less than significant and the level of impact would be similar. Likewise, with mandatory compliance with State law, both the Project and NPA would result in less-than-significant impacts to human remains, and the level of impact would be similar.

F. Energy

Energy consumed during construction of the proposed Project and NPA would be similar, and would not result in the wasteful, inefficient, or unnecessary consumption of energy resources. Construction-related impacts due to energy consumption would be less than significant under the Project and NPA, and the level of impact would be similar. Based on the rates utilized in Riverside County EIR No. 521[1], and due to the increase in building area proposed for commercial uses, the NPA would generate a demand for electricity that is approximately double the proposed Project's electricity demand, and also would generate a demand for more natural gas than the proposed Project. Additionally, the NPA would generate approximately 20,317 ADT,

[1] Riverside County General Plan EIR No. 521 Tables 5.5-O and 5.5-P indicate that residential uses generate a demand for electricity of 5,626 kilowatt-hours per year (kWh/yr) per dwelling unit and a natural gas demand of 79,980 cubic feet per year (cfy) per dwelling unit, and that commercial retail land uses generate a demand for electricity of 13.20 kWh/yr per s.f. of building area and a natural gas demand of 34.8 cfy per s.f. of building area.

whereas the proposed Project would result in approximately 6,298 ADT. Thus, under long-term operations, the energy demands of the NPA would be greater than for the proposed Project. Although neither the Project nor the NPA would result in the wasteful, inefficient, or unnecessary consumption of energy resources and impacts would be less than significant, impacts due to energy consumption would be increased under the NPA as compared to the proposed Project. Both the Project and NPA would be required to comply with adopted State and local plans related to energy conservation; thus, impacts would be less than significant and the level of impact would be similar.

G. Geology and Soils

Both the Project and NPA would be required to comply with the site-specific recommendations of a geotechnical study to address potential geologic hazards, which would reduce potential impacts due to geology and soils to less-than-significant levels. There are no known faults on or trending towards the Project site; thus, impacts associated with rupture of a known fault and strong seismic ground shaking would be less than significant and similar under the proposed Project and the NPA. Because development would occur over approximately the same area under the NPA and proposed Project, impacts due to unstable geologic units or soils that are unstable and that potentially could result in on- or off-site landslide, lateral spreading, collapse, or rockfall hazard would be similar and would be less than significant. Impacts associated with ground subsidence also would be similar under the Project and NPA. Neither the Project nor the NPA would be subject to geologic hazards, such as seiches, mudflow, or volcanic hazards; impacts would be less than significant and the level of impact would be similar. Grading activities would be similar under the Project and NPA; thus, impacts due to cut or fill slopes greater than 2:1 or higher than 10 feet would be similar and would be less than significant. Neither the Project nor the NPA would result in grading that affects or negates subsurface sewage disposal systems, and neither the Project nor the NPA would require septic tanks or alternative waste water disposal systems on unsuitable soils; thus, impacts would be less than significant and similar under the NPA and proposed Project. Similarly, impacts due to erosion hazards during construction and long-term operation would be similar under the NPA and proposed Project and impacts would be less than significant.

H. Greenhouse Gas Emissions

A majority of the Project's GHG emissions would result from vehicular emissions. As previously noted, the NPA would result in 20,317 ADT, whereas the proposed Project would result in approximately 6,298 ADT. Additionally, the NPA would generate a demand for electricity that is approximately double the proposed Project's electricity demand, and also would generate a demand for more natural gas than the proposed Project. As such, it can be concluded that total GHG emissions and associated impacts under the NPA would be increased as compared to the proposed Project. As with the Project, the NPA would be required to demonstrate consistency with the County's Climate Action Plan (CAP) Update, which would reduce GHG impacts to less-than-significant levels. Neither the Project nor the NPA would conflict with applicable plans, policies, or regulations related to GHGs; thus, impacts would be less than significant and the level of impact would be similar.

I. Hazards and Hazardous Materials

Land uses under the NPA would be similar to the proposed Project, with an increase in commercial retail building area and a reduction in residential dwelling units. Neither the Project nor the NPA would create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous

materials; thus, impacts would be less than significant, and the level of impact would be similar. Additionally, neither the NPA nor 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, and the level of impact would be similar. Neither the Project nor the NPA would impair implementation of or physically interfere with an adopted emergency response plan or an emergency evacuation plan; thus, impacts under the NPA and proposed Project would be less than significant and the level of impact would be similar. Neither the Project nor the NPA would emit hazardous emissions, or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school; thus, impacts would be less than significant, and the level of impact would be similar. The Project site is not identified on any lists of hazardous materials sites compiled pursuant to Government Code Section 65962.5; thus, no impact would occur under the Project or NPA, and the level of impact would be similar. The Project site is not located within an Airport Master Plan, is not located within two miles of a public airport or public use airport, and development on site would not require review by the Airport Land Use Commission; thus, impacts due to airport-related hazards would be less than significant under both the Project and the NPA, and the level of impact would be similar. The Project site is not located in the Airport Influence Area (AIA) of any private airports; thus, there would be no impacts due to private airport-related hazards and the level of impact would be the same.

J. Hydrology and Water Quality

Both the Project and the NPA would be subject to compliance with the Santa Ana Region Basin Plan, and would be required to comply with the requirements of the Santa Ana Regional Water Quality Control Board (RWQCB) and the County of Riverside. This includes the requirement to obtain a NPDES Municipal Stormwater Permit for construction activities, which requires the preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP) that would include measures to address water pollution, including sedimentation. Additionally, both the Project and NPA would be subject to NPDES requirements for long-term operations, which would reduce potential water quality impacts (including sediments) from construction to less-than-significant levels. Due to the relatively flat nature of the portions of the Project site proposed for development, it is not expected that the Project or NPA would result in substantial changes to the existing drainage system of the Project site and area; thus, impacts would be less than significant and the level of impact would be similar. Both the Project and the NPA would be required to incorporate drainage features (such as detention basins and water quality basins) to ensure that runoff is treated for water quality and is detained prior to discharge such that the rate of runoff from the Project site does not exceed the rates that occur under existing conditions. Thus, impacts related to exceeding the capacity of existing or planned stormwater drainage facilities and downstream erosion hazards would be less than significant and the level of impact would be similar. The Project site is not subject to flood hazards, tsunamis, or seiche zones, and would have no impact on existing flood plains; thus, impacts due to pollution from inundation from flooding, tsunamis, and seiches would be less than significant, and the level of impact would be similar.

