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OAK GLEN CREEK SPECIFIC PLAN
CASE NO. 16-048/SP

City of Yucaipa

VOLUME I

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PLACEWORKS

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ABBREVIATIONS AND ACRONYMS

AAQS	ambient air quality standards
AB	Assembly Bill
ACM	asbestos-containing materials
af	acre-foot
afy	acre-feet per year
AQMP	air quality management plan
BAU	business as usual
BGEPA	Bald and Golden Eagle Protection Act
BMP	best management practices
CAA	Clean Air Act
CAFE	corporate average fuel economy
CalARP	California Accidental Release Prevention Program
Cal/EPA	California Environmental Protection Agency
CAL FIRE	California Department of Forestry and Fire Protection
CALGreen	California Green Building Standards Code
CAL/OSHA	California Occupational Safety and Health Administration
CalRecycle	California Department of Resources, Recycling, and Recovery
Caltrans	California Department of Transportation
CAP	climate action plan
CARB	California Air Resources Board
CBC	California Building Code
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFC	California Fire Code
CFCs	chlorofluorocarbons
CFR	Code of Federal Regulations
cfs	cubic feet per second

Abbreviations and Acronyms

CGS	California Geological Survey
CH_4	methane
CHOSC	Crafton Hills Open Space Conservancy
CHRIS	California Historical Resources Information System
CMP	congestion management program
CNDDB	California Natural Diversity Database
CNEL	community noise equivalent level
CNPS	California Native Plant Society
CO	carbon monoxide
CO_2e	carbon dioxide equivalent
Corps	Army Corps of Engineers (US)
CPUC	California Public Utility Commission
CRHR	California Register of Historical Resources
CTC	California Transportation Commission
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
dB	decibel
dBA	A-weighted decibel
DEIR	draft environmental impact report
DIF	development impact fee
DOF	Department of Finance
DMA 2000	Disaster Mitigation Act of 2000
DPM	diesel particulate matter
DTSC	Department of Toxic Substances Control
DWR	Department of Water Resources
EDD	California Employment Development Department
EDU	equivalent dwelling unit
EIR	environmental impact report
EOP	emergency operations plan
EPA	United States Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
°F	degrees Fahrenheit
FEMA	Federal Emergency Management Agency

Abbreviations and Acronyms

FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
FIND	Facility Information Detail (SCAQMD database)
FIRM	Flood Insurance Rate Map
FIS	flood insurance studies
FR	Fire Safety Overlay District
FR1	Fire Safety Review Area 1
FR2	Fire Safety Review Area 2
FTA	Federal Transit Administration
GHG	greenhouse gases
gpd	gallons per day
GWh/yr	gigawatt hours per year
GWP	global warming potential
H_2S	hydrogen sulfide
H&SC	Health and Safety Code
HCD	Housing and Community Development Department (California)
HCFC	hydrochlorofluorocarbons
HCM	Highway Capacity Manual
HCP	habitat conservation plan
HCS	Highway Capacity Software
HFC	hydrofluorocarbons
HMP	hazard mitigation plan
HRA	health risk assessment
HWMP	hazardous waste management plan
IFC	International Fire Code
IL	improvement levels (Yucaipa)
IPCC	Intergovernmental Panel on Climate Change
ISO	Insurance Services Office
kwh/yr	kilowatt hours per year
L_{dn}	day-night sound level
L_{eq}	equivalent continuous noise level
L_n	statistical sound level
LAFCo	local agency formation commission

Abbreviations and Acronyms

LCFS	low-carbon fuel standard
LEPC	local emergency planning committee
LID	low impact development
LOS	level of service
LUST	leaking underground storage tank
MATES	Multiple Air Toxics Exposure Study
MBTA	Migratory Bird Treaty Act
MEP	maximum extent practicable
MERV	maximum efficiency rating value filter
mgd	million gallons per day
mg/L	milligrams per liter
MMT	million metric tons
MOU	memorandum of understanding
MPD	master plan of drainage
mpg	miles per gallon
mph	miles per hour
MPO	metropolitan planning organization
MS4	municipal separate storm sewer systems
MSWMP	municipal storm water management plan
MT	metric ton
MTBE	methyl tertiary butyl ether
MUED	Municipal Utilities & Engineering Department (Redlands)
MW	megawatts
N_2O	nitrous oxide
NAGPRA	Native American Graves Protection and Repatriation Act
NAHC	Native American Heritage Commission
NFIP	National Flood Insurance Program
NFPA	National Fire Protection Agency
NHPA	National Historic Preservation Act
NOP	Notice of Preparation of an EIR
NO_X	nitrogen oxides
NPDES	National Pollution Discharge Elimination System
NRCS	Natural Resources Conservation Service

Abbreviations and Acronyms

NRHP	National Register of Historic Places
O_3	ozone
O&M	operations and maintenance
OEHHA	Office of Environmental Health Hazard Assessment
OES	California Office of Emergency Services
OHWM	ordinary high water mark
OHP	Office of Historic Preservation
OPR	Governor's Office of Planning and Research
OSHA	Occupational Safety and Health Administration
OSFM	Office of the State Fire Marshal
Pb	lead
PCBs	polychlorinated biphenyls
PFC	perfluorocarbons
PFYC	potential fossil yield classification
PM	particulate matter
PM_{10}	coarse inhalable particulate matter
$PM_{2.5}$	fine inhalable particulate matter
ppd	pounds per day
ppm	parts per million
PPV	peak particle velocity
PRC	Public Resources Code (CA)
PRD	permit registration documents
RCRA	Resource Conservation and Recovery Act
RHNA	regional housing needs assessment
RMS	root mean square
RPS	renewable portfolio standard
RTAC	Regional Transportation Advisory Committee
RTP	regional transportation plan
RTP/SCS	regional transportation plan / sustainable communities strategy
RWQCB	Regional Water Quality Control Board
SANBAG	San Bernardino Association of Governments
SARA	Superfund Amendments and Reauthorization Act
SB	Senate Bill

Abbreviations and Acronyms

SBAIC	San Bernardino Archaeological Information Center
SBCFCD	San Bernardino County Flood Control District
SBCFD/HMD	San Bernardino County Fire Department/Hazardous Materials Division
SBCLS	San Bernardino County Library System
SBCM	San Bernardino County Museum
SBTAM	San Bernardino County Transportation Analysis Model
SBVMWD	San Bernardino Valley Municipal Water District
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SCS	sustainable communities strategy
SERC	state emergency response commission
SF_6	sulfur hexafluoride
SFHA	special flood hazard areas
SGPWA	San Gorgonio Pass Water Agency
SIP	state implementation plan
SLF	sacred land file
SMWC	South Mesa Water Company
SO_2	sulfur dioxide
SO_4	sulfates
SoCAB	South Coast Air Basin
SoCal Gas	Southern California Gas Company
SOI	sphere of influence
SO_X	sulfur oxides
SP	service population
SPL	sound pressure level
SRA	source receptor area
SWP	state water project
SWPPP	stormwater pollution prevention plan
SWQMP	stormwater quality management plan
SWRCB	State Water Resources Control Board
SWTP	Surface Water Treatment Plant
TAC	toxic air contaminants

Abbreviations and Acronyms

T-BACT	best available control technologies
TBA	tertiary butyl alcohol
TCR	tribal cultural resources
TCR	transportation concept report
TDS	total dissolved solids
TGD	technical guidance document
TIA	traffic impact analysis
TMDL	total maximum daily load
TTCP	traditional tribal cultural places
TRI	Toxics Release Inventory
UFP	ultrafine particulates
URM	unreinforced masonry buildings
USDA	United States Department of Agriculture
USDOT	United States Department of Transportation
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UST	underground storage tank
UWMP	urban water management plan
v/c ratio	volume to capacity ratio
VdB	velocity decibels
VHFHSZ	Very High Fire Hazard Severity Zone
VMT	vehicle miles traveled
VOC	volatile organic compounds
WCI	Western Climate Initiative
WDR	waste discharge requirements
WHWC	Western Heights Water Company
WQMP	water quality management plan
WRWRF	Wochholz Regional Water Recycling Facility
YCJUSD	Yucaipa-Calimesa Joint Unified School District
YVWD	Yucaipa Valley Water District
YVRWFF	Yucaipa Valley Regional Water Filtration Facility

Abbreviations and Acronyms

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1. Executive Summary

1.1 INTRODUCTION

This Draft Environmental Impact Report (DEIR) addresses the environmental effects associated with the implementation of the proposed Oak Glen Creek Specific Plan (Case No. 16-048/SP). A summary of the proposed project is detailed in Section 1.4, *Project Summary*.

A previous development plan, known as the Wilson Creek Business Park Specific Plan, was considered by the City on the project site. The original project encompassed approximately 95 acres and consisted of two primary components: 1) flood control improvements to Wilson Creek and Oak Glen Creek and 2) up to 500,000 square feet of light manufacturing/office use in a campus business park setting. The City is no longer considering the previous development plan for the project site. The proposed project, now titled Oak Glen Creek Specific Plan, has an expanded project boundary and includes a mix of residential and non-residential land uses.

The California Environmental Quality Act (CEQA) requires that local government agencies consider the environmental consequences before taking action on projects over which they have discretionary approval authority. An environmental impact report (EIR) analyzes potential environmental consequences in order to inform the public and support informed decisions by local and state governmental agency decision makers. This document focuses on impacts determined to be potentially significant.

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

Data for this DEIR derive from onsite field observations; discussions with affected agencies; analysis of adopted plans and policies; review of available studies, reports, data and similar literature; and specialized environmental assessments (aesthetics, air quality, biological resources, cultural resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use, noise, population and housing, public services, recreation, transportation and traffic, and utilities and service systems).

1.2 ENVIRONMENTAL PROCEDURES

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

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

An EIR is the most comprehensive form of environmental documentation in CEQA and the CEQA Guidelines; it is intended to provide an objective, factually supported analysis and full disclosure of the environmental consequences of a proposed project with the potential to result in significant, adverse environmental impacts.

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

1.2.1 EIR Format

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

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

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

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

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

for the proposed project; the level of significance after mitigation is incorporated; and the potential cumulative impacts of the proposed project and other existing, approved, and proposed development in the area.

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

Chapter 7. Alternatives to the Proposed Project: Describes the alternatives and compares their impacts to the impacts of the proposed project. Alternatives include the No Project/No Development Alternative, the No Project Existing General Plan – Business Park Alternative, and the Decreased Project Footprint.

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

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

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

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

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

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

Appendices: The appendices for this document consist of these supporting documents:

- Appendix A: Notice of Preparation (NOP) and NOP Comments
- Appendix B: Air Quality/GHG Analysis
- Appendix C: Biological Resources Impact Report (Ruth Villalobos Associates)
- Appendix D1: Cultural Resources Assessment (Cogstone)
- Appendix D2: Cultural Resources Assessment (BCR Consulting) – Additional Drainage Area
- Appendix D3: Cultural Resources Assessment (BCR Consulting) – Area West of 2nd Street and City Maintenance Yard
- Appendix D4: SB 18/AB 52 Tribal Consultation Letter Responses
- Appendix E1: Geotechnical/Geologic Constraints Study (Petra Geotechnical)
- Appendix E2: Geological Trenching Fault Assessment (LOR Geotechnical)
- Appendix E3: Geotechnical Investigation (LOR Geotechnical)

- Appendix F1: Phase I Environmental Site Assessment – 84-Acre Area
- Appendix F2: Phase I Environmental Site Assessment – Area West of 2nd Street
- Appendix G: Hydrology and Water Quality Study
- Appendix H: Noise Assessment
- Appendix I: Service Provider Responses
- Appendix J: Traffic Impact Assessment

1.2.2 Type and Purpose of This DEIR

This DEIR fulfills the requirements for a Program EIR. Although the legally required contents of a Program EIR are the same as for a Project EIR, Program EIRs are typically more conceptual than Project EIRs, with a more general discussion of impacts, alternatives, and mitigation measures. According to Section 15168 of the CEQA Guidelines, a Program EIR may be prepared on a series of actions that can be characterized as one large project. Use of a Program EIR gives the lead agency an opportunity to consider broad policy alternatives and programwide mitigation measures, as well as greater flexibility to address project-specific and cumulative environmental impacts on a comprehensive scale.

Agencies prepare Program EIRs for programs or a series of related actions that are linked geographically; logical parts of a chain of contemplated events, rules, regulations, or plans that govern the conduct of a continuing program; or individual activities carried out under the same authority and having generally similar environmental effects that can be mitigated in similar ways.

Once a Program EIR has been prepared, subsequent activities within the program must be evaluated to determine whether an additional CEQA document is necessary. However, if the Program EIR addresses the program's effects as specifically and comprehensively as possible, many subsequent activities may be within the Program EIR's scope, and additional environmental documents may not be required (Guidelines § 15168[c]). When a lead agency relies on a Program EIR for a subsequent activity, it must incorporate feasible mitigation measures and alternatives from the Program EIR into the subsequent activities (Guidelines § 15168[c][3]). If a subsequent activity would have effects outside the scope of the Program EIR, the lead agency must prepare a new Initial Study leading to a Negative Declaration, Mitigated Negative Declaration, or an EIR. Even in this case, the Program EIR still serves a valuable purpose as the first-tier environmental analysis. The CEQA Guidelines encourage the use of Program EIRs, citing five advantages:

- Provide a more exhaustive consideration of impacts and alternatives than would be practical in an individual EIR;
- Focus on cumulative impacts that might be slighted in a case-by-case analysis;
- Avoid continual reconsideration of recurring policy issues;
- Consider broad policy alternatives and programmatic mitigation measures at an early stage when the agency has greater flexibility to deal with them;
- Reduce paperwork by encouraging the reuse of data (through tiering). (Guidelines § 15168[h])

1.3 PROJECT LOCATION

The City of Yucaipa is in the eastern portion of the San Bernardino Valley at the foot of the San Bernardino Mountains (see Figure ES-1, *Regional Location*). Yucaipa is bordered by the City of Calimesa and unincorporated Riverside County to the south; the City of Redlands and unincorporated San Bernardino County to the west, which includes the community of Mentone; and the foothills of the San Bernardino Mountains to the north and east in unincorporated San Bernardino County. The San Bernardino National Forest runs along the City's northeast border. The Crafton Hills run along the City's northwest boundary, separating the City from Mentone and Redlands.

The Oak Glen Creek Specific Plan site is approximately 115.6 acres in the central-northern portion of Yucaipa. The entire site is approximately 4.7 miles northeast of Interstate 10 (I-10), which runs northwest–southeast along the southwest boundary of the City and provides regional access to the site. Local access is provided by Oak Glen Road, Bryant Street, and 2nd Street (see Figure ES-2, *Local Vicinity*).

As shown in Figure ES-3, *Aerial Photograph*, the project site is irregularly shaped and bounded by Oak Glen Road to the north, Bryant Street to the east, generally 2nd Street and existing single-family residences to the west, and a natural slope to the south that abuts single-family residences.

1.4 PROJECT SUMMARY

The proposed project is a Specific Plan. The reason for using a Specific Plan for the project site is to restrict the types of land uses permitted on the property, ensuring greater compatibility with surrounding residential uses. The Oak Glen Creek Specific Plan provides a road map for the City of Yucaipa and future users to follow, detailing the land uses, improvement requirements, design details, and development review criteria that development proposals must comply with prior to operating. Although a Specific Plan graphically displays or delineates some of the criteria that must be met, it does not contain the level of detail normally associated with a site plan or subdivision application. Subsequent development approvals would be necessary from the City's Planning Commission and/or City Council prior to requesting building permits for construction.

1.4.1.1 LAND USE SUMMARY

The Oak Glen Creek Specific Plan is a long-term guide for development of the project site to accommodate three major components—the Residential District (47.7 acres), the Open Space District (57.6 acres), and the Innovation District (6.7 acres). Figure ES-4, *Proposed Land Use Districts*, illustrates the proposed land uses, and Figure ES-5, *Proposed Land Use Plan*, illustrates conceptual layout of the residential lots and circulation system. A land use summary is provided in Table ES-1, *Oak Glen Creek Specific Plan Land Use Summary*.

1. Executive Summary

Table ES-1 Oak Glen Creek Specific Plan Land Use Summary

Land Use	Allowed Uses[1]	Net Acres[2]	Potential Buildout (SF or Units)	Population and Employment[3]
Residential District	Single family residential	47.7	200 units	570 residents
Innovation District	Government Facilities, Institutional, Office, and Medical uses	6.7	20,000 SF	42 employees
Open Space District	Drainage, Recreational and Open Space uses	57.6	NA	NA
Roadways	2nd Street and internal roadways	3.7	NA	NA
	TOTAL	115.6 acres	200 units and 20,000 SF	570 residents and 42 employees

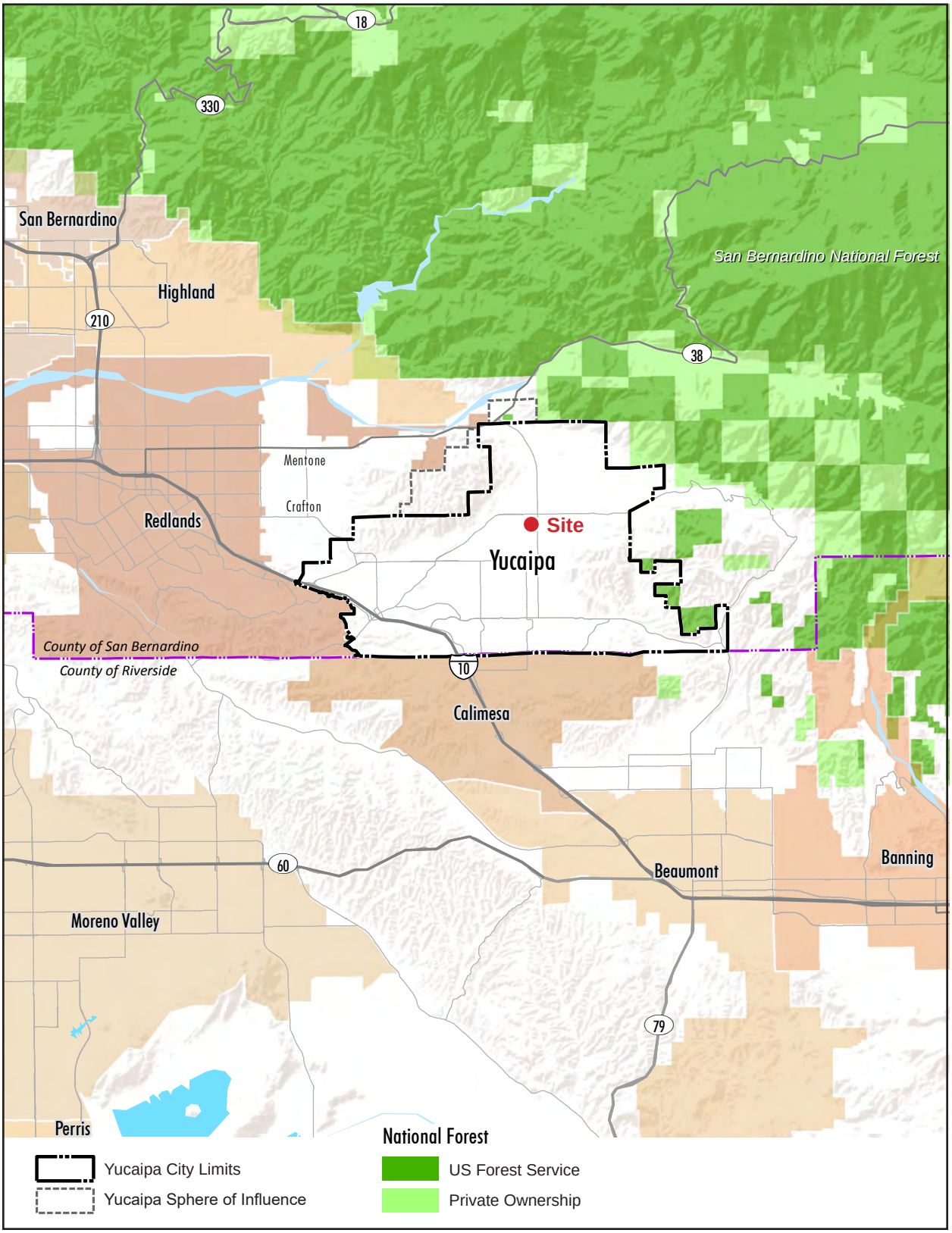
Notes: SF = square feet
Acreages rounded to the nearest tenth.
1 See Table IV-2, Allowed Land Uses, of the Oak Glen Creek Specific Plan for a more detailed list of permitted and conditionally permitted uses in each district.
2 Acreage calculations reflect approximate net area and may vary depending upon final engineering designs.
3 According to the 2016 California Department of Finance population and housing estimates, Yucaipa has an average household size of 2.85 persons (DOF 2016). The Yucaipa General Plan uses employment generation factors of 500 and 450 square feet per employee to calculate buildout of General Commercial and Commercial Service uses, respectively. An average of these—475 square feet per employee—was used to calculate the employment generation of the proposed Innovation District.

The primary need for the project is flood attenuation and sediment reduction to alleviate existing downstream flooding along Wilson Creek thus providing protection for private properties, roadways, and other public infrastructure. The proposed realignment of Wilson Creek and channelization of Oak Glen Creek into a retention basin would increase stormwater retention capability, increase groundwater recharge, and improve downstream water quality. As a result of the basin improvements, portions of the site would be removed from the Federal Emergency Management Agency flood hazard zones, and the San Bernardino County Flood Control District (SBCFCD) would no longer need to maintain additional acreage for flood control purposes. The development of the Residential and Innovation districts north of Oak Glen Creek would require a change in ownership from the SBCFCD and City of Yucaipa to provide for development by private owners and/or other public agencies. The balance of the land in the Open Space District would continue to be owned and maintained by SBCFCD. The SBCFCD and the Yucaipa Valley Water District, which has a well site on the property, would continue to maintain ownership of portion of the property affected by Oak Glen Creek. However, the City of Yucaipa would also be responsible for the portions of Oak Glen Creek with recreation-related uses and facilities, principally at the eastern end of Oak Glen Creek.

Over all, buildout of the Specific Plan area would allow approximately 200 single-family residential units and 20,000 square feet of nonresidential development; flood control improvements (i.e., detention basin) and open space would be in the southern portion of the site.

Figure ES-1 Regional Location

1. Executive Summary



0 3
Scale (Miles)

Base Map Source: US Forest Service, 2013

1. Executive Summary

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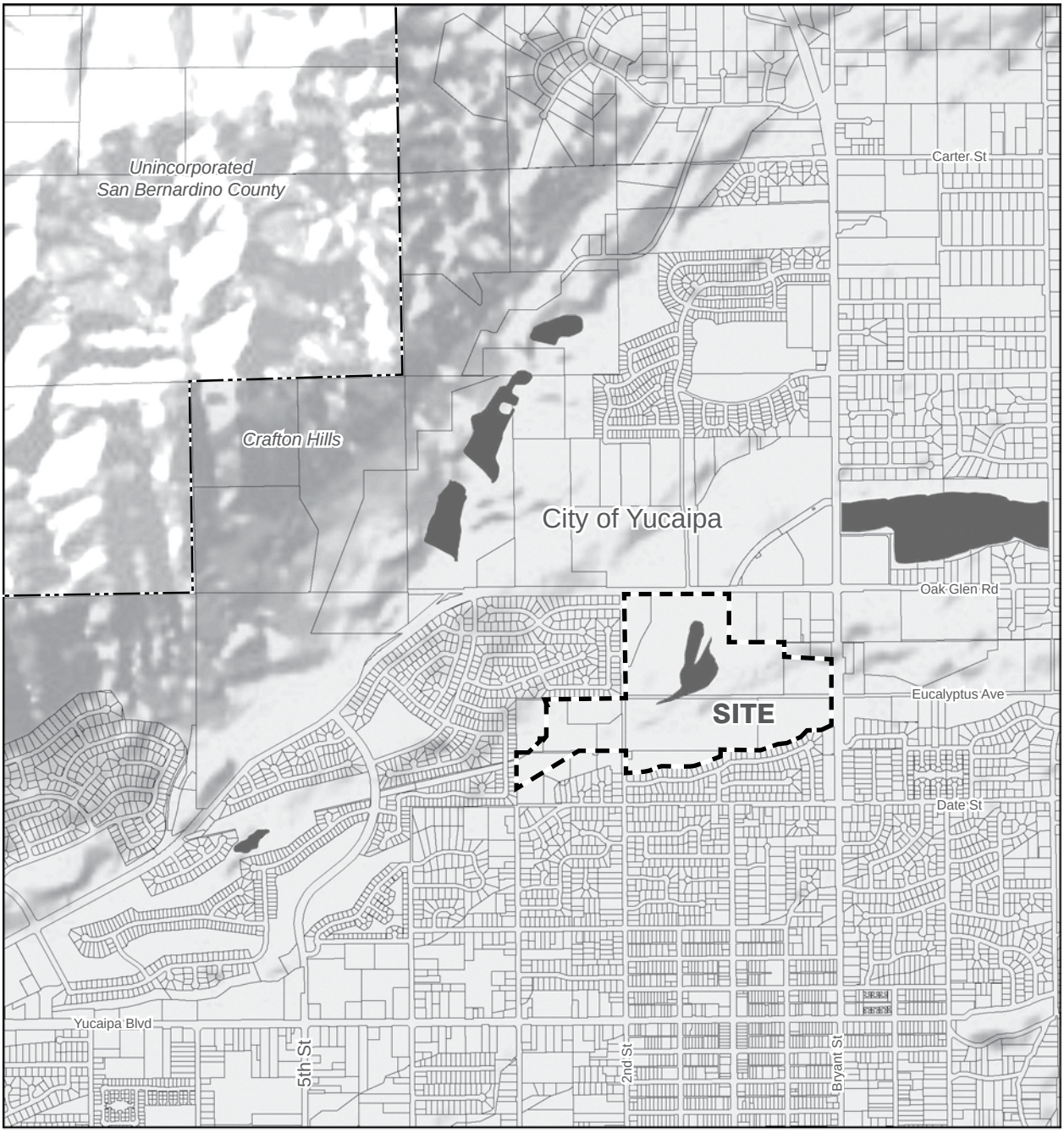
Figure ES-2 Local Vicinity
1. Executive Summary



Project Boundary

City Boundary

0 2,000
Scale (Feet)

Base Map Source: ESRI, USGS, NOAA, 2014

1. Executive Summary

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Figure ES-3 Aerial Photograph

1. Executive Summary

Site Boundary

0 500
Scale (Feet)

Base Map Source: Google Earth Pro, 2016

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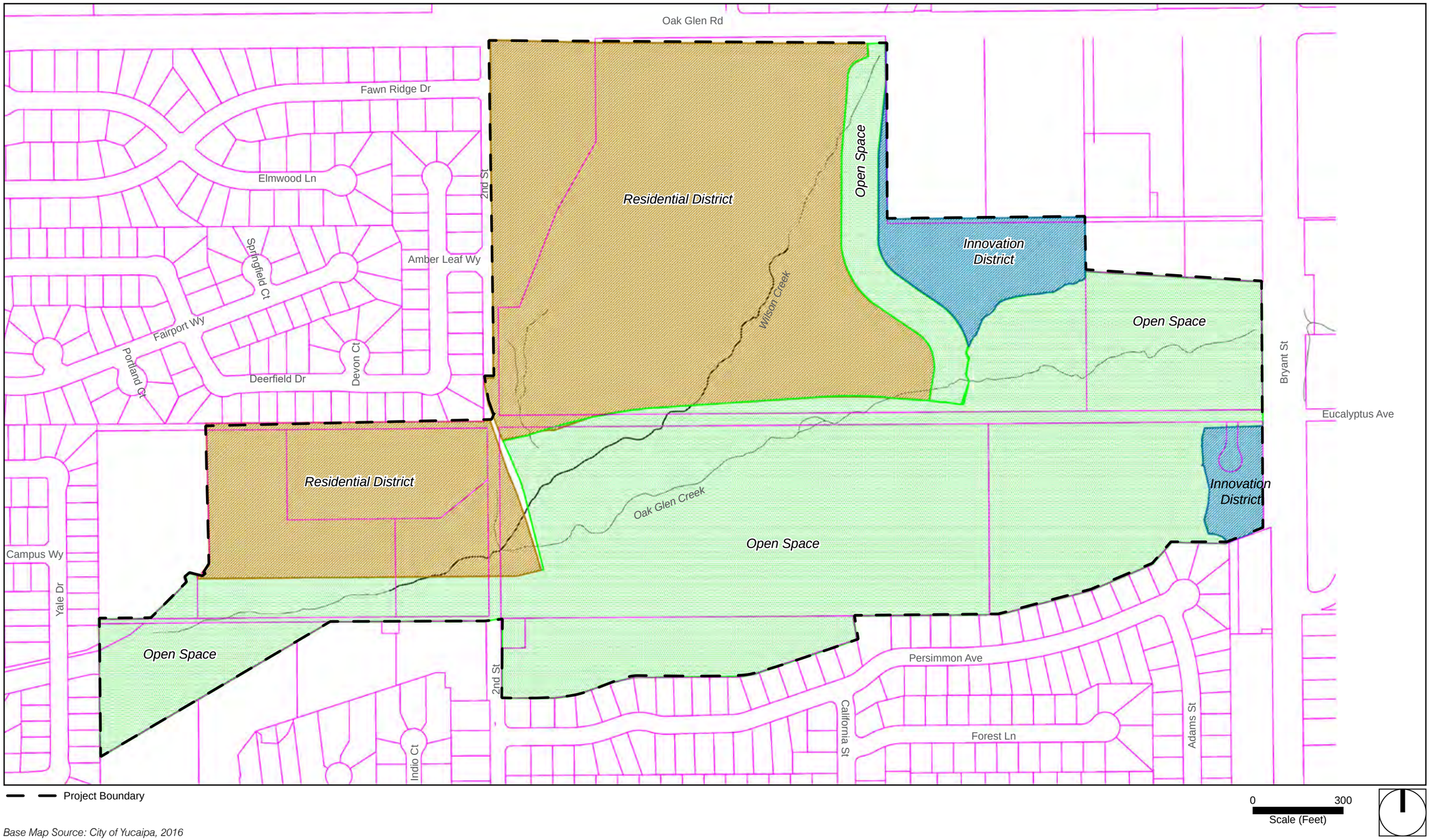
Figure ES-4 Proposed Land Use Districts
1. Executive Summary



Base Map Source: City of Yucaipa, 2016

1. Executive Summary

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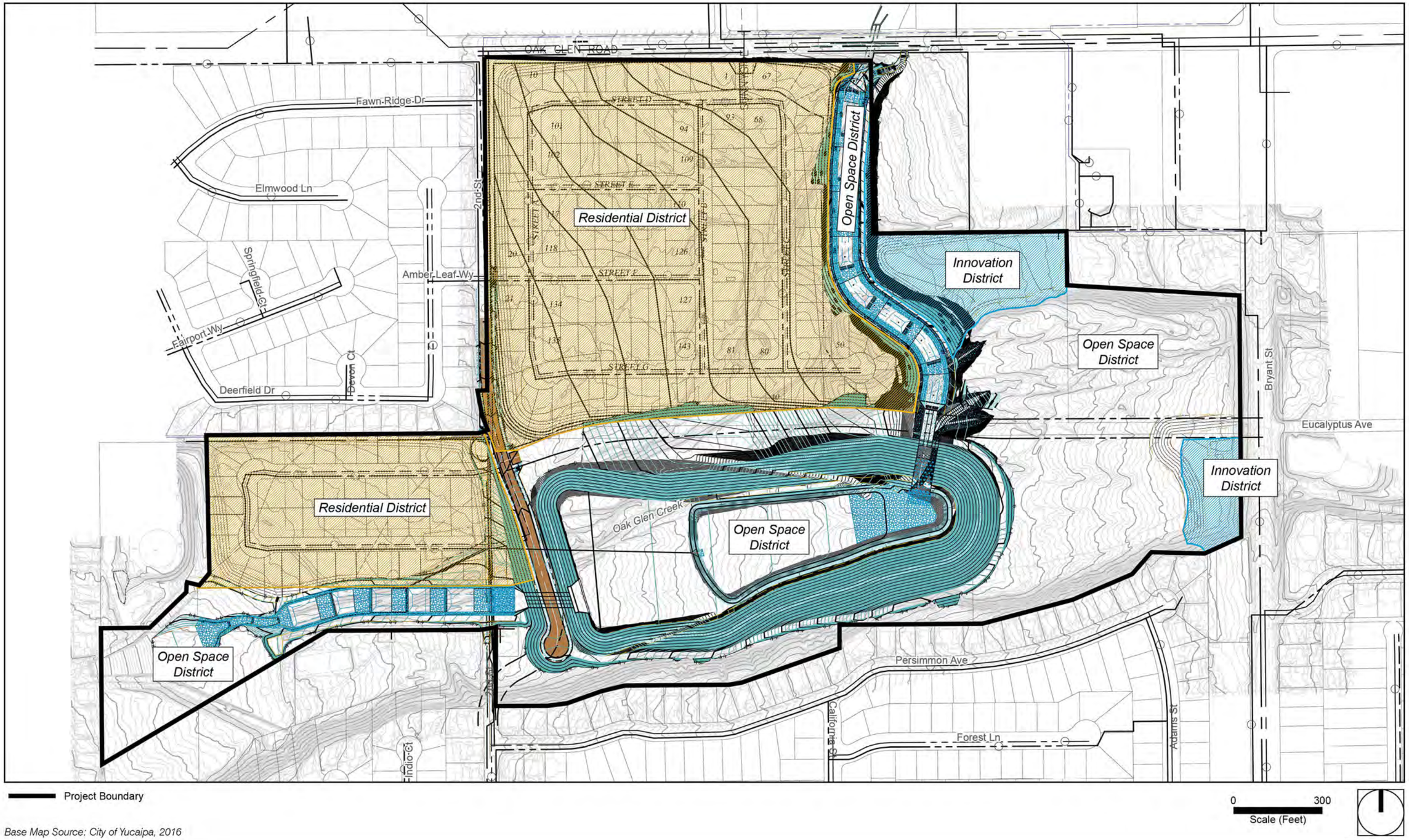
Figure ES-5 Proposed Land Use Plan

1. Executive Summary



Base Map Source: City of Yucaipa, 2016

1. Executive Summary

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1.5 SUMMARY OF PROJECT ALTERNATIVES

1.5.1 No Project/No Development Alternative

The No Project/No Development Alternative assumes that the Oak Glen Creek Specific Plan would not be adopted and no development would occur onsite. The majority of the project site is in a 100-year flood hazard zone designated by the Federal Emergency Management Agency (see Figure 5.8-2, *Flood Hazard Map*). This alternative assumes that the City does not implement the regional flood control improvements onsite; thus, the site would stay within the flood hazard zone and remain vacant and undeveloped. Buildout of the No Project/No Development Alternative would maintain existing conditions onsite. There would be no residential or nonresidential development nor any associated residents and employees.

Conclusion

Under the No Project/No Development Alternative, impacts to aesthetics, air quality, biological resources, cultural resources, geology and soils, GHG emissions, noise, public services, transportation and traffic, utilities and service systems, and tribal cultural resources would be reduced in comparison to the proposed project. Land use and planning impacts would be similar to the proposed project under this alternative. However, this alternative would increase hazards and hazardous materials and hydrology and water quality impacts compared to the proposed project.

While this alternative would reduce impacts on almost all topical areas, the No Project/No Development Alternative would not meet any of the project goals or objectives. The project site would remain undeveloped and natural. As a result, this alternative would not develop flood control improvements (Objectives #1 and #3) or multi-purpose trails (Objectives #4, #5, and #7). This alternative would also not provide a development concept that attracts a variety of residential, institutional, office, and medical uses and provides job opportunities for City residents (Objectives #2, #3, and #8) and would not integrate the site with adjoining land use and infrastructure systems (Objectives #6 and #7). Lastly, this alternative would not generate significant property tax revenue for the City of Yucaipa (Objective #9).

1.5.2 Existing General Plan Alternative

The project site is designated Institutional (IN), Rural Residential (RL-1), and Single Residential (RS-72C) in the City of Yucaipa General Plan. The buildout assumptions for the project area in the General Plan were based, in part, on the previous plan for the Wilson Creek Business Park for the approximately 95-acre portion of the site. The previous project on the eastern 95 acres consisted of two primary components: 1) flood control improvements to Wilson Creek and Oak Glen Creek and 2) up to 500,000 square feet of institutional use in a campus business park setting. This plan for the business park was incorporated into the City's land use plan during the recent General Plan Update. Additionally, the proposed project, now titled Oak Glen Creek Specific Plan, has an expanded project boundary and includes additional area west of 2nd Street (approximately 20 acres), which was considered for residential uses.

Buildout of this alternative would include the flood control improvements along the southern portion of the site to provide proper drainage of Wilson Creek and Oak Glen Creek through the site. Implementation of

these improvements would take the site out of public ownership to allow private development of residential and institutional uses, as designated in the City's General Plan. Overall, buildout would allow development of up to 65 single-family residential homes and 500,000 square feet of institutional use. This alternative would introduce approximately 185 residents and 1,052 employees.

Conclusion

The Existing General Plan Alternative would reduce impacts to cultural resources, land use and planning and public services. However, it would increase impacts to aesthetics, air quality, biological resources, GHG emissions, operational noise, transportation and traffic, and utilities and service systems. Impacts to geology and soils, hazards and hazardous materials, hydrology and water quality, construction noise, and tribal cultural resources would be similar to the proposed project.

While this alternative would generally increase impacts to the majority of topical areas, it would meet most of the project objectives. For example, it would provide the required infrastructure to attract a variety of residential and institutional uses (Objectives #1, 2, and 8), introduce substantial employment opportunities for City residents (Objective #3), and integrate the site with adjoining uses and infrastructure systems (Objectives #6 and 7). As stated above, this alternative would also implement the required flood control improvements to provide proper drainage through the site and introduce open space and passive recreational features in the drainage areas (Objectives #4 and 5).

1.5.3 Reduced Development Footprint Alternative

As shown on Figure 7-1, *Reduced Development Footprint Alternative*, the Reduced Development Footprint Alternative would reduce the footprint of the Residential District along Oak Glen Street from approximately 35 acres to 17.5 acres. As shown on Figures 5.3-4, *Impacted Sensitive Plants*, and 5.3-5, *Impacted Vegetation Communities*, the northern Specific Plan area supports Parry's spineflower and the majority of alluvial fan sage scrub (AFSS) onsite. By reducing the development footprint in this district, impacts to these sensitive species would be greatly reduced. Under the Oak Glen Creek Specific Plan, this Residential District would allow up to 143 units. Avoiding the majority of AFSS and Parry's spineflower in this area would reduce residential development to approximately 100 units. Note that no changes would be made to the smaller Residential District west of 2nd Street.

Flood control improvements in the southern portion of the site would be developed similar to the proposed Oak Glen Creek Specific Plan, and the Open Space District would be expanded from 57.6 to 75.1 acres to incorporate the 17.5 acres of avoided Parry's spineflower and AFSS areas.

Buildout of this alternative would allow 157 residences and 20,000 square feet of nonresidential development, and introduce up to 447 residents and 42 jobs.

Conclusion

The Reduced Development Footprint Alternative would reduce impacts to all environmental topical areas with the exception of land use and planning, which would have a similar impact to the proposed project.

This alternative would be able to meet most of the project objectives. The alternative would provide future development and employment opportunities by required roadways and infrastructure systems to attract the development of residential, institutional, office, and medical uses (Objectives #1, 2, 3 and 8). Flood control improvements in the southern portion of the site would also be implemented, and open space would be preserved for drainage and passive recreational use (Objectives #4 and 5). And this alternative would integrate the site with adjoining uses and infrastructure systems (Objectives #6 and 7). However, this alternative would not generate as much property tax revenue for the City of Yucaipa due to the reduction in residential development (Objective #9).

1.6 ISSUES TO BE RESOLVED

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

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

1.7 AREAS OF CONTROVERSY

In accordance with Section 15123(b)(2) of the CEQA Guidelines, the EIR summary must identify areas of controversy known to the lead agency, including issues raised by agencies and the public.

The City initially circulated a Notice of Preparation (NOP) for public comment on the Wilson Creek Business Park Specific Plan from August 12, 2011, through September 12, 2011. The City also held a public scoping meeting on August 18, 2011. Since the initial circulation of the NOP, the proposed project has been substantially modified. The proposed project is now titled Oak Glen Creek Specific Plan and has an expanded project boundary and modified land uses. Based on these changes and the time that has lapsed since initial release of the NOP in 2011, the City determined that the NOP be recirculated.

Thus, prior to preparation of this DEIR, the NOP was recirculated for public comment, which extended from May 6, 2016, to June 6, 2016. A public scoping meeting was held on May 19, 2016. The NOP comment letters received and testimony at the public scoping meeting are summarized in Chapter 2, *Introduction* (see

Tables 2-1 and 2-2). The scoping meeting was held at the City of Yucaipa and attended by a number of community members and interested parties. The majority of the comments were concerned with project impacts on biological resources, hydrology and flood control, noise, and traffic.

1.8 SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE AFTER MITIGATION

Table ES-2 summarizes the conclusions of the environmental analysis contained in this EIR. Impacts are identified as significant or less than significant, and mitigation measures are identified for all significant impacts. The level of significance after imposition of the mitigation measures is also presented.

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

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
5.1 AESTHETICS			
Impact 5.1-1: Buildout of the Oak Glen Creek Specific Plan would alter the visual appearance of the project site, but would not have a substantial adverse effect on scenic vistas or the visual character of the project area.	Less than significant	No significant adverse impacts were identified and no mitigation measures are necessary.	Project and Cumulative Impacts are Less than significant
Impact 5.1-2: Implementation of the proposed project would not alter scenic resources within a state scenic highway.	Less than significant	No significant adverse impacts were identified and no mitigation measures are necessary.	Project and Cumulative Impacts are Less than significant
Impact 5.1-3: Buildout of the proposed project would generate additional light and glare but would not substantially increase nighttime light and glare in the project site or its surroundings	Less than significant	No significant adverse impacts were identified and no mitigation measures are necessary.	Project and Cumulative Impacts are Less than significant
5.2 AIR QUALITY			
Impact 5.2-1: The Oak Glen Creek Specific Plan is a regionally significant project that would contribute to an increase in frequency or severity of air quality violations in the South Coast Air Basin and conflict with the implementation of the applicable air quality management plan.	Less than significant	No significant adverse impacts were identified and no mitigation measures are necessary.	Project and Cumulative Impacts are Less than significant
Impact 5.2-2: Construction activities associated with the proposed project would generate short-term emissions of NOX in exceedance of SCAQMD'S NOX threshold criteria.	Potentially Significant	2-1 During project-related construction activities for projects associated with the Residential District and Innovation District, construction contractor(s) shall use equipment that meets the certified emission standards of the United States Environmental Protection Agency (EPA), according to the following: ▪ Project-related off-road diesel powered construction engines shall achieve the EPA Tier°4 emissions standards for construction equipment greater than 50 horsepower unless it can be demonstrated, to the satisfaction of the City of Yucaipa City Engineer, that Tier 4 equipment is not readily available for a required piece of equipment. The emissions control device used by the contractor shall achieve emissions reductions	Project and Cumulative Impacts are Less than significant

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

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		that are no less than what could be achieved by a Level 4 diesel emissions control strategy for a similarly sized engine, as defined by California Air Resources Board (CARB) regulations. ▪ If Tier 4 equipment is not readily available for the equipment, Tier 3 equipment shall be used for equipment over 50 horsepower. The emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine, as defined by CARB regulations. Prior to issuance of grading permits, the property owner/developer shall provide a note on plans indicating that during grading and construction, EPA Certified Tier 4 and/or Tier 3 engines shall be used. During construction, the construction contractor(s) shall maintain a list of all construction equipment onsite for verification by the City of Yucaipa Community Development Department. The construction equipment list shall state the makes, models, and numbers of the equipment; that the equipment shall be properly serviced and maintained in accordance with the manufacturer's recommendations; and that all nonessential idling of construction equipment is restricted to five minutes or less in compliance with CARB Rule 2449.	
Impact 5.2-3: Implementation of the proposed project would not result in long-term criteria air pollutant emissions that would exceed the South Coast Air Quality Management District regional operational phase significance threshold.	Less than significant	No significant adverse impacts were identified and no mitigation measures are necessary.	Project and Cumulative Impacts are Less than significant
Impact 5.2-4: Construction activities related to buildout of the Residential and Innovation districts in the Oak Glen Creek Specific Plan could expose sensitive receptors to substantial pollutant concentrations.	Potentially Significant	Mitigation Measure 2-1 would also apply to Impact 5.2-4. 2-2 During construction activities for projects in the Residential District and Innovation District, the construction contractor(s) shall use construction equipment fitted with Level 3 diesel particulate filters (DPF) for all construction equipment of 50 horsepower or more. Prior to issuance of any construction permits, the property owner/developer shall ensure that all construction plans submitted to the City of Yucaipa Community Development Department, or	Project and Cumulative Impacts are Less than significant

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

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		designee, clearly show the requirement for Level 3 DPF for construction equipment over 50 horsepower. 2-3 Prior to issuance of grading, demolition, or building plans, whichever occurs first for projects associated with the Residential District and Innovation District, the property owner/developer shall submit a dust control plan that implements the following measures during ground-disturbing activities—as well as the existing requirements for fugitive dust control under South Coast Air Quality Management District Rule 403—to further reduce PM_{10} and $PM_{2.5}$ emissions: ▪ Following all grading activities, the construction contractor shall reestablish ground cover on the construction site through seeding and watering. ▪ During all construction activities, the construction contractor shall sweep streets with Rule 1186–compliant, PM_{10}-efficient vacuum units on a daily basis if silt is carried over to adjacent public thoroughfares or occurs as a result of hauling. ▪ During all construction activities, the construction contractor shall maintain a minimum 24-inch freeboard on trucks hauling dirt, sand, soil, or other loose materials and shall tarp materials with a fabric cover or other cover that achieves the same amount of protection. ▪ During all construction activities, the construction contractor shall water exposed ground surfaces and disturbed areas a minimum of every three hours on the construction site and a minimum of three times per day. ▪ During all construction activities, the construction contractor shall limit onsite vehicle speeds on unpaved roads to no more than 15 miles per hour. The City of Yucaipa Community Development Department shall verify compliance during normal construction site inspections.	

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

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 5.2-5: Operation of land uses accommodated by the proposed project would not expose offsite sensitive receptors to substantial pollutant concentrations.	Less than significant	No significant adverse impacts were identified and no mitigation measures are necessary.	Project and Cumulative Impacts are Less than significant
5.3 BIOLOGICAL RESOURCES			
Impact 5.3-1: Development in accordance with the Specific Plan would involve substantial habitat modification that would adversely impact various sensitive and special-status species.	Potentially Significant	3-1 Burrowing Owl 14-Day Take Avoidance Surveys. A 14-day burrowing owl take avoidance survey shall be conducted prior to the initiation of ground-disturbing construction to ensure protection for this species and compliance with the conservation goals outlined by the California Department of Fish and Wildlife (CDFW). The survey shall be conducted in compliance with CDFW 2012 guidelines. A report of the findings prepared by a qualified biologist shall be submitted to CDFW and the City of Yucaipa prior to initiation ground disturbing activities. If burrowing owls are detected onsite during the take avoidance survey effort, a burrowing owl mitigation plan which includes project specific avoidance and minimization measures shall be developed based on CDFW and USFWS requirements. 3-2 Sensitive Plant Species Mitigation Plan. The City of Yucaipa shall develop a Sensitive Plant Species Mitigation Plan to mitigate for the loss of 0.70 acre of Parry's spineflower plants. This mitigation plan is to be prepared by a qualified restoration biologist and provide, at a minimum, the following information (1) design modifications or minimization measures that are consistent with the project's purpose; (2) appropriate protection measures for any adjoining conserved land within the project site; (3) an evaluation of salvage, transplantation, restoration, enhancement, or other appropriate mitigation techniques to determine the most appropriate mitigation measures to offset impacts; and (4) monitoring and adaptive management measures for the mitigated plant species. The mitigation site shall be monitored and maintained by a qualified biologist for five years or until the plants have become fully established and can survive without supplemental irrigation. The goal of the Sensitive Plant Species Mitigation Plan will be to compensate for the impacts to 0.70 acre through off-site acquisition of habitat, on-site	Project and Cumulative Impacts are Less than significant

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

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		preservation, enhancement, creation, and/or dedication of habitat, payment of fees into a mitigation bank, or other appropriate measures to address the functions and values being impacted.	
		3-3 Federal Migratory Bird Treaty Act. Mitigation for potential direct/indirect impacts to common and sensitive passerine and raptor species will require compliance with the federal Migratory Bird Treaty Act (MBTA). Construction outside the nesting season (between September 1 and January 31) does not require pre-removal nesting bird surveys. If construction is proposed between February 1 and August 31, a qualified biologist must conduct a nesting bird survey(s) no more than 14 days prior to initiation of grading to document the presence or absence of nesting birds within or directly adjacent (100 feet) to the project site. Note that any nest permanently vacated for the season would not warrant protection pursuant to the MBTA. The survey(s) will focus on identifying any raptors and/or passerines nests that are directly or indirectly affected by construction activities. If active nests are documented, species-specific measures shall be prepared by a qualified biologist and implemented to prevent abandonment of the active nest. At a minimum, grading in the vicinity of a nest shall be postponed until the young birds have fledged. A minimum exclusion buffer of 100 feet shall be maintained during construction, depending on the species and location. The perimeter of the nest setback zone shall be fenced or adequately demarcated with stakes and flagging at 20-foot intervals, and construction personnel and activities restricted from the area. A survey report by a qualified biologist verifying that no active nests are present or that the young have fledged shall be submitted to the CDFW and City of Yucaipa prior to initiation of grading in the nest-setback zone. The qualified biologist shall serve as a construction monitor during those periods when construction activities occur near active nest areas to ensure that no inadvertent impacts on these nests occur.	
		3-4 Noise Reduction. If a) nesting birds are found onsite during pre-construction surveys and b) construction related impacts occur between January 31 and September 15, an acoustical consultant shall evaluate the construction equipment/phases and estimate noise levels anticipated during clearing, grubbing and grading activities. The acoustical consultant shall identify	

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

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures		Level of Significance After Mitigation
			appropriate measures for reducing construction noise levels to below 60 dB(A) hourly Equivalent Continuous Noise Level or prevent any increases in the ambient noise levels at nesting location if existing noise levels are 60 dB(A) hourly or greater. Noise reduction measures may include operational adjustments, including: ▪ Stationary construction noise sources such as generators or pumps should be located at least 100 feet from sensitive land uses, as feasible. ▪ Construction staging areas should be located as far from noise sensitive land uses as feasible. ▪ During construction, the contractor shall ensure all construction equipment is equipped with appropriate noise attenuating devices. ▪ Idling equipment shall be turned off when not in use. ▪ Equipment shall be maintained so that vehicles and their loads are secured from rattling and banging. If noise reduction measures are required, bi-weekly monitoring of the nesting species shall be conducted by the qualified biologist to observe if the birds are being affected by construction activities. The acoustical consultant shall confirm through noise measurements that the noise reduction measures are effective at preventing noise levels in excess of 60 dB(A) hourly or an increase in ambient noise levels. Noise reduction measures are not required from September 16 through January 31.	
Impact 5.3-2: Buildout in accordance with the Oak Glen Creek Specific Plan would impact approximately 90 acres of sensitive vegetation communities, including alluvial fan sage scrub, sycamore riparian woodland, and southern cottonwood riparian woodland.	Potentially Significant	3-5	Sensitive Habitat Mitigation Plan. Mitigation for impacts to alluvial fan sage scrub habitat within the project footprint shall be accounted for with on-site preservation, restoration and/or enhancement and long-term management on-site at a minimum 1:1 ratio or greater, as determined in consultation with the California Department of Fish and Wildlife (CDFW). Residual impacts that cannot be mitigated on-site shall be accomplished with off-site acquisition, preservation, rehabilitation, restoration, enhancement and long-term management of alluvial fan sage scrub habitat at the Oak Glen Creek Flood Corridor Area upstream (east) of the project site between Bryant Street and Pendleton Road.	Project and Cumulative Impacts are Less than significant

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

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures		Level of Significance After Mitigation
			The City shall prepare a Sensitive Habitat Mitigation Plan for CDFW review and concurrence. The City shall be responsible for funding and implementing the Plan. The goal of the Sensitive Habitat Mitigation Plan will be to compensate for the impacts to 24.85 acres of alluvial fan sage scrub through off-site acquisition of habitat; on-site preservation, enhancement, creation, and/or dedication of habitat; payment of fees into a mitigation bank; or other appropriate measures to address the functions and values being impacted. The content of the Sensitive Habitat Mitigation Plan will address the responsibilities and qualifications of the personnel to implement and supervise the plan; incorporate pertinent site selection criteria; provide for the site preparation and planting implementation program if appropriate; provide a schedule for implementation, maintenance and monitoring; detail maintenance plan and guidelines; detail the monitoring plan; and address long-term preservation.	
Impact 5.3-3: The proposed project would impact 8.84 acres of jurisdictional waters, including 1.86 acres of waters of the U.S. and 6.98 acres of waters of the State.	Potentially Significant	3-6	Jurisdictional Resources. Prior to issuance of a grading permit the applicant shall obtain a Section 404 permit authorization from the U.S. Army Corps of Engineers (Corps), a Section 401 Water Quality Certification from the Regional Water Quality Control Board, and a Section 1602 Streambed Alteration Agreement from the California Department of Fish and Wildlife (CDFW). Impacts to Corps and CDFW resources would require mitigation through on-site habitat creation, restoration, enhancement, and/or preservation and long-term management within the constructed basin at a minimum 1:1 ratio in order for impacts to achieve no net loss of jurisdictional resources, as determined by a qualified restoration specialist in consultation with the regulatory agencies. The lake/emergent wetland is anticipated to be between 3.5 and 4 acres in size. If there are any residual impacts to streambeds and riparian habitat that cannot be mitigated on-site, these impacts shall be mitigated off-site at a minimum ratio of 1.5:1 at the City's El Dorado Ranch Park, Oak Glen Creek Flood Corridor Area, or other off-site location approved by the CDFW (e.g., mitigation banks or in lieu fee programs).	Project and Cumulative Impacts are Less than significant

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

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		Specific mitigation and the specific location of mitigation lands shall be determined in consultation with the appropriate regulatory agencies in accordance with the requirements of the federal CWA, federal wetland policies, and California Fish and Game Code. 3-7 Habitat Mitigation Monitoring Plan. The City shall prepare a Habitat Mitigation Monitoring Plan (HMMP) for regulatory agencies review and concurrence. Impacts to U.S. Army Corps of Engineers (Corps) and California Department of Fish and Wildlife (CDFW) resources shall be mitigated on-site or within the same watershed, if feasible. The goal of the HMMP will be to re-create the functions and values of the habitat being affected. These mitigation requirements will be outlined in the HMMP prepared for this project, with monitoring requirements and specific criteria to measure the success of the restoration. Guidelines for the HMMP shall include but not be limited to: ▪ The mitigation site(s) shall have been evaluated and selected on the basis of their suitability for use as riparian mitigation areas. ▪ The mitigation shall provide procedures to prepare soils in the mitigation area, provide detailed seeding/planting mixtures, provide seeding/planting methods, appropriate irrigation and other procedures that will be used for successful revegetation. ▪ Impacts to jurisdictional waters and wetlands shall be avoided to the extent feasible in the design phase of the project. ▪ Specific mitigation ratios and performance criteria shall be stated in the HMMP. ▪ Maintenance and monitoring requirements shall be established, including quarterly and annual monitoring reports to the Corps and CDFW. The content of the HMMP will address the responsibilities and qualifications of the personnel to implement and supervise the plan; incorporate pertinent site selection criteria; provide for the site preparation and planting implementation program; provide a schedule for implementation; maintenance and monitoring; detail maintenance plan and guidelines; detail the monitoring plan; and address long term preservation.	

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Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures		Level of Significance After Mitigation
		3-8	**Urban Runoff.** To reduce the potential for the indirect impacts from urban runoff, the project applicant shall implement the best management practices required by the National Pollutant Discharge Elimination System, administered by the Regional Water Quality Control Board.	
		3-9	**Storm Water Pollution Prevention Plan.** The City shall ensure that 1) the work limits are staked, fenced, and/or marked, with materials clearly visible to construction personnel to prevent encroachment upon sensitive vegetation communities; 2) no construction access, parking, or storage of equipment or materials will be permitted outside of these marked areas; 3) access roads and work areas shall be periodically sprayed with water to reduce the potential for dust accumulation on the leaves of adjacent sensitive vegetation communities not proposed for impacts; and 4) erosion and sediment control BMPs (i.e., silt fences, straw wattles, sand bags, etc.) should be implemented and installed during the proposed project to comply with all measures proposed in the Storm Water Pollution Prevention Plan.	
Impact 5.3-4: Development in accordance with the Specific Plan would affect wildlife movement and potentially impede the use of wildlife corridors for migratory species.	Potentially Significant	3-10	**Wildlife Corridor Design and Urban Wildlands Interface Guidelines.** The following mitigation measures will be incorporated into final project designs to ensure the maintenance of habitat connectivity and reduce indirect impacts to wildlife movement associated with the proposed project: ▪ Wildlife movement routes through the project within both Wilson and Oak Glen Creeks will be maintained. ▪ No features will be used that would impede movement through the site by amphibians, reptiles, and small/large mammals. ▪ Realigned drainage features will have earthen bottoms, to the greatest extent feasible. ▪ Storm water treatment systems will be designed to prevent the release of toxins, chemicals, petroleum products, exotic plant material, or other elements that could degrade or harm downstream biological or aquatic resources. ▪ Night lighting associated with the proposed development that is adjacent to the realigned movement routes would be directed away to reduce potential indirect impacts to wildlife species.	Project and Cumulative Impacts are Less than significant

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			▪ The landscape plans for the development shall avoid the use of invasive species for the portions of the development areas adjacent to the movement routes. ▪ Onsite culvert design will be consistent with existing structures at the confluence of Wilson Creek/Oak Glen Road and Oak Glen Creek/Bryant Street.	
		3-11	Lighting Plan. Lighting plans shall ensure that (1) direct lighting is shielded from residential areas and other light sensitive receptors; (2) direct lighting is shielded to the specific location intended for illumination (e.g., roads, walkways, or recreation fields); (3) non-essential lighting and stray light spillover is minimized; (4) low intensity lamps are used except when high intensity illumination is required, such as for a recreational field; and (5) night lighting shall not be used during the course of construction unless determined to be absolutely necessary. If night lighting is necessary, the lights shall be shielded to minimize temporary lighting of neighboring properties and realigned wildlife movement routes through the project site.	
5.4 CULTURAL RESOURCES				
Impact 5.4-1: Development of the project site could impact undisturbed historical resources.	Potentially Significant	4-1	Prior to the issuance of grading permits, and for any subsequent permit involving excavation to increased depth, the future developer of the project site shall provide letters to the City of Yucaipa from a qualified archaeologist and paleontologist who meet the Secretary of the Interior's Professional Qualifications Standards. The letters shall state that the developer has retained these individuals, and that the consultant(s) will be on call during all grading and other significant ground-disturbing activities. In the event archaeological or paleontological resources are discovered during ground-disturbing activities, a professional archeological or paleontological monitor shall have the authority to halt any activities adversely impacting potentially significant cultural resources until they can be formally evaluated. Suspension of ground disturbances in the vicinity of the discoveries shall not be lifted until the archaeological or paleontological monitor has evaluated discoveries to assess whether they are classified as significant cultural resources, pursuant to the California Environmental Quality Act (CEQA). If archaeological or paleontological resources are recovered, they shall be offered to a repository	Project and Cumulative Impacts are Less than significant

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Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		with a retrievable collection system and an educational and research interest in the materials, such as the San Bernardino County Museum or the University of California, Riverside, or any other local museum or repository willing to and capable of accepting and housing the resource. If no museum or repository willing to accept the resource is found, the resource shall be considered the property of the City and may be stored, disposed of, transferred, exchanged, or otherwise handled by the City at its discretion. If significant Native American cultural resources are discovered, for which a Treatment Plan must be prepared, the developer or the archaeologist on call shall contact the applicable Native American tribal contact(s). If requested by the Native American tribe(s), the developer or archaeologist on call shall, in good faith, consult on the discovery and its disposition (e.g., avoidance, preservation, return of artifacts to tribe, etc.).	
Impact 5.4-2: Development of the project site could impact archaeological resources.	Potentially Significant	Mitigation Measure 4-1 incorporated under Impacts 5.4 1 would reduce would reduce potential impacts to archaeological resources.	Project and Cumulative Impacts are Less than significant
Impact 5.4-3: Development in accordance with the Oak Glen Creek Specific Plan would not adversely affect paleontological resources or a unique geologic feature.	Less than significant	No significant adverse impacts were identified and no mitigation measures are necessary.	Project and Cumulative Impacts are Less than significant
Impact 5.4-4: Grading activities could potentially disturb human remains outside of formal cemeteries, if present, but compliance with existing regulations would ensure that impacts are less than significant.	Less than significant	No significant adverse impacts were identified and no mitigation measures are necessary.	Project and Cumulative Impacts are Less than significant
5.5 GEOLOGY AND SOILS			
Impact 5.5-1: The proposed project would not be exposed to hazards associated with fault rupture of concealed faults underlying the project site and would not expose people and structures to adverse seismic effects.	Less than significant	No significant adverse impacts were identified and no mitigation measures are necessary.	Project and Cumulative Impacts are Less than significant

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Impact 5.5-2: Development of the proposed project could expose people and structures to strong seismic ground shaking; however, adherence to the current California Building Code would ensure impacts are minimized.	Less than significant	No significant adverse impacts were identified and no mitigation measures are necessary.	Project and Cumulative Impacts are Less than significant
Impact 5.5-3: Development of the proposed project would be unlikely to expose people and structures to adverse effects of seismic-related ground failure, including liquefaction.	Less than significant	No significant adverse impacts were identified and no mitigation measures are necessary.	Project and Cumulative Impacts are Less than significant
Impact 5.5-4: Development of the proposed project would not expose people and structures to landslide hazards.	Less than significant	No significant adverse impacts were identified and no mitigation measures are necessary.	Project and Cumulative Impacts are Less than significant
Impact 5.5-5: Development of the proposed project may increase soil erosion; however, compliance with the Construction General Permit and implementation of best management practices during construction activities would reduce potential impacts.	Less than significant	No significant adverse impacts were identified and no mitigation measures are necessary.	Project and Cumulative Impacts are Less than significant
5.6 GREENHOUSE GAS EMISSIONS			
Impact 5.6-1: Development of the Residential District and Innovation District in the Oak Glen Creek Specific Plan would exceed the screening criteria of the Yucaipa Climate Action Plan and require implementation of 100 points of GHG reduction measures.	Potentially Significant	6-1 Prior to the issuance of construction permits, applicants for development projects in the Residential District and Innovation District in the Oak Glen Specific Plan area shall incorporate design and construction measures into their respective projects that achieve a cumulative minimum of 100 points based on the appropriate screening tables (Tables 1 and 2) and methodology in Appendix C of the City of Yucaipa Climate Action Plan. Applicants shall provide documentation to the City of Yucaipa Community Development Department that verifies the measures to be implemented, to the City's satisfaction, and demonstrates achievement in meeting the minimum 100-point screening requirement, or the applicable screening requirement in effect at the time a project is initiated. The implementation measures proposed shall be noted on building plan check submittals to the City of Yucaipa.	Project and Cumulative Impacts are Less than significant

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Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
5.7 HAZARDS AND HAZARDOUS MATERIALS			
Impact 5.7-1: Construction and operation of the proposed project could involve the transport, use, and/or disposal of hazardous materials; however, compliance with federal, state, and City regulations would ensure impacts are minimized.	Potentially Significant	7-1 If the City maintenance yard located at 11377 2nd Street is redeveloped for residential uses and stained soil or odors are detected onsite, the project applicant shall test the soils for total petroleum hydrocarbon prior to grading activities. If significant levels of petroleum hydrocarbons are detected, the soil shall be investigated and potentially removed in accordance with Department of Toxic Substance Control guidance.	Project and Cumulative Impacts are Less than significant
Impact 5.7-2: The Oak Glen Creek Specific Plan is within one-quarter mile of existing and proposed schools; however, the proposed project would not emit substantial quantities of hazardous emissions and use of hazardous materials onsite would be regulated by existing local, state, and federal regulations.	Less than significant	No significant adverse impacts were identified and no mitigation measures are necessary.	Project and Cumulative Impacts are Less than significant
Impact 5.7-3: The project site is not included on any lists of hazardous materials sites.	Less than significant	No significant adverse impacts were identified and no mitigation measures are necessary.	Project and Cumulative Impacts are Less than significant
Impact 5.7-4: According to the California Department of Forestry and Fire Protection, the project site is designated in either High or Very High Fire Hazard Zones; however, compliance with the California Fire Code requirements and the design standards within the Oak Glen Creek Specific Plan would reduce fire hazards.	Less than significant	No significant adverse impacts were identified and no mitigation measures are necessary.	Project and Cumulative Impacts are Less than significant
5.8 HYDROLOGY AND WATER QUALITY			
Impact 5.8-1: Construction and operation of the Oak Glen Creek Specific Plan may increase short- and long-term pollutant concentration runoff and alter the water quality of storm runoff; however, compliance with the Construction General Permit, the San Bernardino County NPDES Permit, and	Less than significant	No significant adverse impacts were identified and no mitigation measures are necessary.	Project and Cumulative Impacts are Less than significant

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implementation of best management practices during construction activities and operation would reduce potential impacts.			
Impact 5.8-2: Development of the proposed project would increase the amount of impervious surfaces on the site; however, it would not interfere with groundwater recharge	Less than significant	No significant adverse impacts were identified and no mitigation measures are necessary.	Project and Cumulative Impacts are Less than significant
Impact 5.8-3: Development pursuant to the proposed project would increase the amount of impervious surfaces on the site and increase surface water flows; however, implementation of the onsite stormwater system and detention basin coupled with installation of best management practices would reduce impacts	Less than significant	No significant adverse impacts were identified and no mitigation measures are necessary.	Project and Cumulative Impacts are Less than significant
Impact 5.8-4: Portions of the Specific Plan area are located within FEMA-designated 100-year flood hazard zones; however, implementation of the basin would reduce on- and off-site flood hazards.	Less than significant	No significant adverse impacts were identified and no mitigation measures are necessary.	Project and Cumulative Impacts are Less than significant
5.9 LAND USE AND PLANNING			
Impact 5.9-1: Implementation of the Oak Glen Creek Specific Plan would be consistent with the City of Yucaipa General Plan policies.	Less than significant	No significant adverse impacts were identified and no mitigation measures are necessary.	Project and Cumulative Impacts are Less than significant
5.10 NOISE			
Impact 5.10-1: Construction activities would result in temporary noise increases in the vicinity of the proposed project.	Potentially Significant	10-1 Ongoing during grading, demolition, and construction, the property owner/developer shall be responsible for requiring contractors to implement the following measures to limit construction-related noise: • Construction activity is limited to the daytime hours between 7 AM to 7 PM, as prescribed in the City's Municipal Code. • Prior to the beginning of construction activities, a sign shall be posted at the entrance to the job site, clearly visible to the public, that contains a	Project and Cumulative Impacts are Less than significant

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			contact name and telephone number of the Contractor's authorized representative to respond in the event of a vibration or noise complaint. If the authorized representative receives a complaint, he/she shall investigate, take appropriate corrective action, and report the action to the City of Yucaipa's Community Development Department. • All internal combustion engines on construction equipment and trucks are fitted with properly maintained mufflers. • Stationary equipment such as generators, air compressors shall be located as far as feasible from nearby noise-sensitive uses. • Stockpiling is located as far as feasible from nearby noise-sensitive receptors • Construction traffic shall be limited to the haul routes established by the City of Yucaipa so as to minimize pass-bys or residential areas around the project site. The conditions above shall be included on the permit applicant drawings with verification by the City of Yucaipa Community Development Department Plan Check staff. Additionally, all the above conditions shall be verified in the field by the Community Development Department field inspection staff at the project site.	
Impact 5.10-2: Buildout of the individual land uses and projects for implementation of the Oak Glen Creek Specific Plan would expose sensitive uses to strong levels of groundborne vibration.	Potentially Significant	10-2	For demolition, construction, grading, foundation, and erection activities that would use vibration-producing equipment within 200 feet[1] of existing, off-site buildings, the following mitigation measure shall be implemented by the Construction Contractor in close coordination with City staff so that alternative construction techniques are undertaken. • Implement Mitigation Measure 10-1 • The use of vibratory rollers shall be minimized, to the extent feasible, within 50 feet[2] of residential properties.	Project and Cumulative Impacts are Less than significant

[1] Measured from the center of the project site.
[2] Measured from the nearest equipment placement to the nearest residential structure.

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		• The use of large bulldozers[3], excavators, graders, front-end loaders, and loaded trucks shall be minimized, to the extent feasible, within 30 feet[4] of residential properties. • Where feasible, all stationary vibration-generating equipment shall be located as far away as possible from neighboring property lines. • Grade surface irregularities shall be minimized on construction sites. • Prior to the start of construction activities, City staff shall meet with the construction contractor to discuss feasible alternative methods to reduce vibration impacts for all construction activities that would occur within 200 feet[5] of existing, off-site buildings. During the pre-construction meeting, the construction contractor shall identify feasible construction methods not involving vibration-intensive equipment or activities. • Prior to the start of construction activities, the constructor contractor shall document all feasible reduced-vibration alternative methods identified in the pre-construction meeting on the construction drawings submitted during plan check for building permits. The constructor contractor shall implement these reduced-vibration alternative methods during excavation, grading, and construction for work conducted within 200 feet[6] of off-site buildings. All the above conditions shall be included on the permit applicant drawings with verification by the Community Development Department Check staff. Additionally, all the above conditions shall be verified in the field by the Community Development Department field inspection staff at the project site.	

[3] 'Large' bulldozers are considered to be above an operating weight of 85,000 pounds (represented by a Caterpillar D8-class or larger); 'medium' bulldozers are considered to be in the operating weight range of 25,000 to 60,000 pounds (such as a Caterpillar D6- or D7-class machines); and 'small' bulldozers are considered to be in the operating weight range of 15,000 to 20,000 pounds (such as a Caterpillar D3-, D4-, or D5-class machines).