K. Land Use and Planning

Assuming approval of the Project's proposed General Plan Amendment (GPA), both the Project and the NPA would be fully consistent with the Riverside County General Plan and SWAP. Thus, impacts due to a conflict with the General Plan would be less than significant under both the Project and the NPA, and the level of impact would be similar. Both the Project and NPA also would be consistent with SCAG's 2020-2045

RTP/SCS, and as such impacts due to a conflict would be similar and less than significant. Additionally, neither the Project nor the NPA would disrupt or divide the physical arrangement of an established community; thus, impacts would be less than significant and the level of impact would be similar.

L. Mineral Resources

The Project site does not contain any known mineral resources that would be of value to the region or the residents of the State. Accordingly, no impacts to mineral resources would occur under the Project or the NPA, and the level of impact would be similar. Additionally, neither the Project nor the NPA would represent an incompatible land use located adjacent to a State classified or designated area or existing surface mine, and the NPA and Project would not expose people or property to hazards from proposed, existing, or abandoned quarries or mines. No impacts would occur, and the level of impact would be similar.

M. Noise

The Project site is located outside of areas subject to public and private airport-related noise levels exceeding 55 dBA CNEL; thus, impacts due to airport-related noise would be less than significant under both the Project and the NPA. Construction-related noise under the Project and NPA would similar, and impacts due to construction noise would be reduced to below a level of significance under both the Project and NPA with the implementation of mitigation. Because the NPA would involve more commercial development than the proposed Project, noise impacts associated with long-term operations would be increased under the NPA as compared to the Project, although operational impacts are anticipated to be less than significant. With respect to transportation-related noise, the NPA would generate more ADT than the proposed Project, and therefore would result in increased, but mitigable, impacts due to transportation-related noise. Construction-related vibration impacts would be similar under the Project and NPA; thus, impacts would be less than significant and would be similar to the proposed Project. Under long-term operations, neither the Project nor the NPA would involve a substantial number of heavy truck trips, and thus the Project and NPA would result in similar less-than-significant impacts due to operational vibration.

N. Paleontological Resources

The Project site was determined to have a "High" paleontological sensitivity rating. Because areas of physical impact would be similar under the Project and NPA, both the Project and NPA would result in significant but mitigable impacts to paleontological resources that may be buried beneath the site's surface, and the level of impact would be similar.

O. Population and Housing

Neither the Project nor the NPA would result in the displacement of substantial numbers of existing people or housing, necessitating the construction of housing elsewhere; thus, no impact would occur under either the Project or NPA. Although the type of development on site would vary between the Project and the NPA, neither the NPA nor the Project would represent substantial unplanned population growth as the Project site is currently planned for urban land uses by the County's General Plan. Additionally, neither the Project nor the NPA would indirectly induce growth, as infrastructure improvements would be sized to accommodate only future development on site. Impacts to population and housing would be less than significant under both the Project and NPA, and the level of impact would be similar.

P. Public Services

The NPA would result in a similar level of development intensity on site as the proposed Project. As such, impacts to fire services, sheriff services, and health services would be similar and less than significant with payment of mandatory Development Impact Fees (DIF) in accordance with Riverside County Ordinance No. 659. The Project would involve the construction of up to 433 dwelling units, whereas the NPA would involve the construction of up to 320 dwelling units; thus, impacts to recreational and library facilities would be reduced under the NPA as compared to the Project, although impacts would be less than significant under both the Project and NPA with payment of DIF fees. Additionally, although the NPA would involve a total of 320 dwelling units, up to 225 of the dwelling units under the NPA would be age qualified and would not generate a student population. As such, impacts to school services would be reduced under the NPA as compared to the Project, although impacts would be reduced to less-than-significant levels under the Project and NPA with mandatory payment of school impact fees pursuant to Senate Bill 50 (SB 50). The NPA would result in fewer residents on site, and thus would reduce the Project's less-than-significant impacts to library services. As the overall level of development intensity would be similar under the NPA and proposed Project, impacts to health services would be similar and would be less than significant with payment of DIF fees.

Q. Recreation

The NPA would result in a similar level of development intensity on site as the proposed Project. The Project would involve the construction of up to 433 dwelling units and would generate approximately 1,288 future residents, whereas the NPA would involve the construction of up to 320 dwelling units and would generate approximately 776 future residents. Thus, the Project would result in an increase in demand for recreational resources as compared to the NPA. However, based on the population generation factors as discussed in EIR Subsection 4.17, the Project would result in a parkland demand of 6.4 acres whereas 10.5 acres of parkland would be accommodated onsite. By contrast, the NPA would result in a demand for approximately 3.9 acres of parkland (based on the rates shown in EIR Table 4.17-1), while no recreational facilities (i.e., parks) are proposed as part of the NPA. Thus, impacts due to parkland demand and due to physical deterioration of recreational facilities would be increased under the NPA as compared to the proposed Project, although impacts would be reduced to less-than-significant levels with the payment of in-lieu park fees. Both the Project and NPA would involve the construction of recreational facilities on site (e.g., trails), although such impacts would be inherent to the construction phase and the level of impact would be similar.