[4] Measured from the nearest equipment placement to the nearest residential structure.

[5] Measured from the center of the project site.

[6] Measured from the center of the project site.

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Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 5.10-3: Buildout of the Oak Glen Creek Specific Plan would not cause a substantial noise increase related to traffic on local roadways in the City of Yucaipa	Less than significant	No significant adverse impacts were identified and no mitigation measures are necessary.	Project and Cumulative Impacts are Less than significant
Impact 5.10-4: Noise-sensitive uses could be exposed to elevated noise levels from stationary sources; however, compliance with the City's Municipal Code would ensure that noise levels would not substantially increase the noise environment.	Less than significant	No significant adverse impacts were identified and no mitigation measures are necessary.	Project and Cumulative Impacts are Less than significant
5.11 POPULATION AND HOUSING			
Impact 5.11-1: The proposed project would directly result in population growth in the Specific Plan area by introducing up to 200 single-family homes and 570 residents; however, the growth is within SCAG's projections and would not substantially affect the jobs-housing ratio.	Less than significant	No significant adverse impacts were identified and no mitigation measures are necessary.	Project and Cumulative Impacts are Less than significant
5.12 PUBLIC SERVICES			
FIRE PROTECTION AND EMERGENCY SERVICES			
Impact 5.12-1: The proposed project would introduce up to 200 single family homes, approximately 570 residents, and 42 employees into the Yucaipa Fire Department and CAL FIRE service boundaries, thereby increasing the demand for fire protection facilities and personnel; however, payment of development impact fees and review of future development applications by the Yucaipa Fire Department would reduce potential impacts.	Less than significant	No significant adverse impacts were identified and no mitigation measures are necessary.	Project and Cumulative Impacts are Less than significant

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

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
POLICE PROTECTION			
Impact 5.12-2: The proposed project would introduce up to 200 single family homes, approximately 570 residents, and 42 employees into the project area, thereby increasing the demand for the Yucaipa Police Department facilities and personnel; however, payment of development impact fees and review of future development applications by the Yucaipa Police Department would reduce potential impacts.	Less than significant	No significant adverse impacts were identified and no mitigation measures are necessary.	Project and Cumulative Impacts are Less than significant
SCHOOL SERVICES			
Impact 5.12-3: The proposed project would generate approximately 94 additional students in the Yucaipa-Calimesa Joint Unified School District; however, the affected schools have sufficient remaining capacity, and payment of impact fees would offset any increase in demand for school facilities.	Less than significant	No significant adverse impacts were identified and no mitigation measures are necessary.	Project and Cumulative Impacts are Less than significant
LIBRARY SERVICES			
Impact 5.12-4: The proposed project would introduce approximately 570 additional residents to the Specific Plan area and would increase the service demands on the Yucaipa Branch Library of the San Bernardino County Library system; however, as development occurs under the Oak Glen Creek Specific Plan, the general funds should grow proportionally with property tax collections.	Less than significant	No significant adverse impacts were identified and no mitigation measures are necessary.	Project and Cumulative Impacts are Less than significant

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

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
5.13 RECREATION			
Impact 5.13-1: The proposed project would introduce approximately 570 additional residents that would increase the use of existing parks and recreational facilities, but the project would not substantially deteriorate existing facilities in the project vicinity, and it would result in creation of new multipurpose trails to expand existing recreational facilities.	Less than significant	No significant adverse impacts were identified and no mitigation measures are necessary.	Project and Cumulative Impacts are Less than significant
Impact 5.13-2: The proposed project would create passive open space and multipurpose trails; the construction of which would not create an adverse physical effect on the environment	Less than significant	No significant adverse impacts were identified and no mitigation measures are necessary.	Project and Cumulative Impacts are Less than significant
5.14 TRANSPORTATION/TRAFFIC			
Impact 5.14-1: Project-related trip generation would impact levels of service for the existing area roadway system.	Potentially Significant	14-1 2nd Street and Oak Glen Road. Prior to the issuance of the first building permit for the residential portion of the specific plan, the project applicant shall install a traffic signal at the intersection of 2nd Street and Oak Glen Road. The Project would be responsible for its fair share contribution of 77 percent toward this improvement; therefore, the first project applicant shall be entitled to reimbursement for any portion of the improvement exceeding their fair share responsibility. This improvement shall be implemented prior to first home occupancy. 14-2 Bryant Street and Date Street. Prior to issuance of any building permit, the project applicant shall provide fair share funding for the installation of a traffic signal at Bryant Street and Date Street. Project would have an indirect impact on the intersection and would be responsible for their fair share contribution toward this improvement The Project would be responsible for its fair share contribution of 11 percent toward this improvement. The timing of implementation of the improvements shall be determined by the City and be completed in the timeframe necessary to avoid identified significant cumulative impacts, which would occur between 2018 and 2040.	Project and Cumulative Impacts are Less than significant

1. Executive Summary

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

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact 5.14-2: Project-Related trip generation, in combination with existing and proposed cumulative development would not result in designated road and/or highways exceeding the County Congestion Management Agency Service Standards.	Less than significant	No significant adverse impacts were identified and no mitigation measures are necessary.	Project and Cumulative Impacts are Less than significant
Impact 5.14-3: The project would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.	Less than significant	No significant adverse impacts were identified and no mitigation measures are necessary.	Project and Cumulative Impacts are Less than significant
5.15 TRIBAL CULTURAL RESOURCES			
Impact 5.15-1: The project could impact tribal cultural resources within the project area.	Potentially Significant	Mitigation Measure 4-1 incorporated under Impacts 5.4 1 would reduce would reduce potential impacts to tribal Cultural resources. 15-1 Prior to grading permit issuance, if there are any changes to project site design and/or proposed grades, the future developer shall contact interested tribes to provide an electronic copy of the revised plans for review. Additional consultation shall occur between the City, developer and interested tribes to discuss the proposed changes and to review any new impacts and/or potential avoidance/preservation of the cultural resources on the project. The developer shall make all attempts to avoid and/or preserve in place as many as possible of the cultural resources located on the project site. In specific circumstances where existing and/or new resources are determined to be unavoidable and/or unable to be preserved in place despite all feasible alternatives, the developer shall make every effort to relocate the resource to a nearby open space or designated location on the property that is not subject to future development, erosion or flooding. 15-2 Archaeological Monitoring. At least 30-days prior to application for a grading permit and before any grading, excavation and/or ground disturbing activities on the site take place, the future developer shall retain a Secretary of Interior Standards qualified archaeological monitor to monitor all ground-disturbing activities in an effort to identify any unknown archaeological resources.	Project and Cumulative Impacts are Less than significant

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

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		1. The project archaeologist, in consultation with interested tribes, the developer and the City of Yucaipa, shall develop an Archaeological Monitoring Plan (AMP) to address the details, timing and responsibility of all archaeological and cultural activities that will occur on the project site. Details in the AMP shall include: a. Project grading and development scheduling; b. The development of a rotating or simultaneous schedule in coordination with the developer and the project archeologist for designated Native American Tribal Monitors from the consulting tribes during grading, excavation and ground disturbing activities on the site: including the scheduling, safety requirements, duties, scope of work, and Native American Tribal Monitors' authority to stop and redirect grading activities in coordination with all project archaeologists; c. The protocols and stipulations that the developer, City, Tribes and project archaeologist will follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resource deposits that shall be subject to a cultural resources evaluation. Pursuant to the AMP, a tribal monitor from the consulting tribe (e.g., Morongo Band of Mission Indians and/or Soboba Band of Luiseño Indians) shall be present during the initial grading activities. If tribal resources are found during grubbing activities, the tribal monitoring shall be present during site grading activities.	
		15-3 Treatment and Disposition of Cultural Resources. In the event that Native American cultural resources are inadvertently discovered during the course of grading for the proposed project, the following procedures will be carried out for treatment and disposition of the discoveries: 1. Temporary Curation and Storage: During the course of construction, all discovered resources shall be temporarily curated in a secure location onsite or at the offices of the project archaeologist. The removal of any artifacts from the project site will need to be thoroughly inventoried with	

1. Executive Summary

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

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		tribal monitor oversite of the process; and 2. Treatment and Final Disposition: The landowner(s) shall relinquish ownership of all cultural resources, including sacred items, burial goods, and all archaeological artifacts and non-human remains as part of the required mitigation for impacts to cultural resources. The applicant shall relinquish the artifacts through one or more of the following methods and provide the City of Yucaipa with evidence of same: a. Accommodate the process for onsite reburial of the discovered items with the consulting Native American tribes or bands. This shall include measures and provisions to protect the future reburial area from any future impacts. Reburial shall not occur until all cataloguing and basic recordation have been completed; b. A curation agreement with an appropriate qualified repository within San Bernardino County that meets federal standards per 36 CFR Part 79 and therefore would be professionally curated and made available to other archaeologists/researchers for further study. The collections and associated records shall be transferred, including title, to an appropriate curation facility within San Bernardino County, to be accompanied by payment of the fees necessary for permanent curation: c. For purposes of conflict resolution, if more than one Native American tribe or band is involved with the project and cannot come to an agreement as to the disposition of cultural materials, they shall be curated at the San Bernardino County Museum by default; and. d. At the completion of grading, excavation and ground disturbing activities on the site, a Phase IV Monitoring Report shall be submitted to the City documenting monitoring activities conducted by the project archaeologist and Native Tribal Monitors within 60 days of completion of grading. This report shall document the impacts to the known resources on the property; describe how each mitigation measure was fulfilled; document the type of cultural resources recovered and the disposition of such resources; provide evidence of the required cultural sensitivity training for the construction staff held during the required pre-grade meeting; and, in a confidential appendix, include the daily/weekly monitoring notes from the	

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

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		archaeologist. All reports produced will be submitted to the City, County Museum, and consulting tribes.	
		15-4 Discovery of Human Remains. In the event that human remains (or remains that may be human) are discovered at the project site during grading or earthmoving, the construction contractors, project archaeologist, and/or designated Native American Monitor shall immediately stop all activities within 100 feet of the find. The project proponent shall then inform the San Bernardino County Coroner and the City of Yucaipa Community Development Department immediately, and the coroner shall be permitted to examine the remains as required by California Health and Safety Code Section 7050.5(b). Section 7050.5 requires that excavation be stopped in the vicinity of discovered human remains until the coroner can determine whether the remains are those of a Native American. If human remains are determined as those of Native American origin, the applicant shall comply with the state relating to the disposition of Native American burials that fall within the jurisdiction of the Native American Heritage Commission (NAHC) (PRC Section 5097). The coroner shall contact the NAHC to determine the most likely descendant(s)(MLD). The MLD shall complete his or her inspection and make recommendations or preferences for treatment within 48 hours of being granted access to the site. The disposition of the remains shall be overseen by the MLD to determine the most appropriate means of treating the human remains and any associated grave artifacts. The specific locations of Native American burials and reburials will be proprietary and not disclosed to the general public. The locations will be documented by the consulting archaeologist in conjunction with the various stakeholders and a report of findings will be filed with the San Bernardino County Museum. According to California Health and Safety Code, six or more human burials at one location constitute a cemetery (Section 8100), and disturbance of Native American cemeteries is a felony (Section 7052) determined in consultation between the project proponent and the MLD. In the event that the project proponent and the MLD are in disagreement regarding the disposition of the	

1. Executive Summary

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

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		remains, State law will apply and the median and decision process will occur with the NAHC (see Public Resources Code Section 5097.98(e) and 5097.94(k)).	
5.16 UTILITIES AND SERVICE SYSTEMS			
WASTEWATER TREATMENT AND COLLECTION			
Impact 5.16-1: Project-generated wastewater would be adequately treated by Yucaipa Valley Water District's wastewater collection and treatment facilities.	Less than significant	No significant adverse impacts were identified and no mitigation measures are necessary.	Project and Cumulative Impacts are Less than significant
WATER SUPPLY AND DISTRIBUTION SYSTEMS			
Impact 5.16-2: Adequate water supply is available for the projected water demands under the Oak Glen Creek Specific Plan; and water delivery infrastructure would be constructed to meet project needs.	Less than significant	No significant adverse impacts were identified and no mitigation measures are necessary.	Project and Cumulative Impacts are Less than significant
STORM DRAINAGE SYSTEMS			
Impact 5.16-3: Implementation of the proposed project would increase impervious surfaces and increase stormwater runoff; however, the proposed detention basin would assist in flood control and storm drainage in the project area and minimize adverse impacts.	Less than significant	No significant adverse impacts were identified and no mitigation measures are necessary.	Project and Cumulative Impacts are Less than significant
OTHER UTILITIES			
Impact 5.16-4: Existing and/or proposed facilities would be able to accommodate project-generated electricity, natural gas, and communication facility demands.	Less than significant	No significant adverse impacts were identified and no mitigation measures are necessary.	Project and Cumulative Impacts are Less than significant

2. Introduction

2.1 PURPOSE OF THE ENVIRONMENTAL IMPACT REPORT

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

The lead agency means "the public agency which has the principal responsibility for carrying out or approving a project which may have a significant effect upon the environment" (Guidelines § 21067). The City of Yucaipa has the principal responsibility for approval of the Oak Glen Creek Specific Plan project. For this reason, the City of Yucaipa is the CEQA lead agency for this project.

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

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

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

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

2.2 NOTICE OF PREPARATION

The City initially circulated a Notice of Preparation (NOP) for the previous Wilson Creek Business Park Specific Plan at the same project site, for public comment on August 12, 2011, through September 12, 2011. The City also held a public scoping meeting on August 18, 2011. Since the initial circulation of the NOP, the proposed project has been substantially modified. The proposed project is now titled Oak Glen Creek Specific Plan and has an expanded project boundary and modified land uses. Based on these changes and the time elapsed since initial release of the NOP in 2011, the City determined that the NOP should be recirculated.

Thus, the City of Yucaipa issued an NOP on May 6, 2016 (see Appendix A). Comments received during the NOP public review period, from May 6, 2016, to June 6, 2016, are also in Appendix A. The NOP process helps determine the scope of the environmental issues to be addressed in the DEIR. Based on this process, certain environmental categories were identified as having the potential to result in significant impacts. Issues considered Potentially Significant are addressed in this DEIR, but issues identified as Less Than Significant or No Impact are not. Refer to Chapter 8, *Impacts Found Not to Be Significant*, for a discussion on how these initial determinations were made.

Two agencies and four interested parties responded to the NOP. This DEIR has taken into consideration those responses. Table 2-1 summarizes the issues identified by these commenters, with a reference to the section(s) of this DEIR where the issues are addressed.

Table 2-1 NOP Comment Summary

Commenter	Date	Comment Summary	Issue Addressed In:
Wendell Duke	05/23/2016	– Noted their preference for 2nd Street to go through the project site rather than new road through middle of the canyon – Concerned that proposed road will impact views of canyon – Concerned that traffic from the new road will drive out wildlife – Concerned about noise impacts from the new road – Suggests a reduction in the proposed housing development along Oak Glen Road to allow for more open space	– Chapter 3, *Project Description* – Section 5.1, *Aesthetics* – Section 5.10, *Noise* – Section 5.14, *Transportation and Traffic* – Chapter 7, *Alternatives*
Linette and Paul Thomas	05/27/2016	– Concerned about the destruction of flora and fauna from road construction and proposed grading – Disagrees with the need for a road through the project site – Concerned with the lack of representation from the San Bernardino Flood Control District at the scoping meeting – Questioned the need for housing development to finance the hydrology projects	– Chapter 3, *Project Description* – Section 5.3, *Biological Resources* – Section 5.8, *Hydrology and Water Quality* – Section 5.9, *Land Use and Planning* – Section 5.14, *Transportation and Traffic* – Chapter 7, *Alternatives*

Table 2-1 NOP Comment Summary

Commenter	Date	Comment Summary	Issue Addressed In:
		– Concerned that grading the entire project area is unnecessary and will drive out wildlife – States that development of an Innovation District area along Bryant Street is unnecessary – Suggests that 2nd Street could be extended through the project instead of constructing a new roadway – States that construction of new homes is unnecessary and that the area should remain zoned Light Industrial	
John and Elaine Lane	06/01/2016	– Stated opposition of any road going through the Wilson Creek Basin – Concerned that the rodent population will get worse if the native wildlife habitat is destroyed by construction of a new road – Concerned that a new road will increase the risk of contaminating the city's water – Concerned that increased population from new housing will impact the drought – Concerned about the removal of natural vegetation from project construction – Suggests that plants be added to the north of the Open Space District to reduce impacts to vegetation – Concerned about the view impacts of residents to the east of the project site – Requests that the lights along the new street not be the brightest allowed lights – Requests that lighting and fences of the new city yard not face the housing to the south of the basin	– Chapter 3, *Project Description* – Section 5.1, *Aesthetics* – Section 5.3, *Biological Resources* – Section 5.8, *Hydrology and Water Quality* – Section 5.9, *Land Use and Planning* – Chapter 7, *Alternatives*
South Coast Air Quality Management District (SCAQMD)	06/06/2016	– Requests the direct sending of a copy of the Draft EIR and all appendices or technical documents related to air quality and greenhouse gas analysis – States that without all files and supporting documentation, the SCAQMD will not be able to review the air quality analysis in a timely manner – Notes that any delays in providing air quality documentation will require additional review time beyond the end of the comment period – Requests that all air quality analysis be done in accordance with SCAQMD thresholds	– Section 5.2, *Air Quality* – Section 5.6, *Greenhouse Gas Emissions* – Appendix B, *Air Quality/GHG Analysis*
Southern California Association of Governments (SCAG)	06/06/2016	– Requests that environmental documentation be sent to SCAG upon completion for review – States SCAG's 2016 Regional	– Section 5.9, *Land Use and Planning* – Section 5.11, *Population and Housing*

2. Introduction

Table 2-1 NOP Comment Summary

Commenter	Date	Comment Summary	Issue Addressed In:
		Transportation Plan (RTP) and Sustainable Communities Strategy (SCS) goals – States SCAG's 2016 RTP/SCS strategies – States SCAG's demographics and growth forecasts for both the region and the City of Yucaipa – Notes SCAG's list of performance standards–based mitigation measures that may be considered for adoption	
Susanne Marco	06/06/2016	– Notes that the property is a designated wildlife corridor and that the area is used by coyotes as whelping dens – States that the project area is one of the few remaining locations that has the rural atmosphere that originally attracted residents to the City – Notes that there are other possibilities for land use that would not require major changes to the project area – Suggests that the section with the lowest elevation be utilized as a holding pond, with 2nd Street serving as the retaining wall – Suggests that the upper section have walking trails but the middle area be left intact to remain as a wildlife corridor – Inquires if the bottom of the holding pond needs to be scraped and remain barren as opposed to having vegetation in the area	– Chapter 3, *Project Description* – Section 5.3, *Biological Resources* – Section 5.9, *Land Use and Planning* – Chapter 7, *Alternatives*

Note: Comments are organized by date received.

Prior to preparation of this DEIR, a public scoping meeting was held on May 19, 2016, to determine the concerns of responsible and trustee agencies and the community regarding the proposed project. The scoping meeting was held at the City of Yucaipa and attended by a number of community members and interested parties. Table 2-2 summarizes the issues identified at the scoping meeting and references to the section(s) of this DEIR where the issues are addressed.

Table 2-2 Scoping Meeting Comment Summary

Environmental Topic	Summary of Comments	Issue(s) Addressed In:
Project Description	– Questioned what the zoning was on the Residential and Innovation Districts – Inquired why there is a zone change request – Suggested the Innovation Districts be located along Oak Glen Road – Requested to review the previous technical studies prepared for the project site – Questioned why the Innovation Districts are not all located on the northeast area of the project site – Questioned why houses are proposed as part of the project; recommends leaving the area as open space – Inquired about the proposed wildlife education center allowed in the Innovation District – Questioned whether a golf course or equestrian trails would be developed to maintain the rural atmosphere of the community	City staff responded to these comments at the scoping meeting. Additional information can be found in: – Chapter 3, *Project Description*
Aesthetics	– Concerned that views will be obstructed by the residential development – Concerned that the new road will impact views and affect the rural community atmosphere	– Section 5.1, *Aesthetics*
Biological Resources	– Commented that coyotes that help control wild animal and plant populations would be driven out by the proposed development. – Noted that shepherds were originally driven out of the area because their animals were eating endangered flowers in the project area	– Section 5.4, *Biological Resources* – Section 5.6, *Geology and Soils*
Hydrology and Water Quality	– Asked how the proposed flood drainage locations were chosen – Stated concerns about the detention basin's size and location – Stated that if vegetation is removed, animals would leave and water would move more freely in the area – Noted that the original project proposed revegetation in the project area – Inquired if a study would be prepared to analyze water permeability before and after development	– Section 5.8, *Hydrology and Water Quality*
Noise	– Noted that noise and smell impacts generated during construction of the project would drive animals out of the area	– Section 5.3, *Air Quality* – Section 5.12, *Noise*
Population and Housing	– Questioned how the average household size in Yucaipa was determined	– Section 5.11, *Population and Housing*
Traffic	– Questioned why the proposed connector, Eucalyptus Road, would connect to the Innovation District at the southeast of the project site – Recommended that the shape of Eucalyptus Road be more straight to affect less homes in the area – Recommended that Sunnyside Drive be connected to Eucalyptus Road to reduce traffic – Questioned what roadways and intersections would be included in the traffic impact analysis	– Section 5.14, *Transportation and Traffic*
Alternatives	– Noted that there are already empty buildings in Redlands and Banning that could be used for similar uses proposed for the Innovation Districts – Noted that there are already vacant buildings in Yucaipa that could be used as opposed to building new buildings in the Innovation Districts	City staff responded to these comments at the scoping meeting. Additionally information can be found in: – Chapter 3, *Project Description* – Chapter 7, *Alternatives*

Table 2-2 Scoping Meeting Comment Summary

Environmental Topic	Summary of Comments	Issue(s) Addressed In:
Nonenvironmental Questions/Comments	– Questioned why the project is moving forward, who requested it, and who needs it – Asked why money was spent on an EIR before the community was asked about the project – Requests that subsequent notices regarding the project be labeled more clearly to identify that they are being sent by the City – Requests additional time between meeting notices and meeting date – Noted that many residents did not receive the NOP – Requests that notices be sent to more residences in the area	City staff responded to these comments at the scoping meeting. The comments are not environmental concerns of the proposed project and are not further analyzed in the EIR.

2.3 SCOPE OF THIS DEIR

The scope of the DEIR was determined based on the City's expertise, comments received in response to the NOP, and comments received at the scoping meeting. Pursuant to Sections 15126.2 and 15126.4 of the CEQA Guidelines, the DEIR should identify any potentially significant adverse impacts and recommend mitigation that would reduce or eliminate these impacts to levels of insignificance.

The information in Chapter 3, *Project Description*, establishes the basis for analyzing future, project-related environmental impacts. However, further environmental review by the City may be required as more detailed information and plans are submitted on a project-by-project basis.

2.3.1 Impacts Considered Less Than Significant

The City evaluated all 18 environmental categories in this DEIR.

Impacts to agriculture and forestry resources and to mineral resources were determined to be less than significant during scoping for the EIR. Chapter 8, *Impacts Found Not to Be Significant*, substantiates why impacts related to these topics would be less than significant.

- Agriculture and Forestry Resources
- Mineral Resources

In addition, Chapter 5, *Environmental Impacts*, of the DEIR determined that the following impacts would be less than significant with adherence to existing regulatory requirements and standard conditions of approval:

- Aesthetics
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning

- Population and Housing
- Public Services
- Recreation
- Utilities and Service Systems

The City determined that seven environmental categories have potentially significant impacts if the proposed project is implemented but would be mitigated to less than significant levels:

- Air Quality
- Biological Resources
- Cultural Resources
- Greenhouse Gas Emissions
- Noise
- Transportation and Traffic
- Tribal Cultural Resources

2.3.2 Unavoidable Significant Adverse Impacts

This DEIR identifies no significant and unavoidable adverse impacts, as defined by CEQA, which would result from implementation of the proposed project. Unavoidable adverse impacts may be considered significant on a project-specific basis, cumulatively significant, and/or potentially significant. The City must prepare a "statement of overriding considerations" before it can approve the project, attesting that the decision-making body has balanced the benefits of the proposed project against its unavoidable significant environmental effects and has determined that the benefits outweigh the adverse effects, and therefore the adverse effects are considered acceptable.

As stated above, the DEIR did not identify any significant and unavoidable impacts

2.4 INCORPORATION BY REFERENCE

Some documents are incorporated by reference into this DEIR, consistent with Section 15150 of the CEQA Guidelines, and they are available for review at the City of Yucaipa.

- **City of Yucaipa General Plan (April 2016):** The City of Yucaipa General Plan serves as the major tool for directing growth within Yucaipa and presents a comprehensive plan to accommodate the City's growing needs. The general plan analyzes existing conditions in the City, including physical, social, cultural, and environmental resources and opportunities. The general plan also looks at trends, issues, and concerns that affect the region, includes City goals and objectives, and provides policies to guide development and change. Where applicable, chapters and figures of the City's general plan are referenced throughout this DEIR.

- **City of Yucaipa Municipal Code (Updated September 2015):** The City of Yucaipa Municipal Code identifies land use categories, development standards, and other general provisions that ensure consistency between the City's general plan and proposed development projects. Where applicable, chapters and sections of the City's municipal code are referenced and explained throughout this DEIR.

2.5 FINAL EIR CERTIFICATION

This DEIR is being circulated for public review for 45 days pursuant to CEQA Statute Section 21091(a). Interested agencies and members of the public are invited to provide written comments on the DEIR to the City address shown on the title page of this document. Upon completion of the 45-day review period, the City of Yucaipa will review all written comments received and prepare written responses for each. A Final EIR (FEIR) will incorporate the received comments, responses to the comments, and any changes to the DEIR that result from comments. The FEIR will be presented to the Yucaipa Planning Commission for recommendation to the City Council. If recommended, the FEIR will be presented to the Yucaipa City Council for potential certification as the environmental document for the project. All persons who comment on the DEIR will be notified of the availability of the FEIR and the date of the public hearing before the City.

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

- City of Yucaipa Community Development Department—34272 Yucaipa Boulevard, Yucaipa, CA
- Yucaipa Branch Library—12040 5th Street, Yucaipa, CA
- City of Yucaipa's website—http://yucaipa.org/development/community-development/environmental-review

2.6 MITIGATION MONITORING

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

The Mitigation Monitoring Program for the Oak Glen Creek Specific Plan will be completed in conjunction with the Final EIR, prior to consideration of the project by the City of Yucaipa City Council.

3. Project Description

3.1 PROJECT LOCATION

The City of Yucaipa is in the eastern portion of the San Bernardino Valley at the foot of the San Bernardino Mountains (see Figure 3-1, *Regional Location*). Yucaipa is bordered by the City of Calimesa and unincorporated Riverside County to the south; the City of Redlands and unincorporated San Bernardino County to the west, which includes the community of Mentone; and the foothills of the San Bernardino Mountains to the north and east in unincorporated San Bernardino County. The San Bernardino National Forest runs along the City's northeast border. The Crafton Hills run along the City's northwest boundary, separating the City from the Mentone and Redlands.

The Oak Glen Creek Specific Plan site is approximately 115.6 acres in the central-northern portion of Yucaipa. The entire site is approximately 4.7 miles northeast of Interstate 10 (I-10), which runs northwest–southeast along the southwest boundary of the City and provides regional access to the site. Local access is provided by Oak Glen Road, Bryant Street, and 2nd Street (see Figure 3-2, *Local Vicinity*).

As shown in Figure 3-3, *Aerial Photograph*, the project site is irregularly shaped and bounded by Oak Glen Road to the north, Bryant Street to the east, generally 2nd Street and existing single-family residences to the west, and a natural slope to the south that abuts single-family residences.

3.2 STATEMENT OF OBJECTIVES

The following project goals and objectives will aid decision makers in their review of the project and associated environmental impacts:

Goals

- Provide drainage and recreation improvements along Oak Glen and Wilson Creek.
- Ensure that future development of the site would properly integrate into adjoining land use and infrastructure systems.
- Provide development designs that would be visually attractive.

Objectives

1. Provide for future development opportunities through the construction and installation of street, utility, and storm drain improvements.

2. Capitalize on the project location to provide an opportunity for the development of residential, institutional, office, and medical uses, including public and private educational facilities.
3. Provide additional opportunities for local employment that reduce the need to travel out of town for jobs.
4. Develop flood control improvements and a retention basin that include the realignment of Wilson Creek and the improvement of Oak Glen Creek.
5. Develop portions of the area affected by Wilson Creek and Oak Glen Creek for combined drainage facilities and recreational features.
6. Design a safe and efficient circulation system that adequately supports the anticipated level of vehicular, pedestrian, and bicycle traffic in and around the project site and is compatible with existing neighborhoods.
7. Provide infrastructure systems that extend and connect to existing streets and trails.
8. Provide for the transition of ownership from public agencies and private owners to private business entities and institutional users.
9. Contribute significant property tax revenue to the City of Yucaipa.

3.3 PROJECT CHARACTERISTICS

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

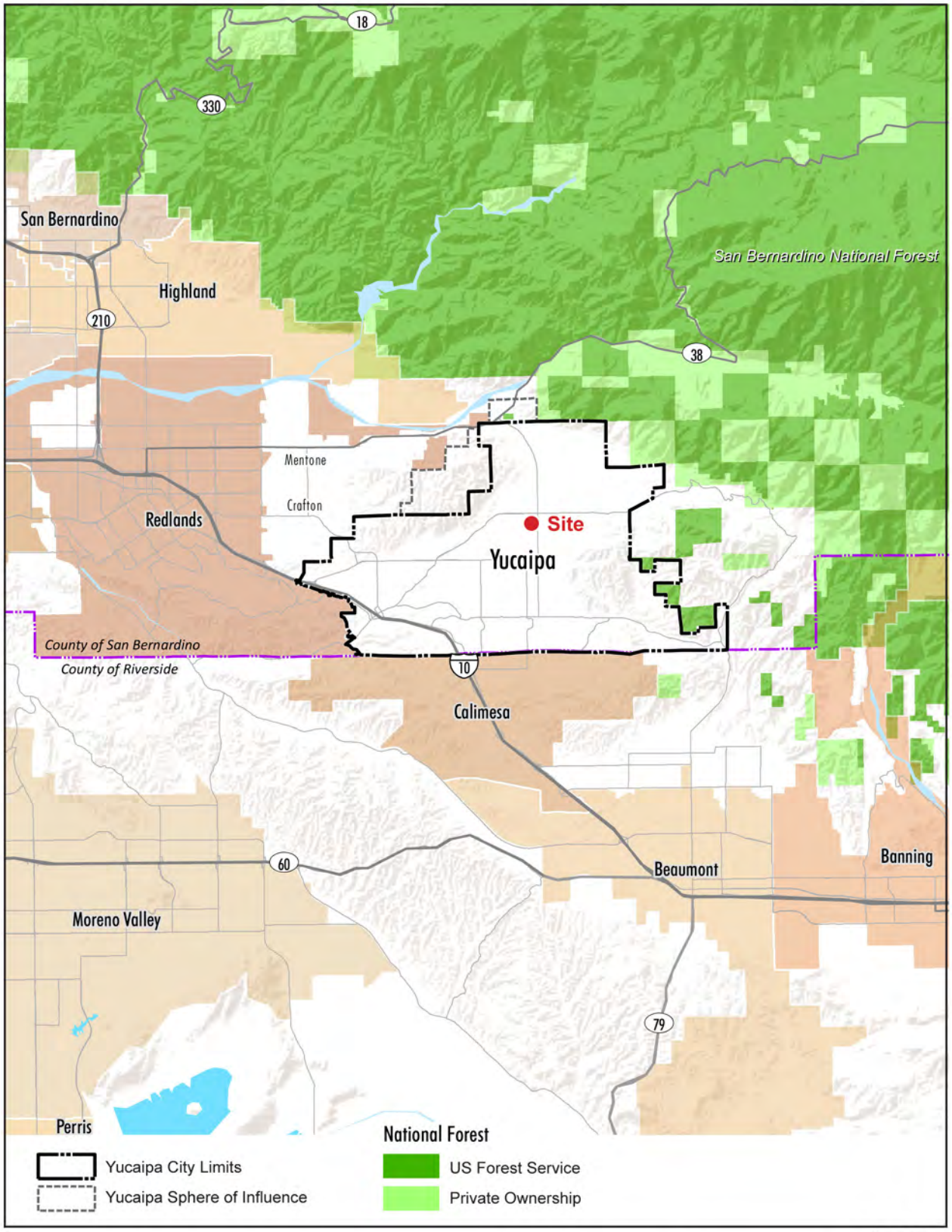
3.3.1 Existing Uses

3.3.1.1 ONSITE LAND USES

As shown on Figure 3-3, *Aerial Photograph*, the project site is mostly undeveloped and vacant. Development onsite includes the City maintenance yard and a borrow pit in the northwestern portion of the site, at the southeast corner of Oak Glen Road and 2nd Street, and one single-family residence at 11568 2nd Street. Undeveloped portions of the project site are owned by the San Bernardino Flood Control District (SBCFCD), with the exception of a water well owned and operated by Yucaipa Valley Water District near the southern extension of 2nd Street.

Wilson Creek runs north–southwest through the site, and Oak Glen Creek runs east–west through the middle of the site, intersecting with Wilson Creek toward the southwest portion of the site. The combined creek flows into a drainage area in the western portion of the site and into a cement culvert that directs the creek into a hard-bottomed channel.

Figure 3-1 Regional Location
3. Project Description



0 3
Scale (Miles)

Base Map Source: US Forest Service, 2013

3. Project Description

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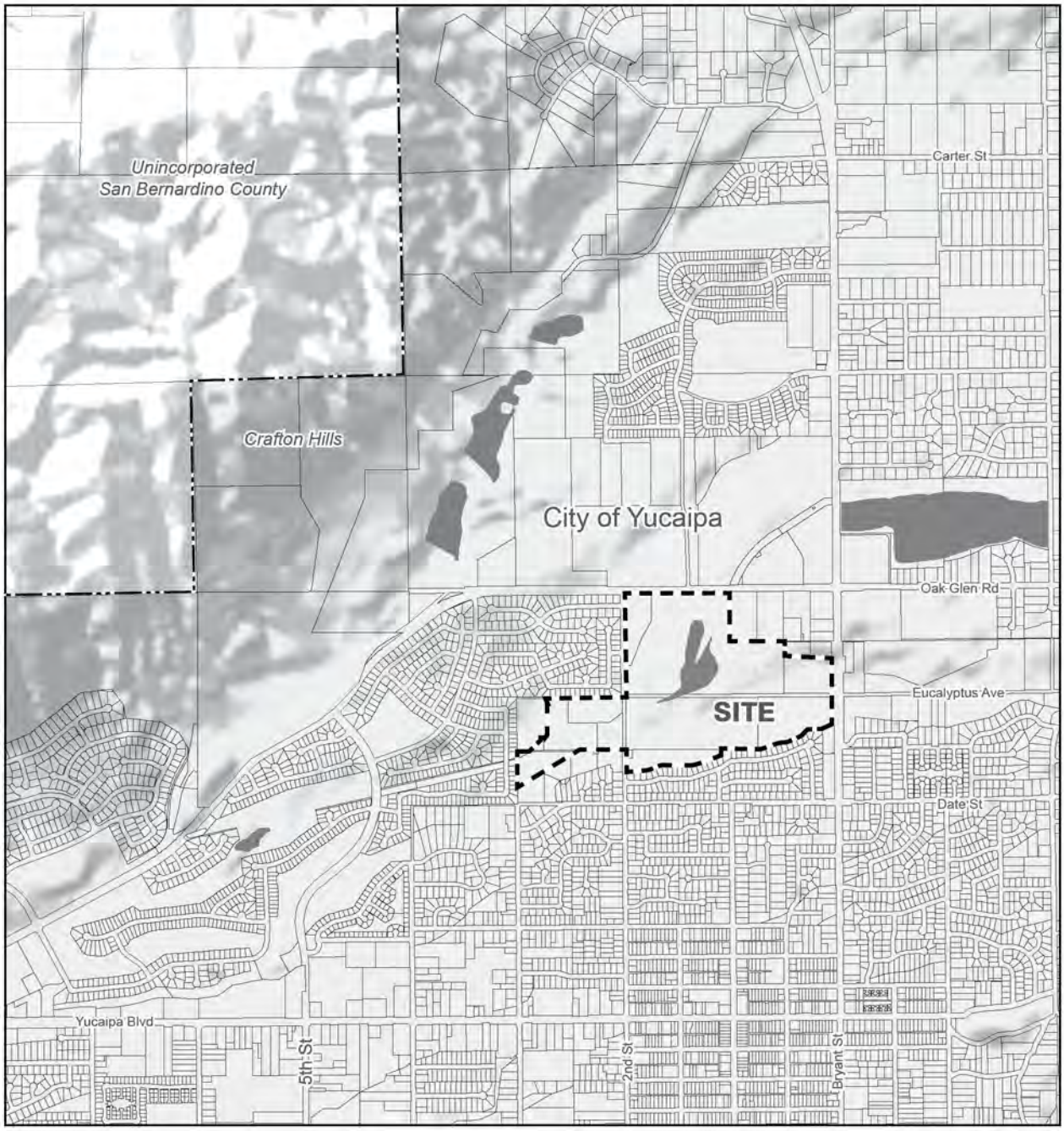
Figure 3-2 Local Vicinity

3. Project Description



Project Boundary

City Boundary

0 2,000
Scale (Feet)

Base Map Source: ESRI, USGS, NOAA, 2014

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Figure 3-3 Aerial Photograph

3. Project Description

Site Boundary

0 500
Scale (Feet)

Base Map Source: Google Earth Pro, 2016

3. Project Description

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3.3.1.2 SURROUNDING LAND USES

The project site is surrounded by a mix of land uses, including single-family residential, commercial, and open space (see Figure 3-3, *Aerial Photograph*). Located within a developing area, the site adjoins single-family residences to the south and west, including the Chapman Heights Planned Development, which is to the west; the Yucaipa Community Center, Wildwood Calvary Chapel and Wildwood Christian Academy (grades K-5), a mobile home park, and open space to the north; a California Department of Forestry and Fire Protection station to the east; and the Mousley Museum of Natural History to the southeast. The Oak Glen Creek flood control basins and Wilson Creek recharge basins are diagonally adjacent to the project site to the northeast, across Oak Glen Road and Bryant Street.

3.3.2 Project Description

The proposed project is a Specific Plan. The reason for using a Specific Plan for the project site is to restrict the types of land uses permitted on the property, ensuring greater compatibility with surrounding residential uses. The Oak Glen Creek Specific Plan provides a road map for the City of Yucaipa and future users to follow, detailing the land uses, improvement requirements, design details, and development review criteria that development proposals must comply with prior to operating. Although a Specific Plan graphically displays or delineates some of the criteria that must be met, it does not contain the level of detail normally associated with a site plan or subdivision application. Subsequent development approvals would be necessary from the City's Planning Commission and/or City Council prior to requesting building permits for construction.

3.3.2.1 LAND USE SUMMARY

The Oak Glen Creek Specific Plan is a long-term guide for development of the project site to accommodate three major components—the Residential District (47.7 acres), the Open Space District (57.6 acres), and the Innovation District (6.7 acres). Figure 3-4, *Proposed Land Use Districts*, illustrates the proposed land uses while Figure 3-5, *Proposed Land Use Plan*, illustrates conceptual layout of the residential lots and circulation system. A land use summary is provided in Table 3-1, *Oak Glen Creek Specific Plan Land Use Summary*.

Table 3-1 Oak Glen Creek Specific Plan Land Use Summary

Land Use	Allowed Uses[1]	Net Acres[2]	Potential Buildout (SF or Units)	Population and Employment[3]
Residential District	Single family residential	47.7	200 units	570 residents
Innovation District	Government Facilities, Institutional, Office, and Medical uses	6.7	20,000 SF	42 employees
Open Space District	Drainage, Recreational and Open Space uses	57.6	NA	NA
Roadways	2nd Street and internal roadways	3.7	NA	NA
	TOTAL	115.6 acres	200 units and 20,000 SF	570 residents and 42 employees

Notes: SF = square feet
1 See Table IV-2, *Allowed Land Uses*, of the Oak Glen Creek Specific Plan for a more detailed list of permitted and conditionally permitted uses in each district.
2 Acreage calculations reflect approximate net area and may vary depending upon final engineering designs. Acreages rounded to the nearest tenth place and may not total to 100 percent.
3 According to the 2016 California Department of Finance population and housing estimates, Yucaipa has an average household size of 2.85 persons (DOF 2016). The Yucaipa General Plan uses employment generation factors of 500 and 450 square feet per employee to calculate buildout of General Commercial and Commercial Service uses, respectively. An average of these—475 square feet per employee—was used to calculate the employment generation of the proposed Innovation District.

3. Project Description

The primary need for the project is flood attenuation and sediment reduction to alleviate existing downstream flooding along Wilson Creek thus providing protection for private properties, roadways, and other public infrastructure. The proposed realignment of Wilson Creek and channelization of Oak Glen Creek into a retention basin would increase stormwater retention capability, increase groundwater recharge, and improve downstream water quality. As a result of the basin improvements, portions of the site would be removed from the Federal Emergency Management Agency flood hazard zones, and the SBCFCD would no longer be needed to maintain additional acreage for flood control purposes. The development of the Residential and Innovation Districts north of Oak Glen Creek would require a change in ownership from the SBCFCD and City of Yucaipa to provide for development by private owners and/or other public agencies. The balance of the land in the Open Space District would continue to be owned and maintained by SBCFCD. The SBCFCD and the Yucaipa Valley Water District (YVWD), which has a well site on the property, would continue to maintain ownership of a portion of the property affected by Oak Glen Creek. However, the City of Yucaipa would also be responsible for the portions of Oak Glen Creek that would involve recreation-related uses and facilities, principally at the eastern end of Oak Glen Creek.

Overall, buildout of the Specific Plan area would allow approximately 200 single-family residential units and 20,000 square feet of nonresidential development; flood control improvements (i.e., detention basin) and open space would be in the southern portion of the site.

3.3.2.2 DEVELOPMENT STANDARDS

Table 3-2, *Oak Glen Creek Specific Plan Development Standards*, provides development standards for each proposed district related to lot characteristics, building height, setbacks, and other standards. In addition to the project-wide standards and criteria, the Specific Plan includes improvement standards that delineate development criteria and standards, infrastructure design requirements, and maintenance standards for the various land uses.

Table 3-2 Oak Glen Creek Specific Plan Development Standards

	Innovation District	Residential District[1]	Open Space District
Lot Characteristics			
Lot Size/Area	N/A	7,200 SF minimum lot size	N/A
Maximum Building Coverage	N/A; however, a 20,000-SF maximum building area has been established	40%	
Minimum Lot Frontage	Based upon approved site plan	NA	
Minimum Lot Depth	Based upon approved site plan	100 feet	
Minimum Lot Width	Based upon approved site plan	60 feet	
Building Design Criteria			
Minimum Street Setback	15 feet (Bryant Street and Eucalyptus Avenue)	15 feet (local street) 25 feet (collector street)	N/A
Minimum Yard Setback	10 feet (interior yard)	25 feet (front yard) 5 and 10 feet (side yard) 20 feet (rear yard)	
Maximum Building Height	45 feet	35 feet	
Minimum Building Separation	20 feet, with adjoining 2-story structures 30 feet, with adjoining 2- or 3-story structures	NA	
Building Encroachments	2 feet	NA	
Parking Requirements			
Parking Spaces	Based on final land use type per Yucaipa Development Code Section 87.0615	2 parking spaces per unit	NA
Additional Items			
Open Space and Recreational Features	Designed as part of permitted buildings	Multiuse trails, benches, low-level outdoor lighting	
Site Landscaping	15% of development area	The amount of landscaping is predicated upon the design of the open space area	
Landscaping Adjoining Street Right-of-Way or Adjacent to Oak Glen Creek	Oak Glen Road: Consistent with General Plan		

Note: SF = square feet
[1] The requirements of the City's RS-72C (Single Residential, 7,200 sq. ft. minimum lot size) shall apply to development in the Residential District.

3.3.2.3 PROPOSED LAND USE DISTRICTS

Residential District

The Residential District encompasses approximately 47.7 acres and would be zoned Single Residential with a 7,200-square-foot minimum lot size (RS-72C). This would allow development of up to 200 dwelling units.[1] A

[1] The actual amount of development in each land use area may vary, provided the total number of dwelling units is not exceeded.

conceptual lot layout for the Residential District is shown on Figure 3-5, *Proposed Land Use Plan*. Based on 2.85 persons per household, the Specific Plan would allow for up to 570 residents.[2]

The northern portion of Residential District includes the existing City maintenance yard. Although the Specific Plan allows for continuing this maintenance yard for the foreseeable future, it also provides for relocation of the maintenance yard to the east in the northern Innovation District.

Improvements and Design Standards

The Residential District would be developed based on RS-72C residential development standards, with modifications to provide for enhanced architectural design. The Residential District is envisioned to incorporate established themes that reflect recognizable attributes from well-known styles, including but not limited to Mediterranean, Craftsman, Spanish, Ranch, and Colonial. A specific theme is not required, but it is preferred. The end result is intended to distinguish the area from other residential development in its quality and design. Buildings may be relatively close to Oak Glen Road, which has an extended landscape corridor as part of the City's scenic highway setback. Buildings would be oriented internally and away from surrounding public streets (i.e., 2nd Street and Oak Glen Road).

Innovation District

The Innovation District consists of two areas that total approximately 6.7 acres and would allow development of approximately 20,000 square feet of institutional, office, medical, and professional uses.[3] This category would be displayed as "Innovation District (ID)" on the City of Yucaipa Land Use Districts Map to differentiate the area from other designations.

The Innovation District area is envisioned for institutional, office, medical, and professional uses. The northern Innovation District area—accessed via a proposed limited-use roadway along the east side of the Wilson Creek channel—would allow for relocation of the City's corporate maintenance yard and office. Based on an average employment generation factor of 475 square feet per employee,[4] the Innovation District would generate approximately 42 employees.

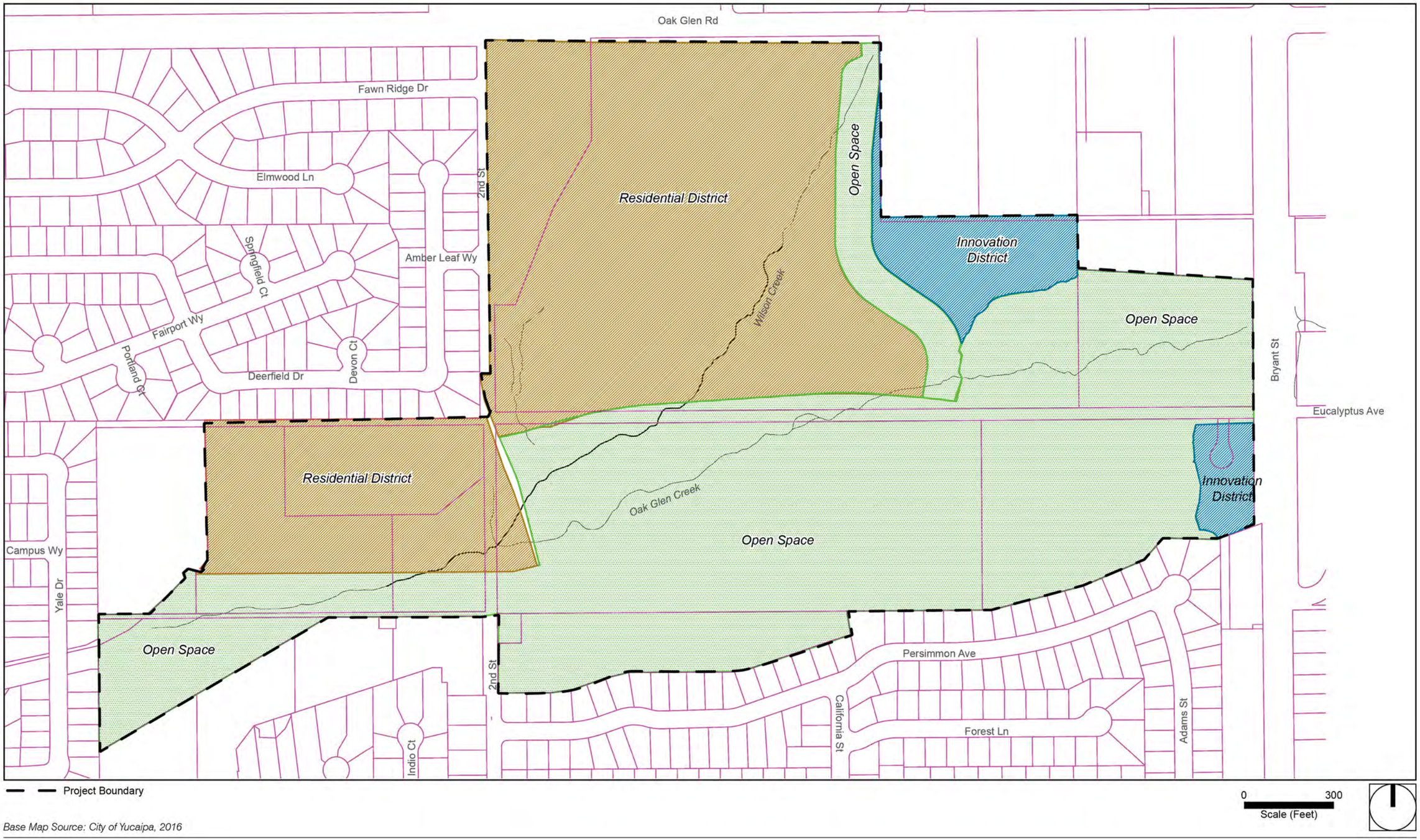
[2] According to the 2016 California Department of Finance population and housing estimates, the City of Yucaipa has an average household size of 2.85 persons (DOF 2016).

[3] The actual amount of development in the Innovation Districts may vary upon approval of final development plans, provided the total square footage of building area is not exceeded. The final size of the districts may also vary, depending on the final engineering design for the project roadways, realigned Wilson Creek, and the establishment of the northern open space area along Oak Glen Creek.

[4] The Yucaipa General Plan uses employment generation factors of 500 and 450 square feet per employee to calculate buildout of General Commercial and Commercial Service uses, respectively. An average of these—475 square feet per employee—was used to calculate the employment generation of the proposed Innovation District.

Figure 3-4 Proposed Land Use Districts

3. Project Description



Base Map Source: City of Yucaipa, 2016

3. Project Description

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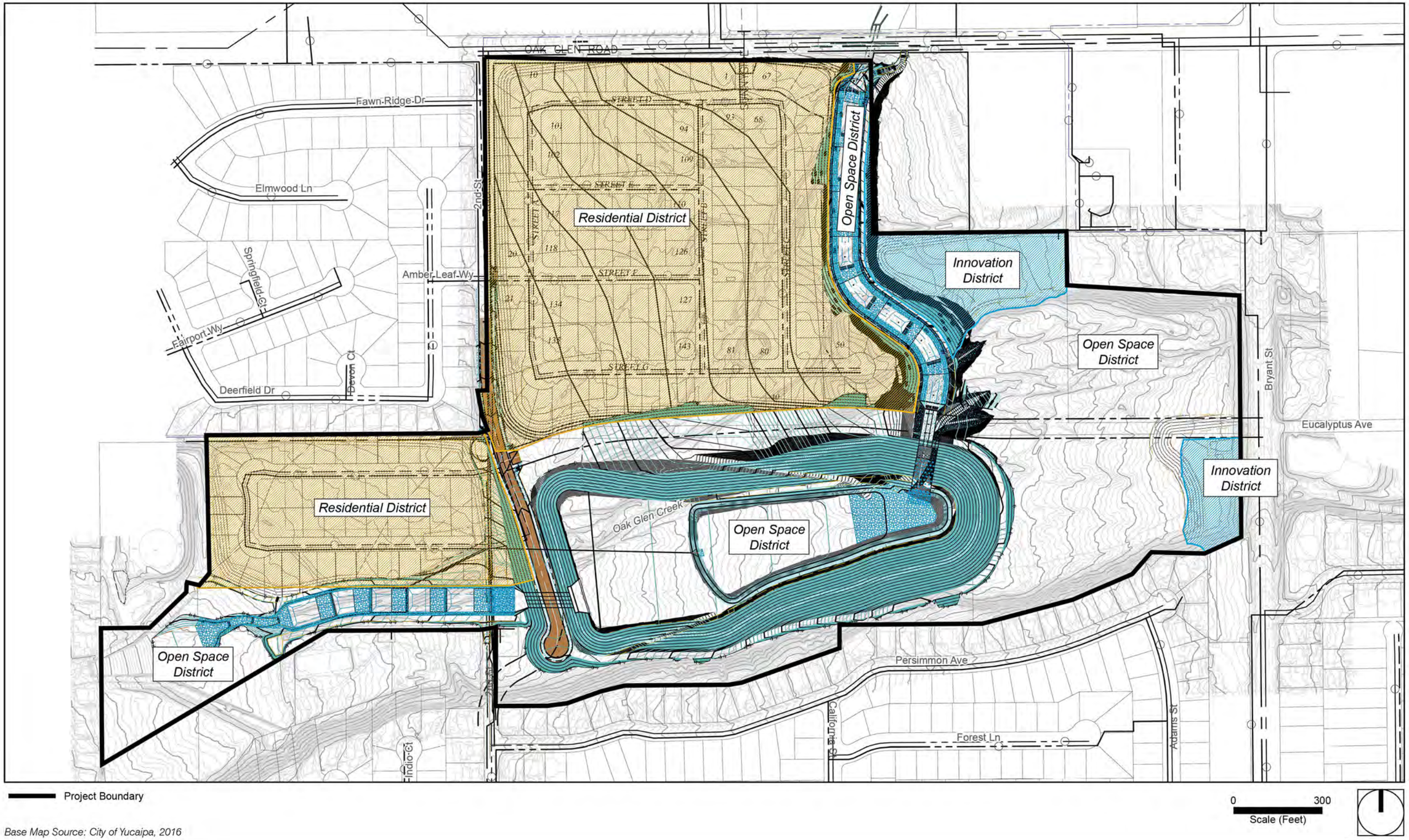
Figure 3-5 Proposed Land Use Plan

3. Project Description



Base Map Source: City of Yucaipa, 2016

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Design Standards

The Innovation District would allow single- and multistory structures. Multiple structures could be constructed to provide for a variety of small and medium-sized businesses, although a single larger user might be at each location as well. Development of this area could include the preparation, filing, and subsequent approval of a subdivision map to provide for separate ownerships. Building heights are restricted to a maximum of 45 feet, consistent with the City's existing Service Commercial (CS) and General Commercial (CG) zoning districts.

It is the intent of the Specific Plan to provide design parameters (i.e., building design; articulation/façade; materials, textures and colors; rooflines, entries, windows and doors) for future development that would enhance the use of buildings within the district, including the parameters detailed in Table V-1, *Innovation District Style and Design Criteria*, of the Specific Plan.

The Innovation District would include the following design features associated with building orientation, parking, landscaping, trails, and outdoor use areas.

- **Building Orientation:** Proposed buildings facing public streets would be architecturally attractive and present a positive and upscale design face toward the surrounding area.

- **Parking Areas:** Required parking areas would be provided in close proximity to each business. Reciprocal parking and access is to be provided, as appropriate, between businesses and lots to allow for ease of access and maneuvering. Parking is expected to be in front of the buildings in the Innovation District.

- **Outdoor Use Areas:** The proximity of the Innovation District to Oak Glen Creek provides the opportunity for future businesses to provide outdoor seating areas for employees. These facilities are not required, but are allowed as part of future development proposals. Should such areas be incorporated into the site plan and building designs, appropriate landscaping and/or shade structures would be provided to create an attractive setting, with adequate visibility around the site for security purposes.

Open Space District

The Open Space District covers approximately 57.6 acres and represents an important link in the City's flood control system. Upstream and downstream facilities collect and convey stormwater flows through the City. Thus, the Open Space District would link with and expand the existing system by ensuring adequate channel capacity for stormwater flows. Also, it would increase the system's retention and percolation capabilities with a single detention basin and a meandering stream. Development would be limited to what is necessary for flood control, drainage, stormwater retention/detention, and open space and recreational uses. No buildings for human occupancy would be allowed, except those related to recreation and/or resource conservation, such as providing an area for general public information on water and biological resources. Such buildings are envisioned for the eastern side of the Open Space District.

The flood control improvements could include hard, concrete channels and soft, earthen channels with compatible passive recreational uses. Uses may include flood control streams and channels, groundwater recharge basins/facilities, walking paths, and passive recreational features (i.e., fishing ponds, benches, and tables). The upper portion of Oak Glen Creek would permit passive recreational uses outside of storm events, such as hiking trails around the upper portion of the basin.

Design Standards

The Open Space District would include design features for drainage channels, detention/retention facilities, recreational and open space uses, landscaping, multiuse trails, and open space recreational areas.

- **Drainage Channels:** Flood control and drainage facilities would use natural and improved designs, such as graded and soft-bottom/walled channels, as well as concrete-lined facilities.

- **Detention/Retention Facilities:** The detention or retention of stormwater would use a single-basin design. The type of improvements necessary will vary depending upon the final design selected. To reduce the potential adverse visual effect of proposed buildings on existing residents south of Oak Glen Creek, trees are to be provided along both sides of the multiuse trail where the Residential District and Open Space District meet.

- **Open Space/Recreational Areas:** The eastern portion of the Open Space District within Oak Glen Creek could include either a designed/improved low-flow stream channel for groundwater recharge as an aesthetic design feature or a natural trapezoidal channel to convey stormwater flows. Portions of the area surrounding the proposed detention basin would be revegetated to provide a natural open space area and would include multipurpose trails. Resting areas with benches and tables are also planned.

3.3.2.4 CIRCULATION PLAN

Primary access to the project site is provided by Oak Glen Road, 2nd Street, and Bryant Street, as shown in Figure 3-5, *Proposed Land Use Plan*. Oak Glen Road and Bryant Street are fully improved on the project site's northern and eastern boundaries, respectively. Second Street south of Oak Glen Road is improved with sidewalks and gutters on the western side, but is not improved on the eastern side. Primary access to the northern and western Residential District areas would be provided by a connection to 2nd Street and Oak Glen Road. An additional, limited-use roadway is planned along the east side of Wilson Creek to provide access to the Innovation District site for the City maintenance yard, if relocated. Access to the southern Innovation District would be provided by a driveway on Bryant Street.

Development of the Oak Glen Creek Specific Plan would include constructing the following roadways to provide internal circulation and connect to existing surrounding roadways:

- **2nd Street:** Based on neighborhood input and comments received during the NOP public review, the circulation pattern around the Residential District was modified to provide a connection with Oak Glen Road at Sunnyside Drive. South of Oak Glen Road, 2nd Street is planned as a Collector Street with a 66-foot right-of-way for approximately one-quarter mile, and would then transition to a Local Street with a

60-foot right-of-way. The segment of 2nd Street would provide a fully improved roadway section with paving, curb, gutter, and sidewalk on both sides of the street.

- **Internal Roadways:** A preliminary subdivision design for the northern Residential District uses a grid arrangement with single connection points to 2nd Street and Oak Glen Road (see Figure 3-5, *Proposed Land Use Plan*). The western Residential District may be designed with a loop street. Interior streets would be standard Local Streets, with a 60-foot right-of-way or a modified 50-foot right-of-way. A limited-use roadway along the east side of Wilson Creek would provide access to the northern Innovation District if the City maintenance yard is relocated there. Access to the southern Innovation District would be provided by a driveway on Bryant Street that would align with the existing Eucalyptus Avenue east of Bryant Street.

- **Driveways, Drive Aisles, and Parking:** Internal driveways, drive aisles, and parking areas would be constructed in all the proposed districts as projects are approved and developed in the Specific Plan area.

3.3.2.5 MULTI-PURPOSE TRAILS

Basin improvements associated with the proposed project would allow for the installation of multipurpose trails around portions of the site. Several multipurpose trails are proposed to provide access to proposed recreational uses and connect with existing bike and trail facilities. A multiuse trail is intended along Wilson Creek Channel from Oak Glen Road, if SBCFCD concurs, as a continuation of the existing trail north of Oak Glen Road. The trail would be owned and maintained by SBCFCD, who would make the final determinations for the development, operation, and maintenance of this trail.

An additional multiuse trail through the project site, shown on the "Multi Use Trails" exhibit of the Yucaipa General Plan, extends along the northern side of the flood control basin from 2nd Street to Bryant Street and would provide a link to existing trails on the west side of 2nd Street. The trail would also connect with a Class II Bike Lane on Bryant Street, as displayed on the "Bikeway Network" exhibit of the general plan.

A fence would also be developed between the northern Residential District and Open Space District that complies with the City's standard fencing design.

3.3.2.6 LANDSCAPE PLANS

Residential District

The Residential District has frontage along Oak Glen Road, which is designated a scenic highway in the circulation element of the general plan. The landscaping along Oak Glen Road would be consistent with the City's scenic highway design standards along the entire project frontage. Oak Glen Creek Specific Plan project signage would also be implemented to establish an identity for the project area.

Oak Glen Road has existing landscape west of 2nd Street, and similar features would be continued along the project frontage. Parkways planted with shade trees are proposed along Oak Glen Road to provide a pleasant pedestrian environment and contribute to streetscape continuity. The Oak Glen Road and 2nd Street frontage

would be landscaped in accordance with an identified theme selected by a future project developer and approved by the City of Yucaipa.

Scenic highway landscaping measures incorporated into the Specific Plan include:

- Using automatic irrigation systems with moisture sensors installed to ensure plant material survives.
- Providing root barriers when trees are planted five feet or closer to any hardscape element (e.g., curbs, sidewalks, other paving) or structure. The distance shall be measured from the center of the tree trunk to the nearest hardscape or structure.
- Avoiding flowering trees and fruit-bearing trees on pedestrian parkways and Americans with Disabilities Act (ADA) walkways to maintain clear passageways.

Landscaped buffering would also be provided along 2nd Street to minimize light and noise emanating from vehicles entering and exiting the adjacent subdivision. This buffering may incorporate a raised landscape berm and block wall. Various landscape exhibits provide conceptual designs for these areas, as displayed in Figures V-1 and V-2 in the Specific Plan. A landscaping plant palette is also provided in Appendix A of the Specific Plan.

The western Residential District has limited frontage on existing roadways; therefore, landscaping in this area would primarily be on internal roadways in accordance with an identified theme selected by a future project developer and approved by the City of Yucaipa.

Innovation District

Landscaping in the Innovation District would provide an attractive streetscape, accentuate building design, and shade parking lots. Landscaping materials and design features along perimeter streets and the northern side of the basin are intended to provide visual relief for surrounding residents. Landscaping in the Innovation District would be primarily oriented toward the internal portions of the project site. Specific design guidelines include:

- A landscape strip would be planted directly adjacent to the building edge to create a buffer and help to prevent graffiti.
- Groundcover would be installed in landscaped areas to provide a finishing treatment as well as erosion and weed control.
- Mulch, bark, and stone/rock cover would not be used as an alternative to groundcover.
- Turf would only be used when it serves a specific function. Turf areas would be minimized to conserve water.
- Landscaping elements in the front yard setback are required to incorporate drought-tolerant materials.

- Trash enclosures are required to comply with City standards and be screened with landscaping.

Open Space

An improved landscape corridor on the northern side of the basin, along the planned multiuse trail extending from 2nd Street to Bryant Street, is shown in Figure 3-6, *Conceptual Open Space Landscape Plan*. This landscape corridor would separate the Residential District from the Open Space District and help screen buildings. The landscape corridor on the eastern half of the trail would provide a buffer from existing and future buildings beyond the boundaries of the Specific Plan (across Bryant Street). Natural vegetation would be planted in the northern and northeastern portion of the Open Space District, generally within the actual drainage course, to improve the area's aesthetic qualities. The landscape design will depend on the final design of the drainage course. Plant species for this area are identified in Appendix A of the Specific Plan.

3.3.2.7 DRAINAGE PLAN

One of the purposes of the Oak Glen Creek Specific Plan is to design appropriate flood control facilities to control stormwater flows from Wilson and Oak Glen creeks and capture their stormwater runoff in a designated detention area(s). In the Residential District, stormwater flows would be conveyed along public interior roadways to catch basins that ultimately flow into Oak Glen Creek. Specific Plan development would incorporate several types of water quality–related best management practices to meet mandated water quality standards.

3.3.2.8 WET UTILITIES

The Oak Glen Creek Specific Plan is in the water, recycled water, and sewer service area of the Yucaipa Valley Water District.

Water

All water system improvements would be consistent with YVWD requirements. A number of water lines currently surround the project site, varying in size from 12 to 30 inches:

- 30-inch and 12-inch lines in Oak Glen Road
- 16-inch and 8-inch lines in 2nd Street
- 16-inch line in Bryant Street and near the northeast corner of the project site near the existing water reservoir
- 8-inch line in a portion of Oak Glen Road, along the 2nd Street alignment

All pipelines within public roadways must be owned and operated by YVWD. Pipelines in development projects and on private property must be privately owned and operated. Development of the Oak Glen Creek Specific Plan would include a "backbone" or public water system within the public roadways, and future developments would be responsible for onsite private water systems.

Since the size of future residences and nonresidential structures in the Specific Plan area can vary, specific water line improvements cannot yet be determined. However, YVWD has recommended water lines ranging from 8 to 16 inches within the public right of way to meet domestic and fire flow requirements. Specific water line sizes would be determined when specific development details are known.

Private water systems are also required to provide separate water pipelines for potable water and fire flow, and parallel pipelines would be required in certain portions of the project site. Private potable water systems require only two-inch pipelines and would be located in project driveways, parallel to the public water system.

Recycled Water

YVWD provides recycled water to minimize the use of potable water and make more efficient use of water resources. A 16-inch recycled water line is in Oak Glen Road and 2nd Street. YVWD recommends an 8-inch recycled water line in public streets, with laterals extended onto private property.

Sewer

YVWD is responsible for the collection and treatment of wastewater generated by the proposed project. YVWD has a 10-inch sewer line in Oak Glen Road, an 8-inch line that stubs out into 2nd Street north of Oak Glen Road, and an 8-inch line extending south in 2nd Street from Oak Glen Road.

An 8-inch sewer line would be installed in public streets extending through the project site. The proposed sewer lines would connect to the existing sewer line in 2nd Street and would be developed consistent with YVWD requirements. All sewer lines on private property would be privately maintained and would connect to the existing and proposed sewer system in the public street system.

3.3.2.9 GRADING PLAN

Development within the Residential and Innovation Districts of the Oak Glen Creek Specific Plan would drain into Oak Glen Creek using proposed internal roadways and/or other facilities as appropriate, depending upon their proximity to the creek (see Figure 3-7, *Proposed Grading Plan*). Grading within the Residential and Innovation Districts must meet existing City requirements to ensure appropriate building pad elevations and conveyance of stormwater through the site into appropriate drainage facilities. Overall, the proposed Specific Plan would require 1,827,289 cubic yards (cy) of cut and 1,851,044 cy of fill, of which the difference (23,755 cy) would be balanced onsite.

3.3.2.10 CONSTRUCTION AND PHASING

The Oak Glen Creek Specific Plan is not separated into distinctive construction phases; rather, the project would consist of general development areas that may occur in tandem with other development activities or individually, depending upon funding or other factors. The reason for the lack of defined phases is two-fold. First, the project site is generally divided in three development areas—the Residential District, Innovation District, and Open Space District. It is possible for districts to proceed independently from one another and as such, a variety of improvements may occur at any one time. Second, the City of Yucaipa desires flexibility in undertaking the most important improvements at any one time, depending upon a variety of factors, such

as the timing of agency funding, the amount of funding available, and developer interest and cooperation. The following development standards related to construction timing are detailed in the Specific Plan:

- Prior to the recordation of each final subdivision map, applicable facilities shall be installed or improvement bonds secured to serve that portion of the project.
- Where necessary, additional off-site facilities shall be installed when appropriate to provide for future development areas and when it would reduce potential disturbance with existing development.
- Facilities shall be designed and installed consistent with applicable design criteria of the City of Yucaipa, YVWD, and SBCFCD.
- Facilities that provide additional benefit to other development projects shall be subject to a reimbursement agreement.

Construction of the detention basin and passive recreational uses (basin project) would take approximately nine months. Construction of the Residential District and Innovation District could begin in late 2017/early 2018 with the first homes available in 2018. Overall, anticipated construction completion would occur in 2018-2019.

3.4 INTENDED USES OF THE EIR

This Draft EIR (DEIR) examines the environmental impacts of the proposed project and also addresses various actions by the City and others to adopt and implement the proposed project. It is the intent of this DEIR to evaluate the environmental impacts of the proposed project, thereby enabling the City of Yucaipa, other responsible agencies, and interested parties to make informed decisions with respect to the requested entitlements. The anticipated approvals required for this project are identified in Table 3-3, *Oak Glen Creek Specific Plan Required Approvals*.

Table 3-3 Oak Glen Creek Specific Plan Required Approvals

Lead Agency	Action(s)
City of Yucaipa City Council	• Certification of the Environmental Impact Report • Adoption of a Mitigation Monitoring and Reporting Program • Adoption of Findings of Fact (and Statement of Overrides, if required) • Adoption of the Oak Glen Creek Specific Plan • Approval of final grading plan, drainage plans, water quality management plans, stormwater pollution prevention plans, building permits, improvement plans, and landscape plans/irrigation plans for future development activities
Responsible Agencies	**Action(s)**
San Bernardino Flood Control District	• Approval of basin design
Federal Emergency Management Agency	• Approval of required Letter of Map Revision
U.S. Army Corps of Engineers	• Approval of required Regulatory Permit
Santa Ana Regional Water Quality Control Board	• Issuance of a National Pollution Discharge Elimination System Permit for future construction activities
California Department of Fish and Wildlife	• Approval of required Regulatory Permit
California Department of Forestry and Fire Protection	• Approval of water mains and fire hydrants fire flows

3.5 REFERENCES

California Department of Finance (DOF). 2016, May. E-5 Population and Housing Estimates for Cities, Counties, and the State, 2011-2016 with 2010 Census Benchmark. http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-5/.