R. Transportation

Both the Project and the NPA would be required to comply with all applicable provisions of the County's General Plan, Southwest Area Plan (SWAP), and Riverside County ordinances. As such, neither the Project nor NPA would conflict with a program, plan, ordinance, or policy addressing the circulation system; thus, impacts would be less than significant, and the level of impact would be similar. Both the Project and NPA would result in significant and unavoidable impacts due to VMT, and the level of impact would be similar. Impacts due to hazardous geometric design features and incompatible uses would be less than significant under both the Project and the NPA, and the level of impact would be similar. Both the Project and the NPA would result in less-than-significant impacts due to the need for new or altered maintenance of roads. Both the Project and the NPA would have the potential to result in impacts to circulation during construction, including emergency access routes, although impacts would be reduced to less-than-significant levels with mitigation,

and the level of impact after mitigation would be similar under the Project and NPA. Both the Project and NPA would be required to accommodate facilities for bicycles, although impacts associated with the construction of such trails have been evaluated herein, and both the Project and NPA would result in similar less-than-significant impacts due to bicycle facilities.

S. Tribal Cultural Resources

Grading activities under the Project and NPA would be similar and would have the potential to result in impacts to previously undiscovered subsurface tribal cultural resources. As such, potential impacts to tribal cultural resources would be similar under the Project and the NPA, and impacts would be reduced to less-than-significant with implementation of mitigation measures requiring monitoring and avoidance of resources during construction activities.

T. Utilities and Service Systems

The level of development intensity on site would be similar under both the Project and NPA. Both the Project and NPA would require the construction of water, wastewater, storm water drainage, electric power, natural gas, and telecommunication facilities. Impacts associated with the provision of such facilities would be similar and would be mitigated to less-than-significant levels with implementation of mitigation measures. The EMWD determined that it has sufficient water resources to accommodate development proposed as part of the Project, while the NPA is fully consistent with the growth assumptions used by EMWD for long-term planning efforts. Thus, because EMWD would be able to provide potable water to both the Project and the NPA, impacts to water supply would be less than significant and the level of impact would be similar. Similarly, EMWD would have adequate capacity to treat wastewater generated by either the Project or the NPA; thus, impacts due to wastewater would be less than significant under both the Project and NPA, and the level of impact would be similar. Both the Project and NPA would be subject to the County's solid waste regulations, and neither the Project nor the NPA would result in the generation of solid waste that could adversely affect landfill capacity. Impacts associated with solid waste would be less than significant, and the level of impact would be similar under both the Project and NPA.

U. Wildfire

Both the Project and NPA would involve development of urban uses in adjacent to lands that are identified as having a high risk for wildfire hazards. Both the Project and NPA would be required to implement a Fire Protection Plan (FPP) to ensure that adequate provisions are accommodated, such as fuel management zones, to reduce the risk of wildfires. With implementation of mitigation and a FPP, impacts due to wildfires would be reduced to less-than-significant levels and the level of impact would be similar.

V. Conclusion

As compared to the proposed Project, the NPA would have increased impacts under the issue areas of air quality, energy, greenhouse gas emissions, noise, and recreation. The NPA would result in the same or similar impacts under the issue areas of aesthetics, agriculture/forest resources, biological resources, cultural resources, geology/soils, hazards/hazardous materials, hydrology/water quality, land use/planning, mineral resources, paleontological resources, population/housing, public services (except for schools and libraries),

transportation, tribal cultural resources, utilities/service systems, and wildfire. The NPA would result in reduced impacts as compared to the Project under the issue area of public services (schools and libraries).

The NPA would meet most of the Project's objectives. The NPA would meet the Project's objective to efficiently develop an underutilized property with a complementary mix of land uses, including residential, commercial, recreational, and open space land uses. The NPA also would meet the Project's objective to establish a master-planned community in a manner that is sensitive to the environment as well as visually and functionally compatible with surrounding existing and proposed land uses. Additionally, the NPA would meet the Project's objective to develop a mixed-use community with a design that takes topographic, geologic, hydrologic, and environmental opportunities and constraints into consideration. Due to the reduction in the number of dwelling units under the NPA, the NPA would be less effective than the proposed Project in increasing the available housing supply within the region. The NPA would entail more commercial building area, and thus would be more effective than the Project in providing commercial uses within proximity to regional transportation facilities that will provide for employment opportunity and that can attract tenants at competitive lease rates to help ensure that the uses are occupied and positively contribute to the local economy. Because the NPA would not entail construction of any parkland on site, the NPA would be less effective than the proposed Project in providing a system of public and community facilities, including recreational facilities, in an efficient and timely manner and meet the needs of Project residents and residents of surrounding communities. The NPA would meet the Project's objective to require project design elements such as architecture, landscaping, color, paving, walls, fencing, signage, entry treatments, and other similar design features that would ensure the community is developed in a manner that is aesthetically pleasing. Additionally, the NPA would meet the Project's objective to establish development phasing that results in logical coordinated growth.

6.3.3 Reduced Project Alternative (RPA)

The Reduced Project Alternative (RPA) was selected to evaluate an alternative that is less intensive than the proposed Project and that would reduce the Project's significant and unavoidable impacts to transportation by reducing the total amount of Vehicle Miles Traveled (VMT) that would be generated by the Project site. Specifically, the RPA assumes the Project site would be developed with approximately 33% fewer residential dwelling units and 33% less commercial retail building area. As previously summarized in Table 6-1, the RPA would allow for development of the Project site with 185 "Medium Density Residential" dwelling units on 61.2 acres; 104 "Medium High Density Residential (MHDR)" dwelling units on 21.4 acres; 1.0-acre of "Community Development – Very Low Density Residential (CD-VLDR), with no dwelling units allocated or proposed within the CD-VLDR areas; and 117,339 s.f. of "Commercial Retail (CR)" land uses on 13.3 acres. All remaining land uses would be the same as the proposed Project, including 10.5 acres of "Open Space – Recreation (OS-R)," 61.4 acres of "Open Space – Conservation Habitat (OS-CH)," 11.2 acres of "Open Space – Water (OS-W)," and major circulation facilities on 16.0 acres. All other components of the RPA would be identical to the proposed Project.