Figure 3-6 Conceptual Open Space Landscape Plan

3. Project Description

0 500
Scale (Feet)

Base Map Source: City of Yucaipa

3. Project Description

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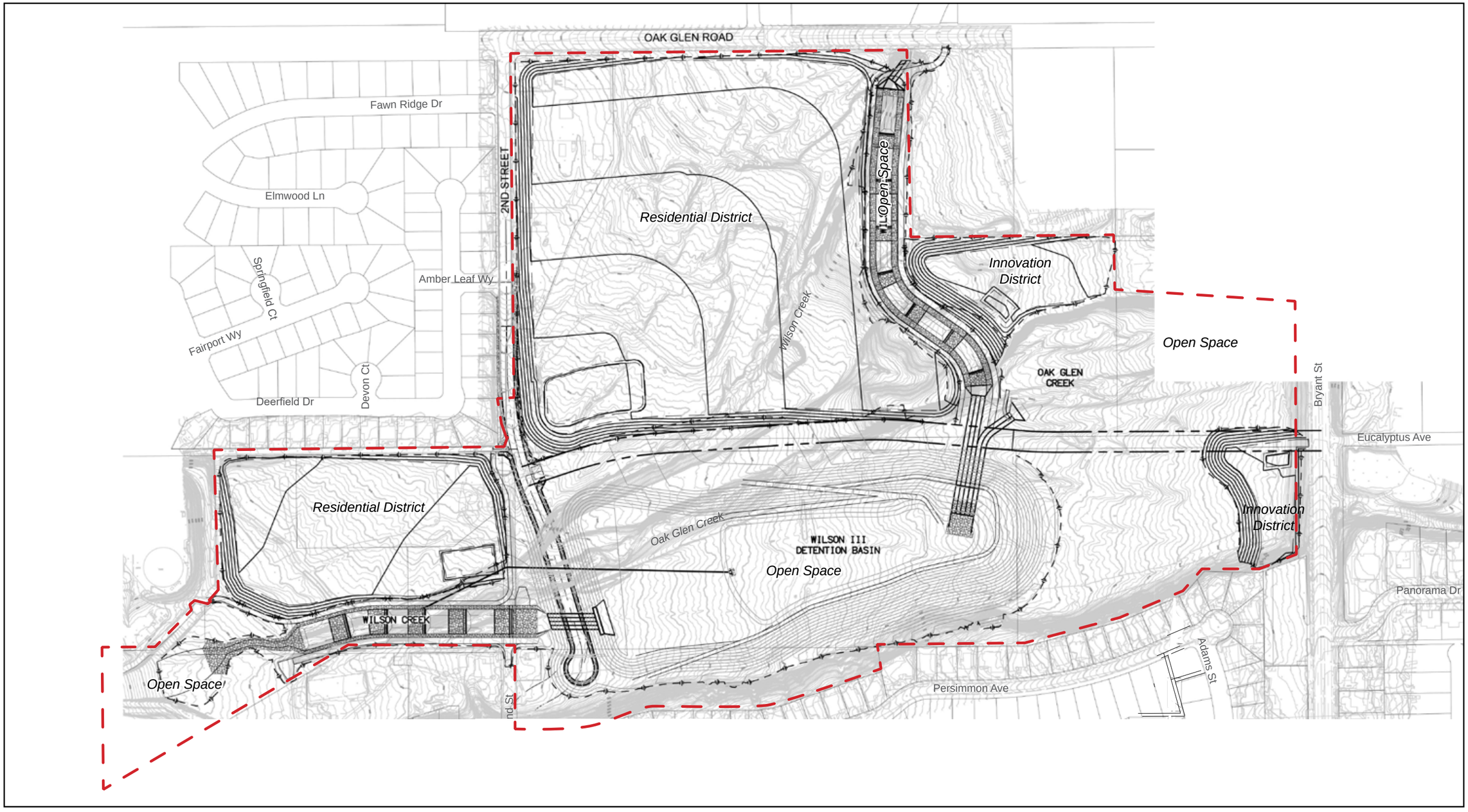
Figure 3-7 Proposed Grading Plan
3. Project Description



Project Boundary

0 300
Scale (Feet)

Base Map Source: City of Yucaipa, 2016

3. Project Description

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4. Environmental Setting

4.1 INTRODUCTION

This section provides a "description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published, ... from both a local and a regional perspective" (Guidelines § 15125[a]), pursuant to provisions of the California Environmental Quality Act (CEQA) and the CEQA Guidelines The environmental setting provides the baseline physical conditions from which the lead agency will determine the significance of environmental impacts resulting from the proposed project.

4.2 REGIONAL ENVIRONMENTAL SETTING

4.2.1 Regional Location

The Oak Glen Creek Specific Plan (proposed project) site is in the central-northern portion of the City of Yucaipa in the County of San Bernardino. The City of Calimesa borders Yucaipa to the south, the City of Redlands and unincorporated San Bernardino County lie to the west, and the foothills of the San Bernardino Mountains are north and east of the City. The Crafton Hills run along the City's northwest boundary, separating Yucaipa from the City of Redlands.

The City is in a natural valley in the Upper Santa Ana River Valley. Wilson Creek and Wildwood Creek are the two major creeks running through the Yucaipa Valley. Wilson Creek bisects the City along a northeast to southwest line, and Wildwood Creek bisects the City along a west to east line south of Wilson Creek. The terrain around the creeks tends to be more rough and jagged than the rest of the City, with distinct changes in elevation where erosion has cut out steep slopes and benches. The City's elevation ranges from 2,000 to 4,000 feet above mean sea level (amsl).

4.2.2 Regional Planning Considerations

SCAG Regional Transportation Plan/Sustainable Communities Strategy

The Southern California Association of Governments (SCAG) is a council of governments representing Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura counties. It is the federally recognized metropolitan planning organization for this region, which encompasses over 38,000 square miles. SCAG is a regional planning agency and a forum for addressing regional issues concerning transportation, the economy, community development, and the environment. It is also the regional clearinghouse for projects requiring environmental documentation under federal and state law. In this role, SCAG reviews proposed development and infrastructure projects to analyze their impacts on regional planning programs.

4. Environmental Setting

The 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) was adopted in April 2016 (SCAG 2016). Major themes in the 2016 RTP/SCS include integrating strategies for land use and transportation; striving for sustainability; protecting and preserving existing transportation infrastructure; increasing capacity through improved systems managements; providing more transportation choices; leveraging technology; responding to demographic and housing market changes; supporting commerce, economic growth, and opportunity; promoting the links between public health, environmental protection, and economic opportunity; and incorporating the principles of social equity and environmental justice into the plan.

The SCS outlines a development pattern for the region, which, when integrated with the transportation network and other transportation measures and policies, would reduce greenhouse gas (GHG) emissions from transportation (excluding goods movement). The SCS is meant to provide growth strategies that will achieve the regional GHG emissions reduction targets identified by the California Air Resources Board. However, the SCS does not require that local general plans, specific plans, or zoning be consistent with the SCS; instead, it provides incentives to governments and developers for consistency. The proposed project's consistency with the applicable 2016-2040 RTP/SCS policies is analyzed in detail in Section 5.6, *Greenhouse Gas Emissions*.

South Coast Air Basin Air Quality Management Plan

The City is in the South Coast Air Basin (SoCAB), which is managed by the South Coast Air Quality Management District (SCAQMD). Pollutants emitted into the ambient air by stationary and mobile sources are regulated by federal and state law, and ambient air quality standards (AAQS) are detailed in SCAQMD's Air Quality Management Plan (AQMP). Air pollutants for which AAQS have been developed are known as criteria air pollutants—ozone (O_3), carbon monoxide (CO), volatile organic compounds (VOC), nitrogen oxides (NO_x), sulfur dioxide, coarse inhalable particulate matter (PM_{10}), fine inhalable particulate matter ($PM_{2.5}$), and lead. VOC and NO_x are criteria pollutant precursors and go on to form secondary criteria pollutants, such as O_3, through chemical and photochemical reactions in the atmosphere. Air basins are classified as attainment/nonattainment areas for particular pollutants depending on whether they meet AAQS for that pollutant. Based on the AQMP, the SoCAB is designated nonattainment for O_3, $PM_{2.5}$, PM_{10}, and lead (Los Angeles County only) under the California and National AAQS and nonattainment for NO_2 under the California AAQS.[1,2] The proposed project's consistency with the applicable AAQS is discussed in Section 5.2, *Air Quality*.

Greenhouse Gas Emissions Reduction Legislation

Current State of California guidance and goals for reductions in GHG emissions are generally embodied in Executive Order S-03-05; Executive Order B-30-15; Assembly Bill 32 (AB 32), the Global Warming Solutions Act (2008); and Senate Bill 375 (SB 375), the Sustainable Communities and Climate Protection Act.

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

[2] CARB has proposed to redesignate the SoCAB as attainment for lead and NO_2 under the California AAQS (CARB 2013).

Executive Order S-03-05, signed June 1, 2005, set the following GHG reduction targets for the state:

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

AB 32 was passed by the state legislature on August 31, 2006, to place the state on a course toward reducing its contribution of GHG emissions. AB 32 follows the emissions reduction targets established in Executive Order S-3-05. Executive Order B-30-15 also established an interim goal of a 40 percent reduction below 1990 levels by 2030.

In 2008, SB 375 was adopted to connect GHG emissions reductions targets for the transportation sector to local land use decisions that affect travel behavior. Its intent is to reduce GHG emissions from light-duty trucks and automobiles by aligning regional long-range transportation plans, investments, and housing allocations to local land use planning to reduce vehicle miles traveled and vehicle trips. SCAG's targets are an 8 percent per capita reduction from 2005 GHG emission levels by 2020 and a 13 percent per capita reduction from 2005 GHG emission levels by 2035.

The project's ability to meet these regional GHG emissions reduction target goals is analyzed in Section 5.6, *Greenhouse Gas Emissions*.

Regional Water Quality Control Board, Santa Ana River Basin Plan

Under the Porter-Cologne Water Quality Act, California's water quality control law, the State Water Resources Control Board has ultimate control over water quality policy and allocation of state water resources. It carries out the regulation, protection, and administration of water quality in nine regions through the Regional Water Quality Control Boards. Each regional board is required to adopt a water quality control plan or basin plan. The City of Yucaipa is in the Santa Ana River Basin, Region 8.

The water quality control plan for the Santa Ana River Basin was updated in 2008. This plan gives direction on the beneficial uses of state waters in Region 8; describes the water quality that must be maintained to support such uses; and provides programs, projects, and other actions necessary to achieve the plan's standards.

4.3 LOCAL ENVIRONMENTAL SETTING

The project site is on the southeast corner of the intersection of Oak Glen Road and 2nd Street in the north-central portion of the City. The site is undeveloped except for the City maintenance yard in the northwest corner of the site and a single-family residence and water well owned by Yucaipa Valley Water District (YVWD) in the southern portion (see Figure 3-3, *Aerial Photograph*). The following sections describe the local environmental setting as it relates to environmental categories.

4. Environmental Setting

4.3.1 Location and Land Use

4.3.1.1 LOCATION

The 115.6-acre project site is an irregular-shaped area made up of separate parcels and bounded by Oak Glen Road to the north, Bryant Street to the east, generally 2nd Street and existing single-family residences to the west, and an existing natural slope to the south that abuts single-family residences. The site is approximately 4.7 miles northeast of Interstate 10 (I-10), which runs northwest–southeast along the southwest boundary of the City and provides regional access to the site. Local access is provided by Oak Glen Road, Bryant Street, and 2nd Street.

The project site elevation ranges from about 2,730 feet amsl in the northeast to about 2,570 feet amsl in the west along Oak Glen Creek, a 130-foot change in vertical elevation.

4.3.1.2 EXISTING USES

The site is mostly natural open space, with two creeks that flow through the site. Wilson Creek enters the project site from the north, and Oak Glen Creek enters the site from the east. Oak Glen Creek and Wilson Creek converge near the center of the site and flow through the project site southwesterly into a cement culvert that directs the creek into a hard-bottomed channel west of the site. Most of the site is in the Federal Emergency Management Agency's designated 100-year flood zones. Because of potential flood hazards, development has been restricted on the project site.

The maintenance yard owned and operated by the City is in the northern corner of the project site at the intersection of Oak Glen Road and 2nd Street. The structures used for the City maintenance yard were constructed during the early 1980s. The yard has been used for minor engine repair and minimum storage of waste from waste pick-up in the City and some painting equipment. A borrow pit is located in the vicinity of the maintenance yard. There is also one single-family residence (11568 2nd Street) and YVWD water well in the southern portion of the project site.

With the exception of activities associated with the City maintenance yard activities, residential use, and recreational hiking by local residents, there is little to no activity on the majority of the project site.

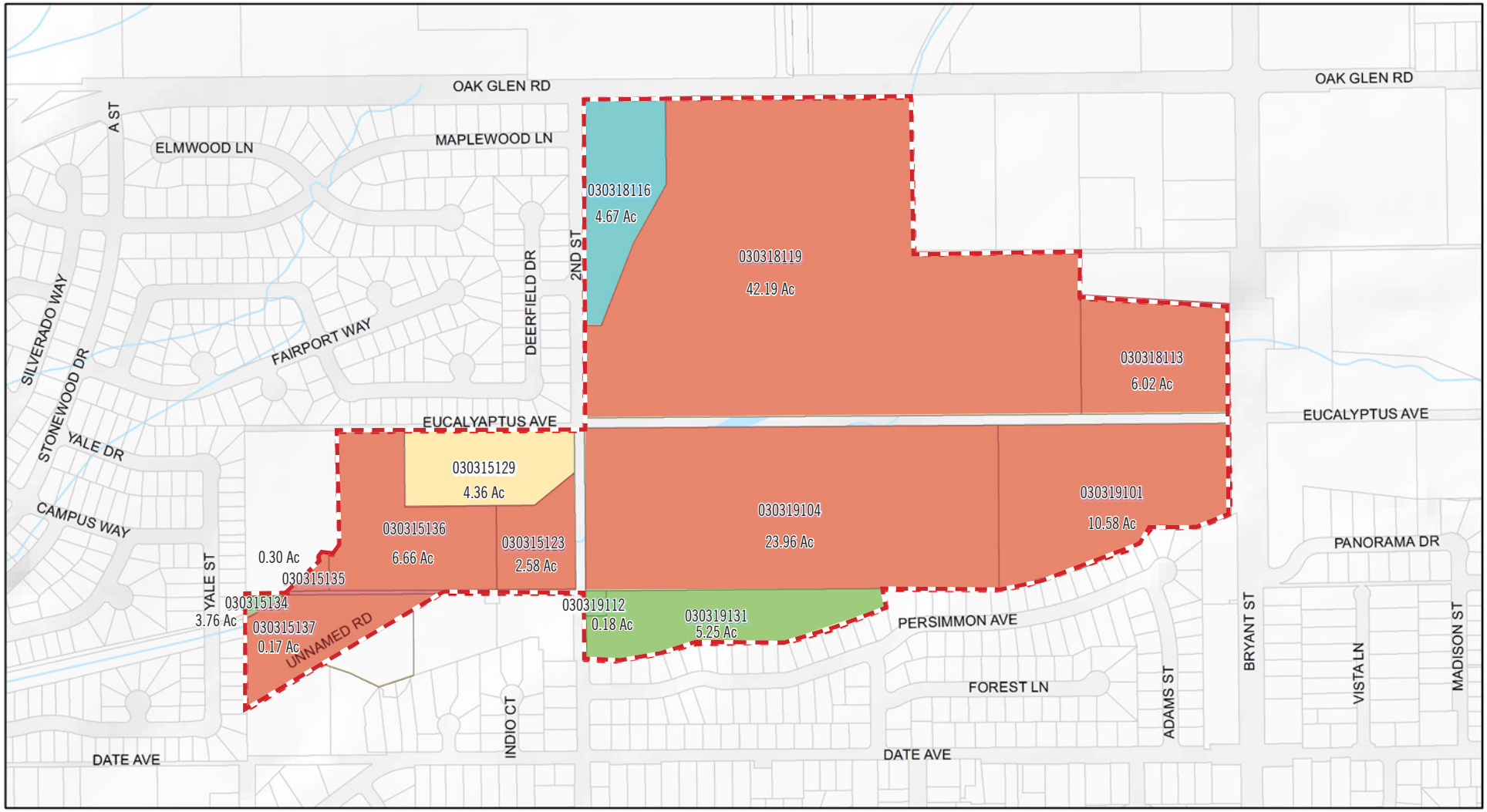
4.3.1.3 OWNERSHIP PATTERN

As shown on Figure 4-1, *Parcel Map and Land Ownership*, the Oak Glen Creek Specific Plan encompasses 13 parcels:

- 0303-151-23
- 0303-151-29
- 0303-151-34
- 0303-151-35
- 0303-151-36
- 0303-151-37
- 0303-181-13
- 0303-181-16
- 0303-181-19
- 0303-191-01
- 0303-191-04
- 0303-191-12
- 0303-191-31

Figure 4-1 Parcel Map and Land Ownership

4. Environmental Setting



Project Boundary

City of Yucaipa

Yucaipa Valley Water District

San Bernardino County Flood Control District

Private

0 500
Scale (Feet)

Base Map Source: ESRI, USGS, NOAA, 2016

4. Environmental Setting

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The San Bernardino County Flood Control District owns eight of these thirteen parcels. The City of Yucaipa owns the parcel (APN 0303-181-16) that the City maintenance yard is on. One privately owned parcel (APN 0303-151-29) is west of 2nd Street and south of existing residential development; the single-family residence sits on this parcel. YVWD owns the three remaining parcels (APN 0303-191-12, 0303-191-31 and 0303-151-34) at the most southern and western portions of the Specific Plan area.

4.3.1.4 SURROUNDING USES

As shown in Figure 3-3, *Aerial Photograph*, the Oak Glen Creek Specific Plan site is surrounded by a mix of land uses, including single-family residential, commercial, public, and open space. Located within a developing area, the site is surrounded by single-family residential uses to the south; the Yucaipa Community Center, Wildwood Calvary Chapel, Wildwood Christian Academy (Grades K-5), a mobile home park, and open space to the north; a YVWD water reservoir adjoining the property to the northeast; a California Department of Forestry and Fire Protection (CAL FIRE) fire station to the east along Bryant Street; and the Oak Glen Creek flood control basins across Bryant Street, which control flooding in Oak Glen Creek and allow for recharge of the groundwater basin from an adjacent water treatment plant. Flood control and recharge basins for Wilson Creek are on the northeast corner of Oak Glen Road and Bryant Street.

On the western boundary, the paved portion of 2nd Street ends in a cul-de-sac prior to Persimmon Street. A dirt road continues that gives access to two single-family residences; it does not connect to 2nd Street south of the project site. Single-family residences in the Chapman Heights development are west of 2nd Street.

4.3.2 General Plan and Zoning

4.3.2.1 CITY OF YUCAIPA LAND USE AND ZONING MAP

The City does not have a separate zoning map; the land use plan has been adopted as both plan policy and regulatory zoning as part of the City's one-map system. As shown on Figure 4-2, *Current Land Use Designations*, the project site is designated Institutional (IN), Rural Residential (RL-1), and Single Residential (RS-72C).

The IN land use designation allows for public and quasi-public land uses and facilities and compatible uses. These include schools, civic facilities, water storage, basins, and recharge facilities; quasi-public facilities include churches, community organization facilities, and similar uses. The maximum floor area ratio is 0.8.

RL-1 designations provide areas for rural development where single-family residential is the primary use, along with conservation of open space, watershed, and habitat areas. It also includes areas where animal uses, agriculture, and compatible uses may coexist or be permitted. The maximum density in RL areas is one dwelling unit per acre.

The RS-72C designation provides areas for single-family homes on individual lots, and accessory and nonresidential uses that complement neighborhoods. Incidental agricultural, recreational, or compatible uses with residential neighborhoods are allowed. The maximum density in RS areas is 6.1 dwelling units per acre.

City of Yucaipa Land Use Modification Overlay District

The General Plan also identifies parcels with overlay districts, which must adhere to specific siting, development, or environmental regulations in addition to the regulations of the underlying land use district. The project site is designated as the Oak Glen Creek Specific Plan on the City's Land Use Modification Overlay District map.

4.3.3 Existing Physical Conditions and Infrastructure

4.3.3.1 AESTHETICS

The City of Yucaipa identifies the mountain ranges and hills surrounding the City as scenic resources. These ranges are visible due to the gentle slope of the Yucaipa flatlands and include the San Bernardino Mountains, the Badlands, and the Crafton Hills. The natural open space and vegetation along the two major creeks that traverse the City, Wilson Creek and Wildwood Creek, are also identified as natural resources that contribute to the City's scenic character.

The project site contains a portion of the Wilson Creek natural area and has a backdrop of the San Bernardino Mountains and the Crafton Hills. Oak Glen Creek and Wilson Creek bisect the project site and create moderately rugged terrain near the creek bed onsite. Aside from the creek bed, the site is mostly undisturbed open space and is vegetated with native and nonnative grasses, shrubs, and trees.

There are no state-designated scenic highways in the City; however, a number of local roadways are identified as scenic highways in the City of Yucaipa General Plan Transportation Element. Two of these roadways are Oak Glen Road and Bryant Street, which bound the project site on its northern and eastern boundaries, respectively. The General Plan encourages future development and landscaping along these roadways to be consistent with one another and enhance the visual quality of the City.

Please refer to Section 5.1, *Aesthetics*, of this DEIR for more information on the existing scenic features and an analysis of scenic impacts.

4.3.3.2 AIR QUALITY AND GREENHOUSE GAS EMISSIONS

The SoCAB is designated as nonattainment for O_3, $PM_{2.5}$, and lead (Los Angeles County only) under the California and National AAQS and nonattainment for PM_{10} and nitrogen dioxide NO_2 under the California AAQS. Additional information regarding air quality and climate change regulations affecting Yucaipa is provided in Section 4.2.2, *Regional Planning Considerations*, above. Existing climate and air quality conditions in the City are analyzed in Sections 5.2, *Air Quality*, and 5.6, *Greenhouse Gas Emissions*, of this DEIR.

Figure 4-2 Current General Plan Designation

4. Environmental Setting

Project Boundary
City Limits
Yucaipa Sphere of Influence
RL - Rural Residential
RS - Single Residential
PD - Planned Development
CN - Neighborhood Commercial
IN - Institutional
P - Park
FW - Floodway

0 800
Scale (Feet)

Base Map Source: ESRI, 2016

4. Environmental Setting

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4.3.3.3 BIOLOGICAL RESOURCES

The project site is mainly undeveloped and vacant, with native and nonnative vegetative communities. Wilson Creek and Oak Glen Creek, displayed on the Yucaipa U.S. Geological Survey Map, are blue-line drainage courses that traverse the project site. Oak Glen Creek traverses the entire width of the site from Bryant Street to 2nd Street, and Wilson Creek enters the project site from Oak Glen Road and intersects onsite with Oak Glen Creek. Along these drainage courses are alluvial fan sage scrub and riparian vegetation. The balance of the site includes chaparral, coastal scrub, nonnative grassland, and ruderal habitats.

Refer to Section 5.3, *Biological Resources*, and Appendices D through G for additional information on the site's biological resources.

4.3.3.4 CULTURAL RESOURCES

Most of the project site is in an area designated as low sensitivity for paleontological resources; however, the northwest portion of the site is designated as high sensitivity for paleontological resources. The cultural resource assessment prepared by Cogstone for the project area reported 11 resources in the vicinity of the project, including one California Point of Historical Interest; however, there were no previously recorded resources within the project boundaries. In addition, an archaeology and paleontology field survey was conducted, and 4 historic-era archaeological sites were identified and recorded on the project site, including a historical diversion canal or berm, historical rock and concrete retention dam along a portion of Oak Glen Creek, a site containing small glass ceramic fragments, and a trash scatter site.

Refer to Section 5.4, *Cultural Resources*, and Appendices H and I for more information on the historical, archeological, and paleontological resources of the project site and an analysis of the project's environmental impacts to cultural resources.

4.3.3.5 GEOLOGY AND LANDFORM

The Yucaipa Valley is bounded by the San Bernardino Mountains to the north, the Yucaipa Ridge to the east and south, and the Crafton Hills to the northwest. The valley opens to the southwest into the Badlands of the eastern San Bernardino Valley. The City is in a tectonically active region, and the San Andrea Fault is in the northeastern portion of the City. This active fault environment has influenced Yucaipa's geologic history and has created an alluvium-filled basin in the Yucaipa area, bordered on three sides by crystalline bedrock.

The project site topography ranges from level flatlands to steep slopes and generally slopes downwards to the southwest. Located in the central portion of a narrow alluvial valley between the Crafton Hills and Yucaipa Ridge, the site is in the San Gabriel Mountain Block (upper plate of the San Vincent thrust). The San Gabriel Mountain Block is underlain by granitic and metamorphic crystalline rock that date to the Cretaceous period or earlier.

Refer to Section 5.5, *Geology and Soils*, and Appendices J and K for additional information on the site's geology.

4. Environmental Setting

4.3.3.6 HAZARDS AND HAZARDOUS MATERIALS

The project site is vacant and undeveloped with the exception of the City maintenance yard in the northern corner of the site and a YVWD water well and single family residence in the southern portion of the site. The City maintenance yard and offsite CAL FIRE station were identified as having leaking underground storage tanks; however, they have received regulatory closure. Overall, the site does not have any recognized hazardous environmental conditions.

Section 5.7, *Hazards and Hazardous Materials*, provides further analysis of the project's impacts related to hazards and hazardous materials.

4.3.3.7 HYDROLOGY

The Yucaipa watershed encompasses about 40 square miles and drains from Wilson Creek and Wildwood Creek into Live Oak Canyon, that is, from the northeast to the southwest. Elevation in the upper reaches of the watershed range from about 8,700 feet to about 1,900 feet at the lower end of the watershed. The Wilson Creek Watershed divides into three main tributaries: the Gateway Wash is the north fork, Oak Glen Creek is the south fork, and Wilson Creek flows between the two. Central Yucaipa is divided into two main drainage systems, Chicken Springs Wash, a tributary of Wilson Creek, and Yucaipa Creek, a tributary of Wildwood Creek. Wildwood Creek and Wilson Creek meet at the southwestern City limits.

The project site is traversed by several drainage courses and is almost entirely in the 100-year floodplain, according to Figure S-2b, "Floodplain Safety Overlay District," of the City of Yucaipa General Plan Public Safety Element. The adjoining upstream segment of each drainage course is improved, with an improved earthen channel north of Oak Glen Road for Wilson Creek and adjoining detention basins east of Bryant Street for Oak Glen Creek. Culverts under Oak Glen Road and Bryant Street allow stormwater flows from these creeks to traverse the site and ultimately discharge into a downstream concrete trapezoidal channel running through the Chapman Heights residences to the southwest.

Refer to Section 5.8, *Hydrology and Water Quality*, and Appendix M for additional information on site hydrology and project-related impacts.

4.3.3.8 NOISE

The project site is mostly vacant and undeveloped, and only limited noise comes from activities at the City maintenance yard. The primary source of noise near the project site is vehicular traffic, primarily from adjacent roadways (e.g., Bryant Street, Oak Glen Road, and 2nd Street). Secondary sources of noise include the residential uses north, west, and south of the project site; commercial uses to the east; and visitors to the Yucaipa Regional Park.

Refer to Section 5.10, *Noise*, for additional information concerning the noise environment and an analysis of project-related noise impacts.

4.3.3.9 TRANSPORTATION AND TRAFFIC

Regional access to the project site is provided by I-10, which runs northwest-southeast along the southwest boundary of the City, approximately 4.7 miles southwest of the project site. Local access is provided by Oak Glen Road, Bryant Street, and 2nd Street. Public bus service is provided by OmniTrans's OmniGo Yucaipa, with three local routes. Route 310 loops the northern portion of Yucaipa and runs along the perimeter of the project site via Oak Glen Road and Bryant Street.

Refer to Section 5.14, *Transportation and Traffic*, and Appendix P of this DEIR for additional information concerning existing transportation facilities and traffic conditions and an analysis of project-related traffic impacts.

4.3.3.10 PUBLIC SERVICES AND UTILITIES

Public services and utilities are provided to the project site by the providers listed in Table 4-1. Additional information describing the provision of services and utilities in the City is found in Sections 5.12, *Public Services*, and 5.16, *Utilities and Service Systems,* of this DEIR.

Table 4-1 Public Service and Utility Providers

Public Services	
Police	Yucaipa Police Department San Bernardino County Sheriff's Department
Fire Protection and Emergency Medical Services	Yucaipa Fire Department California Department of Forestry and Fire Protection
Public Schools	Yucaipa-Calimesa Joint Unified School District
Library	San Bernardino County Library (Yucaipa Branch Library)
Parks	City of Yucaipa Community Services Department
Utilities	
Water	Yucaipa Valley Water District
Wastewater Treatment	Yucaipa Valley Water District
Regional Flood Control	San Bernardino County Flood Control District
Solid Waste Collection	Burrtec Waste Industries, Inc.
Solid Waste Disposal (Landfills)	San Bernardino County Solid Waste Management Division
Electricity	Southern California Edison
Natural Gas	Southern California Gas Company

4.4 ASSUMPTIONS REGARDING CUMULATIVE IMPACTS

Section 15130 of the CEQA Guidelines states that cumulative impacts shall be discussed where they are significant. It further states that this discussion shall reflect the level and severity of the impact and the likelihood of occurrence, but not in as great a level of detail as that necessary for the project alone. Section 15355 of the Guidelines defines cumulative impacts to be "…two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts."

4. Environmental Setting

Cumulative impacts represent the change caused by the incremental impact of a project when added to other proposed or committed projects in the vicinity.

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

A. A list of past, present and probable future projects producing related cumulative impacts, including, if necessary, those projects outside the control of the agency; or

B. A summary of projections contained in an adopted general plan or related planning document designed to evaluate regional or area-wide conditions.

For the most part, the cumulative impact analyses in this DEIR use Method B, using the projections in the City's recently updated General Plan or another long-range planning document, such as the urban water master plan for water supply and SCAG's RTP/SCS for land use and planning impacts. The growth projections in the City of Yucaipa General Plan (2016) are detailed in Table 4-2.

Table 4-2 City of Yucaipa General Plan Buildout Projections

	Acres	Dwelling Units	Population	Nonresidential SF	Employment
City	18,090	30,075	77,322	9,581,104	18,488
Sphere of Influence	1,663	2	6	0	0
TOTAL	**19,753**	**30,077**	**77,328**	**9,581,104**	**18,488**

Source: Yucaipa 2016.

The land use element of the City's general plan designates the general distribution and location of land for residential, commercial, industrial, open space, and other uses. The land use categories in the general plan guide future development and growth in a way that promotes the health, safety, and welfare of the community. To regulate building intensity, the land use element also includes several statistical tables that define the amount of physical development allowed in each land use category.

Cumulative impact analyses are also based on the most appropriate geographic boundary for the respective impact. For example, cumulative hydrological impacts are based on the area's watershed (Yucaipa Watershed). Several potential cumulative impacts encompass regional boundaries (e.g., traffic, air quality, greenhouse gases) and have been addressed in the context of various regional plans and defined significance thresholds. Following is a summary of the approach and extent of cumulative impacts, which are further detailed in each topical environmental section:

- **Aesthetics.** Cumulative impacts consider the potential for the project and related projects to impact scenic resources in the City.

- **Air Quality.** Air quality impacts are both regional impacts and localized impacts. For cumulative impacts, the analysis is based on the regional boundaries of the South Coast Air Basin.

- **Biological Resources.** Cumulative loss of biological resources is based on a regional evaluation which considering regional habitat loss, protected species, and wildlife corridors.
- **Cultural Resources.** Cumulative impacts consider the potential for the proposed project in conjunction with related development projects to result in cumulative cultural resource impacts.
- **Geological Resources.** Geologic and soils impacts are site specific and generally do not combine to result in cumulative impacts.
- **GHG Emissions.** GHG emissions impacts are not site-specific impacts but cumulative impacts. Therefore, the analysis in Section 5.6 is the project's cumulative contribution to GHG emissions impact.
- **Hazards and Hazardous Materials.** Hazards and hazards materials impacts are site specific and would not combine with impacts of other projects.
- **Hydrology and Water Quality.** Cumulative hydrological impacts are based on the boundaries of the Yucaipa Watershed, and cumulative groundwater impacts are based on the boundaries of the Yucaipa Groundwater Basin.
- **Land Use and Planning.** Cumulative impacts are based on jurisdictional boundaries and related plans, including City of Yucaipa General Plan and regional land use plans (e.g., SCAG's RTP/SCS).
- **Noise.** Cumulative noise impacts are based on the traffic study, which considers the regional growth based on citywide and regional projections.
- **Population and Housing.** Cumulative impacts are based on regional demographic patterns identified in regional plans (e.g., SCAG's RTP/SCS).
- **Public Services.** Cumulative impacts are based on potential related development within each service provider's boundaries—Yucaipa Fire Department/CAL FIRE, Yucaipa Police Department/San Bernardino County Sheriff's Department, Yucaipa-Calimesa Joint Unified School District, and the Yucaipa Branch Library/San Bernardino County Library System.
- **Recreation.** Cumulative impacts are based on impacts within the City's boundaries.
- **Transportation and Traffic.** The traffic study considers both project-specific and the project's cumulative contribution to traffic in project vicinity. The analysis is based on a regional transportation demand model and incorporates regional growth projections identified by SCAG.
- **Tribal Resources.** Cumulative impacts consider the potential for the proposed project in conjunction with related development projects to result in cumulative tribal resource impacts.

- **Utilities and Service Systems.** Water supply and distribution systems and wastewater conveyance and treatment impacts would be contiguous with the Yucaipa Valley Water District service area; storm drainage systems would be contiguous with the Yucaipa Watershed and the San Bernardino County Flood Control District service area; solid waste collection and disposal services would be contiguous with the San Bernardino County Solid Waste Management Division service area; and natural gas and electricity services would be contiguous with the Southern California Gas Company and Southern California Edison service areas.

Please refer to Chapter 5, *Environmental Analysis*, of this DEIR for a discussion of the cumulative impacts associated with development and growth in the City and region for each environmental resource area.

4.5 REFERENCES

California Air Resources Board (CARB). 2013, October 23. Proposed 2013 Amendments to Area Designations for State Ambient Air Quality Standards. http://www.arb.ca.gov/regact/2013/area13/area13isor.pdf.

Southern California Association of Governments (SCAG). 2016. 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy. http://scagrtpscs.net/Documents/2016/final/f2016RTPSCS.pdf.

Yucaipa, City of. 2016, April. City of Yucaipa General Plan.

5. Environmental Analysis

Chapter 5 examines the environmental setting, impacts, and mitigation measures associated with the proposed project. This chapter is divided into sections for respective environmental issue areas that were determined to need further study in the EIR as part of the scoping process.

The scope of the environmental analysis was determined using the Notice of Preparation (NOP) published on May 6, 2016, as well as incorporating public and agency comments received during the NOP comment period from May 6, 2016, to June 6, 2016 (see Appendix A). Environmental issues and their corresponding sections are:

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

Sections 5.1 through 5.16 provide a detailed discussion of the environmental setting, impacts associated with the proposed project, and mitigation measures designed to reduce significant impacts where required and when feasible. The residual impacts following the implementation of any mitigation measure also are discussed.

As detailed in Chapter 8, *Impacts Found Not to Be Significant*, some specific thresholds under each of the environmental topics were determined not to be significantly affected by implementation of the project and therefore are not included for further discussion.

5. Environmental Analysis

Organization of Environmental Analysis

To assist the reader in comparing information about the respective environmental issues, each section (Sections 5.1 to 5.16) is organized as follows:

- Environmental Setting
- Thresholds of Significance
- Environmental Impacts
- Cumulative Impacts
- Existing Regulations
- Level of Significance Before Mitigation
- Mitigation Measures
- Level of Significance After Mitigation
- References

In addition, the Executive Summary includes a table summarizing all the impacts by environmental issue.

Terminology Used in This Draft EIR

For each impact identified in this DEIR, a statement of the level of significance of the impact is provided. While criteria for determining significant impacts are unique to each issue area, the environmental analysis applies a uniform classification of the impacts based on the following definitions consistent with CEQA and the CEQA Guidelines:

- A designation of *no impact* is given when no changes in the environment would occur.

- A *less than significant impact* would cause no substantial adverse change in the environment or would avoid substantial adverse impacts on the environment through mitigation measures.

- A *significant unavoidable impact* would cause a substantial adverse effect on the environment, and no feasible mitigation measures would be available to reduce the impact to a less than significant level.

5.1 AESTHETICS

This section of the Draft Environmental Impact Report (DEIR) describes the existing landform and aesthetic character of the project site and discusses the potential impacts to the visual character of the area from implementation of the Oak Glen Creek Specific Plan. This section includes a discussion of the qualitative aesthetic characteristics of the existing environment that would be potentially degraded by the proposed project's implementation and the consistency of the project with established relevant visual resources policies.

5.1.1 Environmental Setting

5.1.1.1 REGULATORY BACKGROUND

Local laws, regulations, plans, or guidelines that are potentially applicable to the proposed project are summarized below.

State

California Scenic Highway Program

Caltrans's California Scenic Highway Program was created in 1963, and it maps and describes all scenic highways within the state. The program protects these state scenic highway and adjacent corridors through special conservation treatment. There are no Caltrans-designated scenic highways in the City of Yucaipa (Caltrans 2011).

Local

City of Yucaipa General Plan

Scenic Corridors

The Yucaipa General Plan establishes six scenic transportation corridors or highways—Yucaipa Boulevard, Bryant Street, Oak Glen Road, Wildwood Canyon Road, Sand Canyon Road (Yucaipa Boulevard to City limits), Live Oak Canyon Road. Each of these roadways offers unparalleled views of surrounding hills, mountains, and other natural features.

To protect scenic resources along these corridors, a Scenic Resources Overlay District is applied that extends approximately 200 feet from each side of the ultimate road right-of-way on state, county, and City-designated Scenic Highways. In this area, development is subject to certain standards, including building and structure placement, utilities, access drives, landscaping, roads/walkways/parking, grading, and signage. The project site is bounded by Oak Glen Road and Bryant Street on its northern and eastern boundaries and is within the Scenic Resources Overlay District for the scenic transportation corridor of Oak Glen Road.

City of Yucaipa Standard Design Guidelines

The City of Yucaipa Standard Design Guidelines is a compilation of design guidelines, standards, and specifications required for construction of public works improvements and site grading. The guidelines assist homeowners, developers, builders, engineers, and architects by providing information regarding the standard drawings, specifications, design procedures and requirements, checklists, and other information. Street lighting proposed under the Oak Glen Creek Specific Plan would be required to adhere to the design standards in Section 400 (Street Lighting, Traffic Signals and Traffic Signs) of the Standard Design Guidelines.

5.1.1.2 EXISTING CONDITIONS

Visual Resources

Scenic resources in the City are both natural and man-made landforms. Yucaipa's location at the base of the San Bernardino Mountains provides panoramic views of the surrounding hillsides, ridgelines, and peaks. On the site itself, rugged terrains along the Oak Glen Creek and Wilson Creek and large clusters of vegetation are the main source of natural scenic resources. Figure 5.1-1, *Site Photographs*, depicts the visual resources of the project site, including native and nonnative grasses, shrubs, and trees and the rugged terrain along the creek beds.

The man-made landforms, such as the Yucaipa Valley Golf Course and the regional and local parks, are also considered distinct scenic resources in the City. The Yucaipa Regional Park is directly northwest of the project site at the base of the Crafton Hills, and the Yucaipa Community Park is directly across Oak Glen Road to the north of the project site. The Yucaipa Valley Golf Course is a little over half a mile southwest of the project site.

Visual Character

The City of Yucaipa is urban in the center and more rural in the north, with large, expansive areas of open space and semiagricultural land uses. The vast majority of land is either single-family or rural residential (36.1 percent), open space and recreation (16.9 percent), or vacant (26.6 percent) (Yucaipa 2016a). This is due to the City's low residential density and natural open space character. The remaining developed areas are a diverse mixture of commercial and institutional land uses.

As shown on Figure 5.1-2, *Viewshed Photographs*, the project site is mostly vacant and undeveloped land except for the City maintenance yard in the northwest corner, a single-family residence at 11568 2nd Street, and a Yucaipa Valley Water District water well in the southern portion of the site. Oak Glen Creek bisects the site from the northeast to the southwest, creating moderately rugged terrain along the creek bed. Wilson Creek enters the site from the north and merges with Oak Glen Creek at the center of the site. The natural open space is vegetated with native and non-native grasses, shrubs, and trees. The portion of the site northeast of Wilson Creek is the flattest with the highest elevation. This portion looks out over the more vegetated and rugged creek beds to the south and southwest.

Figure 5.1-1 Site Photographs
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Southern sycamore trees and riparian woodland.

Vegetative scrub and non-native grasslands.

Oak Glen Creek cobbles.

Wilson Creek downstream of Oak Glen Road.

Base Image Source: Cadre Environmental, 2014; VCS, 2014

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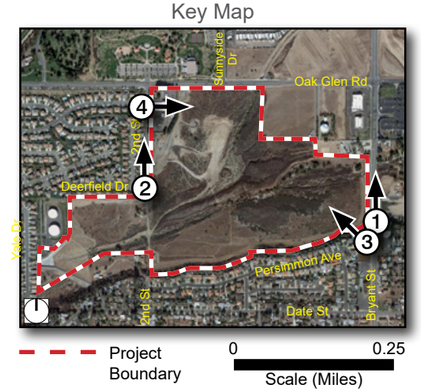
Figure 5.1-2 Viewshed Photographs

5. Environmental Analysis

① View of project site from southeast, looking north along Bryant Street.

② View of 2nd Street from current terminus at southwest corner of project site.

Key Map



③ View of project site from southeast, looking across the site to the northwest.

④ View of the City maintenance yard located on the northwest corner of the site (taken from 2nd Street entrance).

Photo Source: PlaceWorks

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Oak Glen Creek to the east has natural open space and is partially improved with flood control basins. To the west, Oak Glen Creek is a natural streambed for a short distance and becomes channelized with a concrete bottom downstream of the project site. To the north of the project site, Wilson Creek is partially channelized with a soft bottom and then left natural for the remainder of its extent.

The residential properties surrounding the project site are developed and have limited open space or vegetation that contributes to the visual character of the area. Most of the surrounding properties are built with residential uses, including Chapman Heights residences to the west, other residences to the south, and commercial uses (e.g., Stater Bros. Market and Rite-Aid) to the north and east. These adjacent uses (i.e., residential and neighborhood-serving commercial) characterize the project area as a low density, bedroom community.

Landforms

The City of Yucaipa is surrounded by numerous mountain ranges, including the San Bernardino Mountains, the Badlands, and the Crafton Hills. The topography of the City, including the project site, has been cut by erosion from streams and creeks, creating flat benches and rugged slopes. However, the project site does not have any major landforms. It is predominantly covered in vegetation and has rugged terrain along Wilson Creek and Oak Glen Creek.

Scenic Vistas and Corridors

The gentle slope of the City's flatlands creates scenic vistas and viewsheds throughout Yucaipa, including from the project site. The City's elevation increases from about 2,000 to 3,000 feet in the central part of the City to 4,000 or more feet in the northeastern portions. Looking to the north and east from the project site gives views of the San Bernardino Mountains and the Crafton Hills, respectively. Views to the south and west include natural open space along Oak Glen Creek and Wilson Creek and the Badlands in the distance.

Although there are no state-designated scenic highways in the City, six local roadways are identified as scenic highways in the City of Yucaipa General Plan Transportation Element (Yucaipa 2016b). Two of the City-designated scenic corridors—Bryant Street and Oak Glen Road—bound the project site along the eastern and northern boundaries, respectively.

Light and Glare

The City of Yucaipa's semirural environment and large open space areas contribute a very low level of background lighting. The project site is currently mostly vacant and undeveloped, with few sources of light and glare. However, offsite sources of nighttime light and glare include street lights and vehicular traffic along Oak Glen Road, Bryant Street, and 2nd Street, and ambient lighting from surrounding residential areas to the west and south and commercial uses to the west.

5.1.2 Thresholds of Significance

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

AE-1 Have a substantial adverse effect on a scenic vista.

AE-2 Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.

AE-3 Substantially degrade the existing visual character or quality of the site and its surroundings.

AE-4 Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

5.1.3 Environmental Impacts

Aesthetics generally refers to the identification of visual resources and the quality of what can be seen, as well as an overall visual perception of the environment. The assessment of aesthetic impacts is subjective by nature and subject to widely varying personal perceptions. This analysis attempts to identify and objectively examine factors that contribute to the perception of aesthetic impacts. Potential aesthetic impacts can be evaluated by considering proposed grade separations, landform alteration, building setbacks, scale, massing, typical construction materials, and landscaping features associated with the design of the proposed project. It should be noted, however, that there are no locally designated or defined standards or methodologies for the assessment of aesthetic impacts. The aesthetic compatibility of the proposed project with the surrounding area and potential impacts to visual resources and viewers in the project area are examined in this section. In the project area, viewers of the proposed project site consist of the residents to the south and west of the project site (see Chapter 3, *Project Description*, Figure 3-3, *Aerial Photograph*). Views by passing motorists along Oak Glen Road, Bryant Street, and 2nd Street are also considered. Potential land use effects of the proposed project on surrounding land uses are considered in the discussion of land use compatibility in Section 5.9, *Land Use and Planning*.

Light and glare impacts are determined through a comparison of the existing light sources with proposed lighting design guidelines in the Oak Glen Creek Specific Plan. Nighttime illumination addresses the effects of a project's exterior lighting upon adjoining uses and areas. If the project has the potential to generate spill light on adjacent sensitive receptors or generate glare to receptors in the vicinity of the site, mitigation measures will be provided to reduce potential impacts, as necessary.

The following analysis addresses the change in aesthetics and visual quality of the project area as seen from surrounding vantage points. The visual impacts of the proposed project include both the objective visual resource change created by the proposed development and the subjective viewer response to that change. Because viewer perceptions are subjective, responses to the visual environment and its elements will vary based on viewer activity and awareness.

The following impact analysis addresses thresholds of significance that may be potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

Impact 5.1-1: Buildout of the Oak Glen Creek Specific Plan would alter the visual appearance of the project site, but would not have a substantial adverse effect on scenic vistas or the visual character of the project area. [Thresholds AE-1 and AE-3]

Impact Analysis: The proposed project would involve site grading and construction of new homes, buildings, landscaping, and flood control improvements in three proposed districts—the Residential, Innovation, and Open Space Districts.

Residential District

The proposed Residential District would allow development of up to 200 single-family homes on the east and west sides of 2nd Street. According to the Specific Plan, future residences are to be oriented internally and away from surrounding public streets (i.e., 2nd Street and Oak Glen Road) and would comply with development standards associated with the City's Single Residential land use designation (RS-72C; 7,200-square-foot minimum lot size). This includes development standards in Table 3-2 related to building height, setback requirements, building coverage, lot width/depth, and parking requirements. Existing residences to the south near Persimmon Avenue and west of 2nd Street near Oak Glen Road are also designated RS-72C. Therefore, future development of the proposed Residential District would integrate well into the existing residential character of the area. The Specific Plan also encourages future residential development to establish an architectural theme to cohesively unify the residences as one community (e.g., Mediterranean, Craftsman, Spanish, Ranch, or Colonial).

Future developers would be required to submit for approval a landscape plan for areas along the public street rights-of-way adjacent to the proposed Residential District (i.e., 2nd Street and Oak Glen Road) and for internal roadways adjacent to future front yards and driveways. The proposed Specific Plan design guidelines require future landscaping along Oak Glen Road to extend the existing landscape design of parkways and shade trees along the project frontage. Buffering would also be provided along 2nd Street to minimize lights and noise emanating from vehicles entering and exiting the adjoining subdivision. Buffered landscaping can include a raised landscape berm, a block wall on a landscaped berm, trees and shrubs, and/or other appropriate design features to adequately address potential development impacts. Based on the proposed design guidelines, chain-link fencing would not be allowed onsite, except as part of the Wilson Creek or Oak Glen Creek channels. Only trail-type fencing would be installed as part of the City's multiuse trail system along 2nd Street and Oak Glen Road and north of the proposed detention basin.

Innovation District

The proposed Innovation District encompasses two small areas in the northern and eastern portions of the site that make up approximately 6.7 acres and would change the appearance of these areas from mostly vacant and natural to urban and landscaped. Buildout of the two Innovation District areas would allow up to 20,000 square feet of nonresidential use—10,000 square feet in each area. The northern Innovation District may be developed as a corporate yard and office, with the potential for the existing City maintenance yard to relocate to this area. The southern Innovation District area adjacent to Bryant Street may be developed as an administrative and educational center. To maintain flexibility in allowable land uses, the Innovation District can also be developed with medical, professional, and office uses at a maximum building height of 45 feet

(see Table IV-2 of the Specific Plan). Table V-1 of the Specific Plan includes style and design criteria for future development in the Innovation District. These include provisions related to building design; articulations/façade; materials, textures, and colors; and rooflines, entries, windows, and doors. For example, architectural details and materials on lower building walls should relate to human scale; natural colors, such as those found in nature, are encouraged; roof lines and/or roof-line features should be varied to reduce building bulk; and exterior walls should be divided into smaller spaces that reduce height and bulk to offset structure mass. These design parameters provide a general concept of how the Innovation District should be built out to ensure an aesthetically cohesive project.

Landscaping in the Innovation District would help tie the allowed uses together in a visually appealing manner. The proposed design guidelines require a landscape strip adjacent to building edges to create a buffer and prevent potential graffiti on building walls. The landscaped areas shall also be planted with groundcover vegetation to provide a finished look and provide erosion and weed control. Additionally, all landscaping elements would incorporate drought-tolerant materials.

Open Space District

Land uses within realigned Wilson Creek and Oak Glen Creek would be primarily flood control and drainage related, with associated open space and recreational uses in specifically designated areas, such as multiuse trails adjacent to established flood control channels, benches and tables along established trail routes, and low-level lighting for safety purposes. The detention basin would be designed to hold water throughout the year, and the creeks would be improved with features such as graded and soft-bottom/-walled channels or concrete-lined channels. Portions of the area surrounding the proposed basin would be revegetated to provide a natural open space area with resting areas, benches, tables, and a multiuse trail.

To reduce potential adverse visual impacts of proposed buildings in the Innovation and Residential Districts on existing residents south of Oak Glen Creek, trees would be planted along both sides of the proposed trail between the northern Residential District and proposed detention basin. The multiuse trail would connect to and integrate with existing trails in the project area, including trails along 2nd Street north of the project site, Oak Glen Road, and several interconnected trails east of Bryant Street. Overall, trails would be designed consistent with existing City standards and may operate in a dual capacity for channel maintenance and recreational activities.

Additional landscaping in the Open Space District would include an improved landscape corridor along the northern side of the detention basin that would also act as the boundary between the Residential District and the Open Space District and help screen proposed project buildings. Natural vegetation would be planted in the northern and northeastern portions of the Open Space District, generally within the actual drainage course, to improve the area's aesthetic qualities. Plant species intended for the Open Space District are identified in Appendix A of the Specific Plan.

Conclusion

Overall, the project would require substantial landform modification to accommodate buildout of the three proposed districts. Although the project site would drastically change from a mostly natural, undeveloped

landscape, development of the proposed project would be regulated by the City of Yucaipa's Development Code and the proposed Oak Glen Creek Specific Plan Development Standards and Design Guidelines. The proposed development standards and design guidelines would regulate all new development in the project area to ensure it is constructed and designed in a way that preserves the aesthetic character and value of the surrounding uses and aesthetically enhances and integrates with the existing visual character of the project area.

In addition, as stated above, detailed landscaping plans for site design and internal circulation plans would be prepared at a later date by a qualified and licensed landscape architect and traffic engineer, respectively, for review and approval by City staff. Final plans (e.g., grading plan, circulation plan, irrigation plan, etc.) would be submitted to the City's Development Services Department for review and approval.

Additionally, the overall project site sits at a lower elevation than its neighboring properties (particularly in the south and southwestern portions) and would be at similar or slightly lower elevations as the surrounding land uses at buildout (see Figure 3-7, *Proposed Grading Plan*). The built out height of the residential units and buildings onsite would be of similar scale and height as the adjacent residential land uses. The scale of the proposed structures would also be similar to the existing residences and commercial uses in the surrounding neighborhoods, which include single- and multistory buildings and homes. Therefore, the scenic vistas of numerous mountain ranges—including the San Bernardino Mountains, the Badlands, and the Crafton Hills—from various vantage points around and on the project site would not be obstructed by development on the project site.

Thus, buildout of the proposed project is not expected to result in a substantial adverse effect on any scenic vistas or the overall visual character of the project area. Rather, development of the proposed project would likely enhance the project area's scenic character and integrate well with its surrounding uses, with a cohesive mix of residential, innovation, and open space uses.

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

Impact Analysis: The proposed project is not in the vicinity of a state scenic highway. The closest officially designated state scenic highway is State Route 38 (SR-38), approximately three miles north of the project site. SR-38 is not visible from the project site, nor is the project site visible from SR-38.

However, Oak Glen Road and Bryant Street are designated local scenic highways in the City of Yucaipa General Plan (Yucaipa 2016). General plan goals and policies require protection of scenic vistas and enhancement of scenic resources in Yucaipa in the Scenic Resources Overlay District, which includes the project site. Proper landscaping treatment along these main thoroughfares would strengthen their status and enhance the overall character of the City with the surrounding backdrop of mountains. As previously stated, parkways would be planted with shade trees to provide a pleasant pedestrian environment and contribute to streetscape continuity along these two scenic highways. Both roadways would be landscaped in accordance with a theme selected by a future project developer and approved by the City of Yucaipa. The Specific Plan also requires landscaping measures along these scenic highways, including:

- Use of automatic irrigation systems with moisture sensors installed to ensure plant material survives.
- Providing root barriers when trees are planted five feet or closer to any hardscape element (e.g., curbs, sidewalks, other paving, etc.) or structure.
- Avoiding flowering trees and fruit-bearing trees on pedestrian parkways and ADA path of travel areas to maintain clear passageways.

In addition to the landscaping, signage, and parking standards in the Specific Plan, the project is also required to conform with the City's Development Code Division 7, General Design Standards.

As stated above, development adjacent to the local scenic highways of Oak Glen Road and Bryant Street would be screened and buffered using landscaped corridors, buffered setbacks, appropriate fencing, landscaped berms or walls, etc. Building design, articulation, material, and color criteria detailed in the proposed Specific Plan would ensure that new development is consistent with surrounding uses and enhances the scenic quality of Yucaipa's local scenic roadways. Overall, impacts would be less than significant.

Impact 5.1-3: Buildout of the proposed project would generate additional light and glare but would not substantially increase nighttime light and glare in the project site or its surroundings. [Threshold AE-4]

Impact Analysis: As shown on Figure 3-3, *Aerial Photograph*, the project site is mostly undeveloped, except for the City maintenance yard in the northwestern corner, a YVWD water well, and single-family residence in the southern portion of the site. Surrounding lands are generally developed with structures and lighting, including residences and commercial uses, paved streets and parking areas, other hardscape and landscape improvements, and sources of light and glare. These sources include street lights along Bryant Street, Oak Glen Road, and 2nd Street on the eastern, northern, and western boundaries, respectively; lights from the commercial uses adjacent to the northeast corner of the site, and includes a Rite-Aid and Stater Bros. Market; and residential lighting from the residences along the western and southern boundaries of the project site.

The proposed project would result in new lighting sources to provide nighttime illumination for the Innovation District buildings (interior and exterior), residences, multiuse trails and recreation uses, internal streets, and sidewalks. Lighting would also be used to enhance security and safety for pedestrians and vehicles within the Specific Plan area. Nighttime lighting associated with the project would be partially visible to the residential neighborhoods to the west and south and motorists on adjacent roadways (i.e., 2nd Street, Oak Glen Road, and Bryant Street).

Project-related lighting would be regulated by the proposed Specific Plan design guidelines. Types of lighting for the project would include, but not be limited to, street lighting, parking lot and pedestrian lighting, landscape accent lighting, building monument lighting, and security lighting. All project lighting is required to be uniform in nature and designed to provide safety and enhance the scenic quality of the project site.

In addition, specific guidelines for each type of lighting are also provided. For example, street lighting is required to meet City design requirements in the City of Yucaipa Standard Design Guidelines, Section 400,

"Street Lighting, Traffic Signals and Traffic Signs" (Yucaipa 2015). Project-wide design standards also require future developers to incorporate lighting on driveways and walkways for the security and safety of future employees and visitors. In the Open Space District, low-level lighting is permitted to illuminate multiuse trails to enhance pedestrian safety.

These lighting guidelines and standards would provide the required lighting onsite to accommodate safety and security while minimizing excess illumination and light spillover onto surrounding residential areas, commercial areas, and adjacent streets.

In addition, the City's development code dictates that signs may only be lit by steady, stationary, shielded light directed only at the sign, by light inside the sign, and by direct neon lighting. The glare from such luminous sources must not exceed 0.5 foot-candle (Section 87.0705). Section 87.0710 prohibits all signs that are not effectively shielded to prevent beams or rays of light being directed at any portion of the traveled way or signs that are of such intensity or brilliance as to cause glare or to impair the vision of the driver of any motor vehicle.

The light sources most likely to be used for development in accordance with the Specific Plan would be similar to those of existing surrounding land uses. Because the project site is surrounded by developed areas, the lighting associated with construction and operation of the proposed project would not substantially increase nighttime light and glare in the project site or its surroundings. Thus, overall light and glare impacts would be less than significant.

5.1.4 Cumulative Impacts

Aesthetic impacts are localized to the project site and its immediate surroundings. If future projects are planned in the project area, they would also be required to adhere to the City's design guidelines and light and glare regulations. For example, Section 87.0705 of the City's development code dictates lighting and signage requirements to reduce light and glare impacts from new development. Division 7, General Design Standards, of the development code provides detailed regulations pertaining to signs, height, and parking. Policies in the general plan's transportation element and community and land use element address protection and enhancement of scenic vistas and resources, including local scenic highways. Therefore, the proposed project's contribution to cumulative visual character and light and glare impacts are less than considerable, and therefore are cumulatively less than significant.

5.1.5 Existing Regulations

Oak Glen Creek Specific Plan

Landscaping Design Criteria

Residential District

- For the northerly Residential District, parkways shall be planted with shade trees to provide a pleasant pedestrian environment and contribute to streetscape continuity. Oak Glen Road and 2nd Street will be

landscaped in accordance with an identified theme selected by the project developer and approved by the City of Yucaipa.

- That portion of the Residential District west of 2nd Street has limited frontage upon existing area roadways and therefore would primarily provide landscaping internal to the project area, adjacent to existing front yards and driveways. Internal roadways will be landscaped in accordance with an identified theme selected by the project developer and approved by the City of Yucaipa.

- Scenic Highway landscaping measures would include the use of
  - Automatic irrigation systems with moisture sensors installed to ensure plant material survives.
  - Provide root barriers when trees are planted five feet or closer to any hardscape element (e.g., curbs, sidewalks, other paving, etc.) or structure. The distance shall be measured from the center of the tree trunk to the nearest hardscape or structure.
  - Flowering trees and fruit-bearing trees shall be avoided on pedestrian parkways and ADA path of travel areas to maintain clear passageways.

- Buffering shall be provided along 2nd Street to minimize lights and noise emanating from vehicle turning movements entering and exiting the adjoining subdivision. This design may incorporate a raised landscape berm and the possible addition of a block wall on the berm, depending upon its height

Innovation District

- Landscaping within the Innovation District will be primarily oriented towards the internal portions of the project site.

- A landscape strip shall be planted adjacent to the building edge. The landscape strip shall be directly adjacent to the building edge to create a buffer and help to prevent graffiti.

- Groundcover shall be installed in landscaped areas to provide a finishing treatment, as well as provide erosion and weed control.

- Mulch, bark, and stone/rock cover shall not be used as an alternative to groundcover.

- Turf shall be used only when it serves a specific function. Turf areas shall be minimized to conserve water.

- Landscaping elements in the front yard setback shall incorporate drought tolerant materials.

- Trash enclosures shall comply with City standards and screened with landscaping.

Design Features

Residential District

- It is envisioned the project will incorporate established themes that reflect recognizable attributes from well-known styles, including but not limited to Mediterranean, Craftsman, Spanish, Ranch or Colonial. Sample architectural styles in this section (See exhibits provided in the Oak Glen Creek Specific Plan Figure V-1, Residential Designs) provide an overview of the themes and materials that can be used within the Residential District. It is not required that specific themes be identified within the project area, they are preferred. The important components of any selected design need to incorporate the character and materials portrayed through the sample styles. The end result is intended to distinguish the area from other residential development in its quality and design.

- Primary access into this portion of the project site is provided from Oak Glen Road and 2nd Street. The design of entry features and/or project site identifiers is displayed in the Oak Glen Creek Specific Plan Figure V-3, Oak Glen Road and 2nd Street Entry Features, and Figure V-4, Oak Glen Road and 2nd Street Wall Designs.

Innovation District

- Building Design:
  - All sides of the building shall provide unique design treatments.
  - No large blank walls are allowed on any side of any structure.
  - To offset structure mass, divide exterior walls into smaller spaces that reduce height and bulk through a change in roof or wall plane or the installation of projecting elements
  - Exterior materials shall be durable and resistant to vandalism and weather damage.
  - Identified styles, such as craftsman, are useful in creating varied building texture and character.
- Articulation/Façade
  - Use architectural details and materials on lower walls that relate to human scale, such as arches, trellises, or awnings.
  - Use architectural elements to create shadow patterns that create character, such as overhangs, projections, trellises, varied materials/ texture, awnings, or insets.
  - Utilize entry areas and windows to create varied façade design. The use of exterior louvers for screening is permitted.
  - Contrasting colors are encouraged to accentuate details and aid in the creation of visual changes in façade design.

- Pre-cast walls shall incorporate elements to articulate exteriors; e.g., reveals, recessed panels, recessed windows, and/or moldings to articulate the façade'.

- Materials, Textures, and Colors
  - When appropriate for the architectural style, materials, texture, and style shall vary between the base and body of the structure to break-up large wall planes.
  - Large areas of smooth finish concrete wall panels shall be enhanced with some form of texture.
  - Other materials may be substituted for those previously identified, if they reflect the selected architectural style.
  - Natural colors, such as those found in nature are encouraged.
  - Contrasting colors are encouraged to accentuate details and create visual changes in façade design.
  - Fluorescent paints and bright colors are strongly discouraged.
  - Large expanses of highly reflective surfaces or mirror glass should be avoided.
  - The use of metal exterior siding on buildings is not permitted.

- Rooflines, Entries, Windows, and Doors
  - Fully screen roof-mounted equipment from public view. Wrap around parapets are permitted.
  - Provide roof overhangs to shade structures and reduce heat loss.
  - Vary roof lines and/or roof line features to reduce building bulk.
  - Enhance doors and windows by the use of accent trim, color, or recessed to provide depth and shadow.
  - Window type, material, shape, and proportion shall complement building style and break up wall planes.
  - Appropriate window insets shall be provided.
  - Emphasize structure entrances by using lighting, landscaping, and architectural design.
  - Entry design should enhance building design.

Sign Design Criteria

The following provisions identify the overall requirements for future signs within the Specific Plan area.

- Sign locations. Signs in the restricted sidewalk/landscape easement shall not interfere with pedestrian movement or visibility along sidewalks. Signs shall not block motorist's visibility along the sidewalk, roadway or sight lines at entry driveways and circulation aisles shall not be blocked.

- Base for monument style signs. Provide a solid architectural base that supports the sign and is comprised of traditional materials (e.g., stone, brick, etc.).

- Materials and colors. Incorporate materials and colors into the sign support structure to match or be compatible with materials and colors typical of the project theme.

- Proportion. Signs shall be in proportion to the size of the area in which they are located.

- Design elements. Keep the design elements (e.g., base, side supports, sign panel area, and any roof-like features) in proportion with one another.

- Screening. Electrical transformer boxes, electrical raceways, and conduits shall be concealed from view.

- Illumination. Signs shall be illuminated by a direct source or light and not internally illuminated. Light shall not spillover onto the right-of-way or into adjacent residential areas.

- Prohibited materials and signs. Freestanding pylon signs and roof mounted signs are prohibited. Internally illuminated cabinet-style signs with translucent panels or panels with reflective surfaces, including but not limited to acrylic, fiberglass, plastic or metal are prohibited.

Wall Design Criteria

The following provisions identify the overall requirements for future project walls. Walls, fences, and screening shall be made of materials commonly found in rural landscapes.

- Fences and walls shall be constructed of authentic materials (natural woods, common brick, stone, river rock, clinker brick, and wooden beams, for example). Vinyl and other manufactured fencing materials may be acceptable if the overall look appears authentic.

- Non-transparent perimeter walls and/or fences shall provide decorative columns or pilasters to provide relief and incorporate landscaping.

- Walls on sloping terrain shall be stepped to follow the terrain.

- Screen walls shall not be located where the wall blocks the sight lines of drivers entering, leaving or driving through the project site.

- Wrought iron fencing is acceptable for residential view properties and for commercial security purposes.

- Chain link fencing shall not be permitted.

State

- California Scenic Highway Program

Local

- City of Yucaipa Standard Design Guidelines 2008
- City of Yucaipa Development Code Division 7 (General Design Standards)
  - Chapter 4 (Height Regulations)
  - Chapter 6, Section 87.0605 (Minimum Design Standards)
  - Chapter 7, Sections 87.0705 (General Provisions) and 87.0710 (Prohibited Signs)

5.1.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant: 5.1-1, 5.1-2, and 5.1-3.

5.1.7 Mitigation Measures

No significant impacts would occur and no mitigation measures are required.

5.1.8 Level of Significance After Mitigation

There are no significant unavoidable adverse impacts relating to aesthetics.

5.1.9 References

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5.2 AIR QUALITY

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential for the Oak Glen Creek Specific Plan to impact air quality in a local and regional context. This evaluation is based on the methodology recommended by the South Coast Air Quality Management District (SCAQMD). The analysis focuses on air pollution from regional emissions and localized pollutant concentrations. Criteria air pollutant emissions modeling for the proposed project, as modeled using the California Emissions Estimator Model (CalEEMod), is included in Appendix B of this DEIR. Transportation-sector impacts are based on trip generation and vehicle miles traveled provided by IBI Group (see Appendix J). Cumulative impacts related to air quality are based on the regional boundaries of the South Coast Air Basin (SoCAB).

5.2.1 Environmental Setting

5.2.1.1 REGULATORY SETTING

The project site is in the San Bernardino County portion of the SoCAB. Land use is subject to the rules and regulations imposed by SCAQMD, as well as the California ambient air quality standards (AAQS) adopted by the California Air Resources Board (CARB) and National AAQS adopted by the United States Environmental Protection Agency (EPA). Air pollutants for which the state and federal government have identified AAQS are known as criteria air pollutants. In addition to criteria air pollutants, both the state and federal government regulate the release of toxic air contaminants (TACs). Federal, state, regional, and local laws, regulations, plans, or guidelines that are potentially applicable to the proposed project are summarized below.

Federal and State

Ambient Air Quality Standards

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

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

5. Environmental Analysis
AIR QUALITY

Both California and the federal government have established health-based AAQS for seven air pollutants, which are shown in Table 5.2-1, *Ambient Air Quality Standards for Criteria Pollutants*. These pollutants are ozone (O_3), nitrogen dioxide (NO_2), carbon monoxide (CO), sulfur dioxide (SO_2), coarse inhalable particulate matter (PM_{10}), fine inhalable particulate matter ($PM_{2.5}$), and lead (Pb). In addition, the state has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety.

Table 5.2-1 Ambient Air Quality Standards for Criteria Pollutants

Pollutant	Averaging Time	California Standard[1]	Federal Primary Standard[2]	Major Pollutant Sources
Ozone (O_3)[3]	1 hour	0.09 ppm	*	Motor vehicles, paints, coatings, and solvents.
	8 hours	0.070 ppm	0.070 ppm	
Carbon Monoxide (CO)	1 hour	20 ppm	35 ppm	Internal combustion engines, primarily gasoline-powered motor vehicles.
	8 hours	9.0 ppm	9 ppm	
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	0.030 ppm	0.053 ppm	Motor vehicles, petroleum-refining operations, industrial sources, aircraft, ships, and railroads.
	1 hour	0.18 ppm	0.100 ppm	
Sulfur Dioxide (SO_2)	Annual Arithmetic Mean	*	0.030 ppm	Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.
	1 hour	0.25 ppm	0.075 ppm	
	24 hours	0.04 ppm	0.14 ppm	
Respirable Coarse Particulate Matter (PM_{10})	Annual Arithmetic Mean	20 µg/m^3	*	Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	24 hours	50 µg/m^3	150 µg/m^3	
Respirable Fine Particulate Matter ($PM_{2.5}$)[4]	Annual Arithmetic Mean	12 µg/m^3	12 µg/m^3	Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	24 hours	*	35 µg/m^3	
Lead (Pb)	30-Day Average	1.5 µg/m^3	*	Present source: lead smelters, battery manufacturing & recycling facilities. Past source: combustion of leaded gasoline.
	Calendar Quarter	*	1.5 µg/m^3	
	Rolling 3-Month Average	*	0.15 µg/m^3	
Sulfates (SO_4)[5]	24 hours	25 µg/m^3	*	Industrial processes.

Table 5.2-1 Ambient Air Quality Standards for Criteria Pollutants

Pollutant	Averaging Time	California Standard[1]	Federal Primary Standard[2]	Major Pollutant Sources
Visibility Reducing Particles	8 hours	ExCo =0.23/km visibility of 10≥ miles	No Federal Standard	Visibility-reducing particles consist of suspended particulate matter, which is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary greatly in shape, size and chemical composition, and can be made up of many different materials such as metals, soot, soil, dust, and salt.
Hydrogen Sulfide	1 hour	0.03 ppm	No Federal Standard	Hydrogen sulfide (H_2S) is a colorless gas with the odor of rotten eggs. It is formed during bacterial decomposition of sulfur-containing organic substances. Also, it can be present in sewer gas and some natural gas, and can be emitted as the result of geothermal energy exploitation.
Vinyl Chloride	24 hour	0.01 ppm	No Federal Standard	Vinyl chloride (chloroethene), a chlorinated hydrocarbon, is a colorless gas with a mild, sweet odor. Most vinyl chloride is used to make polyvinyl chloride (PVC) plastic and vinyl products. Vinyl chloride has been detected near landfills, sewage plants, and hazardous waste sites, due to microbial breakdown of chlorinated solvents.

Source: CARB 2016a.
Notes: ppm: parts per million; μg/m^3: micrograms per cubic meter
* Standard has not been established for this pollutant/duration by this entity.
1 California standards for O_3, CO (except 8-hour Lake Tahoe), SO_2 (1 and 24 hour), NO_2, and particulate matter (PM_{10}, $PM_{2.5}$, 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 O_3, PM, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The O_3 standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 μg/m^3 is equal to or less than one. For $PM_{2.5}$, 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.
3 On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.
4 On December 14, 2012, the national annual $PM_{2.5}$ primary standard was lowered from 15 μg/m^3 to 12.0 μg/m^3. The existing national 24-hour $PM_{2.5}$ standards (primary and secondary) were retained at 35 μg/m^3, as was the annual secondary standard of 15 μg/m^3. The existing 24-hour PM_{10} standards (primary and secondary) of 150 μg/m^3 also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
5 On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. The 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

California has also adopted a host of other regulations that reduce criteria pollutant emissions, including:

- AB 1493: Pavley Fuel Efficiency Standards
- California Code of Regulations (CCR), Title 20: Appliance Energy Efficiency Standards
- 24 CCR, Part 6: Building and Energy Efficiency Standards
- 24 CCR, Part 11: Green Building Standards Code

Tanner Air Toxics Act and Air Toxics Hots Information and Assessment Act

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

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

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

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

- **CARB Rule** 2485 (13 CCR, Chapter 10 § 2485), Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling
- **CARB Rule 2480** (13 CCR Chapter 10 § 2480), Airborne Toxic Control Measure to Limit School Bus Idling and Idling at Schools
- **CARB Rule 2477** (13 CCR § 2477 and Article 8), Airborne Toxic Control Measure for In-Use Diesel-Fueled Transport Refrigeration Units (TRU) and TRU Generator Sets and Facilities Where TRUs Operate

Air Pollutants of Concern

Criteria Air Pollutants

The pollutants emitted into the ambient air by stationary and mobile sources are categorized as primary and/or secondary pollutants. Primary air pollutants are emitted directly from sources. Carbon monoxide

(CO), volatile organic compounds (VOC), nitrogen oxides (NO_x), sulfur dioxide (SO_2), coarse inhalable particulate matter (PM_{10}), fine inhalable particulate matter ($PM_{2.5}$), and lead (Pb) are primary air pollutants. Of these, CO, SO_2, NO_2, PM_{10}, and $PM_{2.5}$ are "criteria air pollutants," which means that AAQS have been established for them. VOC and NO_x are criteria pollutant precursors that form secondary criteria air pollutants through chemical and photochemical reactions in the atmosphere. Ozone (O_3) and nitrogen dioxide (NO_2) are the principal secondary pollutants.

A description of each of the primary and secondary criteria air pollutants and its known health effects is presented below.

Carbon Monoxide is a colorless, odorless gas produced by incomplete combustion of carbon substances, such as gasoline or diesel fuel. CO is a primary criteria air pollutant. CO concentrations tend to be the highest during winter mornings with little to no wind, when surface-based inversions trap the pollutant at ground levels. The highest ambient CO concentrations are generally found near traffic-congested corridors and intersections. The primary adverse health effect associated with CO is interference with normal oxygen transfer to the blood, which may result in tissue oxygen deprivation (SCAQMD 2005; USEPA 2016). The SoCAB is designated under the California and National AAQS as being in attainment of CO criteria levels (CARB 2015).

Volatile Organic Compounds are composed primarily of hydrogen and carbon atoms. Internal combustion associated with motor vehicle usage is the major source of VOCs. Other sources include evaporative emissions from paints and solvents, asphalt paving, and household consumer products such as aerosols (SCAQMD 2005). There are no AAQS for VOCs. However, because they contribute to the formation of O_3, SCAQMD has established a significance threshold.

Nitrogen Oxides are a by-product of fuel combustion and contribute to the formation of ground-level O_3, PM_{10}, and $PM_{2.5}$. The two major forms of NO_X are nitric oxide (NO) and nitrogen dioxide (NO_2). NO is a colorless, odorless gas formed from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure. The principal form of NO_X produced by combustion is NO, but NO reacts quickly with oxygen to form NO_2, creating the mixture of NO and NO_2 commonly called NO_X. NO_2 is an acute irritant and more injurious than NO in equal concentrations. At atmospheric concentrations, however, NO_2 is only potentially irritating. NO_2 absorbs blue light; the result is a brownish-red cast to the atmosphere and reduced visibility. NO_2 exposure concentrations near roadways are of particular concern for susceptible individuals, including asthmatics, children, and the elderly. Current scientific evidence links short-term NO_2 exposures, ranging from 30 minutes to 24 hours, with adverse respiratory effects, including airway inflammation in healthy people and increased respiratory symptoms in people with asthma. Also, studies show a connection between elevated short-term NO_2 concentrations and increased visits to emergency departments and hospital admissions for respiratory issues, especially asthma (SCAQMD 2005; USEPA 2016). The SoCAB is designated an attainment area for NO_2 under the National and California AAQS (CARB 2015).

Sulfur Dioxide a colorless, pungent, irritating gas formed by the combustion of sulfurous fossil fuels. It enters the atmosphere as a result of burning high-sulfur-content fuel oils and coal and chemical processes at

plants and refineries. Gasoline and natural gas have very low sulfur content and do not release significant quantities of SO_2. When sulfur dioxide forms sulfates (SO_4) in the atmosphere, together these pollutants are referred to as sulfur oxides (SO_X). Thus, SO_2 is both a primary and secondary criteria air pollutant. At sufficiently high concentrations, SO_2 may irritate the upper respiratory tract. Current scientific evidence links short-term exposures to SO_2, ranging from 5 minutes to 24 hours, with an array of adverse respiratory effects, including bronchoconstriction and increased asthma symptoms. These effects are particularly adverse for asthmatics at elevated ventilation rates (e.g., while exercising or playing.) At lower concentrations and when combined with particulates, SO_2 may do greater harm by injuring lung tissue. Studies also show a connection between short-term exposure and increased visits to emergency facilities and hospital admissions for respiratory illnesses, particularly in at-risk populations such as children, the elderly, and asthmatics (SCAQMD 2005; USEPA 2016). The SoCAB is designated attainment under the California and National AAQS (CARB 2015).

Suspended Particulate Matter consists of finely divided solids or liquids such as soot, dust, aerosols, fumes, and mists. Two forms of fine particulates are now recognized and regulated. Inhalable coarse particles, or PM_{10}, include particulate matter with an aerodynamic diameter of 10 microns or less (i.e., ≤10 millionths of a meter or 0.0004 inch). Inhalable fine particles, or $PM_{2.5}$, have an aerodynamic diameter of 2.5 microns or less (i.e., ≤2.5 millionths of a meter or 0.0001 inch). Particulate discharge into the atmosphere results primarily from industrial, agricultural, construction, and transportation activities. Both PM_{10} and $PM_{2.5}$ may adversely affect the human respiratory system, especially in people who are naturally sensitive or susceptible to breathing problems. The EPA's scientific review concluded that $PM_{2.5}$, which penetrates deeply into the lungs, is more likely than PM_{10} to contribute to health effects and at far lower concentrations. These health effects include premature death in people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms (e.g., irritation of the airways, coughing, or difficulty breathing) (SCAQMD 2005). There has been emerging evidence that ultrafine particulates, which are even smaller particulates with an aerodynamic diameter of <0.1 microns or less (i.e., ≤0.1 millionths of a meter or <0.000004 inch), have human health implications, because their toxic components may initiate or facilitate biological processes that may lead to adverse effects to the heart, lungs, and other organs (SCAQMD 2013). However, the EPA or CARB has yet to adopt AAQS to regulate these particulates. Diesel particulate matter is classified by CARB as a carcinogen (CARB 1998). Particulate matter can also cause environmental effects such as visibility impairment,[1] environmental damage,[2] and aesthetic damage[3] (SCAQMD 2005; USEPA 2016). The SoCAB is a nonattainment area for $PM_{2.5}$ under California and National AAQS and a nonattainment area for PM_{10} under the California AAQS (CARB 2015).[4]

1 $PM_{2.5}$ is the main cause of reduced visibility (haze) in parts of the United States.

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

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

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

Ozone is commonly referred to as "smog" and is a gas that is formed when VOCs and NO_X, both by-products of internal combustion engine exhaust, undergo photochemical reactions in sunlight. O_3 is a secondary criteria air pollutant. O_3 concentrations are generally highest during the summer months when direct sunlight, light winds, and warm temperatures create favorable conditions for its formation. O_3 poses a health threat to those who already suffer from respiratory diseases as well as to healthy people. Breathing O_3 can trigger a variety of health problems, including chest pain, coughing, throat irritation, and congestion. It can worsen bronchitis, emphysema, and asthma. Ground-level O_3 also can reduce lung function and inflame the linings of the lungs. Repeated exposure may permanently scar lung tissue. O_3 also affects sensitive vegetation and ecosystems, including forests, parks, wildlife refuges, and wilderness areas. In particular, O_3 harms sensitive vegetation during the growing season (SCAQMD 2005; USEPA 2016). The SoCAB is designated extreme nonattainment under the California AAQS (1-hour and 8-hour) and National AAQS (8-hour) (CARB 2015).

Lead is a metal found naturally in the environment as well as in manufactured products. Once taken into the body, lead distributes throughout the body in the blood and accumulates in the bones. Depending on the level of exposure, lead can adversely affect the nervous system, kidney function, immune system, reproductive and developmental systems, and the cardiovascular system. Lead exposure also affects the oxygen-carrying capacity of the blood. The effects of lead most commonly encountered in current populations are neurological effects in children and cardiovascular effects in adults (e.g., high blood pressure and heart disease). Infants and young children are especially sensitive to even low levels of lead, which may contribute to behavioral problems, learning deficits, and lowered IQ (SCAMQD 2005; USEPA 2016). The major sources of lead emissions have historically been mobile and industrial sources. As a result of the EPA's regulatory efforts to remove lead from gasoline, emissions of lead from the transportation sector dramatically declined by 95 percent between 1980 and 1999, and levels of lead in the air decreased by 94 percent between 1980 and 1999. Today, the highest levels of lead in air are usually found near lead smelters. The major sources of lead emissions today are ore and metals processing and piston-engine aircraft operating on leaded aviation gasoline. However, in 2008 the EPA and CARB adopted more strict lead standards, and special monitoring sites immediately downwind of lead sources recorded very localized violations of the new state and federal standards.[5] As a result of these violations, the Los Angeles County portion of the SoCAB is designated as nonattainment under the National AAQS for lead (SCAQMD 2012; CARB 2015). Because emissions of lead are found only in projects that are permitted by SCAQMD, lead is not a pollutant of concern for the proposed project.

Toxic Air Contaminants

By the last update to the TAC list in December 1999, CARB had designated 244 compounds as TACs (CARB 1999). Additionally, CARB has implemented control measures for a number of compounds that pose high risks and show potential for effective control. The majority of the estimated health risks from TACs can be

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

attributed to relatively few compounds, the most important being particulate matter from diesel-fueled engines.

Diesel Particulate Matter

In 1998, CARB identified diesel particulate matter as a TAC. Previously, the individual chemical compounds in diesel exhaust were considered TACs. Almost all diesel exhaust particles are 10 microns or less in diameter. Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lungs.

Air Quality Management Planning

SCAQMD is the agency responsible for improving air quality in the SoCAB and assuring that the National and California AAQS are attained and maintained. SCAQMD is responsible for preparing the air quality management plan (AQMP) for the SoCAB in coordination with the Southern California Association of Governments (SCAG). Since 1979, a number of AQMPs have been prepared.

2012 AQMP

On December 7, 2012, SCAQMD adopted the 2012 AQMP, which employs the most up-to-date science and analytical tools and incorporates a comprehensive strategy aimed at controlling pollution from all sources, including stationary sources, on- and off-road mobile sources, and area sources. It also addresses several state and federal planning requirements, incorporating new scientific information, primarily in the form of updated emissions inventories, ambient measurements, and new meteorological air quality models. The 2012 AQMP builds upon the approach identified in the 2007 AQMP for attainment of federal PM and ozone standards and highlights the significant amount of reductions needed. It also highlights the urgent need to engage in interagency coordinated planning to identify additional strategies, especially in the area of mobile sources, to meet all federal criteria air pollutant standards within the time frames allowed under the CAA. The 2012 AQMP demonstrates attainment of federal 24-hour $PM_{2.5}$ standards by 2014 and the federal 8-hour ozone standard by 2023. Preliminary ambient air quality data suggests that meeting the 2016 federal 24-hour $PM_{2.5}$ standards by the end of 2014 is not likely, largely due to the extreme drought conditions in the SoCAB (SCAQMD 2015c). It includes an update to the revised EPA 8-hour ozone control plan with new commitments for short-term NO_X and VOC reductions. The plan also identifies emerging issues—ultrafine particulate matter ($PM_{1.0}$), near-roadway exposure, and energy supply and demand.

2016 Draft AQMP

The SCAQMD is in the process of updating the AQMP and released a draft of the 2016 AQMP on June 30, 2016. The 2016 AQMP addresses strategies and measures to attain the 2008 federal 8-hour ozone standard by 2031, the 2012 federal annual $PM_{2.5}$ standard by 2025, the 2006 federal 24-hour $PM_{2.5}$ standard by 2019, the 1997 federal 8-hour ozone standard by 2023, and the 1979 federal 1-hour ozone standard by year 2022. It is projected that total NO_X emissions in the SoCAB would need to be reduced to 150 tons per day (tpd) by year 2023 and to 100 tpd in year 2031 to meet the 1997 and 2008 federal 8-hour ozone standards. The strategy to meet the 1997 federal 8-hour ozone standard would also lead to attaining the 1979 federal 1-hour ozone standard by year 2022 (SCAQMD 2016a), which requires reducing NO_X emissions in the SoCAB to 250 tpd.

Reducing NO_X emissions would also reduce $PM_{2.5}$ concentrations within the SoCAB. However, as the goal is to meet the 2012 federal annual $PM_{2.5}$ standard no later than year 2025, SCAQMD is seeking to reclassify the SoCAB from "moderate" to "serious" nonattainment under this federal standard. A "moderate" non-attainment would require meeting the 2012 federal standard by no later than 2021. Overall, the 2016 AQMP is composed of stationary and mobile-source emission reductions from regulatory control measures, incentive-based programs, co-benefits from climate programs, mobile-source strategies, and reductions from federal sources such as aircrafts, locomotives, and ocean-going vessels. Strategies outlined in the 2016 AQMP would be implemented in collaboration between CARB and the EPA (SCAQMD 2016a).

Lead Implementation Plan

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

SCAQMD Rules and Regulations

All projects are subject to SCAQMD rules and regulations in effect at the time of activity, including the following:

- **Rule 401, Visible Emissions.** This rule is intended to prevent the discharge of pollutant emissions from an emissions source that results in visible emissions. Specifically, the rule prohibits the discharge of any air contaminant into the atmosphere by a person from any single source of emission for a period or periods aggregating more than three minutes in any one hour that is as dark as or darker than designated No. 1 on the Ringelmann Chart, as published by the U.S. Bureau of Mines.

- **Rule 402, Nuisance.** This rule is intended to prevent the discharge of pollutant emissions from an emissions source that results in a public nuisance. Specifically, this rule prohibits any person from discharging quantities of air contaminants or other material from any source such that it would result in an injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public. Additionally, the discharge of air contaminants would also be prohibited where it would endanger the comfort, repose, health, or safety of any number of persons or the public, or that cause, or have a natural tendency to cause, injury or damage to business or property. This rule does not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.

- **Rule 403, Fugitive Dust.** This rule is intended to reduce the amount of particulate matter entrained in the ambient air as a result of anthropogenic (human-made) fugitive dust sources by requiring actions to prevent, reduce, or mitigate fugitive dust emissions. Rule 403 applies to any activity or human-made

condition capable of generating fugitive dust, and requires best available control measures to be applied to earth moving and grading activities.

- **Rule 1113, Architectural Coatings.** This rule serves to limit the VOC content of architectural coatings used on projects in the SCAQMD. Any person who supplies, sells, offers for sale, or manufactures any architectural coating for use on projects in the SCAQMD must comply with the current VOC standards set in this rule.

5.2.1.2 EXISTING CONDITIONS

South Coast Air Basin

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

Temperature and Precipitation

The annual average temperature varies little throughout the SoCAB, ranging from the low to middle 60s, measured in degrees Fahrenheit (°F). With a more pronounced oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas. The climatological station nearest to the project site is the Beaumont Pumping Plant Monitoring Station (ID No. 040607). The average low is reported at 35.7°F in January, and the average high is 93.1°F in July (WRCC 2016).

In contrast to a very steady pattern of temperature, rainfall is seasonally and annually highly variable. Almost all rain falls from November through April. Summer rainfall is normally restricted to widely scattered thundershowers near the coast, with slightly heavier shower activity in the east and over the mountains. Rainfall averages 20.89 inches per year in the project area (WRCC 2016).

Humidity

Although the SoCAB has a semiarid climate, the air near the earth's surface is typically moist because of the presence of a shallow marine layer. Except for infrequent periods when dry, continental air is brought into the SoCAB by offshore winds, the "ocean effect" is dominant. Periods of heavy fog, especially along the coast, are frequent. Low clouds, often referred to as high fog, are a characteristic climatic feature. Annual average humidity is 70 percent at the coast and 57 percent in the eastern portions of the SoCAB (SCAQMD 2005).

Wind

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

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

The mountain ranges to the east affect the transport and diffusion of pollutants by inhibiting their eastward transport. Air quality in the SoCAB generally ranges from fair to poor and is similar to air quality in most of coastal southern California. The entire region experiences heavy concentrations of air pollutants during prolonged periods of stable atmospheric conditions (SCAQMD 2005).

Inversions

In conjunction with the two characteristic wind patterns that affect the rate and orientation of horizontal pollutant transport, there are two similarly distinct types of temperature inversions that control the vertical depth through which pollutants are mixed. These are the marine/subsidence inversion and the radiation inversion. The combination of winds and inversions are critical determinants in leading to the highly degraded air quality in summer and the generally good air quality in the winter in the project area (SCAQMD 2005).

SoCAB Nonattainment Areas

The AQMP provides the framework for air quality basins to achieve attainment of the state and federal ambient air quality standards through the SIP. Areas are classified as attainment or nonattainment areas for particular pollutants depending on whether they meet the ambient air quality standards. Severity classifications for ozone nonattainment range in magnitude from marginal, moderate, and serious to severe and extreme.

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

- **Nonattainment/Transitional:** A subcategory of the nonattainment designation. An area is designated nonattainment/transitional to signify that the area is close to attaining the AAQS for that pollutant.

The attainment status for the SoCAB is shown in Table 5.2-2, *Attainment Status of Criteria Pollutants in the South Coast Air Basin*.

Table 5.2-2 Attainment Status of Criteria Pollutants in the South Coast Air Basin

Pollutant	State	Federal
Ozone – 1-hour	Extreme Nonattainment	No Federal Standard
Ozone – 8-hour	Extreme Nonattainment	Extreme Nonattainment
PM_{10}	Serious Nonattainment	Attainment
$PM_{2.5}$	Nonattainment	Nonattainment
CO	Attainment	Attainment
NO_2	Attainment	Attainment/Maintenance
SO_2	Attainment	Attainment
Lead	Attainment	Nonattainment (Los Angeles County only)[1]
All others	Attainment/Unclassified	Attainment/Unclassified

Source: CARB 2015.
[1] In 2010, the Los Angeles portion of the SoCAB was designated nonattainment for lead under the new 2008 federal AAQS as a result of large industrial emitters. Remaining areas in the SoCAB are unclassified.

Multiple Air Toxics Exposure Study IV

The Multiple Air Toxics Exposure Study (MATES) is a monitoring and evaluation study on ambient concentrations of TACs and estimated the potential health risks from air toxics in the SoCAB. In 2008, SCAQMD conducted its third update to the MATES study (MATES III). The results showed that the overall risk for excess cancer from a lifetime exposure to ambient levels of air toxics was about 1,200 in a million. The largest contributor to this risk was diesel exhaust, accounting for 84 percent of the cancer risk (SCAQMD 2008a).

SCAQMD recently released the fourth update (MATES IV). The results showed that the overall monitored risk for excess cancer from a lifetime exposure to ambient levels of air toxics decreased to approximately 418 in one million. Compared to the 2008 MATES III, monitored excess cancer risks decreased by approximately 65 percent. Approximately 90 percent of the risk is attributed to mobile sources, and 10 percent is attributed to TACs from stationary sources, such as refineries, metal processing facilities, gas stations, and chrome plating facilities. The largest contributor to this risk was diesel exhaust, accounting for approximately 68 percent of the air toxics risk. Compared to MATES III, MATES IV found substantial improvement in air quality and associated decrease in air toxics exposure. As a result, the estimated basinwide population-weighted risk decreased by approximately 57 percent compared to the analysis done for the MATES III time period (SCAQMD 2015b).

The Office of Environmental Health Hazard Assessment updated the guidelines for estimating cancer risks on March 6, 2015. The new method utilizes higher estimates of cancer potency during early life exposures, which result in a higher calculation of risk. There are also differences in the assumptions on breathing rates

and length of residential exposures. When combined together, SCAQMD estimates that risks for a given inhalation exposure level will be about 2.7 times higher using the proposed updated methods from MATES IV (e.g., 2.7 times higher than 418 in one million overall excess cancer risk) (SCAQMD 2015b).

Existing Ambient Air Quality

Existing levels of ambient air quality and historical trends and projections in the vicinity of the project site and project area are best documented by measurements made by SCAQMD. The project site is in Source Receptor Area (SRA) 35–East San Bernardino Valley. The air quality monitoring station closest to the project is the Redlands-Dearborn Monitoring Station. Because this station does not have data for NO_x, CO, and $PM_{2.5}$, data for these criteria air pollutants are supplemented by the San Bernardino-4th Street Monitoring Station. Data from these stations are summarized in Table 5.2-3, *Ambient Air Quality Monitoring Summary*. The data show that the area regularly exceeds the state and federal O_3 standards and the state PM_{10} and federal $PM_{2.5}$ standards. The CO and NO_2 standards have not been exceeded in the last five years in the project vicinity.

Table 5.2-3 Ambient Air Quality Monitoring Summary

Pollutant/Standard	Number of Days Threshold Were Exceeded and Maximum Levels during Such Violations				
	2011	2012	2013	2014	2015
Ozone (O3)[1]					
State 1-Hour ≥ 0.09 ppm	64	66	43		
State 8-hour ≥ 0.07 ppm	96	101	93	83	77
Federal 8-Hour > 0.075 ppm	80	79	63	55	54
Max. 1-Hour Conc. (ppm)	0.151	0.136	0.133		
Max. 8-Hour Conc. (ppm)	0.133	0.109	0.119	0.104	0.115
Carbon Monoxide (CO)[2]					
State 8-Hour > 9.0 ppm	0	0	*	*	*
Federal 8-Hour ≥ 9.0 ppm	0	0	*	*	*
Max. 8-Hour Conc. (ppm)	1.74	1.64	*	*	*
Nitrogen Dioxide (NO_2)[2]					
State 1-Hour ≥ 0.18 ppm	0	0	0	0	0
Max. 1-Hour Conc. (ppb)	0.0619	0.067	0.0721	0.0726	0.0714
Coarse Particulates (PM_{10})[1]					
State 24-Hour > 50 µg/m^3	1	0	2	2	2
Federal 24-Hour > 150 µg/m^3	0	0	0	0	0
Max. 24-Hour Conc. (µg/m^3)	71.0	48.0	72.0	62.0	95.0
Fine Particulates ($PM_{2.5}$)[2]					
Federal 24-Hour > 35 µg/m^3	2	0	1	0	2
Max. 24-Hour Conc. (µg/m^3)	65.0	34.8	55.3	32.2	53.5

Source: CARB 2016b.
Notes: ppm = parts per million; ppb = parts per billion; µg/m^3 = micrograms per cubic meter
* Data not available.
1 Data from the Redlands-Dearborn Monitoring Station at 500 N. Dearborn Street in the City of Redlands.
2 Data from the San Bernardino-4th Street Monitoring Station at 24302 E. 4th Street in the City of San Bernardino.

Existing Emissions

The majority of the project site is currently undeveloped and vacant open space except for the City's maintenance yard facility in the northwest corner, a single-family residence west of 2nd Street, and a well operated by the Yucaipa Valley Water District (YVWD). Potential sources of emissions from the City yard include the existing structures and on- and off-road vehicles. It is assumed that any current emissions generated by the one residence and at the City yard are nominal since employees are typically not on the premises the majority of the day.

Sensitive Receptors

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

Residential areas are considered sensitive to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to any pollutants. Other sensitive receptors include retirement facilities, hospitals, and schools. Recreational land uses are considered moderately sensitive to air pollution. Although exposure periods are generally short, exercise places a high demand on respiratory functions, which can be impaired by air pollution. In addition, noticeable air pollution can detract from the enjoyment of recreation. Industrial, commercial, retail, and office areas are considered the least sensitive to air pollution. Exposure periods are relatively short and intermittent, because the majority of the workers tend to stay indoors most of the time. In addition, the working population is generally the healthiest segment of the public.

The closest offsite sensitive receptors to the planning area are the surrounding residential land uses along its boundaries to the south and west and Wildwood Calvary Chapel north of the northeastern border. In addition, Park View Middle School and Lakeview Mobile Estates mobile-home park to the north across Oak Glen Road are also within close proximity to the plan area.

5.2.2 Thresholds of Significance

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

AQ-1 Conflict with or obstruct implementation of the applicable air quality plan.

AQ-2 Violate any air quality standard or contribute substantially to an existing or projected air quality violation.

AQ-3 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 (including releasing emissions which exceed quantitative thresholds for ozone precursors).

AQ-4 Expose sensitive receptors to substantial pollutant concentrations.

AQ-5 Create objectionable odors affecting a substantial number of people.

Chapter 8, *Impacts Found Not to Be Significant*, substantiates that impacts associated with the following threshold would be less than significant:

- Threshold AQ-5

South Coast Air Quality Management District Thresholds

The analysis of the proposed project's air quality impacts follows the guidance and methodologies recommended in SCAQMD's *CEQA Air Quality Handbook* and the significance thresholds on SCAQMD's website.[6] CEQA allows the significance criteria established by the applicable air quality management or air pollution control district to be used to assess impacts of a project on air quality. SCAQMD has established regional thresholds of significance. In addition to the regional thresholds, projects are subject to the AAQS. These are addressed though an analysis of localized CO impacts and localized significance thresholds (LSTs).

SCAQMD Regional Significance Thresholds

SCAQMD has adopted regional construction and operational emissions thresholds to determine a project's cumulative impact on air quality in the SoCAB. Table 5.2-4, *SCAQMD Significance Thresholds*, lists thresholds that apply to all projects regardless of size or scope. There is growing evidence that although ultrafine particulates contribute a very small portion of the overall atmospheric mass concentration, they represent a greater proportion of the health risk from PM. However, the EPA or CARB have not yet adopted AAQS to regulate ultrafine particulates; therefore, SCAQMD has not developed thresholds for them.

Table 5.2-4 SCAQMD Significance Thresholds

Air Pollutant	Construction Phase	Operational Phase
Reactive Organic Gases (ROGs)/ Volatile Organic Compounds (VOCs)	75 lbs/day	55 lbs/day
Carbon Monoxide (CO)	550 lbs/day	550 lbs/day
Nitrogen Oxides (NO_x)	100 lbs/day	55 lbs/day
Sulfur Oxides (SO_x)	150 lbs/day	150 lbs/day
Particulates (PM_{10})	150 lbs/day	150 lbs/day
Particulates ($PM_{2.5}$)	55 lbs/day	55 lbs/day

Source: SCAQMD 2015a.

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

[6] SCAQMD's air quality significance thresholds are current as of March 2011 and can be found at: http://www.aqmd.gov/ceqa/hdbk.html.

- Linked to increased cancer risk ($PM_{2.5}$, TACs)
- Aggravates respiratory disease (O_3, $PM_{2.5}$)
- Increases bronchitis (O_3, $PM_{2.5}$)
- Causes chest discomfort, throat irritation, and increased effort to take a deep breath (O_3)
- Reduces resistance to infections and increases fatigue (O_3)
- Reduces lung growth in children ($PM_{2.5}$)
- Contributes to heart disease and heart attacks ($PM_{2.5}$)
- Contributes to premature death (O_3, $PM_{2.5}$)
- Linked to lower birth weight in newborns ($PM_{2.5}$) (SCAQMD 2015e)

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

Mass emissions in Table 5.2-4 are not correlated with concentrations of air pollutants but contribute to the cumulative air quality impacts in the SoCAB. Therefore, regional emissions from a single project do not single-handedly trigger a regional health impact. SCAQMD is the primary agency responsible for ensuring the health and welfare of sensitive individuals exposed to elevated concentrations of air quality in the SoCAB. To achieve the health-based standards established by the EPA, SCAQMD prepares an AQMP that details regional programs to attain the AAQS.

Localized Significance Thresholds

SCAQMD identifies localized significance thresholds, shown in Table 5.2-5, *SCAQMD Localized Significance Thresholds*. Emissions of NO_2, CO, PM_{10}, and $PM_{2.5}$ generated at a project site (offsite mobile-source emissions are not included in the LST analysis) could expose sensitive receptors to substantial concentrations of criteria air pollutants. A project would generate a significant impact if it generates emissions that trigger a violation of the AAQS when added to the local background concentrations.

Table 5.2-5 SCAQMD Localized Significance Thresholds

Air Pollutant (Relevant AAQS)	Concentration
1-Hour CO Standard (CAAQS)	20 ppm
8-Hour CO Standard (CAAQS)	9.0 ppm
1-Hour NO_2 Standard (CAAQS)	0.18 ppm
Annual NO_2 Standard (CAAQS)	0.03 ppm
24-Hour PM_{10} Standard – Construction (SCAQMD)[1]	10.4 µg/m^3
24-Hour $PM_{2.5}$ Standard – Construction (SCAQMD)[1]	10.4 µg/m^3
24-Hour PM_{10} Standard – Operation (SCAQMD)[1]	2.5 µg/m^3
24-Hour $PM_{2.5}$ Standard – Operation (SCAQMD)[1]	2.5 µg/m^3
Annual Average PM_{10} Standard (SCAQMD)[1]	1.0 µg/m^3

Source: SCAQMD 2015c.
ppm – parts per million; µg/m^3 – micrograms per cubic meter
[1] Threshold is based on SCAQMD Rule 403. Since the SoCAB is in nonattainment for PM_{10} and $PM_{2.5}$, the threshold is established as an allowable change in concentration. Therefore, background concentration is irrelevant.

To assist lead agencies, SCAQMD developed screening-level LSTs to back-calculate the mass amount (lbs. per day) of emissions generated onsite that would trigger the levels shown in Table 5.2-5 for projects under five acres. The construction and operation LSTs for the project site in SRA 35 are shown in Table 5.2-6, *SCAQMD Screening-Level Localized Significance Thresholds*, for sensitive receptors at 25 meters (82 feet). These "screening-level" LSTs are the thresholds for all projects of five acres and less; however, they can be used as screening criteria for larger projects to determine whether or not dispersion modeling may be required to compare concentrations of air pollutants generated by the project to the localized concentrations shown in Table 5.2-5. In accordance with SCAQMD's LST methodology, construction LSTs are based on the acreage disturbed per day and equipment use.

Table 5.2-6 SCAQMD Screening-Level Localized Significance Thresholds

	Threshold (lbs/day)			
Acreage Disturbed	Nitrogen Oxides (NO_X)	Carbon Monoxide (CO)	Coarse Particulates (PM_{10})	Fine Particulates ($PM_{2.5}$)
Construction Phase[1]				
1.31 Acres Disturbed per Day	134	900	5	4
2.50 Acres Disturbed per Day	187	1,324	8	6
5.00 Acres Disturbed per Day	270	2,075	14	9
Operational Phase[2]				
5.00-Acre Site	270	2,075	4	3

Source: SCAQMD 2008b, based on receptors in SRA 35.
[1] LSTs are based on receptors within 82 feet (25 meters).
[2] LSTs are based on receptors within 82 feet (25 meters) for a project site size of 5 acres.

CO Hotspots

Areas of vehicle congestion have the potential to create pockets of CO called hotspots. These pockets have the potential to exceed the state one-hour standard of 20 ppm or the eight-hour standard of 9 ppm. Because CO is produced in greatest quantities from vehicle combustion and does not readily disperse into the atmosphere, adherence to ambient air quality standards is typically demonstrated through an analysis of localized CO concentrations. Hotspots are typically produced at intersections, where traffic congestion is highest because vehicles queue for longer periods and are subject to reduced speeds.

At the time of SCAQMD's 1993 *Handbook*, the SoCAB was designated nonattainment under the California AAQS and National AAQS for CO. With the turnover of older vehicles, introduction of cleaner fuels, and implementation of control technology on industrial facilities, CO concentrations in the SoCAB and in the state have steadily declined. In 2007, the SCAQMD was designated attainment for CO under both the California and National AAQS. As identified in SCAQMD's 2003 AQMP and the 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan), peak carbon monoxide concentrations in the SoCAB were a result of unusual meteorological and topographical conditions and not because of congestion at a particular intersection.

Health Risk Thresholds

Whenever a project would require use of chemical compounds that have been identified in SCAQMD Rule 1401, placed on CARB's air toxics list pursuant to AB 1807, or placed on the EPA's National Emissions Standards for Hazardous Air Pollutants, a health risk assessment is required by the SCAQMD. Table 5.2-7, *Toxic Air Contaminants Incremental Risk Thresholds*, lists the TAC incremental risk thresholds for operation of a project. The City notes that the purpose of this EIR is to identify the significant effects of the proposed project on the environment, not the significant effects of the environment on the proposed project. (*California Building Industry Association v. Bay Area Air Quality Management District* [2015] 62 Cal.4th 369 [Case No. S213478]). CEQA does not require an EIR to analyze the environmental effects of attracting development and people to an area. However, the EIR must analyze the impacts of environmental hazards on future users when the proposed project exacerbates an existing environmental hazard or condition. Residential, commercial, and office uses do not use substantial quantities of TACs and typically do not exacerbate existing hazards, so these thresholds are typically applied to new industrial projects. The proposed facility is not a major industrial project that would emit substantial sources of TAC; therefore, these thresholds are not applicable to the proposed project.

Table 5.2-7 SCAQMD Toxic Air Contaminants Incremental Risk Thresholds

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

Source: SCAQMD 2015c.

5.2.3 Environmental Impacts

5.2.3.1 METHODOLOGY

This air quality evaluation was prepared in accordance with the requirements of CEQA to determine if significant air quality impacts are likely to occur in conjunction with the type and scale of development under the Oak Glen Creek Specific Plan. SCAQMD has published guidelines that are intended to provide local governments with guidance for analyzing and mitigating air quality impacts, and these were used in this analysis (SCAQMD 1993; SCAQMD 2008; SCAQMD 2015a; SCAQMD 2016b). The analysis also makes use of the California Emissions Estimator Model (CalEEMod), version 2013.2.2, for determination of daily construction and operational emissions.

5.2.3.2 IMPACT ANALYSIS

The following impact analysis addresses thresholds of significance that may be potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

Impact 5.2-1: The Oak Glen Creek Specific Plan is a regionally significant project that would contribute to an increase in frequency or severity of air quality violations in the South Coast Air Basin and conflict with the implementation of the applicable air quality management plan. [Threshold AQ-1]

Impact Analysis: SCAQMD is directly responsible for reducing emissions from area, stationary, and mobile sources in the SoCAB to achieve National and California AAQS. SCAQMD has responded to this requirement by preparing an AQMP. On December 7, 2012, the SCAQMD Governing Board adopted the 2012 AQMP, which is a regional and multiagency effort (SCAQMD, CARB, SCAG, and EPA). A consistency determination with the AQMP plays an important role in local agency project review by linking local planning and individual projects to the AQMP. It fulfills the CEQA goal of informing decision makers of the environmental efforts of the project under consideration early enough to ensure that air quality concerns are fully addressed. It also provides the local agency with ongoing information as to whether they are contributing to the clean air goals in the AQMP.

The two principal criteria for conformance to an AQMP are:

1. Whether the project would exceed the assumptions in the AQMP.

2. Whether the project would result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timely attainment of air quality standards.

SCAG is SCAQMD's partner in the preparation of the AQMP, providing the latest economic and demographic forecasts and developing transportation measures. Regional population, housing, and employment projections developed by SCAG are based, in part, on a city's general plan land use designations. These projections form the foundation for the emissions inventory of the AQMP and are incorporated into the regional transportation plan/sustainable communities strategy (RTP/SCS) prepared by SCAG to determine priority transportation projects and vehicle miles traveled in the SCAG region. Because the AQMP

strategy is based on projections from local general plans, projects that are consistent with the local general plan are considered consistent with the air quality–related regional plan. Additionally, only large projects have the potential to substantially effect the demographic forecasts in the AQMP.

CEQA Guidelines Section 15206(b) states that a proposed project is of statewide, regional, or area-wide significance if the project is a residential development of more than 500 dwelling units or a commercial office building of 250,000 square feet or more or that employs 1,000 or more employees. The proposed project, which includes 200 dwelling units and only 20,000 square feet of commercial that is projected to generate up to approximately 42 jobs, is not considered regionally significant by SCAG. In addition, as discussed in Chapter 10, *Growth-Inducing Impacts of the Proposed Project*, the population, housing, and employment growth introduced by the proposed project would be within the projection forecasts by the City's general plan and SCAG's RTP/SCS. Thus, the project would not have the potential to substantially affect SCAG's demographic projections. Therefore, overall, with respect to the first criterion, the proposed project would not increase or modify SCAG's population, housing, or employment projections beyond what is already anticipated for the area.

With respect to the second criterion, the analyses in responses to Impact 5.2-2 and 5.2-3 demonstrate that the proposed project would not generate long-term emissions of criteria pollutants that would exceed SCAQMD's regional operation-phase significance thresholds, which were established to determine whether a project has the potential to cumulatively contribute to the SoCAB's nonattainment designations. Therefore, the proposed project would not result in an increase in the frequency or severity of existing air quality violations; cause or contribute to new violations; or delay timely attainment of the AAQS.

Impact 5.2-2: Construction activities associated with the proposed project would generate short-term emissions of NO_X in exceedance of SCAQMD'S NO_X threshold criteria. [Thresholds AQ-2 and AQ-3]

Impact Analysis: A project would normally have a significant effect on the environment if it violates any air quality standard or contributes substantially to an existing or projected air quality violation.

Construction activities produce combustion emissions from various sources, such as onsite heavy-duty construction vehicles, vehicles hauling materials to and from the site, and motor vehicles transporting the construction crew. Site preparation activities produce fugitive dust emissions (PM_{10} and $PM_{2.5}$) from grading and excavation. Exhaust emissions from construction onsite would vary daily.

Construction activities would temporarily increase PM_{10}, $PM_{2.5}$, VOC, NO_X, SO_X, and CO regional emissions in the SoCAB. Construction activities associated with buildout of the proposed project could occur over an approximately two-year period. Buildout of the proposed project would likely consist of multiple individual projects, each having its own construction timeline and activities. However, there is no defined development schedule for these future projects at this time. For purposes of this analysis, the maximum daily emissions are based on a very conservative scenario, where several construction projects in the Residential District and Innovation District occur at the same time in Year 2017, and all construction phases occur at the same time.

An estimate of maximum daily construction emissions is provided in Table 5.2-8, *Estimate of Regional Construction Emissions*.

Table 5.2-8 Estimate of Regional Construction Emissions

Construction Phase	Construction-Related Regional Emissions (pounds/day)					
	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Open Space District (Basin Improvements)[1,2]						
Grading – 2017	5	58	34	<1	5	4
Worst-Case Day	5	58	34	<1	5	4
SCAQMD Standard	75	100	550	150	150	55
Significant?	No	No	No	No	No	No
Residential District and Innovation District[2,3]						
Year 2017						
Demolition – 2017	4	44	36	<1	3	2
Site Preparation – 2017	5	52	41	<1	11	7
Grading – 2017	6	70	48	<1	7	5
Building Construction – 2017	4	29	25	<1	3	2
Architectural Coatings – 2017	37	2	3	<1	<1	<1
Year 2017 Worst-Case Day[4]	59	218	169	<1	25	17
Year 2018						
Building Construction – 2018	3	25	24	<1	2	2
Paving – 2018	3	20	16	<1	1	1
Architectural Coatings – 2018	37	2	3	<1	<1	<1
Year 2018 Worst-Case Day[5]	41	28	26	<1	3	2
Worst Case Day						
Worst-Case Day[4]	59	**218**	168	<1	25	17
SCAQMD Standard	75	100	550	150	150	55
Significant?	No	**Yes**	No	No	No	No

Source: CalEEMod Version 2013.2.2.
Notes: **Bold** = Exceeds threshold. Totals may not equal 100 percent of the worst-case day totals due to rounding.
1 Construction equipment based on information provided by the City of Yucaipa for construction of the Wildwood Creek Basin project.
2 Grading includes compliance with SCAQMD Rule 403 fugitive dust control measures. Measures include requiring an application of water at least twice per day to at least 80 percent of the unstabilized disturbed onsite surface areas, replacing disturbed ground cover quickly, and restricting speeds on unpaved roads to less than 15 miles per hour. For development projects within the Residential District and Innovation District, modeling also assumes a VOC of 100 g/L for interior paints pursuant to SCAQMD Rule 1113.
3 Construction equipment mix is based on CalEEMod defaults. See Appendix B for a list of assumptions on emissions generated on a worst-case day.
4 Based on overlap of all Residential District and Innovation District construction phases in Year 2017.
5 Based on overlap of all Residential District and Innovation District construction phases in Year 2018.

Construction activities associated with the project could potentially exceed the SCAQMD regional thresholds for NO_X. The primary source of NO_X emissions is vehicle and construction equipment exhaust. NO_X is a precursor to the formation of both O_3 and particulate matter (PM_{10} and $PM_{2.5}$). Project-related emissions of NO_X would contribute to the O_3, PM_{10}, and $PM_{2.5}$ nonattainment designations of the SoCAB. Therefore, project-related construction activities would result in potentially significant regional air quality impacts.

Impact 5.2-3: Implementation of the proposed project would not result in long-term criteria air pollutant emissions that would exceed the South Coast Air Quality Management District regional operational phase significance threshold. [Thresholds AQ-2 and AQ-3]

Impact Analysis: Buildout of the Oak Glen Creek Specific Plan area would result in direct and indirect criteria air pollutant emissions from transportation, energy (natural gas use), and area sources (e.g., natural gas fireplaces, aerosols, landscaping equipment). Transportation sources of criteria air pollutant emission are based on the traffic impact analysis conducted by IBI Group (Appendix J of this DEIR). The project would generate approximately 2,102 weekday average daily trips and 31,782 daily vehicle miles traveled (see Appendix J). The results of the CalEEMod modeling are in Table 5.2-9, *Maximum Daily Operational Phase Emissions*. As shown in the table, implementation of the proposed Oak Glen Creek Specific Plan would not result in generation of operation-phase emissions that would exceed the SCAQMD regional emissions thresholds. Therefore, project-related operational regional air quality impacts would be less than significant.

Table 5.2-9 Maximum Daily Operational Phase Regional Emissions

Phase	Operation-Related Regional Emissions (pounds/day)					
	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Area[1]	9	<1	17	<1	<1	<1
Energy	<1	1	1	<1	<1	<1
Mobile	8	13	119	<1	25	7
City Maintenance Yard Off-road Equipment	<1	1	1	<1	<1	<1
Total	17	14	136	<1	26	7
SCAQMD Regional Threshold	55	55	550	150	150	55
Significant?	No	No	No	No	No	No

Source: CalEEMod, version 2013.2.2.
Notes: Based on year 2035 emission rates. Totals may not equal 100 percent due to rounding. It is assumed the onsite sources would generate nominal emissions.
1 Per SCAQMD Rule 445, residential land uses are assumed to have natural gas-powered fireplaces only and would not include any wood burning fireplaces.

Impact 5.2-4: Construction activities related to buildout of the Residential and Innovation districts in the Oak Glen Creek Specific Plan could expose sensitive receptors to substantial pollutant concentrations. [Threshold AQ-4]

Impact Analysis: Development of the proposed project could expose sensitive receptors to elevated pollutant concentrations during construction activities if it would cause or contribute significantly to elevated pollutant concentration levels. Unlike regional emissions, localized emissions are typically evaluated in terms of air concentration rather than mass so they can be more readily correlated to potential health effects. Construction LSTs are based on the size of the project site, distance to the nearest sensitive receptor, and Source Receptor Area. As stated, the proposed planning area has surrounding sensitive receptors within 82 feet (25 meters) of its boundaries.

Air pollutant emissions generated by construction activities are anticipated to cause increases in air pollutant concentrations. Table 5.2-10, *Localized Construction Emissions,* shows the maximum daily construction emissions (pounds per day) generated during onsite construction activities compared with the SCAQMD's LSTs.

Table 5.2-10 Localized Construction Emissions

Source	Pollutants (pounds per day)[1, 2]			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Open Space District (Basin Improvements)				
Grading	58	33	5	4
SCAQMD ≤2.50-acre LST	187	1,324	8	6
Exceeds LST?	No	No	No	No
Residential and Innovation Districts				
All Phases Overlap – 2017	213	155	**23**	**16**
Demolition, Asphalt Paving, Grading, Architectural Coating, and Building Construction Overlap	161	115	13	**10**
Asphalt Paving, Grading, Architectural Coating, and Building Construction Overlap	118	82	10	7
Grading, Architectural Coating, and Building Construction Overlap	98	67	9	6
SCAQMD ≤5.00-acre LST	270	2,075	14	9
Exceeds LST?	No	No	**Yes**	**Yes**
Architectural Coating, and Building Construction Overlap – 2017	29	20	2	2
Architectural Coating, and Building Construction Overlap – 2018	25	19	2	2
SCAQMD ≤1.00-acre LST	134	900	5	4
Exceeds LST?	No	No	No	No

Source: CalEEMod, version 2013.2.2; SCAQMD 2008b.
Notes: **Bold** = **Exceeds threshold.**
In accordance with SCAQMD methodology, only onsite stationary sources and mobile equipment occurring on the proposed project site are included in the analysis. LSTs are based on sensitive receptors within 82 feet (25 meters) of the planning area.
1 Based on the preliminary information provided by the City. Where specific information regarding project-related construction activities was not available, construction assumptions were based on past similar projects or CalEEMod defaults, which are based on construction surveys conducted by SCAQMD of construction equipment and phasing for comparable projects. The Open Space District construction equipment mix is based on information provided by the City.
2 Includes implementation of fugitive dust control measures required by SCAQMD under Rule 403, including watering disturbed areas a minimum of two times per day, reducing speed limit to 15 miles per hour on unpaved surfaces, replacing ground cover quickly, and street sweeping with Rule 1186–compliant sweepers. Modeling also assumes a VOC of 100 g/L for nonresidential paints per SCAQMD Rule 1113.

As shown in this table, the maximum daily NO_X, CO, PM_{10}, and $PM_{2.5}$ construction emissions generated from onsite construction-related activities associated with the proposed Open Space District would be less than their respective SCAQMD LSTs. For the Residential and Innovation districts, the maximum onsite NO_X and CO construction-related emissions would also not exceed the LSTs. However, PM_{10} and $PM_{2.5}$ emissions generated during the overlap of various construction phases would exceed the SCAQMD LSTs. Therefore, project-related construction activities associated with the Residential and Innovation districts have the potential to expose sensitive receptors to substantial concentrations of criteria air pollutant emissions and result in a significant impact.

Impact 5.2-5: Operation of land uses accommodated by the proposed project would not expose offsite sensitive receptors to substantial pollutant concentrations. [Threshold AQ-4]

Impact Analysis: The following discusses the potential localized air quality impacts from implementation of the proposed Oak Glen Creek Specific Plan.

Operational LSTs

Operation of the proposed project would not generate substantial quantities of emission from onsite, stationary sources. Land uses that have the potential to generate substantial emissions that would require a permit from SCAQMD include industrial land uses, such as chemical processing and warehousing operations where substantial truck idling could occur onsite. The proposed project does not fall within these categories of uses. While operation of land uses accommodated within the Oak Glen Creek Specific Plan would result in the use of standard onsite mechanical equipment (such as heating, ventilation, and air conditioning units), occasional use of landscaping equipment for project site maintenance, and maintenance of City yard equipment, air pollutant emissions generated from these activities would be below the SCAQMD LST threshold, as shown in Table 5.2-11, *Localized Operation Emissions*. Therefore, localized air quality impacts related to stationary-source emissions would be less than significant.

Table 5.2-11 Localized Operation Emissions

Source	Pollutants (pounds per day)			
	NO_X	CO	PM_{10}	$PM_{2.5}$
City Maintenance Yard Off-road Equipment	<1	<1	<1	<1
Area[1]	<1	17	<1	<1
Energy	1	1	<1	<1
Maximum Daily Onsite Operation Emissions	2	18	<1	<1
SCAQMD LST	270	2,075	4	3
Exceeds LST?	No	No	No	No

Source: CalEEMod, version 2013.2.2; SCAQMD 2008b.
Notes: In accordance with SCAQMD methodology, only onsite stationary sources and mobile equipment occurring within the proposed planning area are included in the analysis. LSTs are based on sensitive receptors within 82 feet (25 meters) of the proposed planning area.
[1] Per SCAQMD Rule 445, residential land uses are assumed to have natural gas-powered fireplaces only and would not include any wood burning fireplaces.

CO Hotspot Analysis

Areas of vehicle congestion have the potential to create pockets of CO called hotspots. These pockets have the potential to exceed the state one-hour standard of 20 ppm or the eight-hour standard of 9.0 ppm. Because CO is produced in greatest quantities from vehicle combustion and does not readily disperse into the atmosphere, adherence to ambient air quality standards is typically demonstrated through an analysis of localized CO concentrations. Hotspots are typically produced at intersections, where traffic congestion is highest because vehicles queue for longer periods and are subject to reduced speeds.

The SoCAB has been designated attainment under both the national and California AAQS for CO. Under existing and future vehicle emission rates, a project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour—or 24,000 vehicles per hour where vertical and/or horizontal air does not mix (i.e., bridges and tunnels)—in order to generate a significant CO impact (BAAQMD 2011). The proposed project would generate up to approximately 228 peak hour trips (IBI 2016). Project-related trip generation would be significantly less than the volumes cited above. Furthermore, the SoCAB has since been designated attainment under both the National and California AAQS for CO. The

proposed project would not have the potential to substantially increase CO hotspots at intersections in the vicinity of the project site. Localized air quality impacts related to mobile-source emissions would be less than significant.

5.2.4 Cumulative Impacts

Regional

In accordance with the SCAQMD methodology, any project that produces a significant project-level regional air quality impact in an area that is in nonattainment contributes to the cumulative impact. Cumulative projects include new development and general growth within the project area. The greatest source of emissions in the SoCAB is mobile sources. Due to the extent of the area potentially impacted from cumulative project emissions, the SCAQMD considers a project cumulatively significant when project-related emissions exceed the SCAQMD regional emissions thresholds shown in Table 5.2-4.

Construction

The SoCAB is designated nonattainment for O_3 and $PM_{2.5}$ under the California and National AAQS; nonattainment for PM_{10} under the California AAQS; and nonattainment for lead (Los Angeles County only) under the National AAQS (CARB 2015).[7] Construction of cumulative projects would further degrade the regional and local air quality. Air quality would be temporarily impacted during construction activities. Implementation of mitigation measures for related projects would reduce cumulative impacts. As discussed below in Section 5.2.8, *Level of Significance After Mitigation*, project-related construction emissions would be reduced to below the SCAQMD regional significance thresholds. With implementation of mitigation measures for construction, the proposed project's contribution to cumulative air quality impacts would be less than cumulatively considerable.

Operation

For operational air quality emissions, any project that does not exceed or can be mitigated to less than the daily regional threshold values is not considered by the SCAQMD to be a substantial source of air pollution and does not add significantly to a cumulative impact. Operation of the project would not result in emissions in excess of the SCAQMD regional emissions thresholds for VOC, CO, PM_{10}, and $PM_{2.5}$ for long-term operation. Therefore, the project's air pollutant emissions would not be cumulatively considerable and therefore are considered less than significant.

5.2.5 Existing Regulations

State

- Clean Car Standards: Pavley (AB 1493)

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

- California Advanced Clean Cars CARB (CCR, Title 13)
- Low-Emission Vehicle Program: LEV III (CCR, Title 13)
- Statewide Retail Provider Emissions Performance Standards (SB 1368).
- Airborne Toxics Control Measure to Limit School Bus Idling and Idling at Schools (13 CCR § 2480)
- Airborne Toxic Control Measure to Limit Diesel-Fuel Commercial Vehicle Idling (13 CCR § 2485)
- In-Use Off-Road Diesel Idling Restriction (13 CCR § 2449)
- Building Energy Efficiency Standards (24 CCR, Part 6)
- California Green Building Code (24 CCR, Part 11)
- Appliance Energy Efficiency Standards (CCR, Title 20)

SCAQMD

- SCAQMD Rule 201: Permit to Construct
- SCAQMD Rule 402: Nuisance Odors
- SCAQMD Rule 403: Fugitive Dust
- SCAQMD Rule 1113: Architectural Coatings
- SCAQMD Rule 1186: Street Sweeping
- SCAQMD Rule 1403: Asbestos Emissions from Demolition/Renovation Activities

5.2.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant: 5.2-1, 5.2-3, and 5.2-5.

Without mitigation, the following impacts would be **potentially significant**:

- **Impact 5.2-2** Construction activities associated with the proposed project would generate short-term emissions of NO_X in exceedance of SCAQMD'S NO_X threshold criteria.

- **Impact 5.2-4** Construction activities related to buildout of the Residential and Innovation districts in the Oak Glen Creek Specific Plan could expose sensitive receptors to substantial pollutant concentrations.

5.2.7 Mitigation Measures

Impact 5.2-2

2-1 During project-related construction activities for projects associated with the Residential District and Innovation District, construction contractor(s) shall use equipment that meets the certified emission standards of the United States Environmental Protection Agency (EPA), according to the following:

- Project-related off-road diesel powered construction engines shall achieve the EPA Tier°4 emissions standards for construction equipment greater than 50 horsepower unless it can be demonstrated, to the satisfaction of the City of Yucaipa City Engineer, that Tier 4 equipment is not readily available for a required piece of equipment. The emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 4 diesel emissions control strategy for a similarly sized engine, as defined by California Air Resources Board (CARB) regulations.
- If Tier 4 equipment is not readily available for the equipment, Tier 3 equipment shall be used for equipment over 50 horsepower. The emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine, as defined by CARB regulations.

Prior to issuance of grading permits, the property owner/developer shall provide a note on plans indicating that during grading and construction, EPA Certified Tier 4 and/or Tier 3 engines shall be used. During construction, the construction contractor(s) shall maintain a list of all construction equipment onsite for verification by the City of Yucaipa Community Development Department. The construction equipment list shall state the makes, models, and numbers of the equipment; that the equipment shall be properly serviced and maintained in accordance with the manufacturer's recommendations; and that all nonessential idling of construction equipment is restricted to five minutes or less in compliance with CARB Rule 2449.

Impact 5.2-4

Implement Mitigation Measure 2-1.

2-2 During construction activities for projects in the Residential District and Innovation District, the construction contractor(s) shall use construction equipment fitted with Level 3 diesel particulate filters (DPF) for all construction equipment of 50 horsepower or more. Prior to issuance of any construction permits, the property owner/developer shall ensure that all construction plans submitted to the City of Yucaipa Community Development Department, or designee, clearly show the requirement for Level 3 DPF for construction equipment over 50 horsepower.

2-3 Prior to issuance of grading, demolition, or building plans, whichever occurs first for projects associated with the Residential District and Innovation District, the property owner/developer shall submit a dust control plan that implements the following measures during ground-disturbing activities—as well as the existing requirements for fugitive dust control under South Coast Air Quality Management District Rule 403—to further reduce PM_{10} and $PM_{2.5}$ emissions:

- Following all grading activities, the construction contractor shall reestablish ground cover on the construction site through seeding and watering.
- During all construction activities, the construction contractor shall sweep streets with Rule 1186–compliant, PM_{10}-efficient vacuum units on a daily basis if silt is carried over to adjacent public thoroughfares or occurs as a result of hauling.
- During all construction activities, the construction contractor shall maintain a minimum 24-inch freeboard on trucks hauling dirt, sand, soil, or other loose materials and shall tarp materials with a fabric cover or other cover that achieves the same amount of protection.
- During all construction activities, the construction contractor shall water exposed ground surfaces and disturbed areas a minimum of every three hours on the construction site and a minimum of three times per day.
- During all construction activities, the construction contractor shall limit onsite vehicle speeds on unpaved roads to no more than 15 miles per hour.

The City of Yucaipa Community Development Department shall verify compliance during normal construction site inspections.

5.2.8 Level of Significance After Mitigation

Impact 5.2-2

As shown in Table 5.2-12, *Estimate of Regional Construction Emissions, Mitigated*, implementation of Mitigation Measure 2-1 would minimize construction-related NO_X emissions during development of the Residential and Innovation districts to below the SCAQMD regional significance threshold for NO_X.[8] Therefore, Impact 5.2-2 would be reduced to less than significant.

[8] Mitigation Measure AQ-1 would be applicable for construction activities associated with the Residential District and Innovation District only, as construction activities associated with the Open Space District would not result in exceedance of the SCAQMD regional significance thresholds for construction. Thus, only emissions for the Residential District and Innovation District are shown in Table 5.2-12.

Table 5.2-12 Estimate of Regional Construction Emissions, Mitigated

Construction Phase[1,2]	Construction-Related Regional Emissions (pounds/day)					
	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Residential District and Innovation District						
Year 2017						
Demolition – 2017	1	20	27	<1	2	1
Site Preparation – 2017	1	20	25	<1	9	5
Grading – 2017	2	30	39	<1	5	3
Building Construction – 2017	2	17	25	<1	2	1
Architectural Coatings – 2017	37	1	3	<1	<1	<1
Year 2017 Worst-Case Day[3]	44	99	137	<1	19	11
Year 2018						
Building Construction – 2018	1	16	24	<1	2	1
Paving – 2018	1	11	18	<1	1	1
Architectural Coatings – 2018	37	1	3	<1	<1	<1
Year 2018 Worst-Case Day[4]	39	18	27	<1	2	1
Worst-Case Day[3]	44	99	137	<1	19	11
SCAQMD Standard	75	100	550	150	150	55
Significant?	No	No	No	No	No	No

Source: CalEEMod, version 2013.2.2.
Notes: Totals may not equal to 100 percent for the Worst-Case Day totals due to rounding.
1 Construction equipment mix is based on CalEEMod default construction mix. See Appendix B for a list of assumptions on emissions generated on a worst-case day.
2 Grading includes compliance with SCAQMD Rule 403 fugitive dust control measures. Measures include application of water at least twice per day to at least 80 percent of the unstabilized disturbed surface areas, replacing disturbed ground cover quickly, and restricting speeds on unpaved roads to less than 15 miles per hour. Modeling also assumes a VOC of 100 g/L for interior paints pursuant to SCAQMD Rule 1113. Additionally, Mitigation Measure 2-1 is applied; however, for purposes of this analysis, Tier 3 equipment is assumed in the modeling. Use of Tier 4 equipment would further reduce NO_X emissions shown in this table.
3 Based on overlap of the Residential Districts and Innovation Districts construction phases in Year 2017.
4 Based on overlap of the Residential Districts and Innovation Districts construction phases in Year 2018.

Impact 5.2-4

As shown in Table 5.2-13, *Localized Construction Emissions, Mitigated*, implementation of Mitigation Measures 2-1 through 2-3 would minimize localized construction-related PM_{10} and $PM_{2.5}$ emissions during development of the Residential and Innovation districts to below the SCAQMD LSTs for PM_{10} and $PM_{2.5}$. Therefore, Impact 5.2-4 would be reduced to less than significant.

Table 5.2-13 Localized Construction Emissions, Mitigated

Source	Pollutants[1, 2] (pounds per day)			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Open Space District				
Grading	58	33	5	4
SCAQMD ≤2.50-acre LST	187	1,324	8	6
Exceeds LST?	No	No	No	No
Residential and Innovation Districts				
All Phases Overlap – 2017	95	124	11	6
Demolition, Asphalt Paving, Grading, Architectural Coating, and Building Construction Overlap	75	100	4	2
Asphalt Paving, Grading, Architectural Coating, and Building Construction Overlap	56	75	4	2
Grading, Architectural Coating, and Building Construction Overlap	45	58	4	2
SCAQMD ≤5.00-acre LST	270	2,075	14	9
Exceeds LST?	No	No	No	No
Architectural Coating, and Building Construction Overlap – 2017	16	20	<1	<1
Architectural Coating, and Building Construction Overlap – 2018	16	20	<1	<1
SCAQMD ≤1.00-acre LST	134	900	5	4
Exceeds LST?	No	No	No	No

Sources: CalEEMod, version 2013.2.2; SCAQMD, Appendix A, Localized Significance Methodology, October 2006.
Notes: **Bold** = **Exceeds threshold**
In accordance with SCAQMD methodology, only onsite stationary sources and mobile equipment on the proposed project site are included in the analysis. LSTs are based on sensitive receptors within 82 feet (25 meters) of the planning area.
1 Based on the preliminary information provided by the City. Where specific information regarding project-related construction activities was not available, construction assumptions were based on past similar projects or CalEEMod defaults, which are based on construction surveys conducted by SCAQMD of construction equipment and phasing for comparable projects. The Open Space District construction equipment mix is based on information provided by the City.
2 Includes implementation of fugitive dust control measures required by SCAQMD under Rule 403, including watering disturbed areas a minimum of two times per day, reducing speed limit to 15 miles per hour on unpaved surfaces, replacing ground cover quickly, and street sweeping with Rule 1186–compliant sweepers. Modeling also assumes a VOC of 100 g/L for non-residential paints per SCAQMD Rule 1113. Additionally, Mitigation Measures 2-1 through 2-3 are applied; however, for purposes of this analysis, Tier 3 equipment is assumed in the modeling. Use of Tier 4 equipment would further reduce NO_X emissions shown in this table.

5.2.9 References

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5.3 BIOLOGICAL RESOURCES

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential for implementation of the Oak Glen Creek Specific Plan to impact biological resources in the City of Yucaipa. The analysis in this section is based in part on the following technical report:

- *Biological Resources Impact Analysis Report, Oak Glen Creek Specific Plan in the City of Yucaipa, San Bernardino County, California,* Ruth Villalobos & Associates, Inc., October 28, 2016.

A complete copy of this study is included in the Technical Appendices to this Draft EIR (Volume II, Appendix C).

5.3.1 Environmental Setting

5.3.1.1 REGULATORY BACKGROUND

Federal

Endangered Species Act

The Federal Endangered Species Act (FESA) of 1973, as amended, was promulgated to protect and conserve any species of plant or animal that is endangered or threatened with extinction and the habitats in which these species are found. "Take" of endangered species is prohibited under Section 9 of the FESA. "Take," as defined under the FESA, means to "harass, harm, pursue, hunt, wound, kill, trap, capture, collect, or attempt to engage in any such conduct." Section 7 of the FESA requires federal agencies to consult with the US Fish and Wildlife Service (USFWS) on proposed federal actions which may affect any endangered, threatened or proposed (for listing) species or critical habitat that may support the species. Section 4(a) of the FESA requires that critical habitat be designated by the USFWS "to the maximum extent prudent and determinable, at the time a species is determined to be endangered or threatened." Critical habitat is formally designated by USFWS to provide guidance for planners/managers and biologists with an indication of where suitable habitat may occur and where high priority of preservation for a particular species should be given. Section 10 of the FESA provides the regulatory mechanism that allows the incidental take of a listed species by private interests and nonfederal government agencies during lawful activities. Habitat conservation plans for the impacted species must be developed in support of incidental take permits for nonfederal projects to minimize impacts to the species and develop viable mitigation measures to offset the unavoidable impacts.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act of 1918 (MBTA), is the domestic law that affirms, or implements, the United States' commitment to four international conventions with Canada, Japan, Mexico, and Russia for the protection of shared migratory bird resources. The MBTA governs the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests. It prohibits the take, possession, import, export, transport, sale, purchase, barter, or offering of these activities except under a valid permit or as permitted in the implementing regulations. USFWS administers permits to take migratory birds in accordance with the regulations promulgated by the MBTA.

Bald and Golden Eagle Protection Act (16 USC 668)

The Bald and Golden Eagle Protection Act prohibits the "take" of either of these species, including their parts, nests, or eggs. The MBTA defines "take" as to "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb" any bald or golden eagle. The Bald and Golden Eagle Protection Act is administered by the USFWS, and limited take authorizations are granted for qualifying activities. 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" without prior approval are subject to criminal penalties.

Clean Water Act

The United States Army Corps of Engineers (Corps) regulates discharges of dredged or fill material into "waters of the U.S."[1] (including wetlands and nonwetland bodies of water that meet specific criteria) pursuant to Section 404 of the federal Clean Water Act (CWA). A permit is required for any filling or dredging within waters of the U.S. The permit review process entails an assessment of potential adverse impacts to Corps wetlands and jurisdictional waters, wherein the Corps may require mitigation measures. Where a federally listed species may be affected, a Section 7 consultation with USFWS may be required. If there is potential for cultural resources to be present, Section 106 review may be required. Also, where a Section 404 permit is required, a Section 401 Water Quality Certification would also be required from the Regional Water Quality Control Board (RWQCB).

Section 401(a)(1) of the CWA specifies that any applicant for a federal license or permit to conduct any activity that may result in any discharge into navigable waters shall provide the federal permitting agency a certification, issued by the state in which the discharge originates, that any such discharge will comply with the applicable provisions of the CWA. In California, the applicable RWQCB must certify that the project will comply with water quality standards. Permits requiring Section 401 certification include Corps Section 404 permits and National Pollutant Discharge Elimination System permits issued by the Environmental Protection Agency under Section 402 of the CWA. NPDES permits are issued by the applicable RWQCB. The City of Yucaipa is within the jurisdiction of the Santa Ana RWQCB (Region 8).

Fish and Wildlife Coordination Act (16 USC 661 et seq.)

The Fish and Wildlife Coordination Act of 1934, as amended, requires coordination with USFWS and the California Department of Fish and Wildlife (CDFW) so that these agencies may evaluate impacts to fish and wildlife species that have the potential to result from proposed water resource development projects. Specifically, the act requires that fish and wildlife species as well as habitats that may support them be given

[1] "Waters of the United States," as it applies to the jurisdictional limits of the authority of the Corps of Engineers under the Clean Water Act, includes: all waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide; all interstate waters including interstate wetlands; all other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce; water impoundments; tributaries of waters; territorial seas; wetlands adjacent to waters. The terminology used by Section 404 of the Clean Water Act includes "navigable waters" which is defined at Section 502(7) of the Act as "waters of the United States including the territorial seas."

equal consideration as other project features. This act also requires federal agencies that construct, license, or permit water resource development projects to first coordinate with USFWS and CDFW to determine impacts that may occur to fish and wildlife resources and to establish appropriate avoidance, minimization, and/or mitigation measures to reduce these potential impacts.

Floodplain Management and Protection of Wetlands (42 FR 26961, 52 FR 34617)

Executive Order 11990, Protection of Wetlands, as amended, requires federal agencies to minimize the destruction, loss, or degradation of wetlands and to preserve and enhance functions and values of these wetlands while carrying out their responsibilities pertaining to water supply, erosion and flood prevention, and maintenance of natural systems, among others.

Invasive Species (64 FR 6138)

Executive Order 13112, Invasive Species, as amended, requires federal agencies to coordinate efforts that prevent the introduction of invasive species; manage existing invasive species; and minimize the economic, ecological, and human health impacts that invasive species cause. This order defines invasive species, requires federal agencies to address invasive species concerns, and prohibits new actions that would cause or promote the introduction of invasive species. To comply with this order, all enhancement, restoration, and creation activities should use native plants and should include measures to prevent the introduction of invasive species.

State

California Endangered Species Act

The California Endangered Species Act (CESA) generally parallels the main provisions of the FESA and is administered by the CDFW. Its intent is to prohibit take and protect state-listed endangered and threatened species of fish, wildlife, and plants. Unlike its federal counterpart, CESA also applies the take prohibitions to species petitioned for listing (state candidates). Candidate species may be afforded temporary protection as though they were already listed as threatened or endangered at the discretion of the Fish and Wildlife Commission. Unlike the FESA, CESA does not include listing provisions for invertebrate species. Under certain conditions, CESA has provisions for take through a 2081 permit or Memorandum of Understanding. In addition, some sensitive mammals and birds are protected by the state as Fully Protected Species. California Species of Special Concern are species designated as vulnerable to extinction due to declining population levels, limited ranges, and/or continuing threats. This list is primarily a working document for the CDFW's CNDDB project, a database of known and recorded occurrences of sensitive species. Informally listed taxa are not protected per se, but warrant consideration in the preparation of biological resources assessments.

California Porter-Cologne Water Quality Control Act

The California Porter-Cologne Water Quality Control Act was enacted in 1969 and is administered by the State Water Resources Control Board and/or the RWQCB. This act provides protection for Waters of the State, which are defined as "any surface water or groundwater, including saline waters, within the boundaries

of the state." If a proposed project involves alteration to any Waters of the State, the project proponent must file a Report of Waste Discharge with the appropriate RWQCB to obtain "Waste Discharge Requirements," which serve as the project discharge permit.