A. Aesthetics

The Project site is not located within the viewshed of any officially designated or eligible State or County scenic highways or State-Eligible scenic highways. Thus, no impacts to scenic corridors would occur under the Project or RPA, and the level of impact would be similar. As with the proposed Project, the RPA would

not substantially damage scenic resources; obstruct any prominent scenic vista or view open to the public; result in the creation of an aesthetically offensive site open to public view; or conflict with applicable zoning and other regulations governing scenic quality. Mandatory compliance with the proposed SP 380 also would ensure that the Project and RPA do not substantially degrade the existing visual character or quality of public views of the site and its surroundings, and both the Project and the RPA would be required to comply with all applicable zoning and other regulations governing scenic quality. Impacts would be less than significant, and the level of impact would be similar. Both the Project and RPA would be subject to compliance with Riverside County Ordinance Nos. 348, 655, and 915, as well as the development standards and design guidelines of the approved or proposed SP 380, which would ensure that light and glare impacts would be less than significant under both the Project and the RPA, and the level of impact would be similar.

B. Agriculture and Forestry Resources

Areas proposed for physical impact under the RPA would be similar to the proposed Project. Neither the Project nor the RPA would result in impacts to Prime Farmland, Unique Farmland, or Farmland of Statewide Importance; thus, no impact would occur under either the Project or the RPA, and the level of impact would be similar. Neither the Project nor the RPA would result in a conflict with existing agricultural zoning or land subject to a Williamson Act or Riverside County Agricultural Preserve, and impacts would be less than significant and similar. Both the Project and RPA would entail development of urban land uses within 150 feet of agriculturally-zoned property; however, both the Project and the RPA would be subject to compliance with Riverside County Ordinance No. 625. Mandatory compliance with Ordinance No. 625 would ensure that indirect impacts to agricultural lands are less than significant, and impacts would be the same under the Project and RPA. There are no other components of the Project or RPA that could result in the conversion of Farmland to non-agricultural use; thus, impacts would be less than significant and the level of impact would be similar. Neither the Project nor the RPA would result in impacts due to the conversion of forest land to non-forest uses, and the level of impact would be the same.

C. Air Quality

A majority of the air quality emissions that would be associated with the Project and the RPA would be associated with vehicular traffic. The RPA would result in approximately 33% fewer residential dwelling units and 33% less commercial retail building area as compared to the proposed Project, and as such traffic associated with the RPA would be approximately 33% less than the traffic associated with the proposed Project. Thus, it can be concluded that overall operational air quality emissions would be decreased under the RPA as compared to the proposed Project. Due to regional operational emissions of VOCs, both the Project and the RPA would result in significant and unavoidable impacts due to a conflict with the SCAQMD AQMP, although the level of impact would be reduced under the RPA as compared to the Project. Daily construction-related emissions would be similar under the Project and RPA and would not exceed the SCAQMD Regional Thresholds. Additionally, because the RPA would entail 33% less development intensity on site, operational emissions would be substantially reduced under the RPA as compared to the proposed Project. Based on the reduced level of development intensity, the RPA still would exceed the SCAQMD Regional Threshold for VOCs during long-term operation, although the level of impact would be reduced in comparison to the proposed Project. Localized air quality impacts during construction would be similar under the proposed Project and RPA, and would be less than significant. For long-term operations, neither the Project nor the RPA would exceed the SCAQMD Localized Significance Thresholds (LSTs); thus, localized operational

impacts would be less than significant under both the Project and RPA, although the level of impact would be decreased under the RPA due to the decrease in traffic. Neither the Project nor the RPA would result in significant impacts due to odors, and the level of impact would be similar.

D. Biological Resources

Under the RPA, and consistent with the proposed Project, a total of 61.4 acres of the Project site would be preserved as natural open space. Additionally, areas subject to physical impacts on and off site would be similar under the RPA and proposed Project. As such, and similar to the proposed Project, the RPA would result in significant but mitigable impacts due to a conflict with the MSHCP; impacts to nesting birds and the burrowing owl; and impacts to 0.38-acre of Waters of the State under Regional Board jurisdiction, 0.48-acre of CDFW jurisdiction, and a total of 0.48-acre of MSHCP Riparian/Riverine areas. Impacts would be mitigated to below a level of significance, and the level of impact would be similar to the proposed Project. Neither the Project nor the RPA would result in a conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, and the level of impact would be similar.

E. Cultural Resources

Areas proposed for physical impact under the RPA would be similar to the proposed Project, as both the Project and the RPA would preserve 61.4 acres of open space in the northern portions of the Project site while resulting in full disturbance to the remaining portions of the Project site. Both the Project and RPA would result in significant but mitigable impacts due to potential impacts to previously-undiscovered subsurface historical resources, and the level of impact would be the same. Additionally, because no archaeological resources are known to occur on site and because both the Project and RPA would be subject to the mitigation measures identified by this EIR to address potential impacts to historical resources, impacts to archaeological resources under both the Project and RPA would be less than significant and the level of impact would be the same. Likewise, both the Project and RPA would result in significant but mitigable impacts to human remains, and the level of impact would be the same.

F. Energy

Energy consumed during construction of the proposed Project and RPA would be similar, and would not result in the wasteful, inefficient, or unnecessary consumption of energy resources. Construction-related impacts due to energy consumption would be less than significant under the Project and RPA, and the level of impact would be similar. Due to the reduction in the number of dwelling units and commercial retail building area, the RPA would generate a demand for electricity that is approximately two-thirds of the proposed Project's electricity demand, and also would generate a demand for less natural gas than the proposed Project. Additionally, the RPA would generate approximately 33% fewer daily vehicular trips. Thus, under long-term operations, the energy demands of the RPA would be reduced as compared to the proposed Project. Although neither the Project nor the RPA would result in the wasteful, inefficient, or unnecessary consumption of energy resources and impacts would be less than significant, impacts due to energy consumption would be decreased under the RPA as compared to the proposed Project. Both the Project and RPA would be required to comply with adopted State and local plans related to energy conservation; thus, impacts would be less than significant and the level of impact would be similar.