California Department of Fish and Game Code

- **Section 2081:** This section allows CDFW to issue an incidental take permit for projects that have the potential to take a special status species, including a state-listed species, as long as the impacts are minimized and fully mitigated and will not jeopardize the continued existence of a state-listed species. The measures required to minimize and fully mitigate impacts must be roughly proportional to the impact and must be capable of successful implementation while maintaining the applicant's objectives to the greatest extent feasible. The applicant must show that adequate funding is available to implement the required avoidance and mitigation measures and monitor their effectiveness.

- **Sections 1600 to 1616:** CDFW regulates activities that would divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake that supports fish or wildlife. These code sections discuss the process by which an individual, government agency, or public utility must notify the CDFW prior to any activity that would substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake. The CDFW regulates wetland areas only to the extent that those wetlands are part of a river, stream, or lake as defined by the CDFW. Following such notification, the CDFW must inform the individual, agency, or utility of the existence of any fish and wildlife resources that may be substantially adversely affected by the activity. The CDFW must also include a proposal called a Streambed Alteration Agreement for measures to protect fish and wildlife resources.

- The CDFW has jurisdiction over all waters of the state, such as streams, rivers (measured from bank to bank), and any "riparian" vegetation associated with the waters. Streams and rivers are defined by the presence of a channel bed and banks, and at least an intermittent flow of water. The term "riparian" vegetation refers to vegetation that occurs in and/or adjacent to a water course. Typical "riparian" vegetation includes willows, mulefat, western sycamores, Fremont cottonwoods, cattails, and other vegetation found in moist areas and typically associated with the banks of a stream or lake shoreline. CDFW jurisdictional areas are delineated by the outer edge of riparian vegetation or from the top of one channel bank to the top of the opposite channel bank, whichever is wider. Thus, defining the limits of the CDFW jurisdiction based on riparian habitat will include wetland areas and may include areas that do not meet the Corps criteria for soils and/or hydrology. In addition, the CDFW may take jurisdiction over isolated wetlands and streambeds in cases where the Corps may not. Therefore, the CDFW jurisdiction is typically equal to or greater than the Corps jurisdiction.

Local

Yucaipa Municipal Code/Development Code

The City of Yucaipa Municipal Code identifies land use categories, development standards, and other general provisions that ensure consistency between the City's General Plan and proposed development projects. The

following provisions from the City's municipal code are related to biological resources associated with new development projects.

- **Division 9 (Plant Protection and Management).** Provides regulations and guidelines for the management of plant resources while promoting the continued health of the City's abundant and diverse plant resources. The purpose is to promote and sustain the health, vigor, and productivity of plant life and aesthetic values within the City through appropriate management techniques; conserve the plant life heritage; protect trees and plants from indiscriminate removal; provide a uniform standard for appropriate removal of trees and plants in public and private places and streets to promote conservation of these valuable natural resources; protect and maintain water productivity and quality in local watersheds; and preserve habitats for rare, endangered, or threatened plants and to protect animals with limited or specialized habitats. Also provided are specific measures for tree protection from insects and diseases, mountain forest and valley tree conservation, riparian plant conservation, and oak tree conservation.

- **Division 5 (Overlay Districts), Chapter 3 (Resource Preservation), Article 2 (Biotic Resources Overlay District).** Provides regulations and guidelines to implement General Plan policies regarding the protection and conservation of beneficial rare and endangered plants and animal resources and their habitats that have been identified in incorporated areas of the City. The Biotic Resources Overlay District is intended to be applied to incorporated areas of the City that have been identified by a city, county, state, and/or federal agency as habitat for species of unique, rare, threatened, or endangered plants or animals or their habitats.

  According to this article, when a land use is proposed or an existing land use is increased by more than 25 percent within a Biotic Resources Overlay District, a project applicant would be required to submit a report, prepared by a qualified biologist, that identifies all biotic resources within and adjacent to the site that could be impacted by the proposed development. The report must also include appropriate avoidance, minimization, and/or mitigation measures to reduce or eliminate impacts to the sensitive resource(s). This report must be submitted along with the application for the proposed development, and the conditions of approval of the proposed development will incorporate the identified avoidance, minimization, and/or mitigation measures to protect and preserve the habitats of the identified plants and/or animals.

5.3.1.2 EXISTING CONDITIONS

Vegetation Communities

Natural community names and hierarchical structure follow the CDFW "List of Vegetation Alliances and Associations" and/or Holland classification systems, which have been refined and augmented where appropriate to better characterize the habitat types observed onsite (CDFW 2010 and Holland 1986).

The native and nonnative vegetation communities and disturbed habitats mapped within the project site are shown on Figure 5.3-1, *Vegetation Communities*. The approximately 116-acre Specific Plan area supports 22

vegetation communities. The acreage of each habitat is summarized in Table 5.3-1, *Summary of Project Area Vegetation Communities*, and brief descriptions follow.

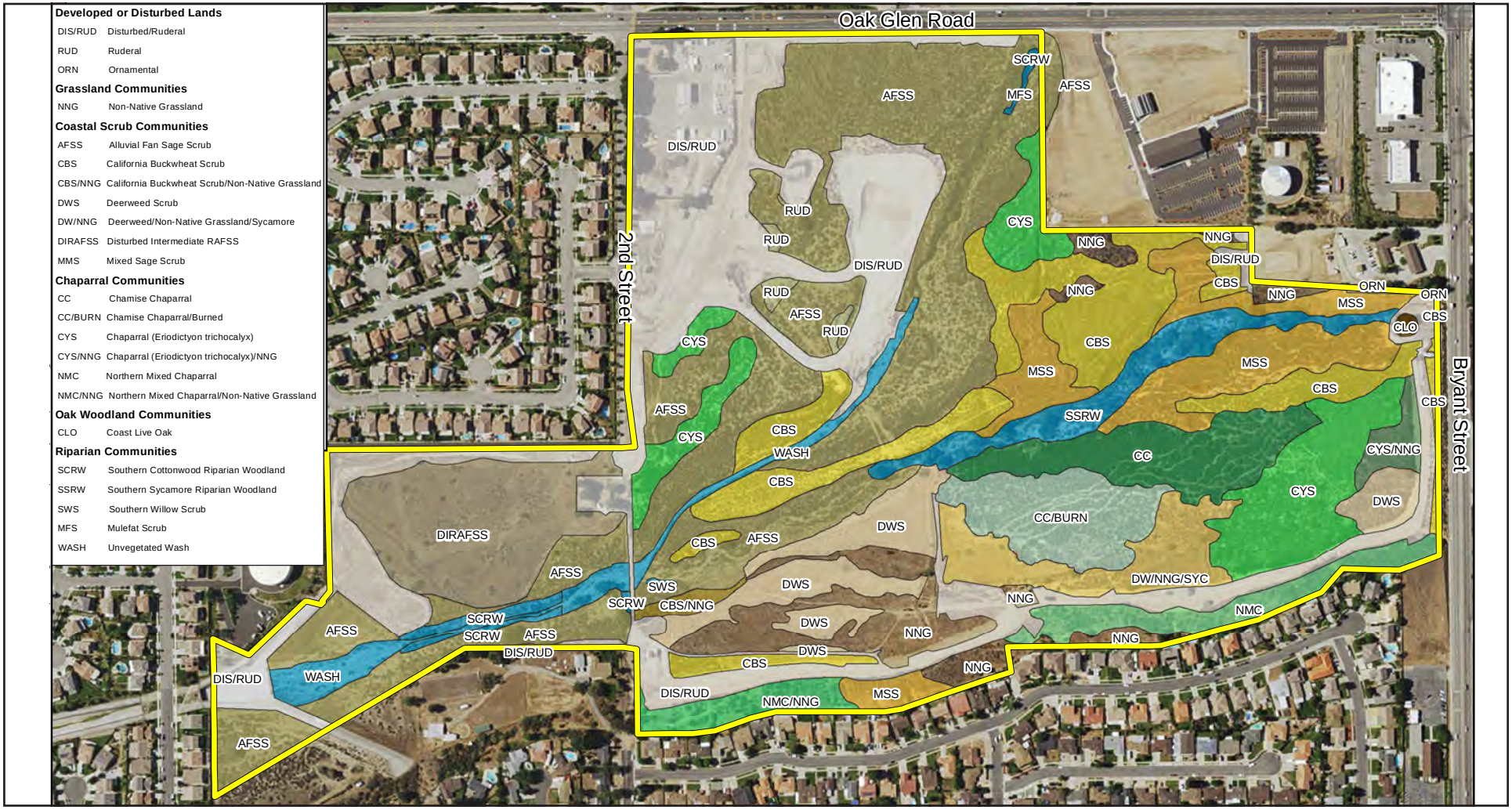
Table 5.3-1 Summary of Project Area Vegetation Communities

Vegetation Communities	Acres
Developed or Disturbed Lands	
Disturbed/Ruderal (DIS/RUD)	25.05
Ruderal (RUD)	0.41
Ornamental (ORN)	0.05
Grassland Communities	
Non-native Grassland (NNG)	5.38
Coastal Scrub Communities	
Alluvial Fan Sage Scrub (AFSS) – Onsite	27.03
Alluvial Fan Sage Scrub (AFSS) – Off-site	0.34
Disturbed Intermediate Alluvial Fan Sage Scrub (DIRAFSS)	6.40
California Buckwheat Scrub (CBS)	10.39
California Buckwheat Scrub/Non-Native Grassland Ecotone (CBS/NNG)	0.37
Deerweed Scrub (DWS)	4.74
Deerweed Scrub/Non-Native Grassland/Sycamore Ecotone (DWS/NNG)	3.28
Mixed Sage Scrub (MSS)	6.90
Chaparral Communities	
Chamise Chaparral (CC)	3.96
Chamise Chaparral/Burned (CC/BURN)	3.60
Eriodictyon Chaparral (CYS)	7.04
Eriodictyon Chaparral/Non-Native Grassland Ecotone (CYS/NNG)	0.77
Northern Mixed Chaparral (NMC)	2.38
Northern Mixed Chaparral/Non-Native Grassland Ecotone (NMC/NNG)	1.50
Oak Woodland Communities	
Coast Live Oak Woodland (CLO)	0.10
Riparian Communities	
Southern Cottonwood Riparian Woodland (SCRW)	0.67
Southern Sycamore Riparian Woodland (SSRW)	2.88
Southern Willow Scrub (SWS)	0.05
Mule Fat Scrub (MFS)	0.07
Unvegetated Wash (WASH)	2.20
TOTAL	115.6 acres

Source: RVA 2016.
Note: Acreages rounded to the nearest hundredth.

Figure 5.3-1 Vegetation Communities

5. Environmental Analysis



Base Map Source: Ruth Villalobos Associates, Inc., 2016

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Disturbed/Ruderal (25.05 acres)

There are three areas that are currently developed that no longer support native vegetation and/or provide any suitable habitat wildlife species—the City yard at the southeast corner of Glen Oak Road and 2nd Street, a residential home along 2nd Street just north of where Wilson Creek crosses the road, and a concrete flood control structure along the western boundary.

Disturbed/ruderal habitat also includes dirt roads, lots, and abandoned sand mining sites located along Wilson Creek and recently graded lands maintained as fire breaks in the southern portion of the project site. These areas are generally barren and support only a few ruderal plant species.

Ruderal (0.41 acre)

Ruderal habitat on site consists of disturbed land sparsely vegetated with mostly non-native broad-leaved plants and a few grasses, including short-pod mustard (*Hirschfeldia incana*), red-stem filaree (*Erodium cicutarium*), southern thistle (*Salsola australis*), tocolote (*Centaurea melitensis*), tumble mustard (*Sisymbrium altissimum*), bur clover (*Medicago polymprpha*), tree tobacco (*Nicotiana glauca*), red brome (*Bromus madritensis subsp. rubens*), cheat grass (*Broumus tectorum*), and Mediterranean grass (*Schismus barbatus*). A few native species, telegraph weed (*Heterotheca grandiflora*), California croton (*Croton californicus*), and horseweed (*Conyza canadensis*), also grow in ruderal habitats within the project site.

Ornamental (0.05 acre)

Ornamental plantings, consisting mostly of cultivated pine trees (*Pinus halepensis*), are adjacent to the fire station in the northeast corner of the project site.

Non-native Grassland (5.38 acres)

Several species of non-native grasses and forbs characterize the non-native grassland community found on the project site. Dominant non-native grasses include red brome, wild oat (*Avena fatua*), rattail fescue (*Vulpia myuros*), cheat grass, ripgut grass (*Bromus diandrus*), and foxtail barley (*Hordeum murinum*). Non-native forbs include short-pod mustard, red-stem filaree, common horehound (*Marrubium vulgare*), and smooth cat's ear (*Hypochaeris glabra*). Scattered native forbs include common sand aster (*Corethrogyne filaginifolia*), bristly golden-star (*Heterotheca sessiliflora* subsp. *echioides*), common fireweed (*Amsinckia menziesii*), doveweed (*Croton setiger*), miniature lotus (*Lotus bicolor*), slender buckwheat (*Eriogonum gracile*), and Brewer's daisy (*Erigeron breweri var. bisanctus*).

Riversidean Alluvial Fan Sage Scrub (27.37 acres)

Riversidean alluvial fan sage scrub is widespread along Wilson Creek and the lower portion of Oak Glen Creek in the western half of the project site, then extends into the southwest corner of the project site. The community in the southwest corner of the site extends up the banks of the incised channel and continues outside of the drainage channel associated with Wilson Creek, likely due to the scouring effect of flood waters breaching the banks of the channel during storm events. Riversidean alluvial fan sage scrub is dominated by scale-broom (*Lepidospartum squamatum*), but also supports a broad diversity of other native

shrubs and forbs, including valley cholla (*Cylindropuntia californica*), deerweed (*Acmispon glaber*), hairy yerba santa (*Eriodictyon trichocalyx*), blue elderberry (*Sambucus mexicana*), California buckwheat (*Eriogonum fasiculatum*), cotton-thorn (*Tetradymia comosa*), tarragon (*Artemisia dracunculus*), white sage (*Salvia apiana*), chaparral yucca (*Yucca whipplei*), branching phacelia (*Phacelia ramosissima*), sandwash butterweed (*Senecio flaccidus* var. *douglasii*), Pomona locoweed (*Astragalus pomonensis*), common cryptantha (*Cryptantha intermedia*), and California croton. A few non-native forbs and grasses are also present, including red brome, short-pod mustard, cheat grass, rattail fescue, tocolote, Mediterranean grass, and red-stem filaree. Natural sandy openings in the scrub support a diverse assemblage of small, mostly native forbs and grasses, including small primrose (*Camissonia micrantha*), slender buckwheat, California filago (*Filago californica*), everlasting nest-straw (*Stylocline gnaphaloides*), slender pectocarya (*Pectocarya linearis* subsp. *ferocula*), sand pygmystonecrop (*Crassula connata*), common calyptridium (*Calyptridium monandrum*), lastarriaea (*Lastarriaea coriacea*), six weeks fescue (*Vulpia octoflora*), and the sensitive Parry's spineflower.

There is an additional 0.34-acre area of Riversidean alluvial fan sage scrub outside of the Specific Plan boundary that is within the proposed development footprint (i.e., required offsite improvements).

Disturbed Intermediate Riversidean Alluvial Fan Sage Scrub (6.40 acres)

The majority of the northern half of the project site supports a disturbed intermediate Riversidean alluvial fan sage scrub habitat. This area has been heavily disturbed by agricultural activities associated with the residences found on the property and primarily supports non-native grasses, including red brome, short-pod mustard, cheat grass, and Mediterranean grass. Isolated residual components of the intermediate Riversidean alluvial fan sage scrub habitat that once occupied this area are still present. Native species still occurring onsite included: California buckwheat, blue elderberry (*Sambucus mexicanna*), and cotton-thorn.

California Buckwheat Scrub (10.39 acres)

The California buckwheat scrub community onsite is dominated by nearly monotypic stands of California buckwheat. Scattered cotton-thorn, white sage, and deerweed are also present. The understory often consists of scattered to dense exotic grasses such as wild oats, rattail fescue, and red brome. A few native and non-native forbs also grow in this habitat, including California everlasting (*Pseudognaphalium californicum*), silver puffs (*Microseris lindleyi*), common catchfly (*Silene gallica*), and tocalote.

California Buckwheat Scrub/Non-native Grassland Ecotone (0.37 acres)

The California buckwheat scrub community forms a transitional habitat with non-native grasslands on site. This ecotone habitat supports scattered buckwheat shrubs, but is otherwise dominated by dense non-native grasses, especially rattail fescue.

Deerweed Scrub (4.74 acres)

A scrub community dominated by nearly monotypic stands of deerweed is locally common in the southern portion of the property that burned in 2008. Cotton-thorn and a few other shrubs are occasionally present. The understory vegetation contains rattail fescue, tocolote, red brome, and a few native forbs such as common sand aster.

Deerweed Scrub/Non-native Grassland/Sycamore Ecotone (3.28 acres)

The Deerweed Scrub community forms a transitional habitat with non-native grasslands that also supports scattered western sycamore (*Platanus racemosa*) trees. This area also burned in 2008. Rattail grass, cheat grass, and red brome are common.

Mixed Sagebrush Scrub (6.90 acres)

This coastal scrub community is developed on upland sites with loamy soils and supports numerous shrub species, including California sagebrush (*Artemisia californica*), California buckwheat, white sage, brittle bush (*Encelia farinosa*), deerweed, cottonthorn, purple nightshade (*Solanum xanti*), black sage (*Salvia mellifera*), blue elderberry, four-wing saltbush (*Atriplex canescens*), and coast prickly-pear (*Opuntia littoralis*). Numerous non-native and native forbs and grasses grow in the understory vegetation, including golden yarrow (*Eriophyllum confertiflorum*), splendid Mariposa lily (*Calochortus splendens*), and rattail fescue.

Chamise Chaparral (3.96 acres)

The chamise chaparral community on site is dominated by dense, monotypic stands of chamise (*Adenostoma fasciculatum*). A few native and non-native forbs and grasses are also present in the understory or along trails, which include red brome, short-pod mustard, common calyptridium, chia (*Salvia columbariae*), cheat grass, minute-flowered cryptantha (*Cryptantha micromeres*), tocolote, Mediterranean grass, and red-stem filaree.

Chamise Chaparral/Burned (3.60 acres)

The southernmost portion of chamise chaparral burned in 2008. The open areas between the charred shrubs support numerous forbs, including California peony (*Paeonia californica*), golden ear-drops (*Dicentra chrysantha*), small primrose, slender buckwheat, everlasting nest-straw, slender pectocarya, and common calyptridium. Non-native species such as rattail fescue, tocolote, common horehound, and cheat grass are common.

Eriodictyon Chaparral (7.04 acres)

The Eriodictyon chaparral community on site is dominated by nearly monotypic stands of hairy yerba santa. Deerweed and cotton-thorn are also present.

Eriodictyon Chaparral/Non-native Grassland Ecotone (0.77 acre)

The Eriodictyon chaparral community forms a transitional habitat with non-native grasslands on site. This ecotone habitat supports scattered or clumped Eriodictyon trichocalyx shrubs, but is otherwise dominated by dense non-native grasses, especially rattail fescue, and occasionally also deerweed.

Northern Mixed Chaparral (2.38 acres)

The northern mixed chaparral community is found on the steep north-facing slope along the southern boundary of the project site. Common species of this habitat include California scrub oak (*Quercus berberidifolia*), heart-leaved bush penstemon (*Keckiella cordifolia*), mountain mahogany (*Cercocarpus betuloides*), holly-leaved cherry (*Prunus ilicifolia*), spiny redberry (*Rhamnus crocea*), blue elderberry, southern honeysuckle

(*Lonicera subspicata*), sugar bush (*Rhus ovata*), California buckwheat, and numerous forbs such as California figwort (*Scrophularia californica*), western nettle (*Hesperocnide tenella*), and royal penstemon (*Penstemon spectabilis*).

Northern Mixed Chaparral/Non-native Grassland Ecotone (1.50 acres)

The northern mixed chaparral community forms a transitional habitat with non-native grasslands on site. This habitat supports a few scattered shrubs, but otherwise is dominated by dense non-native grasses, especially rattail fescue and brome grasses. A few native forbs are present, including doveweed, Brewer's daisy, western ragweed (*Ambrosia psilostachya*), and blue-eyed grass (*Sisyrinchium bellum*).

Coast Live Oak Woodland (0.10 acre)

Coast live oak (*Quercus agrifolia* var. *agrifolia*) woodland is uncommon on site. Understory species consist of forbs and grasses including bur-chervil (*Anthriscus caucalis*), fiesta flower (*Pholistoma auritum*), common horehound, foxtail barley, smilograss (*Piptatherum miliaceum*), and ripgut brome. A few oak seedlings and holly-leaved cherry are also present.

Southern Cottonwood Riparian Woodland (0.67 acre)

This mixed plant community occurs along the banks of Wilson Creek within the incised channel. Fremont cottonwood (*Populus fremontii*) dominates this riparian community. Black willow (*Salix gooddingii*) trees are also present in the canopy. Mugwort (*Artemisia douglasiana*), cockle-bur (*Xanthium strumarium*), tamarisk (*Tamarix ramosissima*), tree of heaven (*Ailanthus altissima*), mule fat (*Baccharis salicifolia*), and a few Salix saplings form the understory vegetation.

Southern Sycamore Riparian Woodland (2.88 acres)

This community occurs along Oak Glen Creek. The dominant tree species is the western sycamore, but Fremont cottonwood, red willow (*Salix laevigata*), and arroyo willow (*Salix lasiolepis*) are also present. Net-leaf hackberry (*Celtis reticulata*), California rose (*Rosa californica*), mule fat, mugwort, California buckwheat, and elderberry are found in the understory. Curly dock (*Rumex crispus*), seep monkeyflower (*Mimumlus guttatus*), and water-cress (*Rorippa nasturtium-aquaticum*) grow along the banks of Oak Glen Creek.

Southern Willow Scrub (0.05 acre)

This community is uncommon on site and is dominated by red willow and arroyo willow. Mule fat, tarragon, ragweed, cockle-bur, and mugwort comprise the understory vegetation.

Mule Fat Scrub (0.07 acre)

Mule fat locally forms dense thickets along open creek banks. Willow and tree of heaven saplings, mugwort, seep monkeyflower, and curly dock are common components of this association.

Unvegetated Wash (2.20 acres)

The streambeds associated with Wilson Creek and Oak Glen Creek are frequently scoured by flood waters and are generally devoid of vegetation. Scattered seedlings are frequent, including scale-broom, mule fat, and cocklebur.

Sensitive Species

Sensitive Plants

Focused surveys and floristic inventories for the area east of 2nd Street, not including the City yard, were conducted from April through July 2011 and from February through May 2012 to determine the presence or absence of the target special-status plant species that have potential to occur within the Specific Plan area. Of 29 sensitive plant species surveyed for, only Parry's spineflower was observed on site (see Figure 5.3-2, *Sensitive Plants Map*). For the area west of 2nd Street and the City yard, a focused plant survey was conducted in 2016 and specifically focused on whether any of the 29 sensitive species were present further downstream in Oak Glen Creek within the proposed project areas. Given that several populations of Parry's spineflower were documented just upstream of the project areas, an emphasis was placed on searching for Parry's spineflower.

The following discussion is presented in two parts—special-status species documented on the area east of 2nd Street, and special-status species documented on the area west of 2nd Street, including the City yard.

East of 2nd Street

Parry's spineflower *(Chorizanthe parryi var. parryi)* is an annual herb in the Polygonaceae family. It is a southern California endemic and is a California Rare Plant Rank 1B.1. (1B denotes a rare, threatened, or endangered species in California, and 0.1 means seriously threatened in California.) Parry's spineflower blooms from April to June, and its habitats range in elevation from 900 to 4,000 meters above mean sea level. Parry's spineflower occupies sandy soils, often on alluvial fans, in chaparral, cismontane woodland, grassland, and coastal scrub in Los Angeles, Riverside, and San Bernardino counties.

Most of the known populations of Parry's spineflower are in western Riverside and San Bernardino counties. Many historical populations have been rooted out or completely destroyed owing to loss of habitat following land development and degradation of habitat by invasions of exotic grasses. Other threats include mining, altered flood regimes, and off-road vehicles.

During the 2011 project surveys, the population census and field mapping of Parry's spineflower was conducted on May 24, June 3, and June 18. The flowering plants observed were counted individually at each habitat patch location and recorded on a spreadsheet for later input into a GIS database. The habitat patch areas, when generally larger in size than 600 square feet, were divided into quadrants to ensure accurate population census.

The 2011 project surveys recorded 6,663 Parry's spineflower plants occupying 0.9 acre of coastal scrub, chaparral, and grassland habitats within the project site, as shown in Figure 5.3-2, *Sensitive Plants Map*. Parry's

spineflower is typical of sandy-soil openings (habitat patch) in scrub vegetation. The abundance of Parry's spineflower within any given habitat patch varies greatly onsite, from widely spaced to very high concentrations of individual plants.

West of 2nd Street and City Yard

The focused surveys covered all vegetated areas within the area west of 2nd Street and City yard, including the intermediate Riversidean alluvial fan sage scrub habitat, both naturally occurring and disturbed, as well as the southern cottonwood riparian woodland and disturbed ruderal habitat in the northwest portion of the area west of 2nd Street. Despite extensive systematic searches, no Parry's spineflower or any of the other 28 potentially occurring sensitive plant species were observed during the 2016 sensitive plant surveys. It can be concluded that this area of the site does not support sensitive plant species, including Parry's spineflower. Sensitive plants, including Parry's spineflower, are presumed absent from the area west of 2nd Street.

Sensitive Wildlife

The project site is not within or adjacent to USFWS critical habitat designation for federal listed plants or wildlife species. However, suitable habitat was identified onsite for two federal/ state threatened/ and endangered wildlife species (coastal California gnatcatcher and San Bernardino kangaroo rat) and one California Species of Special Concern (burrowing owl). Focused surveys for each of these species were conducted and the results are presented below.

Coastal California Gnatcatcher Surveys

No coastal California gnatcatchers were documented within the project site during the focused protocol surveys of spring 2012. Also, no coastal California gnatcatcher were detected within the Oak Glen Creek/Wilson II Basins project immediately east of the project site during focused surveys in 2005.

Burrowing Owl Surveys

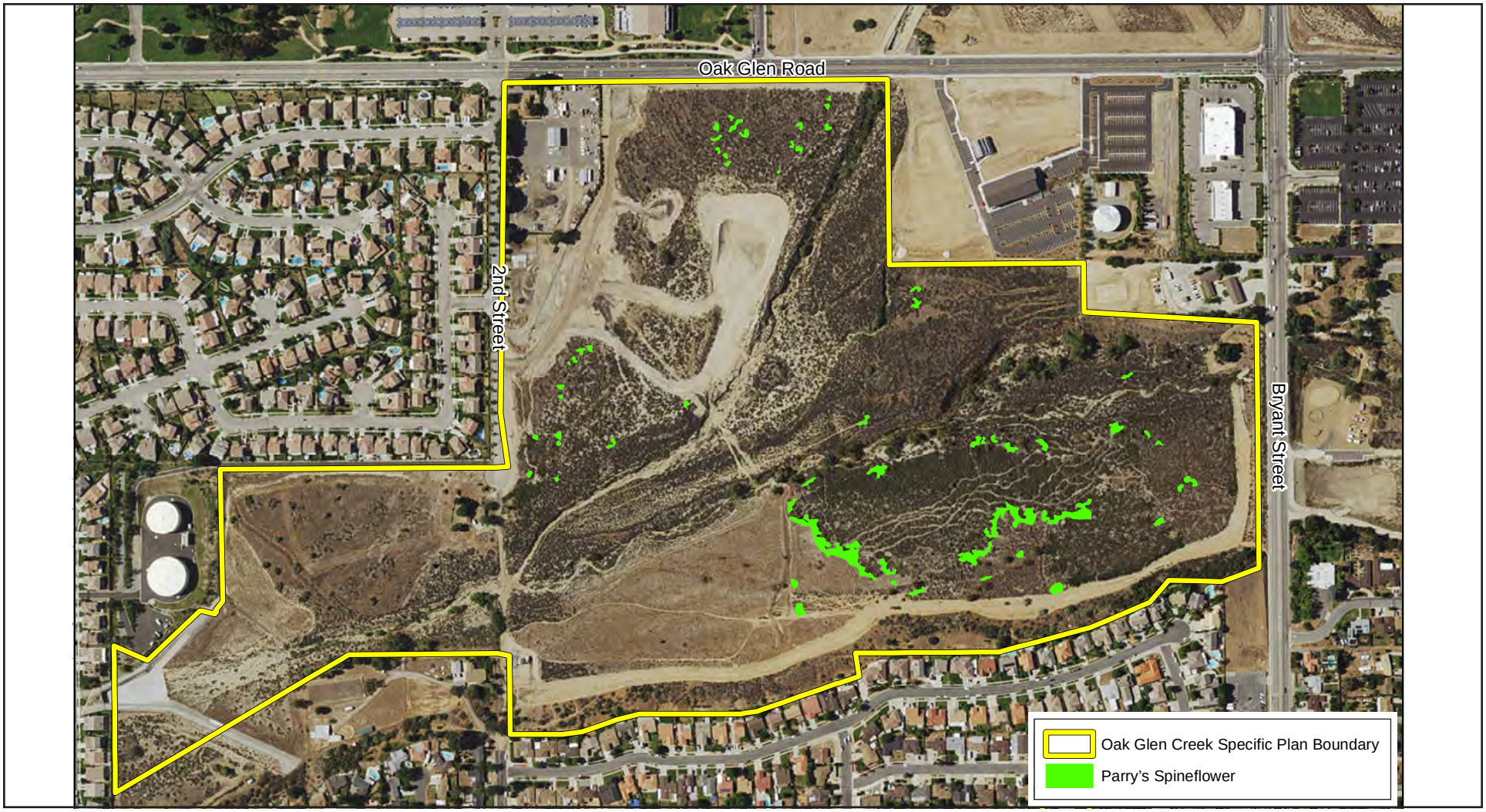
No burrowing owls were documented within or adjacent to the project site during the focused protocol surveys in spring 2012. Also, no burrowing owl were detected within the Oak Glen Creek/Wilson II Basins project immediately east of the project site during focused surveys in 2005.

San Bernardino Kangaroo Rat Surveys

No San Bernardino kangaroo rat, Los Angeles pocket mouse, or San Diego woodrat were captured during the focused trapping program in the spring of 2012. However, the northwestern San Diego pocket mouse was captured within the project site. The northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*) is a California Species of Special Concern.

Figure 5.3-2 Sensitive Plants Map

5. Environmental Analysis



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Scale (Feet)

Base Map Source: Ruth Villalobos Associates, Inc., 2016

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Additional Sensitive Wildlife with the Potential to Occur Onsite

During the focused surveys for sensitive wildlife, the northwestern San Diego pocket mouse (a California Species of Special Concern) was captured onsite. Focused surveys also reported suitable foraging habitat for Cooper's hawk, sharp-shinned hawk, ferruginous hawk, northern harrier, white-tailed kite, prairie falcon, golden eagle, California horned lark, and southern California rufous-crowned sparrow. Other sensitive species were found to have moderate to low potential to occur onsite based on lack of suitable habitat.

Jurisdictional Resources

Two drainages, each with a tributary, that meet both state and federal jurisdictional requirements were observed within the Specific Plan area. Figure 5.3-3, *Jurisdictional Waters Map*, shows the results of the delineation of waters of the U.S. and waters of the State (streambeds) associated with Wilson Creek and Oak Glen Creek within the project area. No wetlands were found in the project area. Table 5.3-2, *Summary of Project Area Jurisdictional Resources*, shows the proposed acreage delineated as jurisdictional under state and federal regulations, subject to CDFW and Corps verification.

Table 5.3-2 Summary of Project Area Jurisdictional Resources

Drainage	Corps	CDFW
Wilson Creek and Tributary	0.60 acres	1.11 acres
Oak Glen Creek and Tributary	1.74	9.42
TOTAL	2.34	10.53

Oak Glen Creek

Within the project site, the Oak Glen drainage is dominated by upland species (buckwheat, fiddle neck, monkey flower) with occasional riparian habitat (mulefat, willow, elderberry). Tree species observed included sycamore, eucalyptus, and cottonwood. The width of Oak Glen Creek at the "ordinary high water mark" near the confluence is approximately 10 feet and on average remains fairly constant through the project area. Creek width for the purposes of CDFW jurisdiction varies from 1 foot to approximately 33 feet wide to include the canopy of associated vegetation.

The site visit for the jurisdictional delineation was conducted on April 27, 2011, by walking Oak Glen Creek starting at the confluence with Wilson Creek. On this day, water was flowing in Oak Glen Creek. The creek bed was heavily cobbled with a sandy bed. Little to no vegetation was present in the creek bed in this area, which was highly disturbed by flooding and motor vehicle access. Vegetation at the top of bank included cottonwood, buckwheat, and nonnative grasses. Soil pits were dug in this area, and no saturated soils were found.

Where the drainage narrows, vegetation begins to encroach closer to the stream. The landscape is dominated by buckwheat, sage, sycamore, and nonnative grasses. The creek becomes braided with hummocks, with the low flow channel containing the flow. Mulefat dominates near the channel and buckwheat and sycamore dominates in the upland.

Approximately 0.3 mile (1,600 feet) upstream from the confluence, Oak Glen Creek bifurcates. On the day of the site visit, water was flowing in both channels. As the main drainage approaches Bryant Street, it narrows and steepens; however, vegetation on the banks (mulefat) extends and widens the area under CDFW jurisdiction. At Bryant Street, the earthen creek bed meets the box culvert and channel under Bryant Street, and water was flowing from under Bryant Street to the main Oak Glen Creek channel.

It was observed that an earlier low flow course leading from the concrete channel under Bryant Street in the direction of Tributary 2 had been abandoned. There were no indicators of water flow in this old channel, the topography precluded water from flowing into the channel, and the established vegetation was stressed while the relatively young vegetation was dominated by upland species, including cholla. Following the side channel downstream, no defined bed or bank was found in the upper region of this channel. Although the vegetation consisted of both upland and riparian species, there were no indicators of current water flow, and the older vegetation appeared to be failing. A soil pit was dug on May 20, 2011, and the soil was determined to be non-saturated.

Approximately 500 feet downstream from Bryant Street, water was observed in the side channel, Tributary 2. The source of the water was a blow-off pipe and well that was overflowing. The well is associated with the basin immediately upstream of Bryant Street, and is it unknown if the flow is constant or intermittent. However, the volume is sufficient to support riparian habitat from this point downstream to where it joins the main channel of Oak Glen Creek. A soil pit was dug and the soils were wet to a depth of nine inches. No additional potential drainages were found along the remaining length of Tributary 2 or Oak Glen Creek.

Wilson Creek

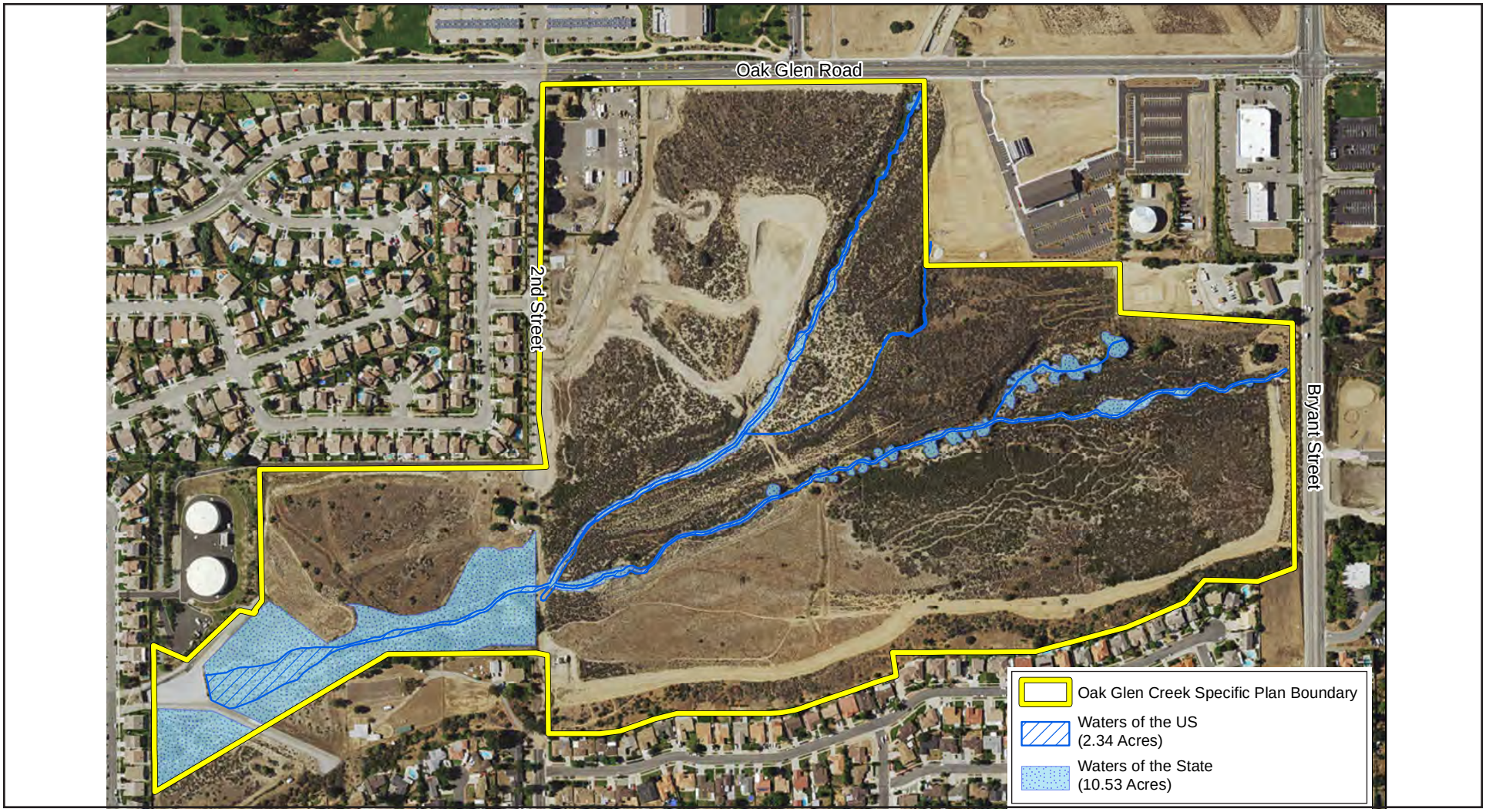
Similar to Oak Glen Creek, Wilson Creek has sandy soils and is heavily cobbled. Water was not flowing on the day of the site visit. The creek bed was void of vegetation in this area. A very steep and, in places, vertical transition zone from the streambed to the surrounding floodplain, as well as dirt roads and development on either side of the main stem of Wilson Creek, prohibits riparian habitat from forming in most locations. Wilson Creek is substantially wider than Oak Glen at their confluence, approximately 18 feet at the ordinary high water mark (OHWM); the width of the drainage varies from two feet wide to approximately 32 feet wide. Due to the lack of associated riparian vegetation, creek width for both CDFW and Corps jurisdiction is based on the ordinary high water mark.

At the upper section of Wilson Creek within the project area, the creek narrows and becomes inaccessible due to a thick growth of mulefat and willows. At Oak Glen Street, the topography becomes steep (2:1 slope), and the creek bed continues off the project area through a concrete channel.

Potential drainages leading to Wilson Creek were noted, and the remaining project site was observed to determine if jurisdictional waters were present. The landscape was dominated by buckwheat, deer weed, white sage, and yerba santa. While several erosional features were present on the property, only one warranted additional investigation. The drainage (Tributary 1) was followed from its apparent inception at the top of the bank of the unimproved land to its confluence with Wilson Creek. Tributary 1 exhibited a defined bed and bank; the soils were sandy and nonhydric.

Figure 5.3-3 Jurisdictional Waters Map

5. Environmental Analysis



Base Map Source: Ruth Villalobos Associates, Inc., 2016

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Non-jurisdictional Waters

Erosional features crisscross the project area. While these features clearly convey water, they do not have a defined bed or bank nor do they exhibit evidence of recent flows. In addition, these features fail to contain drainage prior to reaching a jurisdictional drainage; therefore, they have been determined to be non-jurisdictional waters.

In addition to these ephemeral erosional features, the abandoned low flow channel from Bryant Street to the source of water for Tributary 2 does not exhibit features characteristic of waters of the U.S. or State under the guidance of either the Corps or the CDFW. As described above, there is no defined bed or bank, no indication of flow, and no associated riparian vegetation. Therefore, it too has been determined to be non-jurisdictional.

5.3.2 Thresholds of Significance

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

B-1 Have a substantial 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.

B-2 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 U.S. Fish and Wildlife Service.

B-3 Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

B-4 Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites.

B-5 Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

B-6 Conflict with the provisions of an adopted habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Chapter 8, *Impacts Found Not to Be Significant*, substantiates that impacts associated with the following thresholds would be less than significant:

- Threshold B-5
- Threshold B-6

These impacts will not be addressed in the following analysis.

5.3.3 Environmental Impacts

The following impact analysis addresses thresholds of significance that may be potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

Impact 5.3-1: Development in accordance with the Specific Plan would involve substantial habitat modification that would adversely impact various sensitive and special-status species. [Threshold B-1]

Impact Analysis: The Oak Glen Creek Specific Plan land uses include innovation, open space, and residential uses. The proposed project site impact area is defined by portions of the site that are proposed to be developed and include the southerly extension of 2nd Street, the Residential districts, the Innovation districts, and a flood control facility and associated structures within the Open Space District. The impacted area totals approximately 90 acres of the project site. The other approximately 25 acres of the project site would be avoided and conserved as open space and natural habitat.

Sensitive Plants

Parry's spineflower was the only sensitive plant species that was observed onsite during the focused plant surveys and is listed as California Rare Plant Rank 1B.1 (see Figure 5.3-4, *Impacted Sensitive Plants*). (1B denotes a rare, threatened, or endangered species in California; 0.1 means seriously threatened in California.) Table 5.3-3 summarizes the impacted and avoided acres of Parry's spineflower found onsite.

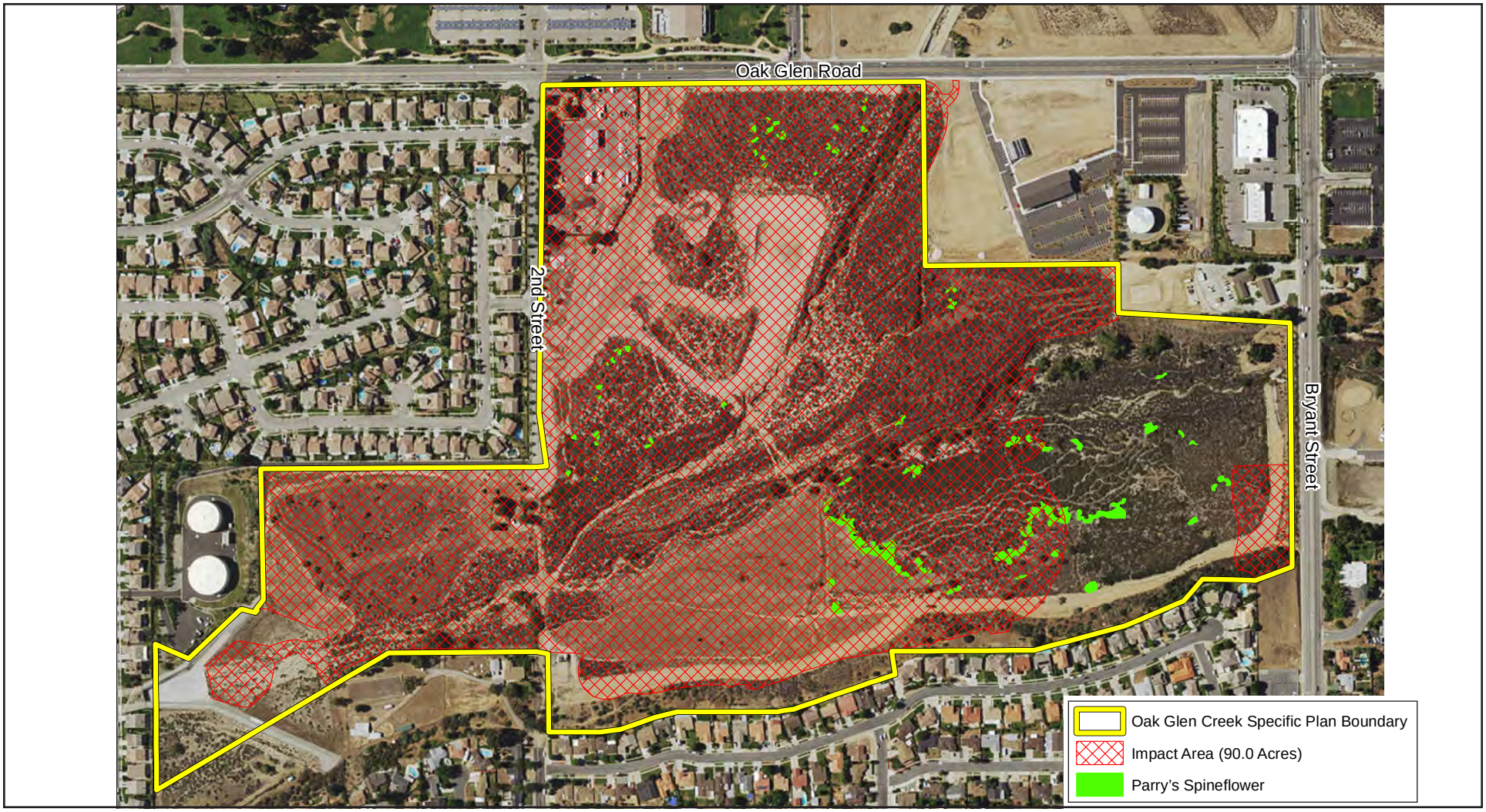
Table 5.3-3 Impacts to Parry's Spineflower

Parry's Spineflower	Acres
Not Impacted	0.24
Impacted	0.70
Total	0.94

Overall, sensitive plant surveys resulted in the detection of 6,663 Parry's spineflower individuals occupying 0.94 acre of coastal scrub, chaparral, and grassland habitats within the project site, as shown in Figure 5.3-4, *Impacted Sensitive Plants*. Project-related impacts would result in the removal of 0.70 acre of onsite habitat occupied by Parry's spineflower. All of the plants constituting CRPR 1B meet the definitions of Section 1901, Chapter 10 (Native Plant Protection Act), or Sections 2062 and 2067 (California Endangered Species Act) of the CDFW Code and are eligible for state listing. It is mandatory that they be fully considered during preparation of environmental documents relating to CEQA. Therefore, impacts to this species would be potentially significant.

Figure 5.3-4 Impacted Sensitive Plants

5. Environmental Analysis



Base Map Source: Ruth Villalobos Associates, Inc., 2016

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Sensitive Wildlife

Endangered Wildlife Species

Although no threatened or endangered wildlife species were identified onsite during focused survey efforts, the project site has suitable foraging habitat for the following sensitive bird species: Cooper's hawk (SWL), sharp-shinned hawk (SWL), ferruginous hawk (SWL), northern harrier (CSC), white-tailed kite (SFP), prairie falcon (SWL), golden eagle (SFP/SWL), California horned lark (SWL), and southern California rufous-crowned sparrow (SWL).[2] Impacts to onsite foraging habitat for these species would be considered adverse, but would not appreciably affect the overall population of these species given the large amount of similar suitable foraging habitat in the vicinity of the project site and region. Additionally, development of the proposed Specific Plan would include conservation of approximately 25 acres of onsite foraging habitat for these birds as open space and natural habitat. Therefore, these impacts would be considered less than significant.

Special Status Species : San Diego Pocket Mouse

The northwestern San Diego pocket mouse (CSC) is the only special status wildlife species observed onsite. Impacts to these individuals would be considered adverse, but would not appreciably affect the overall population of this species given the large amount of similar suitable habitat in the vicinity of the project site and beyond. Additionally, as previously stated, the proposed Specific Plan would include approximately 25 acres of potentially suitable habitat for northwestern San Diego pocket mouse as open space and natural habitat. Thus project-related impacts to this species are considered less than significant.

Migratory Birds/Raptors

No active bird/raptor nests or burrowing owls were documented within or immediately adjacent to the project site. However, the onsite vegetation communities represent suitable nesting habitat for common and sensitive resident and migratory bird/raptor species with the potential to occur within the project site. The loss of an active nest of common or sensitive bird species would be considered a violation of the CDFW Code, Sections 3503, 3503.5, and 3513, and the federal MBTA. Therefore, the loss of any bird species nest is considered a potentially significant impact.

Noise levels in and around the project site would temporarily increase during project construction. During construction, temporary noise impacts have the potential to disrupt foraging, nesting, and roosting of passerines, raptors, and bats known and/or expected to occur within/adjacent to the project site. These impacts are considered adverse, but not significant for most bird species, because the work would be temporary and localized, and the construction activities would not impact a substantial population of bird species. In addition, initial clearing of vegetation communities would be conditioned to occur outside of the nesting/breeding season to avoid impacts to nesting birds. However, passerines and raptors would potentially incur temporary short-term impacts from construction noise if nesting occurs in the vicinity of the proposed action. This impact would be considered potentially significant.

[2] SWL = State Watch List; CSC = California Species of Concern; SFP = State Fully Protected.

Impact 5.3-2: Buildout in accordance with the Oak Glen Creek Specific Plan would impact approximately 90 acres of sensitive vegetation communities, including alluvial fan sage scrub, sycamore riparian woodland, and southern cottonwood riparian woodland. [Threshold B-2]

Impact Analysis: The proposed project would impact approximately 90 acres of mapped vegetation types within the proposed development footprint, which includes an additional 0.34 acre outside of the Specific Plan boundary. The proposed basin design includes construction of an access road and associated grading that extends outside of the Specific Plan boundary in the northern portion of the site and south of Oak Glen Road. This area is approximately 0.34 acre and contains Riversidean alluvial fan sage scrub habitat (see Figure 5.3-5, *Impacted Vegetation Communities*). Table 5.3-4 summarizes the impacts from project development to the vegetation communities within and outside of the Oak Glen Creek Specific Plan Boundary.

Three sensitive plant communities were documented onsite—Riversidean alluvial fan sage scrub, southern sycamore riparian woodland, and southern cottonwood riparian woodland. Project development would impact 0.34 acre of alluvial fan sage scrub outside of the Specific Plan boundary and 24.85 acres within the Specific Plan boundary, 1.70 acre of southern sycamore riparian woodland, and 0.67 acre of southern cottonwood riparian woodland. Impacts to sensitive vegetation communities are potentially significant.

Table 5.3-4 Impacts to Vegetation Communities

Vegetation Communities	Total Acres	Impacted Acres
Developed or Disturbed Lands		
Disturbed/Ruderal (DIS/RUD)	25.05	21.65
Ruderal (RUD)	0.41	0.41
Ornamental (ORN)	0.05	0
Grassland Communities		
Non-Native Grassland (NNG)	5.38	4.18
Coastal Scrub Communities		
Alluvial Fan Sage Scrub (AFSS) – Onsite	27.03	24.85
Alluvial Fan Sage Scrub (AFSS) – Off-site	0.34	0.34
Disturbed Intermediate Alluvial Fan Sage Scrub (DIRAFSS)	6.40	6.40
California Buckwheat Scrub (CBS)	10.39	8.50
California Buckwheat Scrub/Non-Native Grassland Ecotone (CBS/NNG)	0.37	0.67
Deerweed Scrub (DWS)	4.74	4.39
Deerweed Scrub/Non-Native Grassland/Sycamore Ecotone (DW/NNG)	3.28	2.68
Mixed Sage Scrub (MSS)	6.90	2.51
Chaparral Communities		
Chamise Chaparral (CC)	3.96	1.98
Chamise Chaparral/Burned (CC/BURN)	3.60	3.60
Eriodictyon Chaparral (CYS)	7.04	2.88
Eriodictyon Chaparral/Non-Native Grassland Ecotone (CYS/NNG)	0.77	0.24
Northern Mixed Chaparral (NMC)	2.38	0.95
Northern Mixed Chaparral/Non-Native Grassland Ecotone (NMC/NNG)	1.50	0.11

Table 5.3-4 Impacts to Vegetation Communities

Vegetation Communities	Total Acres	Impacted Acres
Oak Woodland Communities		
Coast Live Oak Woodland (CLO)	0.10	0
Riparian Communities		
Southern Cottonwood Riparian Woodland (SCRW)	0.67	0.67
Southern Sycamore Riparian Woodland (SSRW)	2.88	1.70
Southern Willow Scrub (SWS)	0.05	0.05
Mule Fat Scrub (MFS)	0.07	0.07
Unvegetated Wash (WASH)	2.20	1.95
TOTAL	115.6	90.78

Impact 5.3-3: The proposed project would impact 8.84 acres of jurisdictional waters, including 1.86 acres of Waters of the United States and 6.98 acres of Waters of the State. [Threshold B-3]

Impact Analysis: Although no wetlands or vernal pools were identified onsite, the proposed project would impact resources regulated by the Corps and CDFW through direct removal, filling, hydrological interruption, or other means. Figure 5.3-3, *Jurisdictional Waters Map*, and Table 5.3-2 illustrate that there is a total of 2.34 acres of jurisdictional Waters of the U.S. and 10.53 acres of jurisdictional waters of the State within the Specific Plan area. Using GIS data of the proposed project's grading footprint and the jurisdictional waters footprint, impacted acreages of jurisdictional resources regulated by the Corps and CDFW are listed in Table 5.3-5 and shown in Figure 5.3-6, *Impacted Jurisdictional Resources*. In total, the proposed project would impact a total of 1.86 acres of jurisdictional Waters of the U.S. and 6.98 acres of Waters of the State. Impacts would be potentially significant.

Table 5.3-5 Impacts to Jurisdictional Resources

Jurisdiction	Total Resources	Impacted	Avoided
Corps	2.34	1.86	0.48
CDFW	10.53	6.98	3.55
TOTAL	12.87	8.84	4.03

Source: RVA 2016.

Impact 5.3-4: Development in accordance with the Specific Plan would affect wildlife movement and potentially impede the use of wildlife corridors for migratory species. [Threshold B-4]

Impact Analysis: Implementation of the proposed project would result in a temporary direct impact to wildlife movement within Wilson and Oak Glen Creeks. The project site represents a wildlife movement corridor/route between the upstream reaches of Wilson and Oak Glen Creeks and downstream confluence of Wilson Creek and Gateway Wash. Specifically, the project site is traversed by both Wilson and Oak Glen Creeks, and no onsite barriers exist that would preclude movement through the site. Any project design

features which would restrict, reduce, or impede wildlife movement through the project site within Wilson or Oak Glen Creeks would represent a significant impact. For example, the proposed project would create a substantial new source of lighting that could increase ambient lighting above current levels. Project-related lighting could impede wildlife movement, breeding, nesting, and/or foraging behavior of common and/or sensitive species within the project site open space areas; thus, impacts are potentially significant.

5.3.4 Cumulative Impacts

Cumulative impacts to biological resources are based on a regional evaluation that considers regional habitat loss, protected species, and wildlife corridors. Significant biological resources in the project area include the Crafton Hills and Yucaipa Regional Park to the northwest, El Dorado Ranch Park and San Bernardino National Forest to the east, and Wildwood Canyon State Park to the southeast. The proposed project is required to prepare and implement several mitigation plans and provide on- and offsite mitigation to offset impacts to sensitive plants and habitats and jurisdictional resources. Cumulative projects in the region are subject to the same laws and regulations protecting sensitive species, including the federal and state Endangered Species Act and Migratory Birds Treaty Act. Adherence to these existing regulations and mitigation of project-specific impacts would ensure cumulative impacts are less than significant.

5.3.5 Existing Regulations

Federal

- Endangered Species Act
- Clean Water Act, Sections 401, 402, and 404
- Migratory Bird Treaty Act
- Fish and Wildlife Coordination Act
- Floodplain Management and Protection of Wetlands, Executive Order 11990
- Invasive Species, Executive Order 13112

State

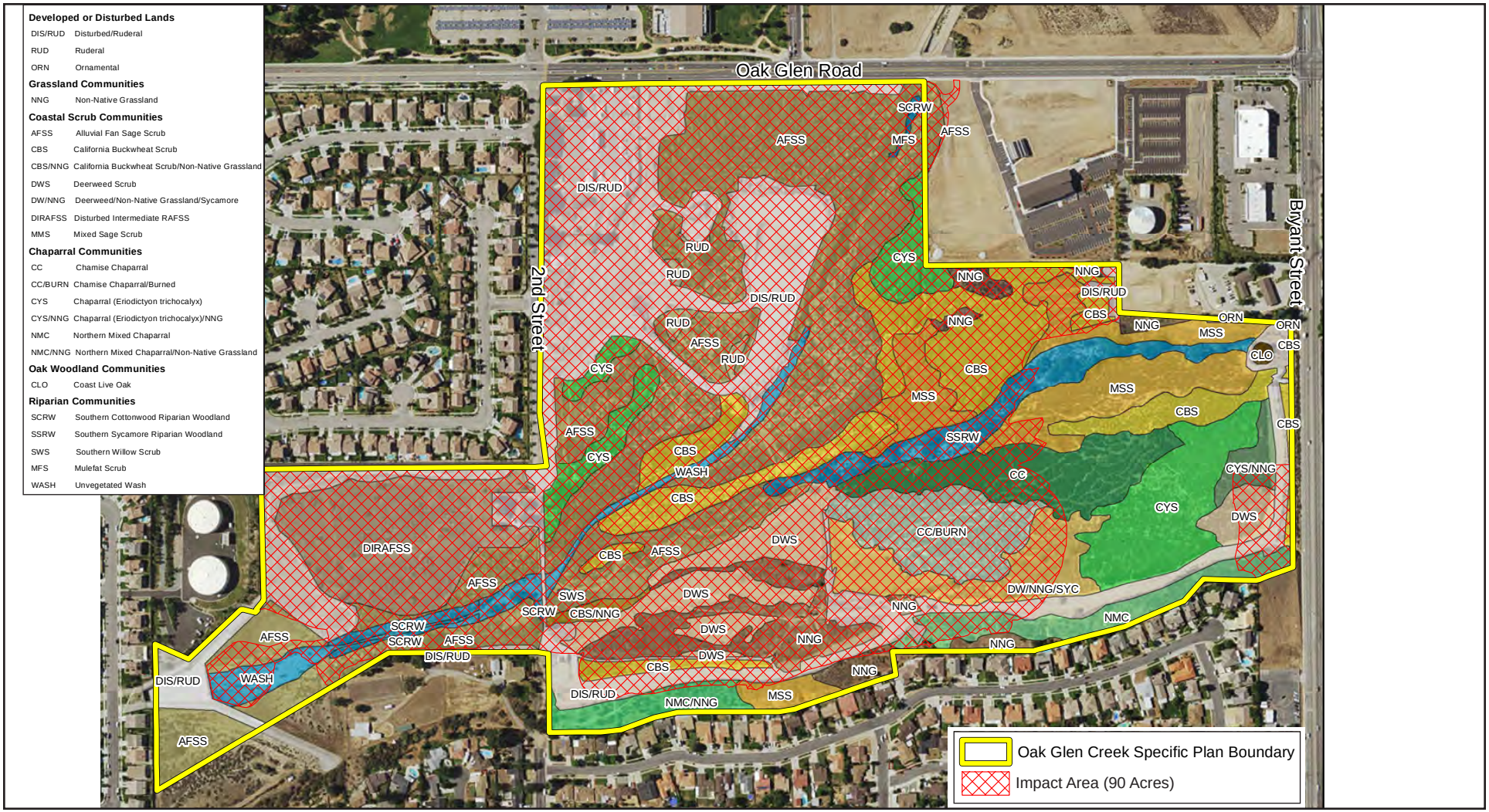
- California Endangered Species Act
- California Fish and Game Code Sections 2081, 1600-1616, etc.

Local

- City of Yucaipa Municipal Code, Division 9 (Plant Protection and Management)

Figure 5.3-5 Impacted Vegetation Communities

5. Environmental Analysis



Base Map Source: Ruth Villalobos Associates, Inc., 2016

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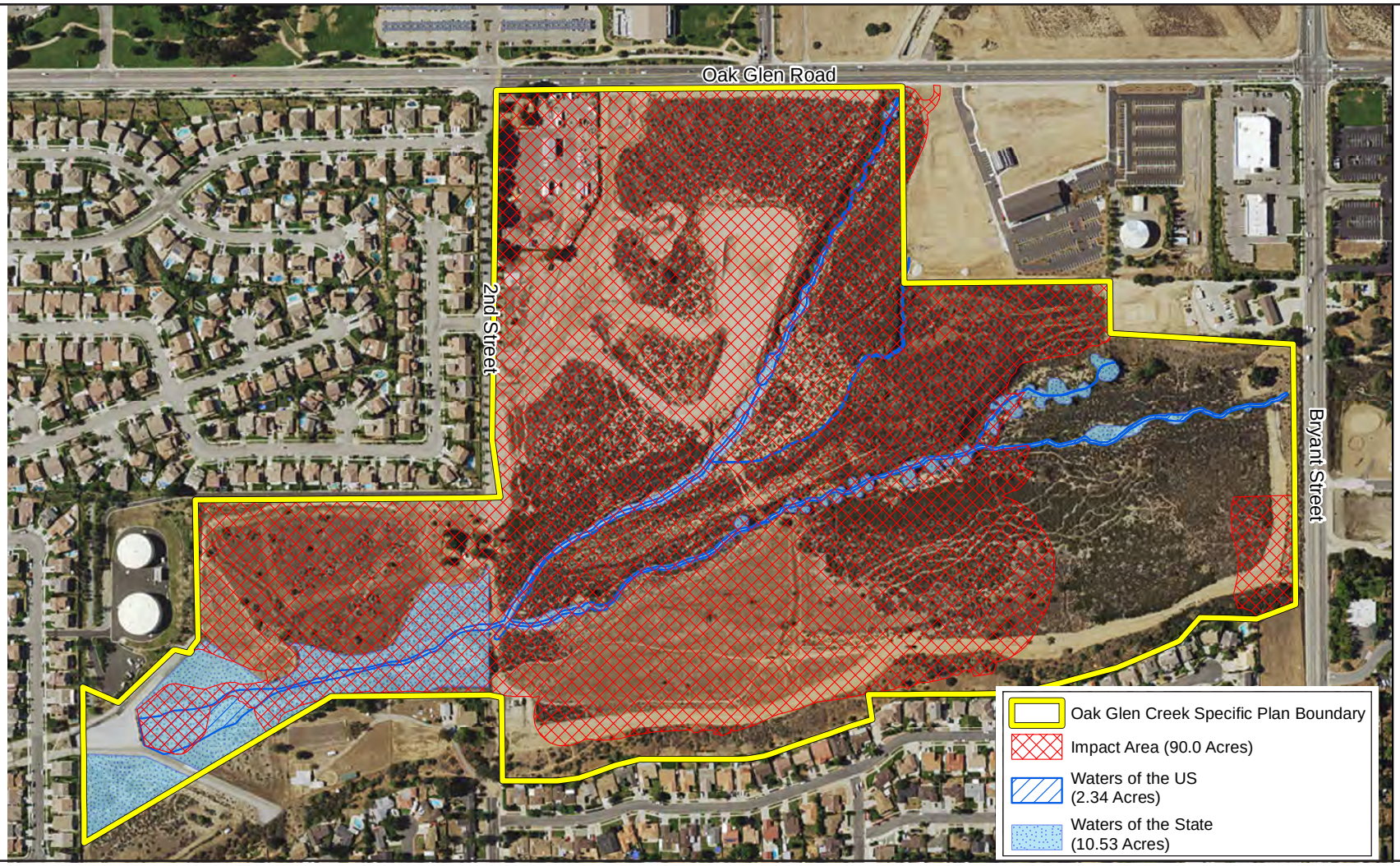
Figure 5.3-6 Impacted Jurisdictional Resources

5. Environmental Analysis



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Base Map Source: Ruth Villalobos Associates, Inc., 2016

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5.3.6 Level of Significance Before Mitigation

Without mitigation, the following impacts would be **potentially significant**:

- **Impact 5.3-1** Development in accordance with the Specific Plan would involve habitat modification of currently vacant and undisturbed natural habitat, adversely impacting sensitive and special-status species.

- **Impact 5.3-2** Development of the proposed project would impact approximately 90 acres of sensitive vegetation communities.

- **Impact 5.3-3** The development footprint of the proposed project would impact 8.84 acres of jurisdictional Waters, including 1.86 acres regulated by the Corps and 6.98 acres regulated by CDFW.

- **Impact 5.3-4** Wildlife corridors onsite could be adversely impacted by development in accordance with the proposed project.

5.3.7 Mitigation Measures

Impact 5.3-1

3-1 **Burrowing Owl 14-Day Take Avoidance Surveys.** A 14-day burrowing owl take avoidance survey shall be conducted prior to the initiation of ground-disturbing construction to ensure protection for this species and compliance with the conservation goals outlined by the California Department of Fish and Wildlife (CDFW). The survey shall be conducted in compliance with CDFW 2012 guidelines. A report of the findings prepared by a qualified biologist shall be submitted to CDFW and the City of Yucaipa prior to initiation ground disturbing activities.

If burrowing owls are detected onsite during the take avoidance survey effort, a burrowing owl mitigation plan which includes project specific avoidance and minimization measures shall be developed based on CDFW and USFWS requirements.

3-2 **Sensitive Plant Species Mitigation Plan.** The City of Yucaipa shall develop a Sensitive Plant Species Mitigation Plan to mitigate for the loss of 0.70 acre of Parry's spineflower plants. This mitigation plan is to be prepared by a qualified restoration biologist and provide, at a minimum, the following information: (1) design modifications or minimization measures that are consistent with the project's purpose; (2) appropriate protection measures for any adjoining conserved land within the project site; (3) an evaluation of salvage, transplantation, restoration, enhancement, or other appropriate mitigation techniques to determine the most appropriate mitigation measures to offset impacts; and (4) monitoring and adaptive management measures for the mitigated plant species. The mitigation site shall be monitored

and maintained by a qualified biologist for five years or until the plants have become fully established and can survive without supplemental irrigation.

The goal of the Sensitive Plant Species Mitigation Plan will be to compensate for the impacts to 0.70 acre through off-site acquisition of habitat, on-site preservation, enhancement, creation, and/or dedication of habitat, payment of fees into a mitigation bank, or other appropriate measures to address the functions and values being impacted.

3-3 **Federal Migratory Bird Treaty Act.** Mitigation for potential direct/indirect impacts to common and sensitive passerine and raptor species will require compliance with the federal Migratory Bird Treaty Act (MBTA). Construction outside the nesting season (between September 1 and January 31) does not require pre-removal nesting bird surveys. If construction is proposed between February 1 and August 31, a qualified biologist must conduct a nesting bird survey(s) no more than 14 days prior to initiation of grading to document the presence or absence of nesting birds within or directly adjacent (100 feet) to the project site. Note that any nest permanently vacated for the season would not warrant protection pursuant to the MBTA.

The survey(s) will focus on identifying any raptors and/or passerines nests that are directly or indirectly affected by construction activities. If active nests are documented, species-specific measures shall be prepared by a qualified biologist and implemented to prevent abandonment of the active nest. At a minimum, grading in the vicinity of a nest shall be postponed until the young birds have fledged. A minimum exclusion buffer of 100 feet shall be maintained during construction, depending on the species and location. The perimeter of the nest setback zone shall be fenced or adequately demarcated with stakes and flagging at 20-foot intervals, and construction personnel and activities restricted from the area. A survey report by a qualified biologist verifying that no active nests are present or that the young have fledged shall be submitted to the CDFW and City of Yucaipa prior to initiation of grading in the nest-setback zone. The qualified biologist shall serve as a construction monitor during those periods when construction activities occur near active nest areas to ensure that no inadvertent impacts on these nests occur.

3-4 **Noise Reduction.** If a) nesting birds are found onsite during pre-construction surveys and b) construction related impacts occur between January 31 and September 15, an acoustical consultant shall evaluate the construction equipment/phases and estimate noise levels anticipated during clearing, grubbing and grading activities. The acoustical consultant shall identify appropriate measures for reducing construction noise levels to below 60 dB(A) hourly Equivalent Continuous Noise Level or prevent any increases in the ambient noise levels at nesting location if existing noise levels are 60 dB(A) hourly or greater. Noise reduction measures may include operational adjustments, including:

- Stationary construction noise sources such as generators or pumps should be located at least 100 feet from sensitive land uses, as feasible.

- Construction staging areas should be located as far from noise sensitive land uses as feasible.
- During construction, the contractor shall ensure all construction equipment is equipped with appropriate noise attenuating devices.
- Idling equipment shall be turned off when not in use.
- Equipment shall be maintained so that vehicles and their loads are secured from rattling and banging.

If noise reduction measures are required, bi-weekly monitoring of the nesting species shall be conducted by the qualified biologist to observe if the birds are being affected by construction activities. The acoustical consultant shall confirm through noise measurements that the noise reduction measures are effective at preventing noise levels in excess of 60 dB(A) hourly or an increase in ambient noise levels. Noise reduction measures are not required from September 16 through January 31.

Impact 5.3-2

3-5 **Sensitive Habitat Mitigation Plan.** Mitigation for impacts to alluvial fan sage scrub habitat within the project footprint shall be accounted for with on-site preservation, restoration, and/or enhancement and long-term management on-site at a minimum 1:1 ratio or greater, as determined in consultation with the California Department of Fish and Wildlife (CDFW). Residual impacts that cannot be mitigated on-site shall be accomplished with off-site acquisition, preservation, rehabilitation, restoration, enhancement, and long-term management of alluvial fan sage scrub habitat at the Oak Glen Creek Flood Corridor Area upstream (east) of the project site between Bryant Street and Pendleton Road.

The City shall prepare a Sensitive Habitat Mitigation Plan for CDFW review and concurrence. The City shall be responsible for funding and implementing the plan. The goal of the Sensitive Habitat Mitigation Plan will be to compensate for the impacts to 25.19 acres of alluvial fan sage scrub through off-site acquisition of habitat; on-site preservation, enhancement, creation, and/or dedication of habitat; payment of fees into a mitigation bank; or other appropriate measures to address the functions and values being impacted.

The content of the Sensitive Habitat Mitigation Plan will address the responsibilities and qualifications of the personnel to implement and supervise the plan; incorporate pertinent site selection criteria; provide for the site preparation and planting implementation program if appropriate; provide a schedule for implementation, maintenance, and monitoring; detail maintenance plan and guidelines; detail the monitoring plan; and address long-term preservation.

Impact 5.3-3

3-6 **Jurisdictional Resources.** Prior to issuance of a grading permit, the applicant shall obtain a Section 404 permit authorization from the U.S. Army Corps of Engineers (Corps), a Section 401 Water Quality Certification from the Regional Water Quality Control Board, and a Section 1602 Streambed Alteration Agreement from the California Department of Fish and Wildlife (CDFW). Impacts to Corps and CDFW resources would require mitigation through on-site habitat creation, restoration, enhancement, and/or preservation and long-term management within the constructed basin at a minimum 1:1 ratio in order for impacts to achieve no net loss of jurisdictional resources, as determined by a qualified restoration specialist in consultation with the regulatory agencies. The lake/emergent wetland is anticipated to be between 3.5 and 4 acres in size. If there are any residual impacts to streambeds and riparian habitat that cannot be mitigated on-site, these impacts shall be mitigated off-site at a minimum ratio of 1.5:1 at the City's El Dorado Ranch Park, Oak Glen Creek Flood Corridor Area, or other off-site location approved by the CDFW (e.g., mitigation banks or in lieu fee programs).

Specific mitigation and the specific location of mitigation lands shall be determined in consultation with the appropriate regulatory agencies in accordance with the requirements of the federal CWA, federal wetland policies, and California Fish and Game Code.

3-7 **Habitat Mitigation Monitoring Plan.** The City shall prepare a Habitat Mitigation Monitoring Plan (HMMP) for regulatory agencies review and concurrence. Impacts to U.S. Army Corps of Engineers (Corps) and California Department of Fish and Wildlife (CDFW) resources shall be mitigated on-site or within the same watershed, if feasible. The goal of the HMMP will be to re-create the functions and values of the habitat being affected. These mitigation requirements will be outlined in the HMMP prepared for this project, with monitoring requirements and specific criteria to measure the success of the restoration. Guidelines for the HMMP shall include but not be limited to:

- The mitigation site(s) shall have been evaluated and selected on the basis of their suitability for use as riparian mitigation areas.
- The mitigation shall provide procedures to prepare soils in the mitigation area, provide detailed seeding/planting mixtures, provide seeding/planting methods, appropriate irrigation and other procedures that will be used for successful revegetation.
- Impacts to jurisdictional waters and wetlands shall be avoided to the extent feasible in the design phase of the project.
- Specific mitigation ratios and performance criteria shall be stated in the HMMP.
- Maintenance and monitoring requirements shall be established, including quarterly and annual monitoring reports to the Corps and CDFW.

The content of the HMMP will address the responsibilities and qualifications of the personnel to implement and supervise the plan; incorporate pertinent site selection criteria; provide for the site preparation and planting implementation program; provide a schedule for implementation, maintenance, and monitoring; detail maintenance plan and guidelines; detail the monitoring plan; and address long term preservation.

3-8 **Urban Runoff**. To reduce the potential for the indirect impacts from urban runoff, the project applicant shall implement the best management practices required by the National Pollutant Discharge Elimination System, administered by the Regional Water Quality Control Board.

3-9 **Storm Water Pollution Prevention Plan**. The City shall ensure that 1) the work limits are staked, fenced, and/or marked, with materials clearly visible to construction personnel to prevent encroachment upon sensitive vegetation communities; 2) no construction access, parking, or storage of equipment or materials will be permitted outside of these marked areas; 3) access roads and work areas shall be periodically sprayed with water to reduce the potential for dust accumulation on the leaves of adjacent sensitive vegetation communities not proposed for impacts; and 4) erosion and sediment control BMPs (i.e., silt fences, straw wattles, sand bags, etc.) should be implemented and installed during the proposed project to comply with all measures proposed in the Storm Water Pollution Prevention Plan.

Impact 5.3-4

3-10 **Wildlife Corridor Design and Urban Wildlands Interface Guidelines.** The following mitigation measures will be incorporated into final project designs to ensure the maintenance of habitat connectivity and reduce indirect impacts to wildlife movement associated with the proposed project:

- Wildlife movement routes through the project within both Wilson and Oak Glen Creeks will be maintained.
- No features will be used that would impede movement through the site by amphibians, reptiles, and small/large mammals.
- Realigned drainage features will have earthen bottoms, to the greatest extent feasible.
- Stormwater treatment systems will be designed to prevent the release of toxins, chemicals, petroleum products, exotic plant material, or other elements that could degrade or harm downstream biological or aquatic resources.
- Night lighting associated with the proposed development that is adjacent to the realigned movement routes would be directed away to reduce potential indirect impacts to wildlife species.

- The landscape plans for the development shall avoid the use of invasive species for the portions of the development areas adjacent to the movement routes.
- Onsite culvert design will be consistent with existing structures at the confluence of Wilson Creek/Oak Glen Road and Oak Glen Creek/Bryant Street.

3-11 **Lighting Plan.** Lighting plans shall ensure that 1) direct lighting is shielded from residential areas and other light sensitive receptors; 2) direct lighting is shielded to the specific location intended for illumination (e.g., roads, walkways, or recreation fields); 3) non-essential lighting and stray light spillover is minimized; 4) low intensity lamps are used except when high intensity illumination is required, such as for a recreational field; and 5) night lighting shall not be used during the course of construction unless determined to be absolutely necessary. If night lighting is necessary, the lights shall be shielded to minimize temporary lighting of neighboring properties and realigned wildlife movement routes through the project site.

5.3.8 Level of Significance After Mitigation

Impact 5.3-1

Implementation of existing regulations and Mitigation Measures 3-1 through 3-4 would reduce impacts to sensitive species to less than significant levels. Although burrowing owl was not detected onsite during focused survey efforts, Mitigation Measure 3-1 requires a 14-day burrowing owl take avoidance survey to ensure protection for this species and compliance with the conservation goals as outlined by the CDFW. The survey shall be conducted in compliance with CDFW guidelines, and a report of the findings prepared by a qualified biologist shall be submitted to CDFW and the City of Yucaipa prior to initiation of ground disturbing activities. A sensitive plant species mitigation plan would help offset impacts to approximately 0.70-acre of Parry's spineflower plants. Compliance with the MBTA would require implementation of nesting bird surveys and construction outside of the breeding season. And noise reduction measures would further reduce impacts to nesting birds. Overall, impacts to sensitive species would be less than significant upon implementation of these mitigation measures.

Impact 5.3-2

Implementation of the required sensitive habitat mitigation plan would offset impacts to approximately 90 acres of sensitive vegetation onsite (alluvial fan sage scrub, southern cottonwood riparian woodland, and southern sycamore riparian woodland) and reduce impacts to less than significant levels.

Impact 5.3-3

Per Mitigation Measure 3-6, implementation of habitat creation, restoration, enhancement, and/or preservation and long-term management within the proposed basin, El Dorado Ranch Park, Oak Glen Creek Flood Corridor Area, or other off-site location approved by the CDFW (e.g., mitigation banks or in lieu fee programs) would reduce impacts to jurisdictional resources to less than significant levels. Mitigation Measure 3-7 requires the City to prepare a habitat mitigation monitoring plan, and Mitigation Measures 3-8 and 3-9

require implementation of a project-specific stormwater pollution prevention plan and associated BMPs. Overall, implementation of these required mitigation measures would reduce impacts to less than significant levels.

Impact 5.3-4

To minimize impacts to wildlife movement, project designs detailed in Mitigation Measure 3-10 would ensure maintenance of habitat connectivity by maintaining existing wildlife movement routes through the site, requiring earthen bottoms in the realigned creeks, installing stormwater treatment systems, etc. Additionally, Mitigation Measure 3-11 requires implementation of a lighting plan that shields lighting from residential areas and other sensitive uses and minimizes nonessential lighting and stray light spillover. Compliance with existing regulations and mitigation measures would reduce impacts to wildlife corridors to less than significant levels.

5.3.9 References

California Department of Fish and Wildlife (CDFW). 2010, September. List of Vegetation Alliances and Associations. Vegetation Classification and Mapping Program, Sacramento, CA.

Holland, Robert F. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. http://www.calwater.ca.gov/Admin_Record/C-054330.pdf.

Ruth Villalobos & Associates (RVA). 2016, October 28. Biological Resources Impact Analysis Report, Oak Glen Creek Specific Plan in the City of Yucaipa, San Bernardino County, California. (Appendix C of this DEIR.)

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5.4 CULTURAL RESOURCES

Cultural resources include places, object, and settlements that reflect group or individual religious, archaeological, and architectural activities. Paleontological resources, such as fossilized geological, plants, or animal artifacts, are also included in this section. Archaeological resources provide information on scientific progress, environmental adaptations, group ideology, or other human advancements. Paleontological resources provide information on the historic characteristics of the natural environment. This section of the Draft Environmental Impact Report (DEIR) evaluates the potential for implementation of the Oak Glen Creek Specific Plan (proposed project) to impact cultural resources in the City of Yucaipa. Potential impacts to tribal cultural resources are evaluated in Section 5.15, *Tribal Cultural Resources*.

The analysis in this section is based, in part, upon the following information:

- *Cultural Resources Assessment for the Wilson Creek Business Park Project, City of Yucaipa, San Bernardino County, California*, Cogstone, August 2011.
- *Cultural Resources Assessment Wilson III Project Additional Drainage Area, Yucaipa, San Bernardino County, California,* BCR Consulting LLC, November 7, 2014.
- *Cultural Resources Assessment Wilson III Project, Yucaipa, San Bernardino County, California,* BCR Consulting LLC, January 31, 2015.

Complete copies of these studies are included in the Technical Appendices to this Draft EIR (Volume II, Appendices D1 through D3).

5.4.1 Environmental Setting

5.4.1.1 REGULATORY BACKGROUND

Federal

National Historic Preservation Act

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

Section 106 (Protection of Historic Properties) of the National Historic Preservation Act of 1966 requires federal agencies to take into account the effects of their undertakings on historic properties. Section 106 Review refers to the federal review process designed to ensure that historic properties are considered during federal project planning and implementation. The Advisory Council on Historic Preservation, an independent federal agency, administers the review process, with assistance from State Historic Preservation Offices.

Archaeological Resources Protection Act

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

Native American Graves Protection and Repatriation Act

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

State

California Public Resources Code

Archaeological, paleontological, and historical sites are protected pursuant to a wide variety of state policies and regulations enumerated under the California Public Resources Code. In addition, cultural and paleontological resources are recognized as a nonrenewable resource and therefore receive protection under the California Public Resources Code and CEQA.

- **California Public Resources Code 5020–5029.5** continued the former Historical Landmarks Advisory Committee as the State Historical Resources Commission. The commission oversees the administration of the California Register of Historical Resources and is responsible for the designation of State Historical Landmarks and Historical Points of Interest.

- **California Public Resources Code 5079–5079.65** defines the functions and duties of the Office of Historic Preservation, which is responsible for the administration of federal- and state-mandated historic preservation programs in California and the California Heritage Fund.

- **California Public Resources Code 5097.9–5097.991** provides protection to Native American historical and cultural resources, and sacred sites and identifies the powers and duties of the Native American Heritage Commission. It also requires notification of discoveries of Native American human remains to descendants and provides for treatment and disposition of human remains and associated grave goods.

California Health and Safety Code

The discovery of human remains is regulated per California Health and Safety Code Section 7050.5, which states that:

> In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation…until the coroner…has determined…that the remains are not subject to…provisions of law concerning investigation of the circumstances, manner and cause of any death, and the

> recommendations concerning the treatment and disposition of the human remains have been made to the person responsible…. The coroner shall make his or her determination within two working days from the time the person responsible for the excavation, or his or her authorized representative, notifies the coroner of the discovery or recognition of the human remains. If the coroner determines that the remains are not subject to his or her authority and…has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission.

5.4.1.2 EXISTING CONDITIONS

Study Methodology

The 115.6-acre project site was analyzed in three separate cultural resources assessments prepared by Cogstone in August 2011, and BCR Consulting LLC in November 2014 and January 2015. The three cultural studies in combination analyze the complete project site. The study methodology for each of the three cultural resources assessments is detailed below.

2011 Cogstone Assessment

The cultural resources assessment prepared by Cogstone in August 2011 analyzed cultural resources and project impacts on approximately 84 acres of the 115.76-acre project site. A search for paleontological records was completed at the San Bernardino County Museum, with the Los Angeles County Museum Department of Invertebrate Paleontology, PaleoBiological Database, University of California Museum of Paleontology, and in published materials.

In addition, a records search for archeological and historic records was completed at the San Bernardino Archaeological Information Center (SBAIC) in the San Bernardino County Museum on April 6, 2011. The Historic Significance Bridge Inventory and Bureau of Land Management General Land Office Records were also consulted. Historic aerials of the project site were inspected as well.

In addition to record searches, Cogstone conducted a field survey of the proposed project area on April 13, 2011. The pedestrian survey consisted of archaeologists walking in transects spaced at approximately 15- to 30-meter intervals over the project area while closely inspecting the ground surface. The creek channels were surveyed first, from east to west, then transects were walked in the southern and northern portions of the project area, with greater visibility. The ground visibility in the project area was poor due to heavy vegetation and water running through Oak Glen and Wilson Creeks, which converge in the approximate center of the project area. Much of the western portion to the north and south of Wilson Creek is densely covered with thick vegetation, such as oak, yucca, bushes, grasses, and cacti. Some areas had zero visibility and were impassable. Areas that were accessible ranged from 5 to 30 percent visibility. The average ground visibility was 15 percent.

2014 and 2015 BCR Assessments

BCR Consulting prepared a cultural resources assessment of an approximately 11-acre drainage area west of 2nd Street in November 2014 and another cultural resources assessment of an approximately 20.7-acre area,

including the City's maintenance yard, in January 2015. An archaeological records search was conducted at the SBAIC on November 4, 2014, prior to fieldwork. This included a review of all recorded historic and prehistoric cultural resources, known cultural resources, and survey and excavation reports generated from projects within one mile of the area of potential effect. In addition, a review was conducted of the NRHP; the California Register of Historical Resources (CRHR); and documents and inventories from the California Office of Historic Preservation, including the lists of California Historical Landmarks, California Points of Historical Interest, Listing of National Register Properties, and the Inventory of Historic Structures.

Archaeological pedestrian field surveys of the two areas were conducted on November 4 and 5, 2014. The surveys were conducted by walking parallel transects spaced approximately 15 meters apart across 100 percent of the accessible area of potential effect. Soil exposures, including natural and artificial clearings, were carefully inspected for evidence of cultural resources.

Natural Setting

The project area is approximately 2,600 feet above mean sea level in the Yucaipa Valley in the southern foothills and alluvial deposits of the San Bernardino Mountains, within the Transverse Ranges Geomorphic Province. The Transverse Range Province is an east-west-trending series of steep mountain ranges and valleys, oblique to the normal northwest trend of coastal California. The site occupies alluvial deposits of the San Bernardino Mountains, which are over 11,000 feet above mean sea level and are composed of Jurassic and Cretaceous granitic rocks, which have intruded and metamorphosed older rocks. Sediments observed on the project site include coarse to fine silty sand, granitic and quartz cobbles, and poorly sorted gravels.

This region is one of the most tectonically active in North America. To the northwest of the project site, the San Andreas Fault travels up Cajon Pass, where it is the boundary between the Pacific Plate and the North American Plate. The Transverse Ranges Geomorphic Province is the result of these two plates grinding past each other and catching along the bend in the San Andreas. Intense north-south compression is squeezing the Transverse Ranges, and as a result this is one of the most rapidly rising regions of the earth.

Cultural Setting

Prehistoric Setting

The project area is defined for having traits of time phases of the Greven Knoll pattern of the Encinitas Tradition. This pattern is subsequently replaced in the project area by the Peninsular pattern of the Palomar Tradition later in time.

Greven Knoll sites tend to be in valleys such as the project area. Inland people of the Greven Knoll pattern used a toolkit dominated by manos and metates throughout the Greven Knoll 7,500-year extent. In the Greven Knoll Phase I, typical characteristics were pinto dart points for atlatls or spears, charmstones, and cogged stones; absence of shell artifacts; and flexed position burials. In Phase II, Elko dart points for atlatls or spears and core tools are observed along with increased indications of gathering. In Phase III, stone tools, including scraper planes, choppers, and hammerstones, are added to the tool kit; yucca and seeds are staple

foods; animals bones are heavily processed (broken and crushed to extract marrow); and burials have cairns above.

Early Peninsular sites tend to be near sources of fresh water in valleys, some of which are now deserts. The former Lake Cahuilla played a major role in the prehistory of the Colorado Desert. This lake formed periodically when the Colorado River broke its channel and flowed into the Salton Basin (Coachella and Imperial valleys), forming a large, deep body of fresh water. The filling of Lake Cahuilla around 1,070 years ago created a rich freshwater resource that likely attracted people from a number of areas.

Ethnographic Setting

Ethnographically the project area appears to have been inhabited by the Mountain Serrano even though it is within the boundaries of traditional Cahuilla territory. Archaeological research in the area indicates that natives identified Yucaipa as being occupied by the Mountain Serrano. Cahuilla territory lies within the geographic center of Southern California and the Cocopa-Maricopa Trail, a major prehistoric trade route that linked the Colorado Desert with the Pacific Coast. Given the territory's close proximity to the Cocopa-Maricopa Trail, interactions with surrounding tribes were extensive.

Despite early contact with European and Spanish explorers, the Cahuilla culture and population remained relatively intact until 1891, when the federal government took an active role in supervising the reservations that were established in 1877. The Cahuilla maintained their autonomy to such a relatively late period due largely to the neighboring tribes blocking land routes to explorers as early as 1774. In addition, once the settlers did infiltrate Cahuilla territory, they used the land primarily for cattle grazing, a practice that was relatively noninvasive compared to the establishment of missions.

Historic Setting

In historic times, the San Bernardino Valley was first visited by Pedro Fages, explorer and Spanish Military Commander of California, in 1772, and by Father Francisco Garces, a missionary priest, in 1774. The original Estancia ranch outpost of the Mission San Gabriel was built in 1819 in what is now Redlands as an outpost for cattle grazing activities. After secularization of the Mission in 1834, the local mission lands were granted to Antonio Maria Lugo in 1841 as the Rancho San Bernardino. The Rancho, a total of 37,700 acres encompassing the entire San Bernardino Valley, was granted to raise stock and establish a colony. Shortly thereafter, the valley boasted 4,000 head of cattle, and Lugo relatives were settled throughout the area. In 1842, the Yucaipa Adobe was built; this is the oldest dwelling in the county and became a county park in 1955.

The earthquake of 1875 changed the flow of Yucaipa Creek, allowing new areas to be opened for development. Cattle, horses, and hogs were ranched; grains farmed; and dairies constructed. In addition, a train station in nearby Crafton began carrying agricultural products to markets. Late in the nineteenth century, early flumes became more sophisticated irrigation systems and began to provide service for the orchard and fruit industries. Around the same period, land developers purchased many ranches and designed subdivisions. Streets, homes, churches, and business began to populate Yucaipa. The areas east of town were planted with cherries and apples. The apples were replaced by peach, plum, and walnut groves by the 1930s. The rural way

of life continued until after 1945 when tracts of homes began to appear. Poultry and rabbit ranching were added as new industries, and a downtown business district appeared.

The last half of the twentieth century brought increasing urbanization to Yucaipa. This included a hospital and expanded fire service, roads, and parks. Ranches and orchards were redeveloped as housing tracts, and more schools were built. Residential development increased after Crafton Hills College opened, a bridge was built at Interstate 10, and a new sewer plant was constructed. Yucaipa incorporated as a city in 1989.

Record Search Results

The record search results determined that 40 previous cultural resource studies have been completed within a one-mile radius of the project area; however, there were no previously recorded resources within the project boundaries. Within a one-mile radius of the project area, 23 resources are known, including a California Point of Historical Interest (see Table 5.4-1). The nearest cultural resource was a prehistoric pottery scatter, reported (though not recorded by archaeologists) approximately 100 meters to the south of the project's southern portion.

Table 5.4-1 Archaeological and Historical Resources within One Mile of Project Site

Primary ID	Brief Description	Date Recorded	Distance
36-000911*	Prehistoric food processing site	1971	Within 1/4 mile
36-001001*	Prehistoric metates and manos	1976	Within 1/2 mile
36-005475*	Prehistoric food processing site	1975	Within 1/2 mile
36-010322*	Historical foundation and stand pipe	2001	Within 1/4 mile
36-010605	Historical water reservoir and ditch	2000	Within 1 mile
36-013969	Historic Chapman Ranch Adobe	1983	Within 1 mile
36-014468*	Historical refuse	2008	Within 1 mile
36-014993*	Prehistoric obsidian flake	2008	Within 1/2 mile
36-018748*	Historic Yucaipa Woman's Clubhouse[1]	1992	Within 1/2 mile
36-023097*	Historic commercial center	2011	Within 1 mile
36-023366	NA	NA	Within 1 mile
36-023367	NA	NA	Within 1 mile
36-023368	NA	NA	Within 1 mile
36-023369	NA	NA	Within 1 mile
36-024031	NA	NA	Within 1 mile
36-060204	Prehistoric metate isolate	1976	Within 1 mile
1064-35H	NA	NA	Within 1 mile
1064-36H	NA	NA	Within 1 mile
1064-42	NA	NA	Within 1 mile
1064-43	NA	NA	Within 1 mile
1064-44	NA	NA	Within 1 mile
1064-45	NA	NA	Within 1 mile
1064-49H	NA	NA	Within 1 mile

Source: Cogstone 2011;, BCR Consulting 2014 and 2015.
Notes: BCR Consulting did not provide a brief description or date of recordation of the cultural resources; therefore, NA is listed.
* Identified by both Cogstone and BCR Consulting in separate record searches.
[1] California Point of Historical Interest

A search for paleontological records at the San Bernardino County Museum yielded no known fossils in the Yucaipa Valley. In addition, the Historic Significant Bridge Inventory identified no significant bridge structures in the project area. Historical aerials from 1938, 1959, 1968, and 1982 showed no development on the project area until 1968, when the two residences currently located on 2nd Street appear (see "Additional Research" below).

Field Survey Results

Based on the field survey conducted by Cogstone, four historic-era archaeological sites were observed and recorded, and are detailed below. No prehistoric or paleontological resources were observed during the cultural resources survey, and no resources were collected.

Trash Scatter (P-36-023366)

A small historical trash scatter was recorded. This scatter consists of approximately nine hole-in-top cans in poor condition (post-1900); a partial cobalt Phillips' Milk of Magnesia bottle; a white milk-glass jar fragment with a Hazel-Atlas maker's mark (1923-1964); a concrete pipe fragment; and ceramic dish fragments. The site, located in the eastern portion of the project area, measures 44 feet by 18 feet and did not appear to be disturbed. This site is not slated to be impacted by the project. If plans change, however, it is recommended that field testing of two shovel test pits be conducted to determine whether this site has intact subsurface components. A formal site record was filed at the SBAIC.

Glass Scatter (P-36-023367)

A site consisting of mostly small glass fragments and several ceramic fragments on a dirt road was recorded. The dirt road runs parallel to Bryant Street and then heads west to follow the entire south edge of the project area. The ceramics are dish fragments; glass observed consists of a clear bottle top with a crown finish (post-1912); aqua fragments (1800-1920s); cobalt fragments (1890-1960) and sun-colored amethyst fragments (1885-1920). The site, located in the northeast portion of the project area, has been destroyed by grading, scattering the artifacts across an area of 70 by 80 feet. Cogstone considered this site as ineligible for listing on the CRHR since the disturbed scatter has no integrity and no potential to yield additional information; however, a formal site record was filed at the SBAIC.

Rock and Dirt Berm (P-36-023369)

This historical diversion canal or berm lined with rock was observed running in a north-south direction in the southeast portion of the project area. It is likely related to Oak Glen Creek but could not be followed due to dense vegetation. The majority of the observed length of berm is four feet high, although some areas are as low as two feet. The width of the berm is approximately two feet, and the length of the observable portion is 290 feet. An additional small section of berm was observed to the east of equal height and width as the longer berm. It is approximately 58 feet in length. Cogstone considered this site ineligible for listing on the CRHR since the berm has no potential to yield additional information; however, a formal site record was filed at the SBAIC.

Rock and Concrete Wall (P-36-023368)

A historical rock and concrete retention dam was located along a segment of Oak Glen Creek. The dam was constructed in two levels—the base level is one foot above the creek water level, and the top is three feet above the creek water level. The width of each level is approximately two feet wide, and the dam length is ten feet. The wall consists of large cobbles of the same size as those found in the creek. Cogstone considered this site ineligible for listing on the CRHR since the wall has no potential to yield additional information; however, a formal site record was filed at the SBAIC.

Additional Research

Additional research was performed for the project area to provide a brief context for two historic-period residences—one on the project site (11568 2nd Street) and one just south of the project's southern boundary (11648 2nd Street). DPR 523 Forms were completed as part of the survey.

- **11568 2nd Street.** The two structures on this property were built between 1959 and 1968, according to historical aerial photographs. Research revealed little information about its historical owners or residents, and the property may have originally been part of the 11648 2nd Street lot.

  The two structures on the property are north of Wilson Creek on a dirt extension of 2nd Street and surrounded by an undeveloped area. The one-story front building is nearly square in plan. Its hipped composition-shingle roof features wide eaves and exposed rafter tails. The building's primary (east) elevation faces the narrow dirt road. The north elevation features a large rubble masonry chimney. The primary entrance is not visible, and the rear (west) elevation has a sliding glass door. Windows are aluminum sliders. The building is clad in stucco. The gabled rear building is slightly to the southeast of the front building. Its primary entrance is on the west elevation, sheltered by a full-width shed porch. Windows are aluminum sliders, and cladding is stucco. The structures have been heavily altered, lack distinction, and are ineligible for historic listing based on their architecture.

- **11648 2nd Street.** Historical aerial photographs indicate that the house at 11648 2nd Street in Yucaipa was constructed between 1959 and 1968. Emmett Merle Smith, who was an engineer at Norton Air Force base, appears to have been its first owner. In the late 1930s, the only house in the neighborhood was on the west side of 2nd Street, just to the south of the current 11648 2nd Street. Smith appears to have lived in this house until about 1954. Yucaipa began growing exponentially after World War II, and Smith subdivided what had been an agricultural property into 18 lots in 1955. By 1959, houses had been constructed on most of the lots, which were west of 2nd Street and north of Date Avenue. Smith constructed his own house (11648 2nd Street) circa 1960.

  The one-story house is on a narrow extension of 2nd Street adjacent to Wilson Creek and surrounded by an undeveloped area. It is irregular in plan and topped by a low-pitch, cross-gabled roof with composition shingles. Its primary entrance is on the west elevation, in a projecting gabled entry porch reached via a set of concrete steps. The main façade features a large chimney near its northern end, and the north elevation has a bay window. A multiple-bay carport is attached to its south elevation. Windows are aluminum sliders, and the house is clad in stucco. A garage with a moderate-pitch, gabled roof is just

to the west of the house. It appears to date from the same period as the house. It has a flat-roofed, full-width porch on its north elevation and a carport on the south.

An entryway is on the east elevation, and a steel casement window is centered on the west. The house appears to have been heavily altered since its original construction, with projecting additions on the north and south and spray stucco covering original siding and chimney. The building has lost any historic character it may have had and is not eligible for historic listing based on its architecture. The garage lacks distinction and is also ineligible for historic listing based on its architecture.

5.4.2 Thresholds of Significance

CEQA Guidelines Section 15064.5 provides direction on determining significance of impacts to archaeological and historical resources. Generally, a resource shall be considered "historically significant" if it meets the criteria for listing on the California Register of Historical Resources:

- Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- Is associated the with 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. (PRC § 5024.1; 14 CCR § 4852)

The fact that a resource is not listed in the CRHR, not determined to be eligible for listing, or not included in a local register of historical resources does not preclude a lead agency from determining that it may be a historical resource.

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

C-1 Cause a substantial adverse change in the significance of an historical resource pursuant to Section 15064.5.

C-2 Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.

C-3 Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

C-4 Disturb any human remains, including those interred outside of dedicated cemeteries.

5.4.3 Environmental Impacts

The following impact analysis addresses thresholds of significance that may have potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

Impact 5.4-1: Development of the project site could impact undisturbed historical resources. [Threshold C-1]

Impact Analysis: The field surveys yielded four cultural resources on the project site, including a historical trash scatter, a historical glass scatter, a historical rock and dirt berm, and a historical rock and concrete wall. As stated above, all four of the historical resources found during the field survey were considered ineligible for listing on the CRHR, with the exception of the trash scatter (P-36-023366). There is potential for intact subsurface components to be found near the trash scatter during grading and excavation activities. Therefore, further archaeological testing, including shovel test pits, would be required to determine eligibility of the trash scatter if the project area is changed.

As stated above, the two historic-period residences at 11568 and 11648 2nd Street were determined to have been heavily altered, lack distinction, and are ineligible for historic listing. More specifically, there is no evidence to suggest that the two residences are associated with events that have made a significant contribution to the broad patterns of American history (NRHP/CRHR Criterion 1). Research also failed to show that the houses are specifically associated with the lives of persons important to our past or that persons of significant regional or national stature can be linked to them (NRHP/CRHR Criterion 2). The residences are not indicative of the distinctive characteristics of a type, period, region, or method of construction, and do not represent the work of a master, possess high artistic values, or represent a significant or distinguishable entity whose components may lack individual distinction (NRHP/CRHR Criterion 3). The houses have no potential to yield information beyond that which has already been recorded (NRHP/CRHR Criterion 4).

The residences do retain a measure of integrity of setting and location, but severe alterations have compromised any integrity of design, materials, workmanship, feeling, and association they may have once had. Because of failure to meet any of the four criteria above combined with diminished integrity, the residences at 11568 and 11648 2nd Street are not eligible for the NRHP or CRHR, and as such are not recommended historic properties under Section 106 of the National Historic Preservation Act, or historical resources under CEQA.

The remaining portion of the project site to be developed has areas that could not be effectively surveyed due to dense vegetation cover. Therefore, development of the project site could impact undisturbed historical resources and impacts would be potentially significant.

Impact 5.4-2: Development of the project site could impact archaeological resources. [Threshold C-2]

Impact Analysis: No prehistoric sites are known within the project site. However, given the presence of two nearby, ephemeral water sources (Oak Glen and Wilson Creeks) and the prehistory of the area, there is a

possibility that the project area may contain significant subsurface archaeological resources. As detailed in Impact 5.4-1 above, four historic resources and two historic-period residences were observed and formally recorded in the project area. The project area is also considered to have moderate sensitivity for additional historical archaeological resources. Therefore, there remains a possibility that the development of the project site through grading and excavation activities could impact previously undisturbed archaeological resources. Thus, impacts to archaeological resources are potentially significant.

Impact 5.4-3: Development in accordance with the Oak Glen Creek Specific Plan would not adversely affect paleontological resources or a unique geologic feature. [Threshold C-3]

Impact Analysis: A paleontological records search was completed with the San Bernardino County Museum, Los Angeles County Museum Department of Invertebrate Paleontology, PaleoBiological Database, University of California Museum of Paleontology, and in published materials. The records searches yielded no known paleontological resources on the project site and no fossils in the Yucaipa Valley. The chance of fossils being preserved greatly increases once the average size of the sediment particles are less than 5 millimeters across. Based on the field survey, the sediments in the Quaternary alluvium and Quaternary older alluvium both range from less than 1 millimeter across to greater than 25 centimeters across. The large clast size limits the chance of fossils being preserved.

Fossil preservation also greatly increases with the presence of water or rapid burial. Remains left on the ground surface are quickly weathered from the sun and destroyed, usually within 20 years or less depending on the environment. So the sands, silts, and clays of rivers, lakes, and oceans are most likely to contain fossils. The sediments of the project area consist of the axial deposits of a river channel as well as alluvial fans. Although the river sediments, presence of water, and rapid burial are conducive to fossil preservation, the sediment particles on the site are likely too coarse to the preserve significant fossils. Sediments in the project area are not likely to produce significant vertebrate fossils based on the field survey, record search, and recommendation of the San Bernardino County Museum, and impacts would be less than significant.

Impact 5.4-4: Grading activities could potentially disturb human remains outside of formal cemeteries, if present, but compliance with existing regulations would ensure that impacts are less than significant. [Threshold C-4]

Impact Analysis: The cultural resources assessments did not identify any human remains or known human burial sites on the project site or in its vicinity. However, the project site is mostly undisturbed, and due to the existence of historic and prehistoric resources in the surrounding area and four identified historic resources on the project site, there is potential for human remains to be found during project site excavation and grading activities.

California Health and Safety Code Section 7050.5, CEQA Section 15064.5, and Public Resources Code Section 5097.98 mandate the process to be followed in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery. Specifically, California Health and Safety Code Section 7050.5 requires that in the event that human remains are discovered within the project site, disturbance of the site shall remain halted until the coroner has conducted an investigation into the circumstances, manner and

cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code. If the coroner determines that the remains are not subject to his or her authority and if the coroner has reason to believe the human remains to be those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission. Compliance with existing law would ensure that impacts to human remains would remain less than significant.

5.4.4 Cumulative Impacts

Cumulative impacts to cultural resources would occur when the impacts of the proposed project, in conjunction with other projects and development in the region, result in compounded impacts to cultural resources in the area. With the exception of the historical trash scatter (P-36-023366), there are no potentially significant archaeological, paleontological, or historic resources on the project site.

Each future project considered for approval by the City of Yucaipa would be required to have that project's impacts to site-specific cultural resources evaluated as part of CEQA review for the project. Where significant impacts to cultural resources are identified, projects would be required to either avoid impacts or implement feasible mitigation measures to reduce impacts. Projects that would involve substantial amounts of ground disturbance could also damage archaeological and/or paleontological resources that may be buried in soils. Mitigation measures for reducing cultural resources impacts of such projects would include monitoring by qualified archaeologists and paleontologists and recovery, identification, and curation of any potentially significant resources discovered. Consequently, impacts to cultural resources would not be cumulatively considerable.

5.4.5 Existing Regulations

Federal

- National Historic Preservation Act
- Archaeological Resources Protection Act
- Native American Graves Protection and Repatriation Act

State

- California Public Resources Code Sections 5020–5029.5, 5097.9–5097.991, and 5079–5079.65
- California Health and Safety Code Section 7050.5
- California Senate Bill 18
- Assembly Bill 52

5.4.6 Level of Significance Before Mitigation

Without mitigation, the following impacts would be **potentially significant**:

- **Impact 5.4-1** Historical resources would potentially be impacted by development on the project site.
- **Impact 5.4-2** Archaeological resources would potentially be disturbed during site grading on the project site.

5.4.7 Mitigation Measures

Impact 5.4-1

4-1 Prior to the issuance of grading permits, and for any subsequent permit involving excavation to increased depth, the future developer of the project site shall provide letters to the City of Yucaipa from a qualified archaeologist and paleontologist who meet the Secretary of the Interior's Professional Qualifications Standards. The letters shall state that the developer has retained these individuals, and that the consultant(s) will be on call during all grading and other significant ground-disturbing activities. In the event archaeological or paleontological resources are discovered during ground-disturbing activities, a professional archeological or paleontological monitor shall have the authority to halt any activities adversely impacting potentially significant cultural resources until they can be formally evaluated. Suspension of ground disturbances in the vicinity of the discoveries shall not be lifted until the archaeological or paleontological monitor has evaluated discoveries to assess whether they are classified as significant cultural resources, pursuant to the California Environmental Quality Act (CEQA). If archaeological or paleontological resources are recovered, they shall be offered to a repository with a retrievable collection system and an educational and research interest in the materials, such as the San Bernardino County Museum or the University of California, Riverside, or any other local museum or repository willing to and capable of accepting and housing the resource. If no museum or repository willing to accept the resource is found, the resource shall be considered the property of the City and may be stored, disposed of, transferred, exchanged, or otherwise handled by the City at its discretion.

If significant Native American cultural resources are discovered, for which a Treatment Plan must be prepared, the developer or the archaeologist on call shall contact the applicable Native American tribal contact(s). If requested by the Native American tribe(s), the developer or archaeologist on call shall, in good faith, consult on the discovery and its disposition (e.g., avoidance, preservation, return of artifacts to tribe, etc.).

Impact 5.4-2

Mitigation Measure 4-1 above would also be applicable to Impact 5.4-2.

5.4.8 Level of Significance After Mitigation

Impact 5.4-1

Mitigation Measure 4-1 would reduce potential impacts associated with historical resources to a level that is less than significant, and no significant unavoidable adverse impacts would occur.

Impact 5.4-2

Similar to Impact 5.4-2, implementation of Mitigation Measure 4-1 would reduce potential impacts to archaeological resources to less than significant levels, and no significant unavoidable adverse impacts would occur.

5.4.9 References

BCR Consulting LLC. 2014, November 7. Cultural Resources Assessment Wilson III Project Additional Drainage Area, Yucaipa, San Bernardino County.

———. 2015, January 31. Cultural Resources Assessment Wilson III Project, Yucaipa, San Bernardino County, California.

Cogstone. 2011, August. Cultural Resources Assessment for the Wilson Creek Business Park Project, City of Yucaipa, San Bernardino County, California.

5.5 GEOLOGY AND SOILS

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential for implementation of the Oak Glen Creek Specific Plan to impact geological and soil resources in the City of Yucaipa. The analysis in this section is based in part on the following technical report(s):

- *Geotechnical/Geologic Constraints Study, Wilson Creek Specific Plan, South of Oak Glen Road between 2nd and Bryant Street, City of Yucaipa, San Bernardino County, California,* Petra Geotechnical, Inc., July 5, 2011.
- *Initial Fault Investigation for the Proposed Wilson Creek Business Park Specific Plan, Yucaipa, California*, LOR Geotechnical Group, Inc., September 25, 2013.
- *Preliminary Geotechnical Investigation Proposed Residential and Commercial Sites, City of Yucaipa, San Bernardino County, California*, LOR Geotechnical Group, Inc., July 1, 2016.

Complete copies of these studies are included in the appendices to this Draft EIR (Volume II, Appendices E1 through E3).

5.5.1 Environmental Setting

5.5.1.1 REGULATORY BACKGROUND

State

California Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act was signed into state law in 1972 to mitigate the hazard of fault rupture by prohibiting the location of structures for human occupancy across an active fault. The act requires the state geologist to delineate earthquake fault zones along faults that are "sufficiently active" and "well defined." The act requires that cities and counties withhold development permits for sites in an earthquake fault zone until geologic investigations demonstrate that the sites are not threatened by surface displacements from future faulting. Pursuant to this act, structures for human occupancy are not allowed within 50 feet of the trace of an active fault.

Seismic Hazard Mapping Act

The Seismic Hazard Mapping Act was adopted by the state in 1990 to protect the public from the effects of earthquake hazards apart from surface fault rupture, including strong ground shaking, liquefaction, seismically induced landslides, or other ground failure. The goal of the act is to minimize loss of life and property by identifying and mitigating seismic hazards. The California Geological Survey prepares and provides local governments with seismic hazard zone maps that identify areas susceptible to amplified shaking, liquefaction, earthquake-induced landslides, and other ground failures. The seismic hazard zones delineated by the California Geological Survey are called "zones of required investigation" because site-specific geological investigations are required for construction projects in these areas.

2013 California Building Code

Current law states that every local agency enforcing building regulations, such as cities and counties, must adopt the provisions of the California Building Code (CBC) within 180 days of its publication. The publication date of the CBC is established by the California Building Standards Commission, and the code is updated every three years. It is in Title 24, Part 2, of the California Code of Regulations. The most recent building standard adopted by the legislature and used throughout the state is the 2013 CBC; local jurisdictions may add amendments based on local geographic, topographic, or climatic conditions. These codes provide minimum standards to protect property and people by regulating the design and construction of excavations, foundations, building frames, retaining walls, and other building elements to mitigate the effects of seismic shaking and adverse soil conditions. The CBC's provisions for earthquake safety are based on factors such as occupancy type, the types of soil and rock onsite, and the strength of ground.

Natural Hazards Disclosure Act

The Natural Hazards Disclosure Act requires that sellers of real property and their agents provide prospective buyers with a Natural Hazard Disclosure Statement when the property lies within one or more state-mapped hazard areas, including a Seismic Hazard Zone.

Local

City of Yucaipa Municipal Code

The City of Yucaipa's building regulations are included in its municipal code as Chapter 15 (Buildings and Construction). The City has adopted by reference the most recent version of the CBC.

The municipal code has regulations that mitigate potential safety concerns related to new construction. Chapter 15.12 establishes rules and regulations to control excavation, grading, and earthwork construction (including fills). It also establishes administrative requirements for issuance of permits, approval of plans, and inspection of grading construction at new subdivisions Chapter 15.12.340 (Erosion Control) requirements for construction activity stormwater to preserve water quality and prevent erosion.

City of Yucaipa Overlay Districts

The City has several overlay districts that apply to areas that are vulnerable to fault rupture, landslides, fire hazards, and flooding. Division 5 of the development code includes maps and policies for overlay districts.

5.5.1.2 EXISTING CONDITIONS

Geologic Setting

Regional Setting

California is divided into several "geomorphic provinces" by the types of landforms most common within each province. The project site is in the Peninsular Ranges geomorphic province, which is a series of fault blocks oriented northwest-southeast; some blocks are mountain ranges and others are valleys. The boundary

between the Peninsular Ranges and Transverse Ranges geomorphic provinces is the base of the San Bernardino Mountains, roughly 2.5 miles north of the project site. The Transverse Ranges geomorphic province is an east-west trending series of steep mountain ranges and valleys that extend from Santa Barbara County in the west to central Riverside County in the east. The San Bernardino Mountains are the nearest of the mountain ranges in the Transverse Ranges geomorphic province to the project site.

Local Setting

The project site is in a narrow alluvial valley bounded by Yucaipa Ridge, roughly one mile to the southeast, and the Crafton Hills, about 0.7 mile to the northwest. The site slopes to the west-southwest with a grade of roughly 5 percent. Elevations onsite range from about 2,730 feet above mean sea level along the northerly and easterly edge of the site to about 2,570 feet at the westerly end of the project site along Oak Glen Creek. The project site has changes in topography, including a substantial slope upwards on its southern boundary that separates it from a single-family residential neighborhood to the south that sits at a higher elevation.

The geotechnical investigation conducted by Petra in 2011 included five exploratory hollow-stem auger borings to depths ranging from 16.5 feet below ground surface (bgs) to 51.5 feet bgs. An additional subsurface field investigation conducted by LOR in 2016 included six exploratory hollow-stem auger borings to depths ranging from 7 to 37 feet bgs (Petra 2011; LOR 2016).

Disturbed bulk samples and relatively undisturbed ring samples of soil materials were collected for classification, laboratory testing, and engineering analyses. Standard penetration tests and in-place density tests were also performed in accordance with the American Society for Testing Materials' Standard Procedures D1586 and 2922, respectively.

Earth materials encountered in the exploratory borings consisted of undocumented fill underlain by natural alluvial deposits that extended to the maximum explored depth of 51.5 feet bgs. Not encountered but present onsite are very young alluvial sediments, generally along Oak Glen Creek. In general, the geologic materials on the site consist of young axial-valley sediments of Wilson and Oak Glen Creeks and become progressively younger with proximity to the natural drainages.

Two types of soil and sediment were found in the borings.

- **Undocumented Fill:** Undocumented, uncompacted fill soils were found to a maximum depth of six feet in the proposed Residential District north of Oak Glen Creek. These materials are generally loose, dry, dark brown to dark gray sand with silt and occasional chunks of asphalt and concrete. Due to past site usage for sand and gravel mining, deeper undocumented fill/stockpiles most likely exist beneath the current surface of the property, most notably in the central portion of the site.

- **Alluvium:** Native alluvial deposits were found either at the surface or directly underlying the undocumented fills to the maximum explored depth of 51.5 feet bgs. These materials consisted generally of yellowish brown to dark yellowish brown, slightly moist to moist, loose near the surface to very dense at depth, sands, sands with silt, and silty sand mixtures with gravels to occasional small cobbles roughly 2.5 to 10 inches in diameter.

Groundwater

At the time of the site investigation, Wilson Creek and Oak Glen Creek were dry, and no groundwater was found in the borings at maximum depths of 51.5 feet bgs. Data available from the California Department of Water Resources indicates that the depth to groundwater in the vicinity of the site ranges from approximately 225 feet to 460 feet bgs (LOR 2016).

Current surface runoff of precipitation waters across the site is largely from the east-northeast to the west-southwest as sheet flow into local small drainage courses that ultimately flow into Oak Glen Creek.

Geologic Hazards

Faults and Seismic Hazards

The geologic structure of the southern California area is dominated mainly by northwest-trending faults associated with the San Andreas Fault system. Based on review of published and unpublished geotechnical maps and literature pertaining to the site and regional geology, the project site does not lie within the boundaries of an earthquake fault zone as defined by the State of California Alquist-Priolo (AP) Earthquake Fault Zoning Act. The closest AP zoned active faults are described below under *Other Faults in the Region*.

Faults on the Project Site

Two northeast-trending concealed faults associated with the Chicken Hills Fault are mapped on the northern portion of the project site (see Figure 3 of Appendix E1). These faults are mapped as having Late Quaternary displacement, but Holocene activity has not been ruled out, meaning they may be active or are at least considered potentially active. A strong lineament coincides with the southern of the two mapped fault strands. A lineament is a linear feature in a landscape interpreted as indicating a buried fault. A lineament can be a landform such as a scarp or a long linear valley, or vegetation along a straight line differing from surrounding vegetation, indicating that water is seeping to the surface or near the surface.

Other Faults in the Region

The Crafton Hills fault is about 3,500 feet northwest of the project site, and the Western Heights Fault is about one mile to the northwest along the southeast side of the Crafton Hills. The Chicken Hills Fault is 1.75 miles to the southwest; the Banning Fault is 2 miles to the south; and the Mill Creek Fault is 4.8 miles to the north. The San Andreas Fault is 3 miles to the northeast; the San Jacinto Fault is roughly 9.6 miles southwest; and the San Gorgonio Pass Fault Zone is 9 miles to the southeast (Petra 2011; LOR 2016; CGS 2011).

Strong Ground Shaking

A probabilistic seismic hazard analysis was performed for the project site to determine the ground-motion for the "design-basis" earthquake. The design-basis earthquake ground motion is determined by probabilistic methods and defined as having a 10 percent chance of exceedance in 50 years.

The potential for peak horizontal ground acceleration (i.e., strong ground shaking) with a 10 percent chance of exceedance in 50 years—that is, an average return period of 475 years—is 0.679g to 0.688g, where g is the

acceleration of gravity. The maximum credible magnitude would be 7.5. An acceleration of 0.688g corresponds roughly to a magnitude of 7.5, or an intensity of VIII on the Modified Mercalli Intensity Scale, which is a scale of how earthquakes are felt by people and how earthquakes affect structures. The Mercalli scale has a 12-point range—from Intensity I, which is rarely felt by people, to Intensity XII, in which damage to structures is total and objects are thrown into the air. In an Intensity VIII earthquake, damage is slight in specially designed structures; ordinary substantial buildings are damaged considerably and partially collapse; and damage is great in poorly built structures. Objects such as chimneys, factory stacks, columns, monuments, and walls fall, and heavy furniture is overturned (USGS 2013).

Historic Earthquakes

Various earthquakes of magnitude 5.0 or greater within the last 50 years have caused substantial ground shaking in the project region and are listed in Table 5.5-1.

Table 5.5-1 Selected Earthquakes within last 50 Years in Project Area

Earthquake	Location	Fault	Date	Magnitude	Notable Effects
Lytle Creek	Near Cajon Pass	Unknown	September 12, 1970	5.2	—
North Palm Springs	Six miles northwest of North Palm Springs	Banning or Garnet Hill	July 8, 1986	5.6	—
Whittier Narrows	Near City of South El Monte	Thrust fault	October 1, 1987	5.9	8 deaths; severe damage in older parts of some communities east of Los Angeles
Upland	Near Upland	San Jose	February 28, 1990	5.4	Considerable damage near epicenter
Landers	In Mojave Desert 6 miles north of Yucca Valley	Johnson Valley and several others	June 18, 1992	7.3	1 death; quake occurred in sparsely populated area.
Big Bear	In San Bernardino Mountains	Unknown	June 28, 1992	6.4	Substantial damage in Big Bear Lake area
Chino Hills	Near Chino Hills	Yorba Linda	July 29, 2008	5.5	—

Source: SCEDC 2010.

Liquefaction

Liquefaction refers to loose, saturated sand or silt deposits that behave as a liquid and lose their load-supporting capability when strongly shaken. Loose granular soils and silts that are saturated by relatively shallow groundwater are susceptible to liquefaction. Factors known to influence liquefaction potential include soil type and depth (typically granular, loose sediments), grain size, relative density, groundwater level (typically less than 50 feet), degree of saturation, and intensity and duration of ground shaking.

The potential for liquefaction-induced settlement onsite is considered very low due to the absence of a shallow groundwater table and the relatively high density of the coarse-grained alluvial soils at depth. In addition, the project site is not mapped on the San Bernardino County Geologic Hazard Overlay or the City

of Yucaipa Geologic Hazard Overlay District as being in a zone that is susceptible to liquefaction (Yucaipa 2016).

Lateral Spreading

Lateral spreading is the downslope movement of surface sediment due to liquefaction in a subsurface layer. Such movement can occur on slope gradients of as little as one degree. Lateral spreading typically damages pipelines, utilities, bridges, and structures. Lateral spreading is considered unlikely at the site due to the very low potential for liquefaction.

Earthquake-Induced Landslides

The project site is not mapped on the San Bernardino County Geologic Hazard Overlay as being in a zone that is susceptible to landsliding, and no landslides have been mapped within or near the project site. Due to the relatively flat to gently rolling nature of the majority of the site and its surroundings, landsliding and associated ground subsidence or ground lurching are considered unlikely at the site.

Seismically Induced Settlement

Settlement generally occurs in areas of loose granular soils with relatively low density. Since the site is underlain by dense alluvial soils at depth, the potential for settlement is considered low.

Other Geologic Hazards

Mass Movement

The majority of the site consists of relatively flat surfaces with gently sloping areas in between. The slopes of the stream banks approach 2:1 (horizontal to vertical) with locally steeper areas. Considering the site's geologic conditions and overall gentle slope, the potential for mass movement failures such as landslides or debris flows is considered very low. In addition, no loose, unrooted rocks that could fall or topple and roll were noted, and the potential for rock falls at the site is considered to be nil.

Expansive Soils

Expansive soils shrink or swell as the moisture content decreases or increases; the shrinking or swelling can shift, crack, or break structures built on such soils. A test of one sample of subsurface soil yielded an expansion index of less than 20, indicating very low expansion potential. The CBC requires special design considerations for foundations of structures built in soils with expansion indices greater than 20.

Subsidence

The primary cause of ground subsidence is withdrawal of groundwater; withdrawal of oil can also result in subsidence. The project site is not in an area with known potential for ground subsidence due to withdrawal of fluids.

Corrosive Soils

Corrosion of various metals and concrete is a common problem in some soils. Corrosion affects materials on the surface and within the soil to various degrees. Tests of one sample of subsurface soil found water-soluble

sulfate concentration of 0.004 percent; pH of 7.2; water-soluble chloride concentration of 125 parts per million; and resistivity of 5,300 ohm-cm.[1] No special requirements for concrete are needed based on the sulfate, pH, and chloride results. The resistivity result indicates that site soils are moderately corrosive to iron-containing metals and to copper.

Soil Erosion

Erosion is the movement of soil and rock from place to place. Erosion occurs naturally by agents such as wind and flowing water; however, grading and construction activities can cause greatly increased erosion if effective erosion control measures are not used. Site soils are granular in nature and are subject to erosion.

Flooding

There are two large, aboveground water storage tanks just west of the project site that could, conceivably, fail and flood adjacent or downstream areas. However, failure of these tanks would not impact the project site because they are downstream of the project site.

5.5.2 Thresholds of Significance

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

G-1 Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault. (Refer to Division of Mines and Geology Special Publication 42.)

ii) Strong seismic ground shaking.

iii) Seismic-related ground failure, including liquefaction.

iv) Landslides.

G-2 Result in substantial soil erosion or the loss of topsoil.

G-3 Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.

G-4 Be located on expansive soil, as defined in Table 18-1B of the Uniform building Code (1994), creating substantial risks to life or property.

[1] Resistivity is a measure of how strongly a material opposes the flow of an electric current.

G-5 Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.

Chapter 8, *Impacts Found Not to Be Significant*, substantiates that impacts associated with the following threshold would be less than significant:

- Threshold G-5

This impact will not be addressed in the following analysis.

5.5.3 Environmental Impacts

The following impact analysis addresses thresholds of significance for which the project may have potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

Impact 5.5-1: The proposed project would not be exposed to hazards associated with fault rupture of concealed faults underlying the project site and would not expose people and structures to adverse seismic effects. [Threshold G-1-i]

Impact Analysis: Surface fault rupture is when an earthquake or other movement of the earth displaces the ground surface, sometimes forming a vertical break in a slope or a visible crack or gap in the ground surface. Such ruptures can damage anything crossing the fault or near the fault, including buildings, transportation facilities, and utilities. Adverse risks to humans include safety risks related to the potential collapse of buildings or structures, and health risks due to damaged utility infrastructure (e.g., water supply delivery systems, hazardous material storage). When fault rupture results in ground failure or flooding, it may have additional impacts on structures and people (Impacts 5.5-2 through 5.5-4, below).

Geotechnical and Geologic Constraints Analysis

An analysis of geotechnical and geological constraints on the project site and a subsurface soil exploration were performed by Petra in 2011 (see Appendix E1). Subsurface soil exploration of the project area west of 2nd Street was performed in 2016 by LOR (see Appendix E3). Although the project site is not in an Alquist-Priolo Earthquake Fault Zone, the 2011 study identified two concealed faults on the project site. These northeast-trending concealed faults are associated with the Chicken Hills Fault and are mapped as having Late Quaternary displacement. However, possible fault activity within the last 11,000 years was not ruled out. Faults showing evidence of surface displacement within the last 11,000 years are considered active.

Active Fault Investigation

An initial fault investigation was performed for the project site during August and September of 2013 by LOR (see Appendix E2), because the 2011 geotechnical constraints analysis identified two possibly active faults. The 2013 follow-up study evaluated the potential for active faulting. The investigation included discussion of existing site conditions, interpretation of aerial photographs, observation of surface conditions, and a seismic refraction investigation by a state-licensed professional geophysicist.

Potential subsurface faults across the project site were evaluated using five connected seismic refraction lines in a northwest-southeast orientation, roughly perpendicular to the concealed fault locations mapped in the 2011 analysis.[2] The seismic refraction investigation identified three distinct velocity layers under the project site:

- **Upper Layer.** The uppermost velocity layer is most likely composed of undifferentiated younger alluvial type deposits (i.e., fan or valley alluvium, wash deposits, and/or artificial fill materials from previous quarry activities) that have an average weighted velocity of 1,558 feet per second (fps). This velocity is characteristic of most unconsolidated, surficial earth material deposits.

- **Intermediate Layer.** The intermediate velocity layer has an average weighted velocity of 2,576 fps, which is believed to represent older alluvial deposits. This velocity is very typical for most locally indurated and consolidated older alluvial-type earth materials in the southern California region.

- **Lower Layer.** The lower layer was found to have average weighted velocity of 5,601 fps and could possibly correspond to saturated older alluvial deposits, with the boundary between the intermediate and lower layers representing the approximate top of the groundwater table. Wet, poorly consolidated materials typically have a velocity a little greater than water (4,600 to 4,900 fps), and the top of the water table is often a prominent seismic interface. Saturated coarse-grained sediments typically have velocities ranging from 5,000 fps to 7,000 fps, depending on the lithologic and consolidated nature of the subsurface materials. Other natural earth materials with velocities greater than 5,000 fps would include crystalline igneous and metamorphic bedrock (granite, gneiss, schist, etc.) and some varieties of well-consolidated sedimentary bedrock (sandstone, limestone, etc.). Based on the velocity of 5,601 fps and the presumed absence of any crystalline or sedimentary bedrock at depth in the local area, this velocity most likely represents saturated older alluvial deposits (LOR 2013).

The models used to display the data recorded onsite depict a relatively smooth and planar velocity structure. No lateral velocity contrasts were noted. The lack of abrupt transitions between soil levels indicates that there are no anomalous geophysical conditions under the project site that would suggest subsurface faulting.

Summary

Based on the data from the preliminary fault investigation study, there is no evidence of the concealed fault traces associated with the Chicken Hills Fault. Furthermore, all structures are required to comply with CBC standards for mitigate potential effects of seismic shaking. Therefore, impacts related to exposure of people and structures to adverse effects due to fault rupture would be less than significant.

[2] The seismic refraction method determines if anomalous geologic structures are present underneath the ground. Seismic waves travel down through the soils and rocks and are refracted toward the surface where they are detected by a series of motion-sensitive recording devices. The fundamental assumption is that each successive layer has a velocity greater than the layer above it.

Impact 5.5-2: Development of the proposed project could expose people and structures to strong seismic ground shaking; however, adherence to the current California Building Code would ensure impacts are minimized. [Threshold G-1-ii]

Impact Analysis: Yucaipa is in a seismically active region, and strong ground shaking can be expected to occur in the lifetime of structures that would be developed on the project site. In particular, the San Andreas, Crafton Hills, Banning, and San Jacinto faults are all in close proximity of the project site and are capable of producing strong ground motions.

The peak horizontal ground acceleration on the project site—with a 10 percent probability of being exceeded in 50 years—is 0.688g (Petra 2011). An acceleration of 0.688g corresponds roughly to a magnitude of 7.5, or VIII on the MMI Scale. In an Intensity VIII earthquake, damage is slight in specially designed structures; ordinary substantial buildings are damaged considerably and partially collapse; and damage is great in poorly built structures. Objects such as chimneys, factory stacks, columns, monuments, and walls fall, and heavy furniture is overturned (USGS 2013). The 2011 geotechnical investigation identified seismic design parameters for the project pursuant to the seismic hazard analysis and provisions of the 2010 CBC.[3] These seismic design parameters recommend that structures throughout the Specific Plan area should be designed and constructed per Section 1613 of the CBC.

Seismic performance goals for structures generally expect that some property damage will be sustained in a moderate to large earthquake, but damage should be repairable and not life threatening. Structures should be able to resist minor earthquakes with no damage; resist moderate earthquakes with some nonstructural damage; and resist major earthquakes with some structural damage, but with a low likelihood of collapse. The CBC contains provisions for earthquake safety based on factors including occupancy type, the types of soil and rock onsite, and the strength of ground motions with specified probability of occurring at the site. Buildings constructed on the project site would be required to comply with the current CBC. Upon implementation of applicable CBC provisions, impacts related to seismic shaking would be less than significant.

Impact 5.5-3: Development of the proposed project would be unlikely to expose people and structures to adverse effects of seismic-related ground failure, including liquefaction. [Threshold G-1-iii]

Impact Analysis: As stated above, the project site does not lie within a San Bernardino County Geologic Hazards Overlay zone for liquefaction. Based on data from the geotechnical investigations, the potential for liquefaction-induced settlement is considered very low due to the absence of a shallow groundwater table and the relatively high density of the coarse-grained alluvial soils at the maximum boring depth of 51.5 feet bgs. Therefore, development in accordance with the proposed Specific Plan would not expose people or structures to adverse effects of seismic-induced ground failure, and impacts would be less than significant.

[3] Since preparation of the geotechnical investigation, the 2010 CBC has been superseded by the 2013 CBC.

Impact 5.5-4: Development of the proposed project would not expose people and structures to landslide hazards. [Threshold G-1-iv]

Impact Analysis: The project site has changes in topography, including a substantial slope upwards on its southern boundary that separates it from a single-family residential neighborhood to the south that sits at a higher elevation. However, these areas do not appear to have experienced landslides. No landslides have been mapped on or near the project site. Furthermore, based on a review of the San Bernardino County Geologic Hazards Overlay, the site is not in a zone that is susceptible to landslides (Petra 2011). Therefore, landslides are not anticipated on the project site. Impacts would be less than significant.

Impact 5.5-5: Development of the proposed project may increase soil erosion; however, compliance with the Construction General Permit and implementation of best management practices during construction activities would reduce potential impacts. [Threshold G-2]

Impact Analysis: Grading and construction of the proposed project components (buildings, ancillary structures, detention basin, roadways, etc.) would temporarily expose bare soil, which could accelerate soil erosion. According to field surveys, site soils are granular and subject to erosion. Thus, development would require erosion control measures. The geotechnical investigations recommended measures for minimizing soil and slope erosion:

- Proper drainage provisions for engineered slopes should consist of concrete terrace drains, downdrains, and energy dissipaters (where required) constructed in accordance with the Grading Code of the City of Yucaipa. Provisions should also be made for construction of compacted-earth berms along the tops of engineered slopes.

- Permanent engineered slopes should be landscaped as soon as practical at the completion of grading. The landscaping should consist of a deep-rooted, drought-tolerant, and maintenance-free plant species. If landscaping cannot be provided within a reasonable period of time, jute matting or a spray-on product designed to seal slope surfaces should be considered as a temporary measure to inhibit surface erosion until permanent landscape plants have become well established.

- Irrigation systems should be installed on the engineered slopes and a watering program implemented to maintain uniform moisture in the soils.

- Irrigation systems should be constructed at the surface only.

- A permanent slope-maintenance program should be initiated for major slopes not maintained by the development.

Surface drainage systems with sloping concrete flatwork, graded earth swales, and/or an underground area drain system would be constructed to collect and direct all surface waters to the adjacent streets and storm drain facilities (see Chapter 5.8, *Hydrology and Water Quality*, Figure 5.8-3, *Proposed Condition Hydrology Map*). Furthermore, a primary component of the Oak Glen Creek Specific Plan is to design appropriate flood

control facilities to control stormwater flows from Wilson and Oak Glen creeks and capture stormwater runoff in the proposed detention basin. According to the proposed development standards, all drainage and flood control facilities would be implemented in accordance with and subject to the approval of the City of Yucaipa and San Bernardino County Flood Control District (SBCFCD). The developer would be responsible for maintenance and upkeep of all slopes and drainage systems until these operations become the responsibility of the flood control district (for major facilities, including drainage channels and the detention basin) and the City (for minor facilities, including catch basins and low-flow streams).

Further, development standards under the proposed project require that all improvements plans—i.e., final grading plan, drainage plans, hydrologic/hydraulic report, water quality management plan, and stormwater pollution prevention plan—be submitted to the City's Engineering Division for review and approval prior to approval or issuance of building permits.

In addition, construction projects of one acre or more are regulated under the Construction General Permit, Order No. 2012-0006-DWQ, issued by the State Water Quality Control Board. Projects obtain coverage by developing and implementing a stormwater pollution prevention plan specifying best management practices (BMPs) that would be used by the project to minimize pollution of stormwater. Categories of BMPs are described in Table 5.5-2.

Table 5.5-2 Construction BMPs

Category	Purpose	Examples
Erosion Controls	Cover and/or bind soil surface, to prevent soil particles from being detached and transported by water or wind.	Mulch, geotextiles, mats, hydroseeding, earth dikes, swales.
Sediment Controls	Filter out soil particles that have been detached and transported in water.	Barriers such as straw bales, sandbags, fiber rolls, and gravel bag berms; desilting basin; cleaning measures such as street sweeping.
Wind Erosion Controls	The aims and methods of wind erosion control are similar to those of erosion control described above.	See *Erosion Controls* above.
Tracking Controls	Minimize the tracking of soil offsite by vehicles.	Stabilized construction roadways and construction entrances/exits; entrance/outlet tire wash.
Non-stormwater Management Controls	Prohibit discharge of materials other than stormwater, such as discharges from the cleaning, maintenance, and fueling of vehicles and equipment. Conduct various construction operations, including paving, grinding, and concrete curing and finishing, in ways that minimize non-stormwater discharges and contamination of any such discharges.	BMPs specifying methods for: paving and grinding operations; cleaning, fueling, and maintenance of vehicles and equipment; concrete curing; concrete finishing.
Waste Management and Controls (i.e. good housekeeping practices)	Management of materials and wastes to avoid contamination of stormwater.	Spill prevention and control, stockpile management, and management of solid wastes and hazardous wastes.

Overall, soil erosion and slope stability would not be adversely affected provided future developments comply with recommendations from the geotechnical investigations, state regulatory policies, and drainage/grading

provisions under the proposed Oak Glen Creek Specific Plan development standards. Impacts would be less than significant.

Impact 5.5-6: Development of the proposed project would be unlikely to expose people or structures to hazards related to unstable soils (e.g., lateral spreading, subsidence, liquefaction, collapse). [Threshold G-3]

Impact Analysis: As discussed in Impact 5.5-4, no landslides have been mapped on or near the project site, and the site is not in a zone designated as susceptible to landslides on the San Bernardino County Geologic Hazards Overlay or the City of Yucaipa Geologic Hazards Overlay District. The probability of secondary effects of seismic activity and landslides, such as lateral spreading, subsidence, liquefaction, and collapse, are dependent on the severity of the earthquake, distance from faults, topography, subsoils, and groundwater conditions, among other factors.

The potential for liquefaction onsite is considered very low due to the absence of a shallow groundwater table (typically less than 50 feet) and the relatively high density of the coarse-grained alluvial soils at depth. The project site is not mapped on the San Bernardino County Geologic Hazard Overlay or the City of Yucaipa Geologic Hazards Overlay District in a zone that is susceptible to liquefaction.

Lateral spreading is the downslope movement of surface sediment due to liquefaction in a subsurface layer. Since the site has very low potential for liquefaction, lateral spreading is also considered unlikely at the site.

Subsidence occurs due to withdrawal of large amounts of groundwater. Exploratory borings did not encounter any groundwater, and data from the California Department of Water Resources indicates that the depth to groundwater in the project area ranges from approximately 225 feet to 469 feet bgs. Therefore, the site would not be susceptible to ground subsidence.

Additionally, onsite native materials were found to have very low potential for consolidation or collapse due to its dense alluvial nature.

Overall, based on these soil conditions, hazards related to unstable soils are considered unlikely at the site and impacts would be less than significant.

Impact 5.5-7 Development of the proposed project would not result in risks to life or property from expansive soil. [Threshold G-4]

Impact Analysis: Given the predominant soil types encountered on the project site—granular sand with silt to silty sand with gravels—expansion potential is very low (an expansion index of less than 20) (Petra 2011). Given the low expansion potential, designs of slab-on-ground foundations are exempt from the procedures outlined in Sections 1802.3.2 and 1805.8.2 of the CBC. Therefore, impacts related to risks to life or property from expansive soil would be less than significant.

5.5.4 Cumulative Impacts

Impacts to geology and soils are specific to the geologic and soils conditions on a particular project site. Mitigation of geologic, seismic, and soil impacts of development projects would also be specific to each site. Compliance with modern building standards, such as the California Building Code, would reduce seismic-related risks. Therefore, no adverse cumulative impacts related to soils and geology are anticipated.

5.5.5 Existing Regulations

State

- California Building Code (Title 24, California Code of Regulations, Part 2)

Local

- City of Yucaipa Municipal Code, Chapter 15.12 (Grading and Excavation Code)
- City of Yucaipa Development Code
- Geologic Hazard Overlay District

5.5.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements, the following impacts would be less than significant: 5.5-1, 5.5-2, 5.5-3, 5.5-4, 5.5-5, 5.5-6, and 5.5-7.

5.5.7 Mitigation Measures

No mitigation measures are required.

5.5.8 Level of Significance After Mitigation

Impacts would be less than significant.

5.5.9 References

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5. Environmental Analysis
GEOLOGY AND SOILS

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5.6 GREENHOUSE GAS EMISSIONS

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential for implementation of the Oak Glen Creek Specific Plan project (proposed project) to cumulatively contribute to greenhouse gas (GHG) emissions impacts. Because no single project is large enough to result in a measurable increase in global concentrations of GHG emissions, climate change impacts of a project are considered on a cumulative basis. The analysis in this section is based on buildout of the proposed project, as modeled using the California Emissions Estimator Model (CalEEMod), and trip generation provided by IBI Group (see Appendix J to this DEIR). The GHG emissions modeling for the proposed project is included in Appendix B of this DEIR.

Terminology

The following are definitions for terms used throughout this section.

- **Greenhouse gases (GHG).** Gases in the atmosphere that absorb infrared light, thereby retaining heat in the atmosphere and contributing to a greenhouse effect.
- **Global warming potential (GWP).** Metric used to describe how much heat a molecule of a greenhouse gas absorbs relative to a molecule of carbon dioxide (CO_2) over a given period of time (20, 100, and 500 years). CO_2 has a GWP of 1.
- **Carbon dioxide-equivalent (CO_2e).** The standard unit to measure the amount of greenhouse gases in terms of the amount of CO_2 that would cause the same amount of warming. CO_2e is based on the GWP ratios between the various GHGs relative to CO_2.
- **$MTCO_2e$.** Metric ton of CO_2e.
- **$MMTCO_2e$.** Million metric tons of CO_2e.

5.6.1 Environmental Setting

Scientists have concluded that human activities are contributing to global climate change by adding large amounts of heat-trapping gases, known as GHGs, to the atmosphere. The primary source of these GHGs is fossil fuel use. The Intergovernmental Panel on Climate Change (IPCC) has identified four major GHGs—water vapor, carbon dioxide (CO_2), methane (CH_4), and ozone (O_3)—that are the likely cause of an increase in global average temperatures observed in the 20th and 21st centuries. Other GHGs identified by the IPCC that contribute to global warming to a lesser extent are nitrous oxide (N_2O), sulfur hexafluoride (SF_6), hydrofluorocarbons, perfluorocarbons, and chlorofluorocarbons (IPCC 2001).[1],[2] The major GHGs are briefly described below.

[1] Water vapor (H_2O) is the strongest GHG and the most variable in its phases (vapor, cloud droplets, ice crystals). However, water vapor is not considered a pollutant because it is considered part of the feedback loop rather than a primary cause of change.

- **Carbon dioxide (CO_2)** enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, and respiration, and also as a result of other chemical reactions (e.g., manufacture of cement). Carbon dioxide is removed from the atmosphere (sequestered) when it is absorbed by plants as part of the biological carbon cycle.