G. Geology and Soils

Both the Project and RPA would be required to comply with the site-specific recommendations of a geotechnical study to address potential geologic hazards, which would reduce potential impacts due to geology and soils to less-than-significant levels. There are no known faults on or trending towards the Project site; thus, impacts associated with rupture of a known fault and strong seismic ground shaking would be less than significant and similar under the proposed Project and the RPA. Because development would occur over approximately the same area under the RPA and proposed Project, impacts due to unstable geologic units or soils that are unstable and that potentially could result in on- or off-site landslide, lateral spreading, collapse, or rockfall hazard would be similar and would be less than significant. Impacts associated with ground subsidence also would be similar under the Project and RPA. Neither the Project nor the RPA would be subject to geologic hazards, such as seiches, mudflow, or volcanic hazards; impacts would be less than significant and the level of impact would be similar. Grading activities would be similar under the Project and RPA; thus, impacts due to cut or fill slopes greater than 2:1 or higher than 10 feet would be similar and would be less than significant. Neither the Project nor the RPA would result in grading that affects or negates subsurface sewage disposal systems, and neither the Project nor the RPA would require septic tanks or alternative waste water disposal systems on unsuitable soils; thus, impacts would be less than significant and similar under the RPA and proposed Project. Similarly, impacts due to erosion hazards during construction and long-term operation would be similar under the RPA and proposed Project and impacts would be less than significant.

H. Greenhouse Gas Emissions

A majority of the Project's GHG emissions would result from vehicular emissions. As previously noted, the RPA would result in a reduction in vehicular traffic by approximately one-third as compared to the Project. Additionally, the RPA would generate a demand for electricity that is approximately two-thirds of the proposed Project's electricity demand, and also would generate a demand for less natural gas than the proposed Project. As such, it can be concluded that total GHG emissions and associated impacts under the RPA would be reduced as compared to the proposed Project. As with the Project, the RPA would be required to demonstrate consistency with the County's CAP Update, which would reduce GHG impacts to less-than-significant levels. Neither the Project nor the RPA would conflict with applicable plans, policies, or regulations related to GHGs; thus, impacts would be less than significant and the level of impact would be similar.

I. Hazards and Hazardous Materials

Land uses under the RPA would be similar to the proposed Project, with a reduction in commercial retail building area and the number of residential dwelling units. Neither the Project nor the RPA would create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials; thus, impacts would be less than significant, and the level of impact would be similar. Additionally, neither the RPA nor 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, and the level of impact would be similar. Neither the Project nor the RPA would impair implementation of or physically interfere with an adopted emergency response plan or an emergency evacuation plan; thus, impacts under the RPA and proposed Project would be less than significant and the level of impact would be similar. Neither the Project nor the RPA would emit hazardous emissions, or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school; thus, impacts would be less than significant, and the level of impact would be similar. The

Project site is not identified on any lists of hazardous materials sites compiled pursuant to Government Code Section 65962.5; thus, no impact would occur under the Project or RPA, and the level of impact would be similar. The Project site is not located within an Airport Master Plan, is not located within two miles of a public airport or public use airport, and development on site would not require review by the Airport Land Use Commission; thus, impacts due to airport-related hazards would be less than significant under both the Project and the RPA, and the level of impact would be similar. The Project site is not located in the Airport Influence Area (AIA) of any private airports; thus, there would be no impacts due to private airport-related hazards and the level of impact would be the same.

J. Hydrology and Water Quality

Both the Project and the RPA would be subject to compliance with the Santa Ana Region Basin Plan, and would be required to comply with the requirements of the Santa Ana RWQCB and the County of Riverside. This includes the requirement to obtain a NPDES Municipal Stormwater Permit for construction activities, which requires the preparation and implementation of a SWPPP that would include measures to address water pollution, including sedimentation. Additionally, both the Project and RPA would be subject to NPDES requirements for long-term operations, which would reduce potential water quality impacts (including sediments) from construction to less-than-significant levels. Due to the relatively flat nature of the portions of the Project site proposed for development, it is not expected that the Project or RPA would result in substantial changes to the existing drainage system of the Project site and area; thus, impacts would be less than significant and the level of impact would be similar. Both the Project and the RPA would be required to incorporate drainage features (such as detention basins and water quality basins) to ensure that runoff is treated for water quality and is detained prior to discharge such that the rate of runoff from the Project site does not exceed the rates that occur under existing conditions. Thus, impacts related to exceeding the capacity of existing or planned stormwater drainage facilities and downstream erosion hazards would be less than significant and the level of impact would be similar. The Project site is not subject to flood hazards, tsunamis, or seiche zones, and would have no impact on existing flood plains; thus, impacts due to pollution from inundation from flooding, tsunamis, and seiches would be less than significant, and the level of impact would be similar.

K. Land Use and Planning

Assuming approval of a GPA, both the Project and the RPA would be fully consistent with the Riverside County General Plan and SWAP. Thus, impacts due to a conflict with the General Plan would be less than significant under both the Project and the RPA, and the level of impact would be similar. Both the Project and RPA also would be consistent with SCAG's 2020-2045 RTP/SCS, and as such impacts due to a conflict would be similar and less than significant. Additionally, neither the Project nor the RPA would disrupt or divide the physical arrangement of an established community; thus, impacts would be less than significant and the level of impact would be similar.

L. Mineral Resources

The Project site does not contain any known mineral resources that would be of value to the region or the residents of the State. Accordingly, no impacts to mineral resources would occur under the Project or the RPA, and the level of impact would be similar. Additionally, neither the Project nor the RPA would represent an incompatible land use located adjacent to a State classified or designated area or existing surface mine, and the

RPA and Project would not expose people or property to hazards from proposed, existing, or abandoned quarries or mines. No impacts would occur, and the level of impact would be similar.

M. Noise

The Project site is located outside of areas subject to public and private airport-related noise levels exceeding 55 dBA CNEL; thus, impacts due to airport-related noise would be less than significant under both the Project and the RPA. Construction-related noise under the Project and RPA would similar, and impacts due to construction noise would be reduced to below a level of significance under both the Project and RPA with the implementation of mitigation. Because the RPA would involve less commercial development than the proposed Project, the Project's less-than-significant noise impacts associated with long-term operations would be reduced under the RPA. With respect to transportation-related noise, the RPA would generate less ADT than the proposed Project, and therefore would result in reduced impacts due to transportation-related noise. Construction-related vibration impacts would be similar under the Project and RPA; thus, impacts would be less than significant and would be similar to the proposed Project. Under long-term operations, neither the Project nor the RPA would involve a substantial number of heavy truck trips, and thus the Project and RPA would result in similar less-than-significant impacts due to operational vibration.