- **Methane (CH_4)** is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and from the decay of organic waste in municipal landfills and water treatment facilities.

- **Nitrous oxide (N_2O)** is emitted during agricultural and industrial activities, as well as during the combustion of fossil fuels and solid waste.

- **Fluorinated gases** are synthetic, strong GHGs that are emitted from a variety of industrial processes. Fluorinated gases are sometimes used as substitutes for ozone-depleting substances. These gases are typically emitted in smaller quantities, but because they are potent GHGs, they are sometimes referred to as high global-warming-potential (GWP) gases.

  - ***Chlorofluorocarbons (CFCs)*** are GHGs covered under the 1987 Montreal Protocol and used for refrigeration, air conditioning, packaging, insulation, solvents, or aerosol propellants. Since they are not destroyed in the lower atmosphere (troposphere, stratosphere), CFCs drift into the upper atmosphere where, given suitable conditions, they break down the ozone layer. These gases are therefore being replaced by other compounds that are GHGs covered under the Kyoto Protocol.
  - ***Perfluorocarbons (PFCs)*** are a group of human-made chemicals composed of carbon and fluorine only. These chemicals (predominantly perfluoromethane [CF_4] and perfluoroethane [C_2F_6]) were introduced as alternatives, along with HFCs, to ozone-depleting substances. In addition, PFCs are emitted as by-products of industrial processes and are used in manufacturing. PFCs do not harm the stratospheric ozone layer, but they have a high GWP.
  - ***Sulfur Hexafluoride (SF_6)*** is a colorless gas soluble in alcohol and ether, and slightly soluble in water. SF_6 is a strong GHG used primarily in electrical transmission and distribution systems as an insulator.
  - ***Hydrochlorofluorocarbons (HCFCs)*** contain hydrogen, fluorine, chlorine, and carbon atoms. Although they are ozone-depleting substances, they are less potent than CFCs. They have been introduced as temporary replacements for CFCs.
  - ***Hydrofluorocarbons (HFCs)*** contain only hydrogen, fluorine, and carbon atoms. They were introduced as alternatives to ozone-depleting substances to serve many industrial, commercial, and

[2] Black carbon contributes to climate change both directly, by absorbing sunlight, and indirectly, by depositing on snow (making it melt faster) and by interacting with clouds and affecting cloud formation. Black carbon is the most strongly light-absorbing component of particulate matter (PM) emitted from burning fuels such as coal, diesel, and biomass. Reducing black carbon emissions globally can have immediate economic, climate, and public health benefits. California has been an international leader in reducing emissions of black carbon, with close to 95 percent control expected by 2020 due to existing programs that target reducing PM from diesel engines and burning activities (CARB 2014). However, state and national GHG inventories do not include black carbon due to ongoing work resolving the precise global warming potential of black carbon. Guidance for CEQA documents does not yet include black carbon.

personal needs. HFCs are emitted as by-products of industrial processes and are also used in manufacturing. They do not significantly deplete the stratospheric ozone layer, but they are strong GHGs (IPCC 2001; EPA 2015).

GHGs are dependent on the lifetime, or persistence, of the gas molecule in the atmosphere. Some GHGs have a stronger greenhouse effect than others. These are referred to as high GWP gases. The GWPs of GHG emissions are shown in Table 5.6-1, *GHG Emissions and Their Relative Global Warming Potential Compared to CO_2*. The GWP is used to convert GHGs to CO_2-equivalence (CO_2e) to show the relative potential that different GHGs have to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. For example, under IPCC's Second Assessment Report GWP values for CH_4, a project that generates 10 metric tons (MT) of CH_4 would be equivalent to 210 MT of CO_2.[3]

Table 5.6-1 GHG Emissions and their Relative Global Warming Potential Compared to CO_2

GHGs	Second Assessment Report Atmospheric Lifetime (Years)	Fourth Assessment Report Atmospheric Lifetime (Years)	Second Assessment Report Global Warming Potential Relative to CO_2[1]	Fourth Assessment Report Global Warming Potential Relative to CO_2[1]
Carbon Dioxide (CO_2)	50 to 200	50 to 200	1	1
Methane[2] (CH_4)	12 (±3)	12	21	25
Nitrous Oxide (N_2O)	120	114	310	298
Hydrofluorocarbons:				
HFC-23	264	270	11,700	14,800
HFC-32	5.6	4.9	650	675
HFC-125	32.6	29	2,800	3,500
HFC-134a	14.6	14	1,300	1,430
HFC-143a	48.3	52	3,800	4,470
HFC-152a	1.5	1.4	140	124
HFC-227ea	36.5	34.2	2,900	3,220
HFC-236fa	209	240	6,300	9,810
HFC-4310mee	17.1	15.9	1,300	1,030
Perfluoromethane: CF_4	50,000	50,000	6,500	7,390
Perfluoroethane: C_2F_6	10,000	10,000	9,200	12,200
Perfluorobutane: C_4F_{10}	2,600	NA	7,000	8,860
Perfluoro-2-methylpentane: C_6F_{14}	3,200	NA	7,400	9,300
Sulfur Hexafluoride (SF_6)	3,200	NA	23,900	22,800

Source: IPCC 1995; IPCC 2007.

Note: The IPCC has published updated global warming potential (GWP) values in its Fifth Assessment Report (2013) that reflect new information on atmospheric lifetimes of GHGs and an improved calculation of the radiative forcing of CO_2 (radiative forcing is the difference of energy from sunlight received by the earth and radiated back into space). However, GWP values identified in the Second Assessment Report are still used by SCAQMD to maintain consistency in GHG emissions modeling. In addition, the 2008 Scoping Plan was based on the GWP values in the Second Assessment Report.

1 Based on 100-year time horizon of the GWP of the air pollutant relative to CO_2.

2 The methane GWP includes direct effects and indirect effects due to the production of tropospheric ozone and stratospheric water vapor. The indirect effect due to the production of CO_2 is not included.

3 CO_2-equivalence is used to show the relative potential that different GHGs have to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. The global warming potential of a GHG is also dependent on the lifetime, or persistence, of the gas molecule in the atmosphere.

California's GHG Sources and Relative Contribution

California is the tenth largest GHG emitter in the world and the second largest emitter of GHG emissions in the United States, surpassed only by Texas (EIA 2013). However, California also has over 12 million more people than Texas. Because of more stringent air emission regulations, in 2001, California ranked fourth lowest in carbon emissions per capita and fifth lowest among states in CO2 emissions from fossil fuel consumption per unit of Gross State Product (total economic output of goods and services)(CEC 2006a).

The California Air Resources Board's (CARB) last update to the statewide GHG emissions inventory was in 2012 for year 2009 emissions and used the Second Assessment Report GWPs.4 In 2009, California produced 457 million metric tons (MMT) of CO2e GHG emissions. California's transportation sector is the single largest generator of GHG emissions, producing 37.9 percent of the state's total emissions. Electricity consumption is the second largest source, producing 22.7 percent. Industrial activities are California's third largest source of GHG emissions at 17.8 percent. (CARB 2011).

In 2016, the statewide GHG emissions inventory was updated for 2000 to 2014 emissions using the GWPs in IPCC's Fourth Assessment Report. Based on these GWPs, California produced 442 $MMTCO_2e$ GHG emissions in 2014. California's transportation sector remains the single largest generator of GHG emissions, producing 36.1 percent of the state's total emissions. Industrial sector emissions made up 21.1 percent and electric power generation made up 20.0 percent of the state's emissions inventory. Other major sectors of GHG emissions include commercial and residential (8.7 percent), agriculture (8.2 percent), high global warming potential GHGs (3.9 percent), and recycling and waste (2.0 percent) (CARB 2016a).

Human Influence on Climate Change

For approximately 1,000 years before the Industrial Revolution, the amount of GHGs in the atmosphere remained relatively constant. During the 20th century, however, scientists observed a rapid change in the climate and the quantity of climate change pollutants in the Earth's atmosphere that is attributable to human activities. The amount of CO_2 in the atmosphere has increased by more than 35 percent since preindustrial times and has increased at an average rate of 1.4 parts per million per year since 1960, mainly due to combustion of fossil fuels and deforestation (IPCC 2007). These recent changes in the quantity and concentration of climate change pollutants far exceed the extremes of the ice ages, and the global mean temperature is warming at a rate that cannot be explained by natural causes alone. Human activities are directly altering the chemical composition of the atmosphere through the buildup of climate change pollutants (CAT 2006). In the past, gradual changes in the earth's temperature changed the distribution of species, availability of water, etc. However, human activities are accelerating this process so that environmental impacts associated with climate change no longer occur in a geologic time frame but within a human lifetime (IPCC 2007).

[4] Methodology for determining the statewide GHG inventory is not the same as the methodology used to determine statewide GHG emissions under Assembly Bill 32 (2006).

Like the variability in the projections of the expected increase in global surface temperatures, the environmental consequences of gradual changes in the Earth's temperature are also hard to predict. Projections of climate change depend heavily upon future human activity. Therefore, climate models are based on different emission scenarios that account for historic trends in emissions and on observations of the climate record that assess the human influence of the trend and projections for extreme weather events. Climate-change scenarios are affected by varying degrees of uncertainty. For example, there are varying degrees of certainty on the magnitude of the trends for:

- Warmer temperatures and fewer cold days and nights over most land areas.
- Warmer temperatures and more frequent hot days and nights over most land areas.
- An increase in frequency of warm spells/heat waves over most land areas.
- An increase in frequency of heavy precipitation events (or proportion of total rainfall from heavy falls) over most areas.
- Larger areas affected by drought.
- Intense tropical cyclone activity increases.
- Increased incidence of extremely high sea level (excludes tsunamis).

Potential Climate Change Impacts for California

Observed changes over the last several decades across the western United States reveal clear signs of climate change. Statewide average temperatures increased by about 1.7°F from 1895 to 2011, and warming has been greatest in the Sierra Nevada. By 2050, California is projected to warm by approximately 2.7°F above 2000 averages, a threefold increase in the rate of warming over the last century. By 2100, average temperatures could increase by 4.1 to 8.6°F, depending on emissions levels (CCCC 2012).

In California and western North America, observations of the climate have shown: 1) a trend toward warmer winter and spring temperatures; 2) a smaller fraction of precipitation falling as snow; 3) a decrease in the amount of spring snow accumulation in the lower and middle elevation mountain zones; 4) an advanced snowmelt of 5 to 30 days earlier in the springs; and 5) a similar shift (5 to 30 days earlier) in the timing of spring flower blooms (CAT 2006). According to the California Climate Action Team, even if actions could be taken to immediately curtail climate change emissions, the potency of emissions that have already built up, their long atmospheric lifetimes (see Table 5.6-1), and the inertia of the Earth's climate system could produce as much as 0.6°C (1.1°F) of additional warming. Consequently, some impacts from climate change are now considered unavoidable. Global climate change risks to California are listed in Table 5.6-2, *Summary of GHG Emissions Risks to California*, and include impacts to public health, water resources, agriculture, coastal sea level, forest and biological resources, and energy.

Specific climate change impacts that could affect the project include:

- **Water Resources Impacts.** By the late twenty-first century, all projections show drying, and half of the projections suggest 30-year average precipitation will decline by more than 10 percent below the historical average. This drying trend is caused by an apparent decline in the frequency of rain and snowfall. Even in projections with relatively small or no declines in precipitation, central and southern parts of the state can be expected to be drier from the warming effects alone because the spring snowpack will melt sooner, and the moisture in soils will evaporate during long dry summer months (CCCC 2012).

- **Wildfire Risks.** Earlier snowmelt, higher temperatures, and longer dry periods over a longer fire season will directly increase wildfire risk. Indirectly, wildfire risk will also be influenced by potential climate-related changes in vegetation and ignition potential from lightning. Human activities will continue to be the biggest factor in ignition risk. The number of large fires statewide is estimated to increase from 58 percent to 128 percent above historical levels by 2085. Under the same emissions scenario, estimated burned area will increase by 57 percent to 169 percent, depending on location (CCCC 2012).

- **Health Impacts.** Many of the gravest threats to public health in California stem from the increase of extreme conditions, principally more frequent, more intense, and longer heat waves. Particular concern centers on the increasing frequency of multiple hot days in succession, and simultaneous heat waves in several regions throughout the state. Public health could also be affected by climate change impacts on air quality, food production, the amount and quality of water supplies, energy pricing and availability, and the spread of infectious diseases. Higher temperatures also increase ground-level ozone levels. Furthermore, wildfires can increase particulate air pollution in the major air basins of California (CCCC 2012).

- **Increased Energy Demand.** Increases in average temperature and higher frequency of extreme heat events combined with new residential development across the state will drive up the demand for cooling in the increasingly hot and long summer season and decrease demand for heating in the cooler season. Warmer, drier summers also increase system losses at natural gas plants (reduced efficiency in the electricity generation process from higher temperatures) and hydropower plants (lower reservoir levels). Transmission of electricity will also be affected by climate change. Transmission lines lose 7 percent to 8 percent of transmitting capacity in high temperatures while needing to transport greater loads. This means that more electricity needs to be produced to make up for the loss in capacity and the growing demand (CCCC 2012).

Table 5.6-2 Summary of GHG Emissions Risks to California

Impact Category	Potential Risk
Public Health Impacts	Heat waves will be more frequent, hotter, and longer Fewer extremely cold nights Poor air quality made worse Higher temperatures increase ground-level ozone levels
Water Resources Impacts	Decreasing Sierra Nevada snow pack Challenges in securing adequate water supply Potential reduction in hydropower Loss of winter recreation
Agricultural Impacts	Increasing temperature Increasing threats from pests and pathogens Expanded ranges of agricultural weeds Declining productivity Irregular blooms and harvests
Coastal Sea Level Impacts	Accelerated sea level rise Increasing coastal floods Shrinking beaches Worsened impacts on infrastructure
Forest and Biological Resource Impacts	Increased risk and severity of wildfires Lengthening of the wildfire season Movement of forest areas Conversion of forest to grassland Declining forest productivity Increasing threats from pest and pathogens Shifting vegetation and species distribution Altered timing of migration and mating habits Loss of sensitive or slow-moving species
Energy Demand Impacts	Potential reduction in hydropower Increased energy demand

Sources: CEC 2006b; CEC 2008; CCCC 2012.

5.6.1.1 REGULATORY BACKGROUND

This section describes the federal, state, and local regulations applicable to GHG emissions.

Federal Laws

The US Environmental Protection Agency (EPA) announced on December 7, 2009, that GHG emissions threaten the public health and welfare of the American people and that GHG emissions from on-road vehicles contribute to that threat. The EPA's final findings respond to the 2007 US Supreme Court decision that GHG emissions fit within the Clean Air Act definition of air pollutants. The findings did not themselves impose any emission reduction requirements, but allowed the EPA to finalize the GHG standards proposed in 2009 for new light-duty vehicles as part of the joint rulemaking with the Department of Transportation (EPA 2009).

To regulate GHGs from passenger vehicles, EPA was required to issue an endangerment finding. The finding covers emissions of six key GHGs—CO_2, CH_4, N_2O, hydrofluorocarbons, perfluorocarbons, and SF_6—that have been the subject of scrutiny and intense analysis for decades by scientists in the United States and around the world. The first three are applicable to the proposed project's GHG emissions inventory because they constitute the majority of GHG emissions, and according to South Coast Air Quality Management District (SCAQMD) guidance are the GHG emissions that should be evaluated as part of a project's GHG emissions inventory.

US Mandatory Reporting Rule for GHGs (2009)

In response to the endangerment finding, the EPA issued the Mandatory Reporting of GHG Rule that requires substantial emitters of GHG emissions (large stationary sources, etc.) to report GHG emissions data. Facilities that emit 25,000 $MTCO_2e$ or more per year must submit an annual report.

Update to Corporate Average Fuel Economy Standards (2010/2012)

The current Corporate Average Fuel Economy standards (for model years 2011 to 2016) incorporate stricter fuel economy requirements promulgated by the federal government and California into one uniform standard. Additionally, automakers are required to cut GHG emissions in new vehicles by roughly 25 percent by 2016 (resulting in a fleet average of 35.5 miles per gallon by 2016). Rulemaking to adopt these new standards was completed in 2010. California agreed to allow automakers who show compliance with the national program to also be deemed in compliance with state requirements. The federal government issued new standards in 2012 for model years 2017–2025, which will require a fleet average of 54.5 miles per gallon in 2025.

EPA Regulation of Stationary Sources under the Clean Air Act (Ongoing)

Pursuant to its authority under the Clean Air Act, the EPA has been developing regulations for new stationary sources such as power plants, refineries, and other large sources of emissions. Pursuant to the President's 2013 Climate Action Plan, the EPA will be directed to develop regulations for existing stationary sources also.

State Laws

Current State of California guidance and goals for reductions in GHG emissions are generally embodied in Executive Orders S-03-05 and B-30-15, Assembly Bill 32 (AB 32), Senate Bill 32 (SB 32), and Senate Bill 375 (SB 375).

Executive Order S-03-05

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

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

Assembly Bill 32, the Global Warming Solutions Act (2006)

Current State of California guidance and goals for reductions in GHG emissions are generally embodied in AB 32, the Global Warming Solutions Act. AB 32 was passed by the California state legislature on August 31, 2006, to place the state on a course toward reducing its contribution of GHG emissions. AB 32 follows the 2020 tier of emissions reduction targets established in Executive Order S-03-05.

CARB 2008 Scoping Plan

The final Scoping Plan was adopted by CARB on December 11, 2008. AB 32 directed CARB to adopt discrete early action measures to reduce GHG emissions and outline additional reduction measures to meet the 2020 target. In order to effectively implement the emissions cap, AB 32 directed CARB to establish a mandatory reporting system to track and monitor GHG emissions levels for large stationary sources that generate more than 25,000 MT of CO_2e per year, prepare a plan demonstrating how the 2020 deadline can be met, and develop appropriate regulations and programs to implement the plan by 2012.

The 2008 Scoping Plan identified that GHG emissions in California are anticipated to be approximately 596 $MMTCO_2e$ in 2020. In December 2007, CARB approved a 2020 emissions limit of 427 $MMTCO_2e$ (471 million tons) for the state. The 2020 target requires a total emissions reduction of 169 $MMTCO_2e$, 28.5°percent from the projected emissions of the business-as-usual (BAU) scenario for the year 2020 (i.e., 28.5°percent of 596 $MMTCO_2e$) (CARB 2008).[5]

Key elements of CARB's GHG reduction plan that may be applicable to the proposed project include:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards (adopted and cycle updates in progress).
- Achieving a mix of 33 percent for energy generation from renewable sources (anticipated by 2020).
- A California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system for large stationary sources (adopted 2011).
- Establishing targets for transportation-related GHG emissions for regions throughout California, and pursuing policies and incentives to achieve those targets (several sustainable communities strategies have been adopted).
- Adopting and implementing measures pursuant to state laws and policies, including California's clean car standards (amendments to the Pavley Standards adopted 2009; Advanced Clean Car standard adopted 2012), goods movement measures, and the Low Carbon Fuel Standard (adopted 2009).

[5] CARB defines BAU in its Scoping Plan as emissions levels that would occur if California continued to grow and add new GHG emissions but did not adopt any measures to reduce emissions. Projections for each emission-generating sector were compiled and used to estimate emissions for 2020 based on 2002–2004 emissions intensities. Under CARB's definition of BAU, new growth is assumed to have the same carbon intensities as was typical from 2002 through 2004.

- Creating target fees, including a public goods charge on water use, fees on high GWP gases, and a fee to fund the administrative costs of the state's long-term commitment to AB 32 implementation (in progress).

Table 5.6-3, *Scoping Plan GHG Reduction Measures and Reductions toward 2020 Target*, shows the proposed reductions from regulations and programs outlined in the 2008 Scoping Plan. In recognition of the critical role that local governments play in the successful implementation of AB 32, CARB is recommending GHG reduction goals of 15 percent of baseline 2005–2008 levels by 2020 to ensure that municipal and community-wide emissions match the state's reduction target.[6] Measures that local governments take to support shifts in land use patterns are anticipated to emphasize compact, low-impact growth over development in greenfields, resulting in fewer vehicle miles traveled (VMT) (CARB 2008).

Table 5.6-3 Scoping Plan GHG Reduction Measures and Reductions toward 2020 Target

Recommended Reduction Measures	Reductions Counted toward 2020 Target of 169 $MMTCO_2e$	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	NA
Green Buildings	26	15%
Recycling and Waste	9	5%

[6] The Scoping Plan references a goal for local governments to reduce community GHG emissions by 15 percent from current (interpreted as 2008) levels by 2020, but it does not rely on local GHG reduction targets established by local governments to meet the state's GHG reduction target of AB 32.

Table 5.6-3 Scoping Plan GHG Reduction Measures and Reductions toward 2020 Target

Recommended Reduction Measures	Reductions Counted toward 2020 Target of 169 $MMTCO_2e$	Percentage of Statewide 2020 Target
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.
Notes: The percentages in the right-hand column add up to more than 100 percent because the emissions reduction goal is 169 $MMTCO_2e$ and the Scoping Plan identifies 174 $MTCO_2e$ of emissions reductions strategies. Based on the Second Assessment Report GWPs.
$MMTCO_2e$: million metric tons of CO_2e
[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 CO_2e (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.

First Update to the Scoping Plan

CARB recently completed a five-year update to the 2008 Scoping Plan, as required by AB 32. The First Update to the Scoping Plan was adopted at the May 22, 2014, board hearing. The update defines CARB's climate change priorities for the next five years and lays the groundwork to reach post-2020 goals in Executive Orders S-03-05 and B-16-2012. The update includes the latest scientific findings related to climate change and its impacts, including short-lived climate pollutants. The GHG target identified in the 2008 Scoping Plan is based on IPCC's GWPs identified in the Second and Third Assessment Reports (see Table 5.6-1).[7] CARB projected that statewide BAU emissions in 2020 would be approximately 509 million $MTCO_2e$.[8] Therefore, to achieve the AB 32 target of 431 million $MTCO_2e$ (i.e., 1990 emissions levels) by 2020, the state would need to reduce emissions by 78 million $MTCO_2e$ compared to BAU conditions, a reduction of 15.3 percent from BAU in 2020 (CARB 2014).[9] Therefore, to achieve the AB 32 target of 431 $MMTCO_2e$ (i.e., 1990 emissions levels) by 2020, the state would need to reduce emissions by 78 $MMTCO_2e$ compared to BAU conditions, a reduction of 15.3 percent from BAU in 2020. The data from the First Update to the Scoping Plan regarding GHG emissions and reductions needed to achieve the 1990 emissions target are shown in Table 5.6-4, *State BAU Forecast in the First Update to the Scoping Plan.*

[7] IPCC's Fourth and Fifth Assessment Reports identified more recent GWP values based on the latest available science. CARB recalculated the 1990 GHG emission levels with the updated GWPs in the Fourth Assessment Report, and the 427 $MMTCO_2e$ 1990 emissions level and 2020 GHG emissions limit, established in response to AB 32, is slightly higher at 431 $MMTCO_2e$ (CARB 2014).
[8] The BAU forecast includes GHG reductions from Pavley and the 33% Renewable Portfolio Standard.
[9] If the GHG emissions reductions from Pavley I and the Renewable Electricity Standard are accounted for as part of the BAU scenario (30 million $MTCO_2e$ total), then the state would need to reduce emissions by 108 million $MTCO_2e$, which is a 20 percent reduction from BAU.

Table 5.6-4 State BAU Forecast in the First Update to the Scoping Plan

Recommended Reduction Measures	2020 $MMTCO_2e$ – Fourth Assessment Report GWPs
AB 32 Baseline 2020 Forecast Emissions (2020 BAU) with Pavley I and the Renewable Electricity Standard (RPS)	539
AB 32 Baseline 2020 Forecast Emissions (2020 BAU)[1]	509
Expected Reductions from Sector-Based Measures	
Energy	25
Transportation	23
High-GWPs	5
Waste	2
Cap-and-Trade Reductions[2]	23
2020 Limit	431
Percent Reduction from BAU with Pavley I and RPS	20.0%
Percent Reduction from BAU without Pavley and RPS	15.3%

Sources: CARB 2014a.
[1] The total projected emissions in the 2020 BAU scenario accounts for reductions anticipated from Pavley I and the Renewable Electricity Standard (30 million $MTCO_2e$ total).
[2] The cap-and-trade reductions depend on the emissions forecast.

The update highlights California's progress toward meeting the near-term 2020 GHG emission reduction goals defined in the original 2008 Scoping Plan. As identified in the Update to the Scoping Plan, California is on track to meeting the goals of AB 32. However, the update also addresses the state's longer-term GHG goals within a post-2020 element. The post-2020 element provides a high level view of a long-term strategy for meeting the 2050 GHG goals, including a recommendation for the state to adopt a midterm target. According to the Update to the Scoping Plan, local government reduction targets should chart a reduction trajectory that is consistent with or exceeds the trajectory created by statewide goals (CARB 2014).

According to the Update to the Scoping Plan, reducing emissions to 80 percent below 1990 levels will require a fundamental shift to efficient, clean energy in every sector of the economy. Progressing toward California's 2050 climate targets will require significant acceleration of GHG reduction rates. Emissions from 2020 to 2050 will have to decline several times faster than the rate needed to reach the 2020 emissions limit (CARB 2014).

Executive Order B-30-15

Executive Order B-30-15, signed April 29, 2015, sets a goal of reducing GHG emissions within the state to 40 percent of 1990 levels by year 2030. Executive Order B-30-15 also directs CARB to update the Scoping Plan to quantify the 2030 GHG reduction goal for the state and requires state agencies to implement measures to meet the interim 2030 goal as well as the long-term goal for 2050 in Executive Order S-03-05. It requires the Natural Resources Agency to conduct triennial updates of the California adaptation strategy, Safeguarding California, in order to ensure climate change is accounted for in state planning and investment decisions.

Senate Bill 32 and Assembly Bill 197

In September 2016, Governor Brown signed Senate Bill 32 and Assembly Bill 197 into law, making the Executive Order goal for year 2030 into a statewide mandated legislative target. AB 197 established a joint legislative committee on climate change policies and requires the CARB to prioritize direction emissions reductions rather than the market-based cap-and-trade program for large stationary, mobile, and other sources.

2030 Target Scoping Plan

The new Executive Order B-30-15 and SB 32 requires CARB to prepare another update to the Scoping Plan to address the 2030 target for the state. The second Scoping Plan will address the new 2030 interim target to achieve a 40 percent reduction below 1990 levels by 2030. CARB released the *2030 Target Scoping Plan Update Concept Paper* in June 2016 that identifies potential scenarios focusing on different emissions sectors with and without the Cap-and-Trade program, which is currently in litigation (CARB 2016b). Under AB 197, CARB is directed to prioritize direct emissions control strategies, which would emphasize implementing direct emissions reductions from large stationary source emitters such as power plants and refineries and also from mobile sources. Release of the second Scoping Plan Update that carries through the potential regulations and programs to achieve the 2040 target is anticipated in 2017.

Senate Bill 1383

On September 19, 2016, the Governor signed SB 1383 to supplement the GHG reduction strategies in the Scoping Plan to consider short-lived climate pollutants, including black carbon and CH_4. Black carbon is the light-absorbing component of fine particulate matter (PM) produced during incomplete combustion of fuels. SB 1383 requires the state board, no later than January 1, 2018, to approve and begin implementing that comprehensive strategy to reduce emissions of short-lived climate pollutants to achieve a reduction in methane by 40 percent, hydrofluorocarbon gases by 40 percent, and anthropogenic black carbon by 50 percent below 2013 levels by 2030, as specified. The bill also establishes targets for reducing organic waste in landfill. In April 2016, CARB adopted the *Proposed Short-Lived Climate Pollutant Strategy*, which identifies the state's approach to reducing anthropogenic and biogenic sources of short-lived climate pollutants. Anthropogenic sources of black carbon include on- and off-road transportation, residential wood burning, fuel combustion (charbroiling), and industrial processes. According to CARB, ambient levels of black carbon in California are 90 percent lower than in the early 1960s, despite the tripling of diesel fuel use (CARB 2016c). In-use on-road rules are expected to reduce black carbon emissions from on-road sources by 80 percent between 2000 and 2020. SCAQMD is one of the air districts that requires air pollution control technologies for chain-driven broilers, which reduces particulate emissions from these charbroilers by over 80 percent (CARB 2016c). Additionally, SCAQMD Rule 445, wood-burning devices limits installation of new fireplaces in the SoCAB.

Senate Bill 375

In 2008, Senate Bill 375 (SB 375), the Sustainable Communities and Climate Protection Act, was adopted to connect the GHG emissions reductions targets established in the 2008 Scoping Plan for the transportation sector to local land use decisions that affect travel behavior. Its intent is to reduce GHG emissions from light-

duty trucks and automobiles (excludes emissions associated with goods movement) by aligning regional long-range transportation plans, investments, and housing allocations to local land use planning to reduce VMT and vehicle trips. Specifically, SB 375 required CARB to establish GHG emissions reduction targets for each of the 18 metropolitan planning organizations (MPOs). The Southern California Association of Governments (SCAG) is the MPO for the Southern California region, which includes the counties of Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial.

Pursuant to the recommendations of the Regional Transportation Advisory Committee, CARB adopted per capita reduction targets for each of the MPOs rather than a total magnitude reduction target. SCAG's targets are an 8 percent per capita reduction from 2005 GHG emission levels by 2020 and a 13 percent per capita reduction from 2005 GHG emission levels by 2035 (CARB 2010). SB 375 requires CARB to periodically update the targets, no later than every eight years. CARB plans to propose updated targets for consideration in 2016, with the intent to make them effective in 2018. Sustainable communities strategies (SCSs) adopted in 2018 would be subject to the updated targets (CARB 2015b).

The 2020 targets are smaller than the 2035 targets because a significant portion of the built environment in 2020 has been defined by decisions that have already been made. In general, the 2020 scenarios reflect that more time is needed for large land use and transportation infrastructure changes. Most of the reductions in the interim are anticipated to come from improving the efficiency of the region's transportation network. The targets would result in 3 $MMTCO_2e$ of reductions by 2020 and 15 $MMTCO_2e$ of reductions by 2035. Based on these reductions, the passenger vehicle target in CARB's Scoping Plan (for AB 32) would be met (CARB 2010).

CARB is currently in the process of updating the next round of targets and methodology to comply with the requirement for updates every eight years. Considerations for the next round of targets include whether to change the nature or magnitude of the emissions reduction targets for each of the MPOs, and whether the target-setting methodology should account for advances in technologies that reduce emissions. Such changes in methodology would permit cities to account for emissions reductions from advances in cleaner fuels and vehicles and not only from land use and transportation planning strategies.

SCAG's 2016-2040 RTP/SCS

SB 375 requires the MPOs to prepare a sustainable communities strategy in their regional transportation plan. For the SCAG region, the 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) was adopted on April 7, 2016, and is an update to the 2012 RTP/SCS (SCAG 2016). In general, the SCS outlines a development pattern for the region, which, when integrated with the transportation network and other transportation measures and policies, would reduce vehicle miles traveled from automobiles and light duty trucks and thereby reduce GHG emissions from these sources.

The 2016-2040 RTP/SCS projects that the SCAG region will meet or exceed the passenger per capita targets set in 2010 by CARB. It is projected that VMT per capita in the region for year 2040 would be reduced by 7.4 percent with implementation of the 2016-2040 RTP/SCS compared to a no-plan year 2040 scenario. Under the 2016-2040 RTP/SCS, SCAG anticipates lowering GHG emissions 8 percent below 2005 levels by 2020, 18 percent by 2035, and 21 percent by 2040. The 18 percent reduction by 2035 over 2005 levels represents a 2

percent increase in reduction compared to the 2012 RTP/SCS projection. Overall, the SCS is meant to provide growth strategies that will achieve the aforementioned regional GHG emissions reduction targets. Land use strategies to achieve the region's targets include planning for new growth around high quality transit areas and livable corridors, and creating neighborhood mobility areas to integrate land use and transportation and plan for more active lifestyles (SCAG 2016). However, the SCS does not require that local general plans, specific plans, or zoning be consistent with SCS; instead, it provides incentives to governments and developers for consistency.

Assembly Bill 1493

California vehicle GHG emission standards were enacted under AB 1493 (Pavley I). Pavley I is a clean-car standard that reduces GHG emissions from new passenger vehicles (light-duty auto to medium-duty vehicles) from 2009 through 2016 and is anticipated to reduce GHG emissions from new passenger vehicles by 30 percent in 2016. California implements the Pavley I standards through a waiver granted to California by the EPA. In 2012, the EPA issued a Final Rulemaking that sets even more stringent fuel economy and GHG emissions standards for model year 2017 through 2025 light-duty vehicles (see also the discussion on the update to the Corporate Average Fuel Economy standards under *Federal Laws*, above). In January 2012, CARB approved the Advanced Clean Cars program (formerly known as Pavley II) for model years 2017 through 2025. The program combines the control of smog, soot, and global warming gases and requirements for greater numbers of zero-emission vehicles into a single package of standards. Under California's Advanced Clean Car program, by 2025, new automobiles will emit 34 percent less global warming gases and 75 percent less smog-forming emissions.

Executive Order S-01-07

On January 18, 2007, the state set a new low carbon fuel standard (LCFS) for transportation fuels sold within the state. Executive Order S-01-07 sets a declining standard for GHG emissions measured in carbon dioxide equivalent gram per unit of fuel energy sold in California. The LCFS requires a reduction of 2.5 percent in the carbon intensity of California's transportation fuels by 2015 and a reduction of at least 10 percent by 2020. The standard applies to refiners, blenders, producers, and importers of transportation fuels, and would use market-based mechanisms to allow these providers to choose how they reduce emissions during the "fuel cycle" using the most economically feasible methods.

Senate Bills 1078 and 107, and Executive Order S-14-08

A major component of California's Renewable Energy Program is the renewable portfolio standard (RPS) established under Senate Bills 1078 (Sher) and 107 (Simitian). Under the RPS, certain retail sellers of electricity were required to increase the amount of renewable energy each year by at least 1 percent in order to reach at least 20 percent by December 30, 2010. Executive Order S-14-08 was signed in November 2008, which expands the state's renewable energy standard to 33 percent renewable power by 2020. This standard was adopted by the legislature in 2011 (SBX1-2). Renewable sources of electricity include wind, small hydropower, solar, geothermal, biomass, and biogas. The increase in renewable sources for electricity production will decrease indirect GHG emissions from development projects, because electricity production from renewable sources is generally considered carbon neutral.

Senate Bill 350

Senate Bill 350 (de Leon), was signed into law September 2015 and establishes tiered increases to the RPS—40 percent by 2024, 45 percent by 2027, and 50 percent by 2030. SB 350 also set a new goal to double the energy-efficiency savings in electricity and natural gas through energy efficiency and conservation measures.

Executive Order B-16-2012

On March 23, 2012, the state identified that CARB, the California Energy Commission (CEC), the Public Utilities Commission, and other relevant agencies worked with the Plug-in Electric Vehicle Collaborative and the California Fuel Cell Partnership to establish benchmarks to accommodate zero-emissions vehicles in major metropolitan areas, including infrastructure to support them (e.g., electric vehicle charging stations). The executive order also directs the number of zero-emission vehicles in California's state vehicle fleet to increase through the normal course of fleet replacement so that at least 10 percent of fleet purchases of light-duty vehicles are zero-emission by 2015 and at least 25 percent by 2020. The executive order also establishes a target for the transportation sector of reducing GHG emissions from the transportation sector 80 percent below 1990 levels.

California Building Code: Building and Energy Efficiency Standards

Energy conservation standards for new residential and non-residential buildings were adopted by the California Energy Resources Conservation and Development Commission (now the CEC) in June 1977 and most recently revised in 2013 (Title 24, Part 6, of the California Code of Regulations [CCR]). Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow for consideration and possible incorporation of new energy efficiency technologies and methods. On May 31, 2012, the CEC adopted the 2013 Building and Energy Efficiency Standards, which went into effect on July 1, 2014. Buildings that are constructed in accordance with the 2013 Building and Energy Efficiency Standards are 25 percent (residential) to 30 percent (nonresidential) more energy efficient than the 2008 standards as a result of better windows, insulation, lighting, ventilation systems, and other features.

Most recently, the CEC adopted the 2016 Building and Energy Efficiency Standards. The 2016 Standards will continue to improve upon the current 2013 Standards for new construction of, and additions and alterations to, residential and nonresidential buildings. These standards will go into effect on January 1, 2017. Under the 2016 Standards, residential buildings are 28 percent more energy efficient than the 2013 Standards, and nonresidential buildings are 5 percent more energy efficient than the 2013 Standards (CEC 2015a).

The 2016 standards will not achieve zero net energy. However, they do get very close to the state's goal and make important steps toward changing residential building practices in California. The 2019 standards will take the final step to achieve zero net energy for newly constructed residential buildings throughout California (CEC 2015b).

California Building Code: CALGreen

On July 17, 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (24 CCR, Part 11, known as "CALGreen") was adopted as part of the California Building Standards Code. CALGreen established planning and design

standards for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants.[10] The mandatory provisions of the California Green Building Code Standards became effective January 1, 2011, and were last updated in 2013.

2006 Appliance Efficiency Regulations

The 2006 Appliance Efficiency Regulations (20 CCR §§ 1601–1608) were adopted by the CEC on October 11, 2006, and approved by the California Office of Administrative Law on December 14, 2006. The regulations include standards for both federally regulated appliances and non–federally regulated appliances. Though these regulations are now often viewed as "business as usual," they exceed the standards imposed by all other states, and they reduce GHG emissions by reducing energy demand.

Solid Waste Regulations

California's Integrated Waste Management Act of 1989 (AB 939, Public Resources Code 40050 et seq.) set a requirement for cities and counties throughout the state to divert 50 percent of all solid waste from landfills by January 1, 2000, through source reduction, recycling, and composting. In 2008, the requirements were modified to reflect a per capita requirement rather than tonnage. To help achieve this, the act requires that each city and county prepare and submit a source reduction and recycling element. AB 939 also established the goal for all California counties to provide at least 15 years of ongoing landfill capacity.

AB 341 (Chapter 476, Statutes of 2011) increased the statewide goal for waste diversion to 75 percent by 2020 and requires recycling of waste from commercial and multifamily residential land uses.

The California Solid Waste Reuse and Recycling Access Act (AB 1327, California Public Resources Code §§ 42900 et seq.) requires areas to be set aside for collecting and loading recyclable materials in development projects. The act required the California Integrated Waste Management Board to develop a model ordinance for adoption by any local agency requiring adequate areas for collection and loading of recyclable materials as part of development projects. Local agencies are required to adopt the model or an ordinance of their own.

Section 5.408 of the 2013 CALGreen also requires that at least 50 percent of the nonhazardous construction and demolition waste from nonresidential construction operations be recycled and/or salvaged for reuse.

In October of 2014 Governor Brown signed AB 1826 requiring businesses to recycle their organic waste on and after April 1, 2016, depending on the amount of waste they generate per week. This law also requires that on and after January 1, 2016, local jurisdictions across the state implement an organic waste recycling program to divert organic waste generated by businesses, including multifamily residential dwellings that consist of five or more units. Organic waste means food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste.

Water Efficiency Regulations

The 20x2020 Water Conservation Plan was issued by the Department of Water Resources (DWR) in 2010 pursuant to Senate Bill 7, which was adopted during the 7th Extraordinary Session of 2009–2010 and

[10] The green building standards became mandatory in the 2010 edition of the building code.

therefore dubbed "SBX7-7." SBX7-7 mandated urban water conservation and authorized the DWR to prepare a plan implementing urban water conservation requirements (20x2020 Water Conservation Plan). In addition, it required agricultural water providers to prepare agricultural water management plans, measure water deliveries to customers, and implement other efficiency measures. SBX7-7 requires urban water providers to adopt a water conservation target of 20 percent reduction in urban per capita water use by 2020 compared to 2005 baseline use.

The Water Conservation in Landscaping Act of 2006 (AB 1881) requires local agencies to adopt the updated DWR model ordinance or an equivalent. AB 1881 also requires the CEC to consult with the DWR to adopt, by regulation, performance standards and labeling requirements for landscape irrigation equipment, including irrigation controllers, moisture sensors, emission devices, and valves to reduce the wasteful, uneconomic, inefficient, or unnecessary consumption of energy or water.

Local Plans and Policies

City of Yucaipa GHG Reduction Plan/Climate Action Plan

The San Bernardino Associated Governments led a GHG reduction planning initiative in partnership with the County of San Bernardino and 21 partnership cities, including the City of Yucaipa. The Regional GHG Reduction Plan (2014) includes 2008 and 2020 inventories, individual GHG reduction goals, and a summary of the actions each of the 21 partnership cities has selected to reduce GHG emissions.[11] Individual measures outlined in the Regional GHG Reduction Plan were integrated into a jurisdiction-specific Climate Action Plan (CAP) for the City of Yucaipa, which was adopted on September 14, 2015. The City of Yucaipa's CAP serves as a roadmap for reducing GHG emissions from City operations and the community to achieve the City's local GHG reduction goals. The City of Yucaipa has adopted a GHG reduction target of 15 percent reduction from 2008 emission by the year 2020. The GHG emissions reduction measures cover emissions reductions from the following GHG emissions sectors: building energy, on-road transportation, off-road equipment, solid waste management, agriculture, wastewater treatment, and water conveyance.

5.6.1.2 EXISTING CONDITIONS

The majority of the project site is currently undeveloped and vacant open space except for the portion in the northwest corner of the site containing the City's maintenance yard facility, the single-family residence on 2nd Street, and a well on 2nd Street operated by the Yucaipa Valley Water District (YVWD). Potential sources of emissions from this facility include the existing structures in addition to the on- and off-road vehicles.

5.6.2 Thresholds of Significance

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

[11] The GHG emissions inventory conducted for the general plan update has a different baseline year and uses different modeling tools than the SANBAG Regional GHG Reduction Plan; therefore, the emissions inventory results for the general plan update may differ.

GHG-1 Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

GHG-2 Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

South Coast Air Quality Management District

SCAQMD has adopted a significance threshold of 10,000 $MTCO_2e$ per year for permitted (stationary) sources of GHG emissions for which SCAQMD is the designated lead agency. To provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents, SCAQMD convened a GHG CEQA Significance Threshold Working Group (Working Group). Based on the last Working Group meeting held in September 2010 (Meeting No. 15), the SCAQMD Working Group identified a tiered approach for evaluating GHG emissions for development projects where SCAQMD is not the lead agency:

- **Tier 1.** If a project is exempt from CEQA, project-level and cumulative GHG emissions are less than significant.
- **Tier 2.** If the project complies with a GHG emissions reduction plan or mitigation program that avoids or substantially reduces GHG emissions in the project's geographic area (i.e., city or county), project-level and cumulative GHG emissions are less than significant.

For projects that are not exempt or where no qualifying GHG reduction plans are directly applicable, SCAQMD requires an assessment of GHG emissions. SCAQMD has identified a "bright-line" screening-level threshold of 3,000 $MTCO_2e$ annually for all land use types or the following land-use-specific thresholds: 1,400 $MTCO_2e$ for commercial projects, 3,500 $MTCO_2e$ for residential projects, or 3,000 $MTCO_2e$ for mixed-use projects. This bright-line threshold is based on a review of the Governor's Office of Planning and Research database of CEQA projects. Based on their review of 711 CEQA projects, 90 percent of CEQA projects would exceed the bright-line thresholds identified above. Therefore, projects that do not exceed the bright-line threshold would have a nominal, and therefore less than cumulatively considerable, impact on GHG emissions:

- **Tier 3.** If GHG emissions are less than the screening-level threshold, project-level and cumulative GHG emissions are less than significant.
- **Tier 4.** If emissions exceed the screening threshold, a more detailed review of the project's GHG emissions is warranted.

The SCAQMD Working Group has identified an efficiency target for projects that exceed the bright-line threshold: a 2020 efficiency target of 4.8 $MTCO_2e$ per year per service population ($MTCO_2e$/year/SP) for project-level analyses and 6.6 $MTCO_2e$/year/SP for plan-level analyses (e.g., general plans) for year 2020. Service population is defined as the sum of the residential and employment population of a project. The per

capita efficiency targets are based on the AB 32 GHG reduction target and 2020 GHG emissions inventory prepared for CARB's 2008 Scoping Plan.[12]

Tier 2 Approach: Yucaipa Climate Action Plan

For purposes of this project, SCAQMD's Tier 2 analysis is applicable because the City of Yucaipa adopted a CAP in September 2015 that addresses GHG emissions generated in the City on a community-wide basis. The City's CAP provides:

- A community-wide GHG emissions reduction target that substantially lessens the cumulative impact.
- Measures that new development must follow to meet the City's reduction target and substantially lessen the cumulative impacts.
- A set of GHG emissions inventories that provides quantitative facts and analysis of how the measures within the CAP meet the reduction target that substantially lessen the cumulative impact.
- An implementation, monitoring, and update program to ensure that the reduction target is met.

The proposed project would have a buildout horizon of 2018. The CAP evaluated the potential for 3,646 new residential units and 3.879 million square feet of nonresidential development between 2015 and 2020. The CAP identified the additional GHG reductions needed for new residential and nonresidential projects in order for the City to achieve the GHG reduction goal for the year 2020. The proposed project is within the growth projections anticipated for the CAP for the 2020 forecast. In accordance with Appendix C of the CAP, projects that exceed the SCAQMD screening threshold of 3,000 $MTCO_2e$ year are required to use the CAP screening tables to achieve additional GHG emissions reductions in order for the City to achieve the GHG target.

5.6.3 Environmental Impacts

5.6.3.1 METHODOLOGY

The analysis in this section is based on buildout of the proposed land use plan as modeled using the California Emissions Estimator Model (CalEEMod), Version 2013.2.2, for the following sectors:

- **Transportation:** GHG emissions are based on trip generation and vehicle miles traveled data provided by IBI Group (see Appendix J to this DEIR).
- **Solid Waste Disposal:** Indirect emissions from solid waste generation are based on CalRecycle waste generation rates (see Table 8-2 of Chapter 8 of the DEIR).

[12] SCAQMD took the 2020 statewide GHG reduction target for land use only GHG emissions sectors and divided it by the 2020 statewide employment for the land use sectors to derive a per capita GHG efficiency metric that coincides with the GHG reduction targets of AB 32 for year 2020.

- **Water/Wastewater:** GHG emissions from electricity used to supply water, treat water, distribute water, and then treated wastewater are based on indoor and outdoor demands of the residential uses and nonresidential land uses in the Innovation District in addition to the water demand of the open space area (see Table 5.16-6 of Chapter 5-16 of the DEIR).

- **Area Sources:** GHG emissions are from use of landscaping equipment used for property maintenance.

- **Energy:** GHG emissions from use of electricity and natural gas by nonresidential land uses. For purposes of this analysis, new buildings are assumed to comply with the 2016 Building Energy Efficiency. Standards, which are 5 percent more energy efficient for nonresidential buildings and 28 percent more energy efficient for residential buildings than the 2013 Building and Energy Efficiency Standards. The 2013 Standards are 30 percent more efficient for nonresidential buildings and 25 percent more efficient for residential buildings than the 2008 Standards.

- **Construction:** GHG emissions are from construction-related vehicle and equipment use and are based on CalEEMod defaults for the construction equipment mix and worker, vendor, and haul trips. Emissions are amortized over a 30-year period and are included as part of the overall inventory.

Life cycle emissions are not included in this analysis because not enough information is available for the proposed project, and therefore life cycle GHG emissions would be speculative.[13] Black carbon emissions are not included in the GHG analysis because CARB does not include this pollutant in the state's AB 32 inventory and treats this short-lived climate pollutant separately.[14] GHG modeling is included in Appendix B.

5.6.3.2 IMPACT ANALYSIS

The following impact analysis addresses thresholds of significance that may be potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

[13] Life cycle emissions include indirect emissions associated with materials manufacture. However, these indirect emissions involve numerous parties, each of which is responsible for GHG emissions of their particular activity. The California Resources Agency, in adopting the CEQA Guidelines Amendments on GHG emissions found that lifecycle analyses was not warranted for project-specific CEQA analysis in most situations, for a variety of reasons, including lack of control over some sources, and the possibility of double-counting emissions (see Final Statement of Reasons for Regulatory Action, December 2009). Because the amount of materials consumed during the operation or construction of the proposed project is not known, the origin of the raw materials purchased is not known, and manufacturing information for those raw materials are also not known, calculation of life cycle emissions would be speculative. A life-cycle analysis is not warranted (OPR 2008).

[14] Particulate matter emissions, which include black carbon, are analyzed in Section 5.2, *Air Quality*. Black carbon emissions have sharply declined due to efforts to reduce on-road and off-road vehicle emissions, especially diesel particulate matter. The State's existing air quality policies will virtually eliminate black carbon emissions from on-road diesel engines within 10 years (CARB 2016c).

Impact 5.6-1: Development of the Residential District and Innovation District in the Oak Glen Creek Specific Plan would exceed the screening criteria of the Yucaipa Climate Action Plan and require implementation of 100 points of GHG reduction measures. [Thresholds GHG-1 and GHG-2]

Impact Analysis: A project does not generate enough GHG emissions on its own to influence global climate change; therefore, the GHG chapter measures a project's contribution to the cumulative environmental impact. The City of Yucaipa has adopted a CAP to ensure GHG emissions reductions are implemented community-wide for the City to achieve the GHG reduction goals of AB 32. In addition to the City's CAP, other applicable plans adopted for the purpose of reducing GHG emissions include CARB's Scoping Plan and SCAG's 2016 RTP/SCS. A consistency analysis with these plans is presented below:

City of Yucaipa Climate Action Plan

The City's CAP requires a quantified evaluation of GHG emissions. For projects that exceed 3,000 $MTCO_2e$, the City requires implementation of additional GHG reduction measure identified in the City's screening tables for residential and nonresidential development (see Appendix C of the CAP).

Oak Glen Creek Specific Plan GHG Emissions Forecast

Development under the Specific Plan would contribute to global climate change through direct emissions of GHG from onsite area sources and vehicle trips generated by the project, and indirectly through offsite energy production required for onsite activities, water use, and waste disposal. Annual GHG emissions were calculated for construction and operation of the project. Construction emissions were amortized into the operational phase in accordance with SCAQMD's proposed methodology. The total GHG emissions associated with the proposed project are shown in Table 5.6-5, *Annual Operational Phase GHG Emissions*.

Table 5.6-5 Annual Operational Phase GHG Emissions

Source	GHG Emissions $MTCO_2e$/Year	
	Oak Glen Creek Specific Plan[1]	Percent of Total
Area[2]	52	1%
Energy	713	16%
Transportation	3,223	74%
Waste	188	4%
Water	147	3%
Offroad[3]	13	<1%
Construction-Amortized[4]	38	2%
Total All Sectors	4,374	**100%**
Yucaipa CAP Screening Threshold	3,000	NA
Exceeds Bright-Line Threshold?	Yes	NA

Source: CalEEMod Version 2013.2.2. Based on 2020 transportation emission rates.
1 For purposes of this GHG analysis, buildings on proposed land uses are assumed to comply with the 2016 Building Energy Efficiency Standards. Includes water efficiency improvements required under CALGreen.
2 Consists of emissions from architectural coatings, household consumer products, and landscaping equipment.
3 For purposes of this analysis, it is assumed the other onsite City maintenance yard facility sources (e.g., buildings) would generate nominal emissions. Furthermore, it is also assumed that the off-road equipment currently in use at the City maintenance yard would remain in use after project implementation.
4 Total construction emissions associated with the Open Space, Residential, and Innovation Districts are amortized over a 30-year project lifetime.

As shown in this table, the net GHG emissions of 4,374 $MTCO_2e$ from project-related operational activities would exceed the screening threshold of 3,000 $MTCO_2e$ in the City's CAP. The CAP includes screening criteria to be applied to future development projects through the screening tables. These screening tables include various design and construction measures for residential, nonresidential, and mixed-use projects that would contribute to reducing GHG emissions when incorporated. Numeric values are assigned to each of these measures and per the CAP, development projects that achieve at least 100 points would be considered consistent with the CAP. Therefore, the project's cumulative contribution to the long-term GHG emissions would be considered potentially significant without implementation of 100 points identified in the CAP screening tables.

CARB Scoping Plan

The CARB Scoping Plan is applicable to state agencies but is not directly applicable to cities/counties and individual projects (i.e., the Scoping Plan does not require the City to adopt policies, programs, or regulations to reduce GHG emissions). However, new regulations adopted by the state agencies outlined in the Scoping Plan result in GHG emissions reductions at the local level. As a result, local jurisdictions benefit from reductions in transportation emissions rates, increases in water efficiency in the building and landscape codes, and other statewide actions that would affect a local jurisdiction's emissions inventory from the top down. Statewide strategies to reduce GHG emissions include the LCFS and changes in the corporate average fuel economy standards (e.g., Pavley I and Pavley California Advanced Clean Cars program). The proposed project is required to adhere to the programs and regulations identified by the Scoping Plan and implemented by state, regional, and local agencies to achieve the statewide GHG reduction goals of AB 32.

The project GHG emissions in Table 5.6-5 include reductions associated with statewide strategies that have been adopted since AB 32. However, the Scoping Plan itself is not directly applicable to the proposed project. The proposed project would not conflict with the statewide programs adopted to achieve the statewide GHG reduction targets outlined in the Scoping Plan.

SCAG's Regional Transportation Plan/Sustainable Communities Strategy

SCAG's 2016 RTP/SCS was adopted April 7, 2016. The RTP/SCS identifies multimodal transportation investments, including bus rapid transit, light rail transit, heavy rail transit, commuter rail, high-speed rail, active transportation strategies (e.g., bike ways and sidewalks), transportation demand management strategies, transportation systems management, highway improvements (interchange improvements, high-occupancy vehicle lanes, high-occupancy toll lanes), arterial improvements, goods movement strategies, aviation and airport ground access improvements, and operations and maintenance of the existing multimodal transportation system.

SCAG's RTP/SCS identifies that land use strategies that focus on new housing and job growth in areas served by high quality transit and other opportunity areas would be consistent with a land use development pattern that supports and complements the proposed transportation network. The overarching strategy in the 2016 RTP/SCS is to allow the southern California region to grow in more compact communities in existing urban areas; provide neighborhoods with efficient and plentiful public transit and abundant and safe opportunities to walk, bike, and pursue other forms of active transportation; and preserve more of the

region's remaining natural lands (SCAG 2016). The 2016 RTP/SCS contains transportation projects to help more efficiently distribute population, housing, and employment growth, and provides forecasts for development that is generally consistent with regional-level general plan data. The projected regional development pattern—when integrated with the proposed regional transportation network identified in the RTP/SCS—would reduce per capita vehicular travel-related GHG emissions and achieve the GHG reduction per capita targets for the SCAG region. The RTP/SCS does not require that local general plans, specific plans, or zoning be consistent with the RTP/SCS, but provides incentives for consistency to governments and developers. Table 5.6-6, *SCAG 2016 RTP/SCS Consistency*, evaluates the project in comparison to the three primary transportation-land use strategies in the RTP/SCS. As shown in the table, the proposed project would not interfere with SCAG's ability to implement the regional strategies outlined in the 2016-2040 RTP/SCS. Therefore, no impact would occur.

Table 5.6-6 SCAG 2016 RTP/SCS Consistency

SCAG Transportation-Land Use Strategies	Implementing Policies/Strategies	Consistency
Focus new growth around high quality transit areas (HQTA). The 2016 RTP/SCS overall land use pattern reinforces the trend of focusing new housing and employment in the region's HQTAs. The 2016 RTP/SCS assumes that 46 percent of new housing and 55 percent of new employment locations developed between 2012 and 2040 will be in HQTAs, which comprise only 3 percent of the total land area in the SCAG region (SCAG 2016).	Additional local policies that ensure that development in HQTAs achieve the intended reductions in VMT and GHG emissions include: ▪ Affordable housing requirements. ▪ Reduced parking requirements. ▪ Adaptive reuse of existing structures. ▪ Density bonuses tied to family housing units such as three- and four-bedroom units. ▪ Mixed-use development standards that include local serving retail. ▪ Increased Complete Streets investments around HQTAs.	**Not Applicable:** There are no identified HQTAs in the Oak Glen Creek Specific Plan area.
Plan for growth around livable corridors. SCAG's livable-corridors strategy seeks to revitalize commercial strips through integrated transportation and land use planning that results in increased economic activity and improved mobility options.	Additional livable corridors strategies include: ▪ Transit improvements, including dedicated lane bus rapid transit (BRT) or semidedicated BRT-light. The remaining corridors have the potential to support other features that improve bus performance (enhanced bus shelters, real-time travel information, off-bus ticketing, all door boarding, and longer distances between stops to improve speed and reliability). ▪ Active transportation improvements: Livable corridors include increased investments in complete streets to make these corridors and the intersecting arterials safe for biking and walking. ▪ Land use policies: Livable corridor strategies include the development of mixed-use retail centers at key nodes along the corridors, increasing neighborhood-oriented retail at more intersections, and zoning that allows for the replacement of underperforming auto-oriented strip retail between nodes with higher density residential and employment.	**Not Applicable:** The identified 3,000 miles of livable corridors are generally a subset of HQTAs, except for 154 miles that have been identified in sustainability planning grant projects. As stated, there are no HQTAs in the Oak Glen Specific Plan area.

Table 5.6-6 SCAG 2016 RTP/SCS Consistency

SCAG Transportation-Land Use Strategies	Implementing Policies/Strategies	Consistency
Provide more options for short trips in neighborhood mobility areas and complete communities. Neighborhood mobility areas have a high intersection density, low to moderate traffic speeds, and robust residential retail connections. These areas are suburban in nature, but can support slightly higher density in targeted locations. The land use strategies include shifting retail growth from large centralized retail strip malls to smaller distributed centers throughout a neighborhood mobility area.	▪ Neighborhood mobility area land use strategies include pursuing local policies that encourage replacing motor vehicle use with neighborhood electric vehicle (NEV) use. NEVs are a federally designated class of passenger vehicle rated for use on roads with posted speed limits of 35 miles per hour or less. Steps needed to support NEV use include providing state and regional incentives for purchases, local planning for charging stations, designating a local network of low speed roadways, and adopting local regulations that allow smaller NEV parking stalls. ▪ Complete communities strategies include creation of mixed-use districts through a concentration of activities with housing, employment, and a mix of retail and services in close proximity to each other. Focusing a mix of land uses in strategic growth areas creates complete communities wherein most daily needs can be met within a short distance of home, providing residents with the opportunity to patronize their local area and run daily errands by walking or cycling rather than traveling by automobile.	**Consistent:** The Oak Glen Specific Plan would accommodate a mix of residential and commercial land uses in proximity to each other. In addition, the Oak Glen Specific Plan would provide for creation of new multiuse trails within Oak Glen Creek and the continuation of the existing Wilson Creek Trail, providing for potentially better active transportation connectivity in the local area.

Source: SCAG 2016.

5.6.4 Cumulative Impacts

Project-related GHG emissions are not confined to a particular air basin but are dispersed worldwide. Therefore, impacts identified under Impact 5.6-1 are not project-specific impacts to global warming, but the proposed project's contribution to this cumulative impact. Because the project's GHG emissions would exceed the City of Yucaipa screening criteria, additional GHG reductions are needed so that the City can achieve its GHG reduction target. With mitigation, GHG emissions and the project's cumulative contribution to global climate change impacts would be less than cumulatively considerable, and therefore, less than significant.

5.6.5 Existing Regulations

- AB 32: California Global Warming Solutions Act
- Executive Order S-3-05: Greenhouse Gas Emission Reduction Targets
- Pavley Fuel Efficiency Standards (AB 1493)
- Title 24 California Code of Regulations, Part 6 (Building and Energy Efficiency Standards)
- Title 24 California Code of Regulations, Part 11 (California Green Building Code)
- Title 20 California Code of Regulations (Appliance Energy Efficiency Standards)

- Title 17 California Code of Regulations (Low Carbon Fuel Standard)
- California Water Conservation in Landscaping Act of 2006 (AB 1881)
- Statewide Retail Provider Emissions Performance Standards (SB 1368)
- Renewable Portfolio Standards (SB 1078)

5.6.6 Level of Significance Before Mitigation

Without mitigation, the following impact would be **potentially significant**:

- **Impact 5.6-1** Development of Residential District and Innovation District in the Oak Glen Creek Specific Plan would exceed the screening criteria of the Yucaipa Climate Action Plan and require implementation of 100 points of GHG reduction measures.

5.6.7 Mitigation Measures

Impact 5.6-1

6-1 Prior to the issuance of construction permits, applicants for development projects in the Residential District and Innovation District in the Oak Glen Specific Plan area shall incorporate design and construction measures into their respective projects that achieve a cumulative minimum of 100 points based on the appropriate screening tables (Tables 1 and 2) and methodology in Appendix C of the City of Yucaipa Climate Action Plan. Applicants shall provide documentation to the City of Yucaipa Community Development Department that verifies the measures to be implemented, to the City's satisfaction, and demonstrates achievement in meeting the minimum 100-point screening requirement, or the applicable screening requirement in effect at the time a project is initiated. The implementation measures proposed shall be noted on building plan check submittals to the City of Yucaipa.

5.6.8 Level of Significance After Mitigation

Impact 5.6-1

Implementation of Mitigation Measure 6-1 would require implementation of a total of 100 points identified in Table 5.6-7, *Screening Table for GHG Implementation Measures for Residential Development*, and 5.6-8, *Screening Table for GHG Implementation Measures for Commercial Development*, which are reproduced from Tables 1 and 2 of the CAP Appendix C. Implementation of Mitigation Measure 6-1 would ensure that development of the Residential Districts and Innovation Districts would be consistent with the City of Yucaipa CAP and the City would achieve the community-wide GHG reduction target. Therefore, impacts would be reduced to less than significant.

Table 5.6-7 Screening Table for GHG Implementation Measures for Residential Development

Feature	Description	Assigned Point Values
Implementation Measure PS E1: Residential Energy Efficiency		
Building Envelope		
Insulation	2008 Baseline (walls R-13, roof/attic: R-30) Modestly Enhanced Insulation (walls R-13, roof/attic: R-38) Enhanced Insulation (rigid wall insulation R-13, roof/attic: R-38) Greatly Enhanced Insulation (spray foam wall insulated walls R-15 or higher, roof/attic R-38 or higher)	0 points 12 points 15 points 18 points
Windows	2008 Baseline standard (0.57 U-factor, 0.4 solar heat gain coefficient (SHGC) Modestly Enhanced Window (0.4 U-Factor, 0.32 SHGC) Enhanced Window (0.32 U-Factor, 0.25 SHGC) Greatly Enhanced Window (0.28 or less U-Factor, 0.22 or less SHGC)	0 points 6 points 7 points 9 points
Cool Roofs	Modest Cool Roof (CRC Rated 0.15 aged solar reflectance, 0.75 thermal emittance) Enhanced Cool Roof (CRRC Rated 0.2 aged solar reflectance, 0.75 thermal/emittance) Greatly Enhanced Cool Roof (CRRC Rated 0.35 aged solar reflectance, 0.75 thermal emittance)	10 points 12 points 14 points
Air Infiltration	Minimizing leaks in the building envelope is as important as the insulation properties of the building. Insulation does not work effectively if there is excess air leakage. Air barrier applied to exterior walls, calking, and visual inspection such as the HERS Verified Quality Insulation Installation (QII or equivalent) Blower Door HERS Verified Envelope Leakage or equivalent	10 points 8 points
Thermal Storage of Building	Thermal storage is a design characteristic that helps keep a constant temperature in the building. Common thermal storage devices include strategically placed water filled columns, water storage tanks, and thick masonry walls. Modest Thermal Mass (10% of floor or 10% of walls: 12" or more thick exposed concrete or masonry. No permanently installed floor covering such as carpet, linoleum, wood or other insulating materials) Enhanced Thermal Mass (20% of floor or 20% of walls: 12" or more thick exposed concrete or masonry. No permanently installed floor covering such as carpet, linoleum, wood or other insulating materials)	2 points 6 points
Indoor Space Efficiencies		
Heating/Cooling Distribution System	Minimum Duct Insulation (R-4.2 required) Modest Duct Insulation (R-6) Enhanced Duct Insulation (R-8) Distribution loss reduction with inspection (HERS Verified Duct Leakage or equivalent)	0 point 7 points 8 points 12 points
Space Heating/Cooling Equipment	2008 Baseline VAC Efficiency (SEER 13/60% AFUE or 7.7 HSPF) Improved Efficiency HVAC (SEER 14/65% AFUE or 8 HSPF) High Efficiency HVAC (SEER 15/72% AFUE or 8.5 HSPF) Very High Efficiency HVAC (SEER 16/80% AFUE or 9 HSPF)	0 point 4 points 7 points 9 points

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Table 5.6-7 Screening Table for GHG Implementation Measures for Residential Development

Feature	Description	Assigned Point Values
Water Heaters	2008 Baseline Efficiency (0.57 Energy Factor) Improved Efficiency Water Heater (0.675 Energy Factor) High Efficiency Water Heater (0.72 Energy Factor) Very High Efficiency Water Heater (0.92 Energy Factor) Solar Pre-heat System (0.2 Net Solar Fraction) Enhanced Solar Pre-heat System (0.35 Net Solar Fraction)	0 point 12 points 15 points 18 points 4 points 8 points
Daylighting	Daylighting is the ability of each room within the building to provide outside light during the day reducing the need for artificial lighting during daylight hours. All peripheral rooms within the living space have at least one window (required) All rooms within the living space have daylight (through use of windows, solar tubes, skylights, etc.) All room daylighted	 0 point 1 point 2 points
Artificial Lighting	2008 Baseline standard (required) Efficient Lights (25% of in-unit fixtures considered high efficacy. High efficacy is defined as 40 lumens/watt for 15 watt or less fixtures; 50 lumens/watt for 15-40 watt fixtures, 60 lumens/watt for fixtures >40 watt) High Efficiency Lights (100% of in-unit fixtures are high efficacy) Very High Efficiency Lights (100% of in-unit fixtures are high efficacy)	0 points 8 points 10 points 12 points
Appliances	Energy Star Refrigerator (new) Energy Star Dish Washer (new) Energy Star Washing Machine (new)	1 point 1 point 1 point
Miscellaneous Residential Building Efficiencies		
Building Placement	North/South alignment of building or other building placement such that the orientation of the buildings optimizes natural heating, cooling, and lighting.	5 points
Shading	At least 90% of south facing glazing will be shaded by vegetation or overhangs on June 21st.	4 points
Energy Star Homes	EPA Energy Star for Homes (version 3 or above)	25 points
Independent Energy Efficiency Calculations	Provide point values based upon energy efficiency modeling of the Project. Note that engineering data will be required documenting the energy efficiency and point values based upon the proven efficiency beyond Title 24 Energy Efficiency Standards.	TBD
Other	This allows innovation by the applicant to provide design features that increases the energy efficiency of the project not provided in the table. Note that engineering data will be required documenting the energy efficiency of innovative designs and point values given based upon the proven efficiency beyond Title 24 Energy Efficiency Standards.	TBD

Table 5.6-7 Screening Table for GHG Implementation Measures for Residential Development

Feature	Description	Assigned Point Values
Existing Residential Retrofits	The applicant may wish to provide energy efficiency retrofit projects to existing residential dwelling units to further the point value of their project. Retrofitting existing residential dwelling units within the City is a key reduction measure that is needed to reach the reduction goal. The potential for an applicant to take advantage of this program will be decided on a case-by-case basis and must have the approval of the City Planning Department. The decision to allow applicants the ability to participate in this program will be evaluated based upon, but not limited to the following: Will the energy efficiency retrofit program benefit low-income or disadvantaged residents? Does the energy efficiency retrofit project fit within the overall assumptions in reduction measures associated with existing residential retrofits? Does the energy efficiency retrofit project provide co-benefits important to the City? Point value will be determined based upon engineering and design criteria of the energy retrofit project.	TBD
Implementation Measure PS E2: Residential Renewable Energy Generation		
Photovoltaic	Solar Photovoltaic panels installed on individual homes or in collective neighborhood arrangements such that the total power[1] provided augments:	
	Solar Ready Homes (sturdy roof and electric hookups)	2 points
	10 percent of the power needs of the project	10 points
	20 percent of the power needs of the project	15 points
	30 percent of the power needs of the project	20 points
	40 percent of the power needs of the project	28 points
	50 percent of the power needs of the project	35 points
	60 percent of the power needs of the project	38 points
	70 percent of the power needs of the project	42 points
	80 percent of the power needs of the project	46 points
	90 percent of the power needs of the project	52 points
	100 percent of the power needs of the project	58 points
Wind Turbines	Some areas of the City lend themselves to wind turbine applications. Analysis of the areas capability to support wind turbines should be evaluated prior to choosing this feature. Individual wind turbines at homes or collective neighborhood arrangements of wind turbines such that the total power[2] provided augments:	
	10 percent of the power needs of the project	10 points
	20 percent of the power needs of the project	15 points
	30 percent of the power needs of the project	20 points
	40 percent of the power needs of the project	28 points
	50 percent of the power needs of the project	35 points
	60 percent of the power needs of the project	38 points
	70 percent of the power needs of the project	42 points
	80 percent of the power needs of the project	46 points
	90 percent of the power needs of the project	52 points
	100 percent of the power needs of the project	58 points
Off-Site Renewable Energy Project	The applicant may submit a proposal to supply an off-site renewable energy project such as renewable energy retrofits of existing homes that will help implement renewable energy within the City. These off-site renewable energy retrofit project proposals will be determined on a case-by-case basis and must be accompanied by a detailed plan that documents the quantity of renewable energy the proposal will generate. Point values will be determined based upon the energy generated by the proposal.	TBD

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Table 5.6-7 Screening Table for GHG Implementation Measures for Residential Development

Feature	Description	Assigned Point Values
Other Renewable Energy Generation	The applicant may have innovative designs or unique site circumstances (such as geothermal) that allow the project to generate electricity from renewable energy not provided in the table. The ability to supply other renewable energy and the point values allowed will be decided based upon engineering data documenting the ability to generate electricity.	TBD
Implementation Measure PS W1: Residential Water Conservation		
Irrigation and Landscaping		
Water Efficient Landscaping	Limit conventional turf to < 25% of the required landscape area Limit conventional turf to < 50% of the required landscape area No conventional turf (warm season turf to <50% of required landscape area and/or low water using plants are allowed) Only California Native Plants that requires no irrigation or some supplemental irrigation	0 points 4 points 6 points 8 points
Water Efficient Irrigation Systems	Low precipitation spray heads < .75"/hr or drip irrigation Weather based irrigation control systems or moisture sensors (demonstrate 20% reduced water use)	2 points 3 points
Recycled Water	Recycled connections (purple pipe) to irrigation system onsite	6 points
Water Reuse	Gray water reuse system collects gray water from clothes washers, showers, and faucets for irrigation use.	12 points
Storm Water Reuse Systems	Innovative on-site stormwater collection, filtration and reuse systems are being developed that provide supplemental irrigation water and provide vector control. These systems can greatly reduce the irrigation needs of a project. Point values for these types of systems will be determined based upon design and engineering data documenting the water savings.	TBD
Potable Water		
Showers	Water Efficient Showerheads (2.0 gpm)	3 points
Toilets	Water Efficient Toilets (1.5 gpm)	3 points
Faucets	Water Efficient Faucets (1.28 gpm)	3 points
Dishwasher	Water Efficient Dishwasher (6 gallons per cycle or less)	1 point
Washing Machine	Water Efficient Washing Machine (Water factor <5.5)	1 point
WaterSense	EPA WaterSense Certification	12 points
Implementation Measure PS T1: Land Use Based Trips and VMT Reduction		
Mixed Use	Mixes of land uses that complement one another in a way that reduces the need for vehicle trips can greatly reduce GHG emissions. The point value of the mixed-use projects will be determined based upon a Transportation Impact Analysis demonstrating trip reductions and/or reductions in vehicle miles traveled. Suggested ranges: Diversity of land uses complementing each other (2-28 points) Increased destination accessibility other than transit (1-18 points) Increased transit accessibility (1-25 points) Infill location that reduces vehicle trips or VMT beyond the measures described above (points TBD based on the traffic data).	TBD
Residential Near Local Retail (Residential Only Project)	Having residential developments within walking and biking distance of local retails helps to reduce vehicle trips and/or vehicle miles traveled. The point value of residential projects in close proximity to local retail will be determined based upon traffic studies that demonstrate trip reductions and/or reductions in vehicle miles traveled.	TBD

Table 5.6-7 Screening Table for GHG Implementation Measures for Residential Development

Feature	Description	Assigned Point Values
Other Trip Reduction Measures	Other trip or VMT reduction measures not listed above with the Traffic Impact Analysis and/or other traffic data supporting the trip and/or VMT for the project.	TBD
Implementation Measure PS T2: Bicycle Infrastructure		
Bicycle Infrastructure	Provide bicycle paths within project boundaries	TBD
	Provide bicycle path linkages between residential and other land uses	2 points
	Provide bicycle path linkages between residential and transit	5 points
Implementation Measure PS T3: Neighborhood Electric Vehicle Infrastructure		
Electric Vehicle Recharging	Provide circuit and capacity in garages of residential units for installation of electric vehicle charging stations	1 point
	Install electric vehicle charging stations in the garages of residential units	8 points

Source: Yucaipa 2015.
Notes: TBD: to be determined.
[1] The term total power refers to the actual, expected output from the facility implemented and not the potential capacity of facility.
[2] The term total power refers to the actual, expected output from the facility implemented and not the potential capacity of facility.