N. Paleontological Resources

The Project site was determined to have a "High" paleontological sensitivity rating. Because areas of physical impact would be similar under the Project and RPA, both the Project and RPA would result in significant but mitigable impacts to paleontological resources that may be buried beneath the site's surface, and the level of impact would be similar.

O. Population and Housing

Neither the Project nor the RPA would result in the displacement of substantial numbers of existing people or housing, necessitating the construction of housing elsewhere; thus, no impact would occur under either the Project or RPA. Although the type of development on site would vary between the Project and the RPA, neither the RPA nor the Project would represent substantial unplanned population growth as the Project site is currently planned for urban land uses by the County's General Plan. Additionally, neither the Project nor the RPA would indirectly induce growth, as infrastructure improvements would be sized to accommodate only future development on site. Impacts to population and housing would be less than significant under both the Project and RPA, and the level of impact would be similar.

P. Public Services

The RPA would result in a reduced level of development intensity on site as the proposed Project. As such, impacts to fire services, sheriff services, and health services would be slightly reduced and less than significant with payment of mandatory DIF fees in accordance with Riverside County Ordinance No. 659. The Project would involve the construction of up to 433 dwelling units, whereas the RPA would involve the construction of up to 289 dwelling units; thus, impacts to recreational, school, and library facilities would be reduced under the RPA as compared to the Project, although impacts would be less than significant under both the Project and RPA with payment of DIF fees and payment of school impact fees pursuant to SB 50. As the overall level

of development intensity would be reduced under the RPA, impacts to health services would be similar and would be reduced as compared to the Project and less than significant with payment of DIF fees.

Q. *Recreation*

The RPA would result in a reduced level of development intensity on site as the proposed Project. The Project would involve the construction of up to 433 dwelling units and would generate approximately 1,288 future residents, whereas the RPA would involve the construction of up to 289 dwelling units and would generate approximately 916 future residents. Thus, the Project would result in an increase in demand for recreational resources as compared to the RPA. However, based on the population generation factors as discussed in EIR Subsection 4.17, the Project would result in a parkland demand of 6.4 acres whereas 10.5 acres of parkland would be accommodated onsite. The RPA would result in a demand for approximately 4.5 acres of parkland (based on the rates shown in EIR Table 4.17-1), while 10.5 acres of parkland would be accommodated by the RPA. Thus, impacts due to parkland demand and due to physical deterioration of recreational facilities would be decreased under the RPA as compared to the proposed Project, although impacts would be less than significant. Both the Project and RPA would involve the construction of recreational facilities on site (e.g., trails), although such impacts would be inherent to the construction phase and the level of impact would be similar.

R. *Transportation*

Both the Project and the RPA would be required to comply with all applicable provisions of the County's General Plan, SWAP, and Riverside County ordinances. As such, neither the Project nor RPA would conflict with a program, plan, ordinance, or policy addressing the circulation system; thus, impacts would be less than significant, and the level of impact would be similar. Although the total amount of VMT generated under the RPA would be reduced by approximately one-third as compared to the Project, based on the Project's location it is likely that the RPA would result in significant and unavoidable impacts due to VMT; however, the level of impact would be reduced as compared to the Project. Impacts due to hazardous geometric design features and incompatible uses would be less than significant under both the Project and the RPA, and the level of impact would be similar. Both the Project and the RPA would result in less-than-significant impacts due to the need for new or altered maintenance of roads. Both the Project and the RPA would have the potential to result in impacts to circulation during construction, including emergency access routes, although impacts would be reduced to less-than-significant levels with mitigation, and the level of impact after mitigation would be similar under the Project and RPA. Both the Project and RPA would be required to accommodate facilities for bicycles, although impacts associated with the construction of such trails have been evaluated herein, and both the Project and RPA would result in similar less-than-significant impacts due to bicycle facilities.

S. *Tribal Cultural Resources*

Grading activities under the Project and RPA would be similar and would have the potential to result in impacts to previously undiscovered subsurface tribal cultural resources. As such, potential impacts to tribal cultural resources would be similar under the Project and the RPA, and impacts would be reduced to less-than-significant with implementation of mitigation measures requiring monitoring and avoidance of resources during construction activities.

T. Utilities and Service Systems

The level of development intensity on site would be reduced under the RPA as compared to the Project. Both the Project and RPA would require the construction of water, wastewater, storm water drainage, electric power, natural gas, and telecommunication facilities. Impacts associated with the provision of such facilities would be similar and would be mitigated to less-than-significant levels with implementation of mitigation measures identified throughout this EIR. The EMWD determined that it has sufficient water resources to accommodate development proposed as part of the Project, while the RPA would result in a reduced demand for water resources as compared to the Project. Thus, impacts to water supply would be less than significant, and the level of impact would be reduced under the RPA as compared to the Project. Similarly, EMWD would have adequate capacity to treat wastewater generated by either the Project or the RPA; thus, impacts due to wastewater would be less than significant under both the Project and RPA, although the level of impact would be reduced under the RPA as compared to the Project. Both the Project and RPA would be subject to the County's solid waste regulations, and neither the Project nor the RPA would result in the generation of solid waste that could adversely affect landfill capacity. Impacts associated with solid waste would be less than significant, and the level of impact would be slightly reduced under the RPA as compared to the Project.

U. Wildfire

Both the Project and RPA would involve development of urban uses in adjacent to lands that are identified as having a high risk for wildfire hazards. Both the Project and RPA would be required to implement a FPP to ensure that adequate provisions are accommodated, such as fuel management zones, to reduce the risk of wildfires. With implementation of mitigation and a FPP, impacts due to wildfires would be reduced to less-than-significant levels and the level of impact would be similar.

V. Conclusion

As compared to the proposed Project, the RPA would result in reduced impacts under the issue areas of air quality, energy, greenhouse gas emissions, noise, public services, recreation, transportation, and utilities/service systems. The RPA would result in similar impacts as the proposed Project under the issue areas of aesthetics, agriculture/forestry resources, biological resources, cultural resources, geology/soils, hazards/hazardous materials, hydrology/water quality, land use/planning, mineral resources, paleontological resources, population/housing, tribal cultural resources, and wildfire. The RPA would not result in an increase in any of the Project's impacts to the environment.

The RPA would meet most of the Project's objectives, although in some cases to a lesser extent. Due to the reduction in commercial building are and the number of dwelling units, the RPA would be less effective in meeting the Project's objective to efficiently develop an underutilized property with a complementary mix of land uses, including residential, commercial, recreational, and open space land uses. The RPA would meet the Project's objective to establish a master-planned community in a manner that is sensitive to the environment as well as visually and functionally compatible with surrounding existing and proposed land uses. Additionally, the RPA would meet the Project's objective to develop a mixed-use community with a design that takes topographic, geologic, hydrologic, and environmental opportunities and constraints into consideration. Due to the reduction in the number of dwelling units under the RPA, the RPA would be less effective than the proposed Project in increasing the available housing supply within the region. The RPA would include less commercial building area than the Project, and thus would be less effective than the Project in providing

commercial uses within proximity to regional transportation facilities that will provide for employment opportunity and that can attract tenants at competitive lease rates to help ensure that the uses are occupied and positively contribute to the local economy. Both the RPA and proposed Project would meet the Project's objective to provide a system of public and community facilities, including recreational facilities, in an efficient and timely manner and meet the needs of Project residents and residents of surrounding communities. The RPA would meet the Project's objective to require project design elements such as architecture, landscaping, color, paving, walls, fencing, signage, entry treatments, and other similar design features that would ensure the community is developed in a manner that is aesthetically pleasing. Additionally, the RPA would meet the Project's objective to establish development phasing that results in logical coordinated growth.

6.3.4 Environmentally Superior Alternative

State CEQA Guidelines § 15126.6 requires the identification of the environmentally superior alternative. As discussed herein, implementation of the NDA would result in no physical environmental impacts beyond those that have historically occurred on the property. Because the NDA would avoid most of the Project's impacts, it warrants consideration as the "environmentally superior alternative." However, pursuant to State CEQA Guidelines § 15126.6(e)(2), if a no project alternative is identified as the environmentally superior alternative, then the EIR shall also identify an environmentally superior alternative among the other alternatives. Accordingly, the Reduced Project Alternative (RPA), as discussed above in subsection 6.3.3, is identified as the Environmentally Superior Alternative pursuant to State CEQA Guidelines § 15126.6. However, as discussed above, the RPA would be less effective than the Project at increasing the available housing supply within the region, and also would include less commercial development resulting in fewer employment opportunities in the immediate area .

Table 6-2 Alternatives to the Proposed Project – Comparison of Environmental Impacts

Environmental Topic	Proposed Project Significance of Impacts After Mitigation	Level of Impact Compared to the Proposed Project/Compliance with Project Objectives		
		No Development Alternative (NDA)	No Project (Adopted Specific Plan) Alternative (NPA)	Reduced Project Alternative (RPA)
Aesthetics	Less than Significant	Reduced	Similar	Similar
Agriculture and Forestry Resources	Less than Significant	Reduced	Similar	Similar
Air Quality	Significant and Unavoidable Direct and Cumulatively-Considerable Impacts	Reduced to Less-than-Significant Levels	Increased	Reduced, but not to Less-than-Significant Levels
Biological Resources	Less than Significant	Reduced	Similar	Similar
Cultural Resources	Less than Significant	Reduced	Similar	Similar
Energy	Less than Significant	Reduced	Increased	Reduced
Geology and Soils	Less than Significant	Reduced	Similar	Similar
Greenhouse Gas Emissions	Less than Significant	Reduced	Increased	Reduced
Hazards and Hazardous Materials	Less than Significant	Reduced	Similar	Similar
Hydrology and Water Quality	Less than Significant	Most Issues: Reduced Erosion/Siltation: Increased	Similar	Similar
Land Use and Planning	Less than Significant	Increased	Similar	Similar
Mineral Resources	Less than Significant	Similar	Similar	Similar
Noise	Less than Significant	Reduced	Increased	Reduced
Paleontological Resources	Less than Significant	Reduced	Similar	Similar
Population and Housing	Less than Significant	Reduced	Similar	Similar
Public Services	Less than Significant	Reduced	Police/Fire/Health: Similar Schools/Libraries: Reduced	Reduced
Recreation	Less than Significant	Reduced	Increased	Reduced
Transportation	Significant and Unavoidable Direct and Cumulatively-Considerable Impacts	Reduced to Less-than-Significant Levels	Similar	Reduced
Tribal Cultural Resources	Less than Significant	Reduced	Similar	Similar
Utilities and Service Systems	Less than Significant	Reduced	Similar	Reduced
Wildfire	Less-than-Significant	Mixed (No new buildings would be constructed on site, but the natural vegetation on site would be subject to wildland fire hazards)	Similar	Similar
Objective A: To efficiently develop an underutilized property with a complementary mix of land uses, including residential, commercial, recreational, and open space land uses.		No	Yes	Yes, but less effectively
Objective B: To establish a master-planned community in a manner that is sensitive to the environment as well as visually and functionally compatible with surrounding existing and proposed land uses.		No	Yes	Yes
Objective C: To develop a mixed-use community with a design that takes topographic, geologic, hydrologic, and environmental opportunities and constraints into consideration.		No	Yes	Yes
Objective D: To increase the available housing supply within the region by providing detached single-family homes and age-qualified multi-family homes that will be marketable within the evolving economic profile of Riverside County and surrounding communities.		No	Yes, but less effectively	Yes, but less effectively

Environmental Topic	Proposed Project Significance of Impacts After Mitigation	Level of Impact Compared to the Proposed Project/Compliance with Project Objectives		
		No Development Alternative (NDA)	No Project (Adopted Specific Plan) Alternative (NPA)	Reduced Project Alternative (RPA)
Objective E: To construct commercial uses within proximity to regional transportation facilities that will provide for employment opportunity and that can attract tenants at competitive lease rates to help ensure that the uses are occupied and positively contribute to the local economy.		No	Yes, but more effectively	Yes, but less effectively
Objective F: To provide a system of public and community facilities, including recreational facilities, in an efficient and timely manner and meet the needs of Project residents and residents of surrounding communities.		No	Yes, but less effectively	Yes
Objective G: To require project design elements such as architecture, landscaping, color, paving, walls, fencing, signage, entry treatments, and other similar design features that would ensure the community is developed in a manner that is aesthetically pleasing.		No	Yes	Yes
Objective H: To establish development phasing that results in logical coordinated growth.		No	Yes	Yes

7.0 REFERENCES

7.1 PERSONS CONTRIBUTING TO EIR PREPARATION

7.1.1 COUNTY OF RIVERSIDE PLANNING DIVISION

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7.2 DOCUMENTS APPENDED TO THIS EIR

The following reports, studies, and supporting documentation were used in preparing the Keller Crossing EIR and are bound separately as Technical Appendices. A copy of the Technical Appendices is available for review at the County of Riverside Planning Department, 4080 Lemon Street, 12th Floor, Riverside, CA 92502.

Appendix A: Notice of Preparation (NOP) and Written Comments on the NOP for Keller Crossing.

Appendix B1: Urban Crossroads, Inc., 2021a. *Keller Crossing Air Quality Impact Analysis*. October 2021.

Appendix B2: Urban Crossroads, Inc., 2022a. *Keller Crossing Specific Plan Air Quality and Greenhouse Gas Assessment Evaluation*. June 9, 2022.

Appendix C1: Glenn Lukos Associates, Inc. 2022a. *Biological Technical Report for Keller Crossing Residential Development Project and Off Site Improvements*. March 2022.

Appendix C2: Glenn Lukos Associates, Inc. 2022b. *Determination of Biologically Equivalent or Superior Preservation (DBESP) for Impacts to MSHCP Riparian/Riverine Areas, Keller Crossing Residential Development Project and Off Site Improvements*. March 22, 2022.

Appendix C3: Glenn Lukos Associates, Inc. 2022c. *Jurisdictional Delineation of the Keller Crossing Residential Development Project and Associated Off-Site Improvement Areas Located in the Community of French Valley, Riverside County, California*. March 18, 2022.

Appendix D: Brian F. Smith and Associates ("BFSA"), *A Phase I Cultural Resources Assessment for the Renaissance Ranch Project.* November 3, 2021.

Appendix E: Urban Crossroads, Inc., 2021b. *Keller Crossing Specific Plan Energy Analysis*. October 2021.

Appendix F1: GeoTek, Inc. (GeoTek), 2021. *Updated Geotechnical and Infiltration Evaluation, Proposed Single-Family Residential Development, Keller Crossing Project, Northwest Corner of Winchester Road and Keller Road, Winchester Area of County of Riverside, California" (herein, "Geotechnical Update").* May 25, 2021.

Appendix F2: GeoSoils, In. 2009. *Preliminary Geotechnical Investigation in Support of Environmental Impact Report and Specific Plan Submittal, Keller Crossings Northwest Corner of Winchester and Keller Roads County of Riverside, California*. July 29, 2009.

Appendix G: Urban Crossroads, Inc., 2021c. *Keller Crossing Specific Plan Greenhouse Gas Analysis*. October 14, 2021.

Appendix H: Tetra Tech, 2020. *Phase I Environmental Site Assessment, Keller Crossing, Winchester, County of Riverside, California 92596.* July 27, 2020.

Appendix I1: K&A Engineering, Inc. (K&A), 2022a. *Preliminary Drainage Study for Keller Crossing in the County of Riverside.* April 2022.

Appendix I2: K&A Engineering, Inc. (K&A), 2022b. *County Project Specific Water Quality Management Plan" (WQMP).* April 2022.

Appendix J: Urban Crossroads, Inc., 2021d. *Keller Crossing Specific Plan Noise Impact Analysis.* September 16, 2021.

Appendix K: Brian F. Smith and Associates ("BFSA"), *Paleontological Resource Impact Monitoring Program for the Keller Crossing Project.* November 5, 2021.

Appendix L1: Urban Crossroads, Inc., 2021e. *Keller Crossing Specific Plan No. 380 Amendment No. 1 Vehicle Miles Travelled (VMT) Analysis*. June 22, 2021.

Appendix L2: Urban Crossroads, Inc., 2022b. *Keller Crossing Specific Plan Traffic Study*. January 20, 2022.

Appendix M: EMWD, 2021d. *Water Supply Assessment Report, Keller Crossing (Specific Plan No. 380)*. December 15, 2021.

Appendix N: Firewise 2000, LLC. 2022. *Fuel Modification Plan Keller Crossing.* April 7, 2022.

Appendix O: T&B Planning, Inc. 2022a. *Keller Crossing Specific Plan No. 380 Amendment No. 1.* July 29, 2022.

Appendix P: T&B Planning, Inc. 2022b. *General Plan Consistency Analysis for Amendment No. 1 to the Keller Crossing Specific Plan No. 380.* April 7, 2022.

Appendix Q: Dexter Wilson Engineering, 2021a. *Hydraulic Analysis Report for the Keller Crossing Project.* April 21, 2021.

Appendix R: Dexter Wilson Engineering, 2021b. *Sewer Capacity Study for the Keller Crossing Project.* April 13, 2021.

7.3 DOCUMENTS INCORPORATED BY REFERENCE

The following reports, studies, and supporting documentation were used in the preparation of this EIR and are incorporated by reference within this EIR. A copy of the following reports, studies, and supporting documentation is a matter of public record and is generally available to the public at the location listed. Documents not available on-line are available for public review at the County of Riverside Planning Department, 4080 Lemon Street, 12th Floor, Riverside, CA 92501.

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