Table 5.6-8 Screening Table for GHG Implementation Measures for Commercial Development

Feature	Description	Assigned Point Values
Implementation Measure PS E3: Commercial/Industrial Energy Efficiency Development		
Building Envelope		
Insulation	2008 Baseline (walls R-13, roof/attic: R-30)	0 points
	Modestly Enhanced Insulation (walls R-13, roof/attic: R-38)	15 points
	Enhanced Insulation (rigid wall insulation R-13, roof/attic: R-38)	18 points
	Greatly Enhanced Insulation (spray foam wall insulated walls R-15 or higher, roof/attic R-38 or higher)	20 points
Windows	2008 Baseline standard (0.57 U-factor, 0.4 solar heat gain coefficient (SHGC)	0 points
	Modestly Enhanced Window (0.4 U-Factor, 0.32 SHGC)	7 points
	Enhanced Window (0.32 U-Factor, 0.25 SHGC)	8 points
	Greatly Enhanced Window (0.28 or less U-Factor, 0.22 or less SHGC)	12 points
Cool Roofs	Modest Cool Roof (CRC Rated 0.15 aged solar reflectance, 0.75 thermal emittance)	12 points
	Enhanced Cool Roof (CRRC Rated 0.2 aged solar reflectance, 0.75 thermal/emittance)	
	Greatly Enhanced Cool Roof (CRRC Rated 0.35 aged solar reflectance, 0.75 thermal emittance)	14 points
		16 points
Air Infiltration	Minimizing leaks in the building envelope is as important as the insulation properties of the building. Insulation does not work effectively if there is excess air leakage.	
	Air barrier applied to exterior walls, calking, and visual inspection such as the HERS Verified Quality Insulation Installation (QII or equivalent)	12 points
	Blower Door HERS Verified Envelope Leakage or equivalent	10 points

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Table 5.6-8 Screening Table for GHG Implementation Measures for Commercial Development

Feature	Description	Assigned Point Values
Thermal Storage of Building	Thermal storage is a design characteristic that helps keep a constant temperature in the building. Common thermal storage devices include strategically placed water filled columns, water storage tanks, and thick masonry walls.	
	Modest Thermal Mass (10% of floor or 10% of walls: 12" or more thick exposed concrete or masonry. No permanently installed floor covering such as carpet, linoleum, wood or other insulating materials)	4 points
	Enhanced Thermal Mass (20% of floor or 20% of walls: 12" or more thick exposed concrete or masonry. No permanently installed floor covering such as carpet, linoleum, wood or other insulating materials)	6 points
Indoor Space Efficiencies		
Heating/Cooling Distribution System	Minimum Duct Insulation (R-4.2 required)	0 point
	Modest Duct Insulation (R-6)	8 points
	Enhanced Duct Insulation (R-8)	10 points
	Distribution loss reduction with inspection (HERS Verified Duct Leakage or equivalent)	14 points
Space Heating/Cooling Equipment	2008 Baseline VAC Efficiency (SEER 13/60% AFUE or 7.7 HSPF)	0 point
	Improved Efficiency HVAC (SEER 14/65% AFUE or 8 HSPF)	7 points
	High Efficiency HVAC (SEER 15/72% AFUE or 8.5 HSPF)	8 points
	Very High Efficiency HVAC (SEER 16/80% AFUE or 9 HSPF)	12 points
Commercial Heat Recovery Systems	Heat recovery strategies employed with commercial laundry, cooking equipment, and other commercial heat sources for reuse in HVAC air intake or other appropriate heat recovery technology. Point values for these types of systems will be determined based upon design and engineering data documenting the energy savings.	TBD
Water Heaters	2008 Minimum Efficiency (0.57 Energy Factor)	0 point
	Improved Efficiency Water Heater (0.675 Energy Factor)	14 points
	High Efficiency Water Heater (0.72 Energy Factor)	16 points
	Very High Efficiency Water Heater (0.92 Energy Factor)	19 points
	Solar Pre-heat System (0.2 Net Solar Fraction)	4 points
	Enhanced Solar Pre-heat System (0.35 Net Solar Fraction)	8 points
Daylighting	Daylighting is the ability of each room within the building to provide outside light during the day reducing the need for artificial lighting during daylight hours.	
	All peripheral rooms within the building have at least one window or skylight	1 point
	All rooms within the building have daylight (through use of windows, solar tubes, skylights, etc.)	5 point
	All rooms daylighted	7 points
Artificial Lighting	2008 Minimum (required)	0 points
	Efficient Lights (25% of in-unit fixtures considered high efficacy. High efficacy is defined as 40 lumens/watt for 15 watt or less fixtures; 50 lumens/watt for 15-40 watt fixtures, 60 lumens/watt for fixtures >40 watt)	9 points
	High Efficiency Lights (100% of in-unit fixtures are high efficacy)	12 points
	Very High Efficiency Lights (100% of in-unit fixtures are high efficacy)	14 points
Appliances	Energy Star Commercial Refrigerator (new)	4 point
	Energy Star Commercial Dish Washer (new)	4 point
	Energy Star Commercial Clothes Washer	4 point

Table 5.6-8 Screening Table for GHG Implementation Measures for Commercial Development

Feature	Description	Assigned Point Values
Miscellaneous Commercial/Industrial Efficiencies		
Building Placement	North/South alignment of building or other building placement such that the orientation of the buildings optimizes natural heating, cooling, and lighting.	6 points
Shading	At least 90% of south facing glazing will be shaded by vegetation or overhangs on June 21st.	6 points
Other	This allows innovation by the applicant to provide design features that increases the energy efficiency of the project not provided in the table. Note that engineering data will be required documenting the energy efficiency of innovative designs and point values given based upon the proven efficiency beyond Title 24 Energy Efficiency Standards.	TBD
Existing Commercial Building Retrofits	The applicant may wish to provide energy efficiency retrofit projects to existing commercial buildings to further the point value of their project. Retrofitting existing residential dwelling units within the City is a key reduction measure that is needed to reach the reduction goal. The potential for an applicant to take advantage of this program will be decided on a case-by-case basis and must have the approval of the City Planning Department. The decision to allow applicants the ability to participate in this program will be evaluated based upon, but not limited to the following: • Will the energy efficiency retrofit program benefit low-income or disadvantaged residents? • Does the energy efficiency retrofit project fit within the overall assumptions in reduction measures associated with existing residential retrofits? • Does the energy efficiency retrofit project provide co-benefits important to the City? Point value will be determined based upon engineering and design criteria of the energy retrofit project.	TBD
Implementation Measure PS E4: Commercial/Industrial Renewable Energy		
Photovoltaic	Solar Photovoltaic panels installed on commercial buildings or in collective arrangements such that the total power[1] provided augments:	
	Solar Ready Homes (sturdy roof and electric hookups)	2 points
	10 percent of the power needs of the project	8 points
	20 percent of the power needs of the project	14 points
	30 percent of the power needs of the project	20 points
	40 percent of the power needs of the project	26 points
	50 percent of the power needs of the project	32 points
	60 percent of the power needs of the project	38 points
	70 percent of the power needs of the project	44 points
	80 percent of the power needs of the project	50 points
	90 percent of the power needs of the project	56 points
	100 percent of the power needs of the project	60 points

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Table 5.6-8 Screening Table for GHG Implementation Measures for Commercial Development

Feature	Description	Assigned Point Values
Wind Turbines	Some areas of the City lend themselves to wind turbine applications. Analysis of the areas capability to support wind turbines should be evaluated prior to choosing this feature. Individual wind turbines as part of the commercial development such that the total power[2] provided augments:	
	10 percent of the power needs of the project	8 points
	20 percent of the power needs of the project	14 points
	30 percent of the power needs of the project	20 points
	40 percent of the power needs of the project	26 points
	50 percent of the power needs of the project	32 points
	60 percent of the power needs of the project	38 points
	70 percent of the power needs of the project	44 points
	80 percent of the power needs of the project	50 points
	90 percent of the power needs of the project	56 points
	100 percent of the power needs of the project	60 points
Off-Site Renewable Energy Project	The applicant may submit a proposal to supply an off-site renewable energy project such as renewable energy retrofits of existing commercial/industrial that will help implement renewable energy within the City. These off-site renewable energy retrofit project proposals will be determined on a case-by-case basis and must be accompanied by a detailed plan that documents the quantity of renewable energy the proposal will generate. Point values will be determined based upon the energy generated by the proposal.	TBD
Other Renewable Energy Generation	The applicant may have innovative designs or unique site circumstances (such as geothermal) that allow the project to generate electricity from renewable energy not provided in the table. The ability to supply other renewable energy and the point values allowed will be decided based upon engineering data documenting the ability to generate electricity.	TBD
Implementation Measure PS W2: Commercial/Industrial Water Conservation		
Irrigation and Landscaping		
Water Efficient Landscaping	Eliminate conventional turf from landscaping	0 points
	Only moderate water using plants	3 points
	Only low water using plants	4 points
	Only California Native Plants that requires no irrigation or some supplemental irrigation	8 points
Trees	Increase tree planting in parking areas 50% beyond City Code requirements	TBD
Water Efficient Irrigation Systems	Low precipitation spray heads < .75”/hr or drip irrigation	1 points
	Weather based irrigation control systems or moisture sensors (demonstrate 20% reduced water use)	5 points
Recycled Water	Recycled connections (purple pipe) to irrigation system onsite	5 points
Storm Water Reuse Systems	Innovative on-site stormwater collection, filtration and reuse systems are being developed that provide supplemental irrigation water and provide vector control. These systems can greatly reduce the irrigation needs of a project. Point values for these types of systems will be determined based upon design and engineering data documenting the water savings.	TBD
Potable Water		
Showers	Water Efficient Showerheads (2.0 gpm)	3 points

Table 5.6-8 Screening Table for GHG Implementation Measures for Commercial Development

Feature	Description	Assigned Point Values
Toilets	Water Efficient Toilets (1.5 gpm) Waterless urinals (note that commercial buildings have both waterless urinals and high efficiency toilets will have a combined value of 6 points)	3 points 4 points
Faucets	Water Efficient Faucets (1.28 gpm)	3 points
Dishwasher	Water Efficient Dishwasher (20% savings)	4 points
Washing Machine	Water-Efficient laundry (15% water savings) Water Efficient laundry equipment that captures and reuses rinse water (30% water savings)	3 points 6 point
Commercial Water Operations Program	Establish an operational program to reduce water loss from pools, water features, etc., by covering pools, adjusting fountain operational hours, and using water treatment to reduce draw down and replacement of water. Point values for these types of plans will be determined based upon design and engineering data documenting the water savings.	TBD
Implementation Measure PS T1: Land Use Based Trips and VMT Reduction		
Mixed Use	Mixes of land uses that complement one another in a way that reduces the need for vehicle trips can greatly reduce GHG emissions. The point value of the mixed-use projects will be determined based upon a Transportation Impact Analysis demonstrating trip reductions and/or reductions in vehicle miles traveled.	TBD
Local Retail Near Residential (Commercial Only Projects)	Having residential developments within walking and biking distance of local retails helps to reduce vehicle trips and/or vehicle miles traveled. The point value of residential projects in close proximity to local retail will be determined based upon traffic studies that demonstrate trip reductions and/or reductions in vehicle miles traveled.	TBD
Implementation Measure PS T2: Bicycle Infrastructure		
Bicycle Infrastructure	Provide bicycle paths within project boundaries Provide bicycle path linkages between residential and other land uses Provide bicycle path linkages between residential and transit	TBD 2 points 5 points
Implementation Measure PS T3: Electric Vehicle Infrastructure		
Electric Vehicles	Provide public charging station for use by an electric vehicle (10 points for each charging station within the facility)	10 points)
Implementation Measure PS T4: Employee Based Trip & VMT Reduction Policy		
Compressed Work Week	Reduce the number of days per week that employees need to be on site will reduce the number of vehicle trips associated with commercial/industrial development. Compressed work week such that full time employees are on site: 5 days per week 4 days per week on site 3 days per week onsite	TBD
Car/Vanpools	Car/Vanpool program Car/Vanpool program with preferred parking Car/Vanpool with guaranteed ride home program Subsidized employee incentive car/vanpool program Combination of all the above	TBD

Table 5.6-8 Screening Table for GHG Implementation Measures for Commercial Development

Feature	Description	Assigned Point Values
Employee Bicycle Pedestrian Programs	Complete sidewalk to residential within ½ mile Complete bike path to residential within 3 miles Bike lockers and secure racks Showers and changing facilities Subsidized employee walk/bike program (Note combine all applicable points for total value)	TBD
Shuttle/Transit Programs	Local transit within ¼ mile Light rail transit within ½ mile Shuttle service to light rail transit station Guaranteed ride home program Subsidized transit passes (Note combine all applicable points for total value)	TBD
CRT	Employer based Commute Trip Reduction Program (CRT). CRTs apply to commercial, offices, or industrial projects that include a reduction of vehicle trip or VMT goal using a variety of employee commutes trip reduction methods. The point value will be determined based upon a Traffic Impact Assessment that demonstrates the trip/vehicle miles traveled reductions. Suggested point ranges: Incentive based CRT programs (1-8 points) Mandatory CRT programs (5-20 points)	TBD
Other Trip Reductions	Other trip or vehicle miles traveled reduction measure not listed above with the Traffic Impact Assessment and/or other traffic data supporting the trip and/or vehicle miles traveled for the project	TBD

Source: Yucaipa 2015.
Notes: TBD: to be determined.
[1] The term total power refers to the actual, expected output from the facility implemented and not the potential capacity of facility.
[2] The term total power refers to the actual, expected output from the facility implemented and not the potential capacity of facility.

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5.7 HAZARDS AND HAZARDOUS MATERIALS

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential impacts from implementation of the Oak Glen Creek Specific Plan on human health and the environment due to exposure to hazardous materials or conditions associated with the project site, project construction, and project operations. The analysis in this section is based, in part, upon the following sources:

- *Phase I Environmental Site Assessment for Wilson Creek Business Park, Yucaipa, California*, PlaceWorks (formerly known as The Planning Center), June 2011.
- *Phase I Environmental Site Assessment for Wilson Creek Residential Project, Yucaipa, California,* PlaceWorks, June 2015.

Complete copies of these technical studies are included in the Technical Appendices to this Draft EIR (Volume II, Appendices F1 and F2).

5.7.1 Environmental Setting

5.7.1.1 REGULATORY BACKGROUND

Hazardous materials are substances that exhibit corrosive, poisonous, flammable, and/or reactive properties and have the potential to harm human health and/or the environment. Hazardous materials are used in products (e.g., household cleaners, industrial solvents, paint, pesticides, etc.) and manufacturing (e.g., of electronics, newspapers, plastic products, etc.). Examples of hazardous materials are petroleum, natural and synthetic gas, and other toxic chemicals that may be used in agriculture or commercial and industrial uses, businesses, hospitals, and households. Accidental releases of hazardous materials have a variety of causes, including highway incidents, warehouse fires, train derailments, shipping accidents, and industrial incidents.

The term "hazardous materials," as used in this section, includes all materials defined in the California Health and Safety Code:

> A material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. "Hazardous materials" include, but are not limited to, hazardous substances, hazardous waste, and any material that a handler or the unified program agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment. (§§ 25411, 25501)

The term includes chemicals regulated as hazardous materials, wastes, or substances by the United States Department of Transportation (USDOT), the United States Environmental Protection Agency (EPA), the Department of Toxic Substances Control (DTSC), the California Governor's Office of Emergency Services, and other agencies. "Hazardous waste" is any hazardous material that has been discarded, except those specifically excluded by regulation. Hazardous materials that have been intentionally disposed of or

inadvertently released fall within the definition of "discarded" materials. Hazardous wastes are broadly characterized by their ignitability, toxicity, corrosivity, reactivity, radioactivity, or bioactivity. Federal and state hazardous waste definitions are similar, but different enough that separate classifications are in place for federal Resource Conservation and Recovery Act (RCRA) hazardous wastes and state non-RCRA hazardous wastes. Hazardous wastes require special handling and disposal because of their potential to impact public health and the environment. Some materials are designated "acutely" or "extremely" hazardous under relevant statutes and regulations.

Hazardous materials and wastes can pose significant actual or potential hazards to human health and the environment when improperly treated, stored, transported, disposed of, or otherwise managed. Many federal, state, and local programs regulate the use, storage, and transportation of hazardous materials and hazardous waste. These programs are designed to reduce the danger that hazardous substances may pose to people and businesses under normal, daily conditions and as a result of emergencies.

Federal Regulation

Resource Conservation and Recovery Act of 1976, as amended by the Hazardous and Solid Waste Amendments of 1984

The RCRA of 1976 is the principal federal law that regulates the generation, management, transportation, and disposal of hazardous waste. Hazardous waste management includes the treatment, storage, and disposal of hazardous waste. Any business, institution, or other entity that generates hazardous waste is required to identify and track it from the point of generation until it is recycled, reused, or disposed. DTSC is responsible for implementing the RCRA program and California's own hazardous waste laws, which are collectively known as the Hazardous Waste Control Law. Under the Certified Unified Program, the California Environmental Protection Agency (Cal/EPA) has delegated enforcement authority to the San Bernardino County Fire Department (SBCFD)/Hazardous Materials Division (HMD) for state law regulating hazardous waste producers or generators in Yucaipa.

Comprehensive Environmental Response, Compensation, and Liability Act and the Superfund Amendments and Reauthorization Act of 1986

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, commonly known as Superfund, established prohibitions and requirements concerning closed and abandoned hazardous waste sites, provided for liability of persons responsible for releases of hazardous waste at these sites, and established a trust fund to provide for cleanup when no responsible party could be identified. CERCLA was amended by the Superfund Amendments and Reauthorization Act (SARA) on October 17, 1986. SARA stressed the importance of permanent remedies and innovative treatment technologies in cleaning up hazardous waste sites, required Superfund actions to consider the standards and requirements found in other state and federal environmental laws and regulations, provided new enforcement authorities and settlement tools, increased state involvement in every phase of the Superfund program, increased the focus on human health problems posed by hazardous waste sites, encouraged greater citizen participation in site cleanup decisions, and increased the size of the trust fund to $8.5 billion. CERCLA also enabled the revision of the National Contingency Plan, which provided the guidelines and procedures needed to respond

to releases and threatened releases of hazardous substances, pollutants, or contaminants. The National Contingency Plan also established the National Priority List of Superfund sites.

Emergency Planning and Community Right-to-Know Act

The Emergency Planning and Community Right-to-Know Act (EPCRA), also known as SARA Title III, was enacted by Congress as the national legislation on community safety. This law helps local communities protect public health, safety, and the environment from chemical hazards. The primary purpose of EPCRA is to inform communities and citizens of chemical hazards in their areas by requiring businesses to report the locations and quantities of chemicals stored onsite to state and local agencies. These reports help communities prepare to respond to chemical spills and similar emergencies.

Section 3131 of EPCRA requires manufacturers to report releases to the environment (air, soil, and water) of more than 600 designated toxic chemicals, report offsite transfers of waste for treatment or disposal at separate facilities, develop pollution prevention measures and activities, and participate in chemical recycling. These annual reports are submitted to the EPA and state agencies. EPCRA Sections 301 through 312 are administered by the EPA's Office of Emergency Management. The EPA's Office of Information Analysis and Access implements the EPCRA Section 313 program. In California, SARA Title III is implemented through the California Accidental Release Prevention Program.

The EPA maintains and publishes a database that contains information on toxic chemical releases and other waste management activities by certain industry groups and federal facilities. This online, publicly available, national digital database is called the Toxics Release Inventory and was expanded by the Pollution Prevention Act of 1990.

Disaster Mitigation Act of 2000

The Disaster Mitigation Act of 2000 requires state and local governments to prepare mitigation plans that identify hazards, potential losses, mitigation needs, goals, and strategies. It is intended to facilitate cooperation between state and local governments.

Toxic Substances Control Act

The Toxic Substances Control Act of 1976 was enacted by Congress to give the EPA the ability to track the 75,000 industrial chemicals currently produced by or imported into the United States. The EPA repeatedly screens these chemicals and can require reporting or testing of any that may pose an environmental or human health hazard. It can ban the manufacture and import of chemicals that pose an unreasonable risk. Also, the EPA has mechanisms in place to track the thousands of new chemicals that industry develops each year with either unknown or dangerous characteristics. It then can control these chemicals as necessary to protect human health and the environment. The act supplements other federal statutes, including the Clean Air Act and the Toxics Release Inventory under EPCRA.

Hazardous Materials Transportation Act

The USDOT regulates hazardous materials transportation under Title 49 of the Code of Federal Regulations (CFR). State agencies that have primary responsibility for enforcing federal and state regulations and responding to hazardous materials transportation emergencies are the California Highway Patrol and the California Department of Transportation (Caltrans). These agencies also govern permitting for hazardous materials transportation. Title 49 CFR reflects laws passed by Congress as of January 2, 2006.

Federal Response Plan

The Federal Response Plan of 1999 is a signed agreement among 27 federal departments and agencies and the American Red Cross that: 1) provides the mechanism for coordinating delivery of federal assistance and resources to augment efforts of state and local governments overwhelmed by a major disaster or emergency; 2) supports implementation of the Robert T. Stafford Disaster Relief and Emergency Act, as well as individual agency statutory authorities; and 3) supplements other federal emergency operations plans developed to address specific hazards. The Federal Response Plan is implemented in anticipation of a significant event likely to result in a need for federal assistance or in response to an actual event requiring federal assistance under a presidential declaration of a major disaster or emergency.

Occupational Safety and Health Administration Regulation 29 CFR Standard 1926.62

The Occupational Safety and Health Administration (OSHA) Regulation 29 CFR Standard 1926.62 regulates the demolition, renovation, or construction of buildings involving lead materials. It includes requirements for the safe removal and disposal of lead and the safe demolition of buildings containing lead-based paint or other lead materials.

Regulatory Agencies

Several federal agencies regulate hazardous materials. These include the EPA, OSHA, and USDOT:

- **US Environmental Protection Agency:** The EPA is the primary federal agency that regulates hazardous materials and waste. In general, the EPA works to develop and enforce regulations that implement environmental laws enacted by Congress. The agency is responsible for researching and setting national standards for a variety of environmental programs, and delegates to states and tribes the responsibility for issuing permits and for monitoring and enforcing compliance. EPA programs promote handling hazardous wastes safely, cleaning up contaminated land, and reducing trash. Under the authority of the RCRA and in cooperation with state and tribal partners, the Waste Management Division manages a hazardous waste program, an underground storage tank program, and a solid waste program, which includes development of waste reduction strategies such as recycling. The EPA has also promulgated regulations for the transport of hazardous wastes. These more stringent requirements include tracking shipments with manifests to ensure that wastes are delivered to their intended destinations.

- **Occupational Safety and Health Administration:** OSHA oversees administration of the Occupational Safety and Health Act, which requires specific training for hazardous materials handlers, provision of

information to employees who may be exposed to hazardous materials, and acquisition of material safety data sheets from manufacturers. Material safety data sheets describe the risks associated with particular hazardous materials, and proper handling and procedures. Employee training must include response and remediation procedures for hazardous materials releases and exposures.

- **US Department of Transportation:** The USDOT has developed regulations pertaining to the transport of hazardous materials and hazardous wastes by all modes of transportation. The US Postal Service has developed additional regulations for the transport of hazardous materials by mail. USDOT regulations specify packaging requirements for different types of materials.

State Regulations

California Health and Safety Code and Code of Regulations

California Health and Safety Code Chapter 6.95 and California Code of Regulations (CCR), Title 19, Section 2729 describe the minimum requirements for business emergency plans and chemical inventory reporting. These regulations require businesses to provide emergency response plans and procedures, training program information, and a hazardous material inventory disclosing hazardous materials stored, used, or handled onsite. A business that uses hazardous materials, or mixtures containing them, in certain quantities must establish and implement a business plan.

Tanner Act

Although numerous state policies deal with hazardous waste, the most comprehensive is the Tanner Act (Assembly Bill 2948), which was adopted in 1986. The Tanner Act governs the preparation of hazardous waste management plans and the siting of hazardous waste facilities in California. To be in compliance with the Tanner Act, local or regional hazardous waste management plans need to include provisions that define 1) the planning process for waste management, 2) the permit process for new and expanded facilities, and 3) the appeals process to the state available for certain local decisions.

County of San Bernardino Hazardous Waste Management Plan

The Tanner Act authorized counties to prepare hazardous waste management plans in response to the need for safe management of hazardous wastes. The County of San Bernardino hazardous waste management plan was adopted by the board of supervisors and approved by the California Department of Health Services in February 1990. This is the primary planning document for the management of hazardous waste in San Bernardino County. It identifies the types and amounts of wastes generated in the county; establishes programs for managing these wastes; identifies an application review process for the siting of specified hazardous waste facilities; identifies mechanisms for reducing the amount of waste generated in the county; and identifies goals, policies, and actions for achieving effective hazardous waste management.

California Building Code

The state of California provided a minimum standard for building design through the California Building Code (CBC), which is in Part 2 of Title 24 of the CCR. The 2013 CBC is based on the International Building

Code, modified for California conditions. It is generally adopted on a jurisdiction-by-jurisdiction basis, subject to further modification based on local conditions. Commercial and residential buildings are plan-checked by city and county building officials for compliance with the CBC.

California Fire Code

CCR Title 24 Part 9 is the California Fire Code (CFC). Updated every three years, the CFC includes provisions and standards for emergency planning and preparedness, fire service features, fire protection systems, hazardous materials, fire flow requirements, and fire hydrant locations and distribution. Typical fire safety requirements of the CFC include the installation of sprinklers in all high-rise buildings; the establishment of fire resistance standards for fire doors, building materials, and particular types of construction; and the clearance of debris and vegetation within a prescribed distance from occupied structures in wildlife hazard areas. The Yucaipa Fire Department provides fire protection services for the City and implements and enforces the CFC in Yucaipa.

Asbestos-Containing Materials Regulations

State-level agencies, in conjunction with the EPA and OSHA, regulate removal, abatement, and transport procedures for asbestos-containing materials. Releases of asbestos from industrial, demolition, or construction activities are prohibited by these regulations, and medical evaluation and monitoring is required for employees performing activities that could expose them to asbestos. Additionally, the regulations include warnings and practices to reduce risks of asbestos emissions and exposure. Finally, federal, state, and local agencies must be notified prior to the onset of demolition or construction activities with the potential to release asbestos.

Polychlorinated Biphenyls

The EPA prohibited the use of polychlorinated biphenyls (PCBs) in the majority of new electrical equipment starting in 1979, and initiated a phase-out for much of the existing PCB-containing equipment. The inclusion and handling of PCBs in electrical equipment are regulated by the provisions of the Toxic Substances Control Act, 15 US Code Sections 2601 et seq. Relevant regulations include labeling and periodic inspection requirements for certain types of PCB-containing equipment and highly specific safety procedures for their disposal. The State of California likewise regulates as hazardous waste PCB-laden electrical equipment and materials contaminated above a certain threshold, and how such materials are treated, transported, and disposed of. At lower concentrations for nonliquids, regional water quality control boards may exercise discretion over the classification of such wastes.

Lead-Based Paint

CCR Title 8, Section 1532 is the California Occupational Safety and Health Administration's Lead in Construction Standard. The regulations address permissible exposure limits; exposure assessment; compliance methods; respiratory protection; protective clothing and equipment; housekeeping; medical surveillance; medical removal protection; employee information, training, and certification; signage; record keeping; monitoring; and agency notification.

State Agencies

Responsible state agencies that regulate hazardous materials and waste in accordance with the federal and state laws include:

- **California Environmental Protection Agency:** Cal/EPA was created in 1991 by Governor's Executive Order. Six boards, departments, and offices were placed under the Cal/EPA umbrella to create a cabinet-level voice for the protection of human health and the environment and to assure the coordinated deployment of state resources. Cal/EPA oversees hazardous materials and hazardous waste compliance throughout California. Among those responsible for hazardous materials and waste management are the DTSC, Department of Pesticide Regulation, and Office of Environmental Health Hazard Assessment. Cal/EPA also oversees the unified hazardous waste and hazardous materials management regulatory program (Unified Program), which consolidates and coordinates:
    - Hazardous Materials Release Response Plans and Inventories (Business Plans)
    - Underground Storage Tank Program
    - Aboveground Petroleum Storage Tank Act
    - Hazardous Waste Generator and Onsite Hazardous Waste Treatment Programs
    - California Uniform Fire Code: Hazardous Material Management Plans and Inventory Statements
    - California Accidental Release Prevention Program.
- **California Department of Toxic Substances Control:** DTSC is the department of Cal/EPA that carries out the RCRA and CERCLA programs in California to protect people from exposure to hazardous substances and wastes. The department regulates hazardous waste, cleans up existing contamination, and looks for ways to control and reduce the hazardous waste produced in California primarily under the authority of RCRA and in accordance with the California Hazardous Waste Control Law (Health and Safety Code Division 20, Chapter 6.5) and the Hazardous Waste Control Regulations (22 CCR, Divisions 4 and 4.5). Permitting, inspection, compliance, and corrective action programs ensure that people who manage hazardous waste follow state and federal requirements and other laws that affect hazardous waste specific to handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning.
- **California Department of Forestry and Fire Protection:** CAL FIRE is dedicated to the fire protection and stewardship of over 31 million acres of California's wildlands. The Office of the State Fire Marshal (OSFM) supports CAL FIRE's mission to protect life and property through fire prevention engineering programs, law and code enforcement, and education. OSFM provides for fire prevention by enforcing fire-related laws in state-owned or -operated buildings; investigating arson fires; licensing those who inspect and service fire protection systems; approving fireworks for use in California; regulating the use of chemical flame retardants; evaluating building materials against fire safety standards; regulating hazardous liquid pipelines; and tracking incident statistics for local and state government emergency response agencies. The California Fire Plan is the state's road map for reducing the risk of wildfire through planning and prevention to reduce firefighting costs and property losses, increase firefighter

safety, and contribute to ecosystem health. The California Fire Plan is a cooperative effort between the State Board of Forestry and Fire Protection and CAL FIRE.

State Hazardous Waste Management Programs

Programs that regulate hazardous materials and waste include:

Underground Storage Tank Program

Releases of petroleum and other products from USTs are the leading source of groundwater contamination in the United States. The RCRA Subtitle I established regulations governing the storage of petroleum products and hazardous substances in USTs and the prevention and cleanup of leaks. In EPA Region 9 (California, Arizona, Hawaii, Nevada, Pacific Islands, and over 140 tribal nations) the UST program operates primarily through state agency programs with EPA oversight. In California, the State Water Resources Control Board (SWRCB), under the umbrella of Cal/EPA, provides assistance to local agencies enforcing UST requirements. The purpose of the UST program is to protect public health and safety and the environment from releases of petroleum and other hazardous substances. The program consists of four elements: leak prevention, cleanup, enforcement, and tank tester licensing. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for groundwater cleanup programs, including groundwater analytical data, the surveyed locations of monitoring wells, and other data. The SWRCB's GeoTracker system currently has information submitted by responsible parties for over 10,000 leaking UST (LUST) sites statewide and has been extended to include all SWRCB groundwater cleanup programs, including the LUST, non-LUST (Spill, Leaks, Investigation, and Cleanup), Department of Defense, and landfill programs.

The SBCFD/HMD is charged with the responsibility of conducting compliance inspections of regulated facilities in San Bernardino County. Regulated facilities are those that handle hazardous materials, generate or treat hazardous waste, and/or operate an underground storage tank. All new installations of underground storage tanks require an inspection, as do removals of the old tanks under strict chain-of-custody protocol.

Hazardous Materials Disclosure Programs

Both the federal government (CFR, EPA, SARA, and Title III) and the State of California (Health and Safety Code, Division 20, Chapter 6.95, §§ 25500–25520; 19 CCR, Chapter 2, Subchapter 3, Article 4, §§ 2729–2734) require all businesses that handle more than a specified amount of hazardous materials or extremely hazardous materials, termed a reporting quantity, to submit a hazardous materials emergency/contingency plan (also known as a hazardous materials business plan) to their local Certified Unified Program Agency (CUPA). The responsible CUPA in San Bernardino County is the SBCFD/HMD, which is responsible for conducting compliance inspections of regulated facilities in Yucaipa.

The business plan includes the business owner/operator identification page, hazardous materials inventory chemical description page, and an emergency response plan and training plan. Business plans must include an inventory of the hazardous materials at the facility. The entire business plan needs to be reviewed and recertified every three years. Business plans are required to include emergency response plans and procedures

to be used in the event of a significant or threatened significant release of a hazardous material. These plans need to identify the procedures to follow for immediate notification to all appropriate agencies and personnel of a release, identification of local emergency medical assistance appropriate for potential accident scenarios, contact information for all emergency coordinators of the business, a listing and location of emergency equipment at the business, an evacuation plan, and a training program for business personnel. All facilities must keep a copy of their plan onsite.

Business plans are designed to be used by responding agencies, such as the Yucaipa Fire Department, during a release or spill to allow for a quick and accurate evaluation of each situation for appropriate response. Businesses that handle hazardous materials are required by law to provide an immediate verbal report of any release or threatened release of hazardous materials if there is a reasonable belief that the release or threatened release poses a significant present or potential hazard to human health and safety, property, or the environment. If a release involves a hazardous substance listed in Title 40 of the CFR in an amount equal to or exceeding the reportable quantity for that material, a notice must be filed with the California Office of Emergency Services within 15 days of the incident.

Hazardous Materials Incident Response

Under Title III of SARA, the Local Emergency Planning Committee is responsible for developing an emergency plan for preparing for and responding to chemical emergencies in that community. This emergency plan must include:

- An identification of local facilities and transportation routes where hazardous material are present.
- The procedures for immediate response in case of an accident (this must include a community-wide evacuation plan).
- A plan for notifying the community that an incident has occurred.
- The names of response coordinators at local facilities.
- A plan for conducting exercises to test the plan.

The plan is reviewed by the State Emergency Response Commission and publicized throughout the community. The Local Emergency Planning Committee is required to review, test, and update the plan each year.

Hazardous Material Spill/Release Notification Guidance

All significant spills, releases, or threatened releases of hazardous materials must be immediately reported. Federal and state emergency notification are required for all significant releases of hazardous materials. Requirements for immediate notification of all significant spills or threatened releases cover owners, operators, persons in charge, and employers. Notification is required regarding significant releases from

facilities, vehicles, vessels, pipelines, and railroads. Many state statutes require emergency notification of a hazardous chemical release:

- Health and Safety Codes, Sections 25270.7, 25270.8, and 25507
- Vehicle Code, Section 23112.5
- Public Utilities Code, Section 7673 (PUC General Orders #22-B, 161)
- Government Code, Sections 51018, 8670.25.5 (a)
- Water Code, Sections 13271, 13272
- California Labor Code, Section 6409.1 (b)10

In addition, all releases that result in injuries or workers harmfully exposed must be immediately reported to California Occupational Safety and Health Administration (California Labor Code, Section 6409.1 [b]). For additional reporting requirements, refer to the Safe Drinking Water and Toxic Enforcement Act of 1986, better known as Proposition 65, and Section 9030 of the California Labor Code.

The California Accidental Release Prevention Program (CalARP) became effective on January 1, 1997, in response to Senate Bill 1889. CalARP replaced the California Risk Management and Prevention Program. Under the CalARP, the Governor's Office of Emergency Services must adopt implementing regulations and seek delegation of the program from the EPA. CalARP aims to be proactive and therefore requires businesses to prepare risk management plans, which are detailed engineering analyses of the potential accident factors present at a business and the mitigation measures that can be implemented to reduce this accident potential. In most cases, local governments will have the lead role for working directly with businesses in this program. The SBCFD/HMD is the CUPA designated as the administering agency for CalARP.

Local Regulations

City of Yucaipa Hazard Mitigation Plan

In response to the Disaster Mitigation Act of 2000, the City of Yucaipa General Services/City Clerk Department maintains and implements a hazard mitigation plan (HMP). The 2010 HMP identifies mitigation goals and objectives, prioritizes specific mitigation actions, and presents an overall strategy for implementing those objectives. Mitigation outlined in the HMP is tailored to the unique natural setting of Yucaipa, which requires special attention to flood, wildland fire, and earthquake-related hazards.

City of Yucaipa Municipal Code

Division 5, Chapter 2, Article 1: Fire Safety Overlay District

The City of Yucaipa designates Fire Safety Overlay Districts to provide greater public safety in areas that are prone to brush fires by establishing fire safety development standards for these areas. Fire Safety Review Areas 1 and 2 represent different levels of wildfire hazard.

- **Fire Safety Review Area 1 (FR1)** includes areas of very high to extreme fire hazard. It includes wildland areas that are marginally developable, areas which are not likely to be developed, and areas of transition between wildlands and areas that are partially developed or are likely to be developed in the future. Natural hazards—including abrupt, ungraded slopes greater than 30 percent—are prevalent throughout FR1.

- **Fire Safety Review Area 2 (FR2)** is land that is relatively flat and is either partially or completely developed, or, if it is not developed, is usually suitable for development. Present and future development within FR2 will be exposed to the impacts of wildland fires and other natural hazards due to its close proximity to FR1 areas.

Per Section 85.020220 of the City's development code, FR1 and FR2 areas are required to comply with various construction, building, and design standards as well as erosion and sediment control measures as they relate to fire safety.

Chapter 8.20: Refuse Abatement

Chapter 8.20 of the City's municipal code requires all property owners to abate all noxious weeds or vegetation, dry grass, Russian thistle (tumbleweeds), dead trees, and all combustible rubbish or noxious vegetation that could introduce a fire, health, or safety hazard.

Local Agencies

Local agencies that regulate hazards and hazardous materials include:

- **San Bernardino County Fire Department/Hazardous Materials Division (SBCFD/HMD):** A CUPA is a local agency that has been certified by Cal/EPA to implement the local Unified Program. The CUPA can be a county, city, or joint-powers authority. A participating agency is a local agency that has been designated by the local CUPA to administer one or more Unified Programs within its jurisdiction on behalf of the CUPA. A designated agency is a local agency that has not been certified by Cal/EPA to become a CUPA but is the responsible local agency that would implement the Unified Programs until it is certified. Currently, there are 83 CUPAs in California. The CUPA is responsible for coordinating hazardous material and disaster preparedness planning and appropriate response efforts with local municipalities as well as local and state agencies. The CUPA with responsibility for the City of Yucaipa is SBCFD/HMD. The goal is to improve public- and private-sector readiness and to mitigate local impacts resulting from natural or man-made emergencies. The SBCDF/HMD consolidates and coordinates:

  - Hazardous Materials Business Plans
  - California Accidental Release Prevention Program
  - Underground Storage Tank Program
  - Hazardous Waste Generator and Onsite Hazardous Waste Treatment (tiered permitting) Programs
  - California Uniform Fire Code: Hazardous Materials Management Plans and Hazardous Material Inventory Statements (SBCFD 2015)

- **Yucaipa Fire Department:** The Yucaipa Fire Department administers the:
  - California Fire Code (with local amendments)
  - Hazardous Materials Business Plans (Health and Safety Code Chapter 6.95)
  - Aboveground Storage Tanks Program (Health and Safety Code Chapter 6.67)

5.7.1.2 EXISTING CONDITIONS

Historical Uses

Past usage of the site was assessed through a review of historical aerial photographs. Based on a review of historical aerial photographs and interview, the subject site was vacant land until a single-family residence was built near the eastern portion of the site during the 1960s, and 2nd Street was developed as a dirt road near the northeast corner of the site and provided access to the single-family residence. Additionally, a residential structure was built near the northwestern corner of the site during the early 1980s.

The majority of the site has been vacant land with two unlined creeks—Oak Glen Creek and Wilson Creek—traversing the site. A borrow pit historically used by the county has been at the site since the mid-1960s, based on a review of historic aerial photographs and topographic maps. This borrow pit has created a depression where soil has been removed. Underground storage tanks were removed from the site in 1997, and the site received regulatory closure in 1998.

Surrounding Uses

Based on review of historical aerial photographs and topographic maps, adjoining land was used for agricultural purposes from the 1930s to the mid-1960s. Residential development started to the south across Wilson Creek during the 1950s and continued to expand through 2000. The mobile home park to the north has been located there since the early 1970s, and the Chapman Heights residential development west of 2nd Street is apparent by 2005.

Current Uses

The Oak Glen Creek Specific Plan includes a City-owned storage yard, a borrow pit, and vacant land with native vegetation. The San Bernardino County Flood Control District (SBCFCD) maintains ownership of 7 of the existing 11 parcels. The borrow pit is no longer used, and bee boxes currently occupy this area. There is also a well enclosure for Well 46 in the southwest portion of the site owned by Yucaipa Valley Water District (YVWD). The project site also encompasses the City maintenance yard, which includes a residential dwelling currently used for file storage; a garage, four sheds (one of which was a chemical storage shed), and a canopy; and a storage yard for vehicles, equipment, trash bins, mulch, soil, and asphalt.

The area west of 2nd Street is undeveloped native land with the exception of a single-family residence at the end of the 2nd Street cul-de-sac. A dirt road runs north-south and is an informal extension of 2nd Street that crosses through the project's southern boundary.

Site Reconnaissance

Site visits to observe site conditions were conducted by PlaceWorks in 2011 and 2015. During reconnaissance, observations of the existing site and its surroundings were made.

City Maintenance Yard

A residential structure has been converted into a file storage area at 11373 2nd Street in the City maintenance yard. The residence is estimated to have been constructed in the 1970s and was moved in the 1980s. Based on the estimated age of this structure, it is likely that lead based paint and asbestos were used during its construction. The structures in the City maintenance yard are made of metal, and there is a paved parking area for vehicles and equipment in the yard. Disposal of petroleum products and hazardous materials is arranged by site personnel in the City maintenance yard on an as-needed basis.

The City maintenance yard has a metal shed that it uses to temporarily store small quantities of petroleum products or other liquids found abandoned in containers on city streets. The quantities of liquids are typically no more than five gallons at a time. Additionally, paints, gasoline, motor oil, and herbicides (i.e., Roundup and Durex 4L) are stored onsite. However, no other significant hazardous conditions or materials were identified onsite (hydraulic equipment, pools of liquid, odors, stains or corrosions, stained soil or pavement, solid waste, wastewater discharge, etc.).

Well Enclosure

The well enclosure is along 2nd Street and includes a main combination reinforced cinder block/prefabricated wood well enclosure and a metal enclosure for well-related equipment.

Single Family Residence

A single-family residence at 11568 2nd Street consists of two structures and has been on the site since the 1960s. The residence has central air conditioning and heating. The YVWD provides potable water services to the residence, and the residence may be connected to the YVWD sewage system or to a private septic system. No use, storage, or disposal of petroleum products or hazardous materials was observed at the residence.

Overall, the Phase I ESAs listed at the beginning of this section did not identify any recognized environmental conditions in connection with the proposed project site.

Hazardous and Hazardous Materials Concerns

Environmental Regulatory Records Review

The electronic database service GeoSearch was used to complete the environmental regulatory records review. The database search identifies properties that may be listed in the following referenced agency records:

- Federal National Priority List (NPL)
- Federal Delisted NPL
- Comprehensive Environmental Response, Compensation, and Liability Act Information System (CERCLIS)
- Comprehensive Environmental Response, Compensation, and Liability Act Information System—No Further Response Actions Planned (CERCLIS-NFRAP)
- Federal Emergency Response Notification System (ERNS)
- Resource Conservation and Recovery Act (RCRA) non-CORRACTS TSD facilities
- RCRA (CORRACTS TSD facilities)
- RCRA Generators
- Federal Institutional/Engineering Control Registry
- State and Tribal Equivalent NPL
- State and Tribal Equivalent CERCLIS
- State and Tribal Registered Storage Tanks
- State and Tribal Landfills and Solid Waste Disposal Sites
- State and Tribal Leaking Storage Tanks
- State and Tribal Institutional Controls/Engineering Control
- State and Tribal Voluntary Cleanup Sites
- State and Tribal Brownfield Sites
- Orphan Site List
- HAZNET
- State Hazardous Waste Sites (EnviroStor)
- Registered Underground Storage Tanks

- State Solid Waste Facilities/Landfill Sites (SWF/LF)
- State Leaking Underground Storage Tanks

To supplement the environmental record search, the following online databases of state and local government agencies were also searched: SBCFD/HMD, Regional Water Quality Control Board, and Local Lists of Landfill/Solid Waste Disposal Sites.

The project site was not listed in the any of the aforementioned databases. However, the records review identified the following documented environmental concerns within a 1-mile radius of the project site.

- **Fifth Street/Glen Road Elementary School:** A Yucaipa-Calimesa School District site labeled as Fifth Street/Glen Road Elementary School was identified as a potential school site that needed assessment in 2000 due to historical agricultural land use. However, the district did not proceed with the assessment. Based on the distance and status, this site is not a concern for the project site.

- **11644 Adams Street:** 11644 Adams Street in Yucaipa was identified as a hazardous waste site selected for remedial action and/or a UST property. The address is for a residence and is not a business. The individual who lives at the residence may be associated with a Cortese site, but there is no evidence that the property is a site of concern.

- **City Maintenance Yard:** The City maintenance yard at 11377 2nd Street was identified as have a LUST in 1997. However, the site received regulatory closure in 1998, and only soil was reported as being impacted. Due to the regulatory status and media impacted, this facility is not expected to impact the project site.

- **CAL FIRE Station:** The CAL FIRE station at 11416 Bryant Street was identified as having a LUST. The leak was discovered in 2000, and the site received regulatory closure in 2001. Based on the distance regulatory status, this facility is not expected to impact the project site.

- **Oak Glen Disposal Site:** Oak Glen Disposal Site at the intersection of Oak Glen Road and Bryant Avenue was listed as a closed solid waste disposal site that operated before landfill regulations. The landfill was reported closed in 1956. Based on a phone call with Ken Miller of the City of Yucaipa, the probable location of the former landfill was not on the project site, but near the current water basins near the northeast corner of the intersection of Bryant Street and Oak Glen Road.

- **Yucaipa Valley Water District Well No. 53:** YVWD Well No. 53 at 3500 Oak Glen Road was identified as having a hazmat handler permit. No violations were noted, and this facility is not expected to impact the project site.

None of the sites of environmental concern identified near the project site would impact the proposed project.

Fire Hazards

The geographic distribution of fire risk discussed above is reflected in the fire hazard severity zones mapped by CAL FIRE and other agencies. The City of Yucaipa, which is considered a "local responsibility area," is mapped as having moderate to very high wildland fire risks. The entire project site is either designated as a high or very high fire hazard severity zone (CAL FIRE 2008) (see Figure 5.7-1, *Fire Hazards*).

The Yucaipa Fire Department, via a contract with CAL FIRE, prepares a Fire Unit plan to provide fire protection and emergency medical services to the community. As stated above in Section 5.7.1.1, the City of Yucaipa has a Fire Safety Overlay District (FR) consistent with fire severity areas identified by CAL FIRE. The project site is within FR2, which are areas with relatively flat land that is either partially or completely developed, or, if it is not developed, is usually suitable for development. Present and future development in FR2 is exposed to the impacts of wildland fires and other natural hazards primarily due to its proximity to FR1.

5.7.2 Thresholds of Significance

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

H-1 Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

H-2 Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

H-3 Emit hazardous emissions or handle hazardous or acutely hazardous materials, substance, or waste within one-quarter mile of an existing or proposed school.

H-4 Be located on a site which is included on a list of hazardous materials compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.

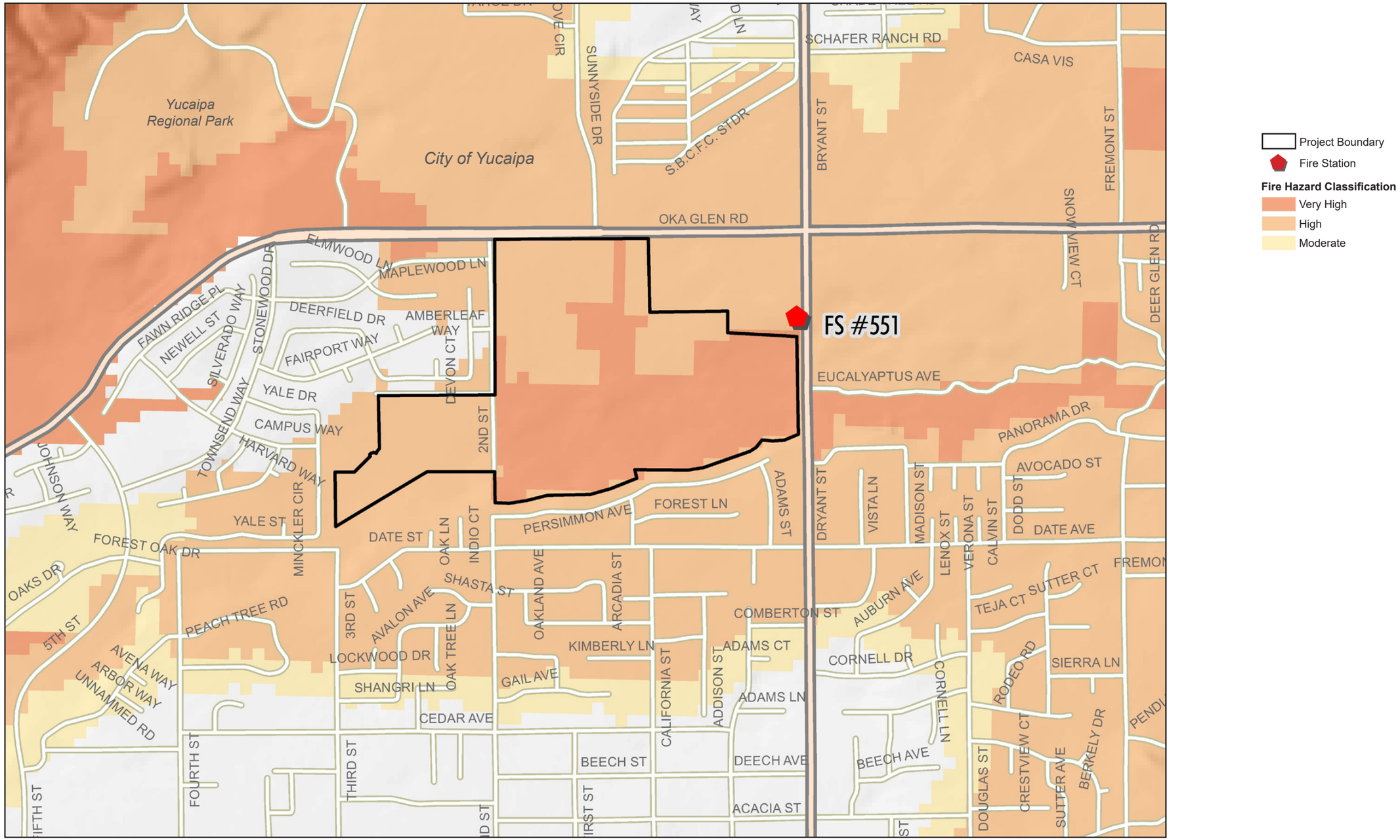
H-5 For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would result in a safety hazard for people residing or working in the project area.

H-6 For a project in the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area.

H-7 Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

H-8 Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to the urbanized areas or where residences are intermixed with wildlands.

Figure 5.7-1 Fire Hazards
5. Environmental Analysis



Base Map Source: ESRI, 2016; Cal Fire, 2014

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Chapter 8, *Impacts Found Not to Be Significant*, substantiates that impacts associated with the following thresholds would be less than significant:

- Threshold H-5
- Threshold H-6
- Threshold H-7

These impacts will not be addressed in the following analysis.

5.7.3 Environmental Impacts

Study Methodology

The Phase I Environmental Site Assessments were performed in general conformance with the scope and limitations of the American Society for Testing and Materials International E 1527-05 Standard. The study methodology included:

- Visual observations of site conditions and of abutting property use to evaluate the nature and type of activities that have been or are being conducted at and adjacent to the site, in terms of the potential for release or threat of release of hazardous substances or petroleum products.
- Review of federal and state environmental database information within the ASTM-specified radii from the subject property using a database service to access records.
- Use of 7.5- minute topographic maps to evaluate the site's physical setting.
- Review of federal and state environmental files pertaining to the subject site and nearby sites with the potential to impact the subject site.
- Review of previous reports (if any) prepared for the subject site.
- Review of aerial photographs for historical use information.
- Contacts with state and local agencies regarding the site and surrounding properties and structures.
- Interviews with the key site manager and property tenant representatives (if any).
- Interpretation of information and data assembled as a result of the above work tasks, and formulation of conclusions regarding the potential presence and impact of recognized environmental conditions, as defined by the ASTM E 1527-05 Standard.

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

Impact 5.7-1: Construction and operation of the proposed project could involve the transport, use, and/or disposal of hazardous materials; however, compliance with federal, state, and City regulations would ensure impacts are minimized. [Thresholds H-1 and H-2]

Impact Analysis: The proposed project would involve construction of up to 200 residences, 20,000 square feet of nonresidential use, a detention basin, and associated infrastructure. The construction and operation of the project site may involve the transport, use, disposal, and/or accidental upset of hazardous materials.

Construction

Construction in accordance with the Oak Glen Creek Specific Plan would involve grading for the Residential, Innovation, and Open Space Districts and construction of the water, sewer, roadway, and utility infrastructure needed to support the proposed development. Passive multipurpose recreational uses proposed around the detention basin would also be constructed. Potentially hazardous materials used during construction include substances such as paints, sealants, solvents, adhesives, cleaners, and diesel fuel. There is potential for these materials to be spilt or to create hazardous conditions. As identified above, the City maintenance yard at 11377 2nd Street was identified as have a LUST in 1997. However, the site received regulatory closure over 20 years ago and only soil was reported as being impacted. Therefore, the presence of residual petroleum hydrocarbon today would likely be very low. If the maintenance yard is redeveloped and stained soil or odors are detected onsite, soil would be required to be tested for total petroleum hydrocarbon prior to grading activities; and if detected, removed in accordance with DTSC requirements.

To prevent hazardous conditions, existing local, state, and federal laws, such as those listed under Section 5.7.5, *Existing Regulations*, are to be enforced at the construction sites. For example, compliance with existing regulations would ensure that construction workers and the general public are not exposed to any risks related to hazardous materials during demolition and construction activities. Federal and state regulations include California Health and Safety Code Sections 17920.10 and 105255 (pertaining to lead exposure); 22 CCR, Division 4.5 (pertaining to treatment, storage, and disposal of hazardous materials); and 29 CFR, Section 1926.62 (pertaining to lead exposure). Cal/OSHA also has regulations concerning the use of hazardous materials, including requirements for safety training, exposure warnings, availability of safety equipment, and preparation of emergency action/prevention plans. In addition, any existing contaminated sites are required to be documented and remediated under the supervision of DTSC before construction activities begin.

By complying with federal, state, and City regulations, construction activities in accordance with the proposed project would result in a less than significant impact on the public or environment through the use, transport, or disposal of hazardous materials.

Operation

After construction, the proposed mix of land uses on the project site could include residential; institutional, office, medical, and professional related uses; and flood control improvements and passive recreational uses. These uses would use minimal amounts of hazardous materials, limited mostly to materials such as cleaners and paint.

Additionally, all new developments that would handle or use hazardous materials would be required to comply with regulations and standards established by the EPA, the State of California, San Bernardino County, and the City of Yucaipa. Specifically, any new business is required to submit a full hazardous materials disclosure report, including an inventory of hazardous materials used, generated, stored, handled, or emitted; emergency response plans; evacuation plan; and a training program for personnel. The SBCFD conducts yearly inspections of all businesses to ensure business plans are in order. In addition, hazardous spills and accidents are subject to the emergency procedures of the SBCFD/HMD and/or the City of Yucaipa's Hazard Mitigation Plan.

In conclusion, all onsite activities, during both operation and construction, would be required to adhere to federal, state, and local regulations for the management and disposal of hazardous materials. Therefore, transport, use, and/or disposal of hazardous materials during construction of new developments in accordance with the proposed project would be properly managed, and impacts would be less than significant.

Impact 5.7-2: The Oak Glen Creek Specific Plan is within one-quarter mile of existing and proposed schools; however, the proposed project would not emit substantial quantities of hazardous emissions and use of hazardous materials onsite would be regulated by existing local, state, and federal regulations. [Threshold H-3]

Impact Analysis: The proposed project would involve the construction of land uses that do not typically require the use of acutely hazardous substances (i.e., residences, commercial/office, detention basin, and recreation); however, depending on the ultimate occupation and use within the Innovation District, some hazardous materials may be used.

The Innovation District would allow a variety of institutional, office, medical and professional related uses. The existing City maintenance yard could also relocate to the northern Innovation District area. Park View Middle School is approximately 0.2 mile to the northwest of the project site, north of the Yucaipa Community Center. Ridgeview Elementary School is a little over one-quarter mile north of the site (approximately 0.27 miles). In addition, Wildwood Christian Academy (part of Wildwood Calvary Chapel) is just north of the project site at 35145 Oak Glen Road.

Future uses in the Innovation District that handle or have onsite transportation of hazardous materials would be required to comply with various provisions under the state's hazardous materials release notification and disclosure programs, SBCFD's hazardous materials business plan requirement, California Accidental Release Prevention Program, and the City's Hazard Mitigation Plan. In addition, all hazardous waste handling facilities in Yucaipa are required to be sited in areas that minimize impacts to public health, safety, welfare, and the environment, per Section 85.020610 of the City's municipal code. By complying with these local, state, and federal regulations related to hazardous materials use and distribution, potential hazardous impacts on nearby schools would be less than significant.

Impact 5.7-3: The project site is not included on any lists of hazardous materials sites. [Threshold H-4]

Impact Analysis: The environmental regulatory records review conducted as part of the Phase I ESAs searched the following databases to identify whether the project site was listed in any hazardous materials sites databases: NPL, CERCLIS, CERCLIS-NFRAP, Federal ERNS, RCRA Non-CORRACTS TSD Facilities, RCRA CORRACTS TSD Facilities, RCRA Generators, State Sites and State Spill Sites, Cortese List, Registered USTs, SWF/LF, and San Bernardino County databases (i.e., San Bernardino County Hazardous Site Listing and San Bernardino County Medical Waste Facility List). The project site was not listed in any of the databases, with the exception of the City maintenance yard, which was identified as have a LUST in 1997. However, the site received regulatory closure in 1998, and only soil was reported as being impacted. Overall, the site reconnaissance conducted as part of the Phase I ESAs did not identify any recognized environmental conditions in connection with the proposed project site.

As detailed above in Section 5.7.1.2, *Existing Conditions*, several sites within a 1-mile radius of the project site were identified as hazardous materials sites, including a residential property to the south at 11644 Adams Street, the CAL FIRE station to the east at 11416 Bryant Street, and the closed Oak Glen Disposal Site. However, none of the sites would impact the proposed project. Therefore, impacts are less than significant.

Impact 5.7-4: According to the California Department of Forestry and Fire Protection, the project site is designated in either High or Very High Fire Hazard Zones; however, compliance with the California Fire Code requirements and the design standards within the Oak Glen Creek Specific Plan would reduce fire hazards. [Threshold H-8]

Impact Analysis: As shown on Figure 5.7-1, *Fire Hazards*, the entire project site is designated in either High or Very High Fire Hazard Severity Zone. Typically, larger, undeveloped open areas like the project site are susceptible to wildland fires and can be exacerbated by dry weather and Santa Ana winds. The proposed project would channelize the Oak Glen Creek and Wilson Creek, and convert grassland and scrub vegetation to developed land.

To minimize potential fire hazards onsite, development in accordance with the proposed Specific Plan would be required to comply with Section 85.020220 of the Yucaipa Development Code. Section 85.020220 designates fire safety overlay districts that correlate to the VHFHSZ designated by CAL FIRE and are identified as Fire Safety Review Areas 1 and 2. These areas are required to comply with various construction, building, and design standards as well as erosion and sediment control measures related to fire safety. Further, Chapter 8.20 (Refuse Abatement) of the City's municipal code requires every property owner to abate all noxious weeds or vegetation, dry grass, tumbleweeds, dead trees, and all combustible rubbish or noxious vegetation that constitute a fire, health, or safety hazard.

Additionally, the proposed residential and nonresidential uses north and east of the proposed basin are buffered from the drainage basin by landscaped vegetation, including natural habitat and open space areas (see Figure 3-6, *Conceptual Open Space Landscape Plan*). The buffered landscaping further reduces fire hazard risks associated with wildland-urban interface.

The City of Yucaipa has also adopted the 2013 CFC, which incorporates and amends the 2012 International Fire Code. These codes are revised on a triennial cycle. Provisions include sprinkler and fire hydrant requirements in new structures and remodels, road widths and configurations designed to accommodate the passage of fire trucks and engines, and requirements for minimum fire flow rates for water mains. The Yucaipa fire chief is authorized and directed to enforce the provisions of the CFC throughout the City. The City has also adopted the most recent version of the CBC, which includes sections on fire-resistant construction material requirements based on building use and occupancy. The construction requirements are a function of building size, purpose, type, materials, location, proximity to other structures, and the type of fire suppression systems installed.

Overall, implementation of construction, building, and design standards outlined in the Oak Glen Creek Specific Plan, City's municipal code, and CFC would ensure impacts related to fire hazards would be less than significant.

5.7.4 Cumulative Impacts

Hazards and Hazardous Materials

Cumulative impacts occur when the potential impacts of one project are compounded with impacts of other development projects or from growth in the area. Hazards and hazardous materials impacts are compounded when multiple development projects would increase the presence of hazardous materials near the proposed project or the potential for hazardous accidents to occur.

However, use, transport, storage, and disposal of hazardous materials by other projects in the City would be governed by the same regulations and agencies governing such uses by the proposed project. Implementation of existing regulations would minimize potential hazards from accidental release of hazardous materials. Other projects would be subject to independent CEQA review, and projects that could expose persons at schools within one-quarter mile of a project's site to substantial hazards through emissions of hazardous substances would be required to implement feasible mitigation measures to reduce those hazards.

Other projects may be proposed on sites listed on environmental databases. CEQA review for such projects would include environmental site assessments (e.g., Phase I, II, or III ESAs). Where contaminated soil, soil vapor, or water are discovered on a site, cleanup to appropriate regulatory levels would be required before proposed land uses could be approved where people could come into contact with the contaminated material. Thus, compliance with the federal, state, and local regulations would ensure impacts from the Oak Glen Creek Specific Plan do not combine with impacts of other cumulative projects to result in significant hazards and hazardous materials impacts.

Wildfire Hazards

Future projects within Yucaipa may be located within fire hazard severity zones (very high, high, and moderate) designated by CAL FIRE. Development of such projects could subject people and structures to wildfire hazards. However, all projects approved and developed within fire hazard severity zones would be required to comply with the City's Fire Safety Overlay District construction and design requirements.

Additionally, structures in areas with slopes exceeding 30 percent and 30 feet in height are required to implement fuel modifications (i.e., vegetate slopes) and be built at least 30 feet from the edges of graded areas adjacent to natural ungraded slopes. Permanent fuel modification areas may also be required around projects that are adjacent to or exposed to hazardous fire areas. The width of fuel modification areas would be determined by the Yucaipa Fire Department/CAL FIRE. Compliance with Section 8.20.040 of the City's municipal code also ensures all refuse—including noxious weeds, vegetation, dry grass, etc.—that constitute a fire, health, or safety hazard are abated and minimize potential fire hazard.

Upon compliance with existing regulations, cumulative fire hazard impacts would be less than significant, and project impacts would not be cumulatively considerable.

5.7.5 Existing Regulations

Federal

- Resource Conservation and Recovery Act (RCRA) of 1976
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980
- Superfund Amendments and Reauthorization Act (SARA)
- Emergency Planning and Community Right-to-Know Act (EPCRA)
- Toxic Substances Control Act of 1976
- Occupational Safety and Health Administration (OSHA) Regulation 29 CFR Standard 1926.62

State

- Health and Safety Codes Sections 25270.7, 25270.8, and 25507
- Vehicle Code Section 23112.5
- Public Utilities Code Section 7673 (PUC General Orders #22-B, 161)
- Government Code Sections 51018, 8670.25.5 (a)
- Water Code Sections 13271, 13272
- California Labor Code Section 6409.1 (b)10
- California Fire Code
- California Building Code
- California Fire Plan
- California Code of Regulations, Title 22, Divisions 4 and 4.5
- Hazardous Materials Disclosure Programs

Local

- City of Yucaipa Development Code Division 5, Chapter 2, Article 1 (Fire Safety Overlay District)
- City of Yucaipa Municipal Code Chapter 8.20 (Refuse Abatement)

5.7.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant: 5.7-2, 5.7-3, and 5.7-4.

Without mitigation, the following impacts would be **potentially significant**:

- **Impact 5.7-1:** Construction and operation of the proposed project could involve the transport, use, and/or disposal of hazardous materials

5.7.7 Mitigation Measures

Impact 5.7-1

7-1 If the City maintenance yard located at 11377 2nd Street is redeveloped for residential uses and stained soil or odors are detected onsite, the project applicant shall test the soils for total petroleum hydrocarbon prior to grading activities. If significant levels of petroleum hydrocarbons are detected, the soil shall be investigated and potentially removed in accordance with Department of Toxic Substance Control guidance.

5.7.8 Level of Significance After Mitigation

Impact 5.7-1

The City maintenance yard was identified as have a LUST in 1997. However, the site received regulatory closure over 20 years ago and only soil was reported as being impacted. Therefore, the presence of residual petroleum hydrocarbon today would likely be very low. Mitigation Measure 7-1 would require soil testing at the maintenance yard prior to grading to ensure no significant amounts of petroleum hydrocarbon remain onsite. If detected, the soil would be investigated and potentially removed, thus, no significant hazards would impact future residents of the Residential District. Impacts would be less than significant.

5.7.9 References

California Department of Forestry and Fire Protection (CAL FIRE). 2008, November 13. SW San Bernardino County: Very High Fire Hazard Severity Zone in LRA as Recommended by CAL FIRE. http://frap.fire.ca.gov/webdata/maps/san_bernardino_sw/fhszl_map.62.jpg.

Yucaipa, City of. 2010. City of Yucaipa Hazard Mitigation Plan Update. http://www.yucaipa.org/emergency_disaster_preparedness/disaster/PDF_Files/Yucaipa2010HMPwithAppendices.pdf.

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5.8 HYDROLOGY AND WATER QUALITY

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential impacts to hydrology and water quality conditions in the City of Yucaipa from implementation of the proposed Oak Glen Creek Specific Plan. Hydrology deals with the distribution and circulation of water, both on land and underground. Water quality deals with the quality of surface and groundwater. Surface water is water on the surface of the land and includes lakes, rivers, streams, and creeks. Groundwater is water below the surface of the earth. This analysis is based in part on the following technical study:

- *Oak Glen Creek Specific Plan EIR Hydrology and Water Quality Technical Study*, Michael Baker International, May 2016.

A complete copy of this study is in the Technical Appendices to this Draft EIR (Volume II, Appendix G).

5.8.1 Environmental Setting

5.8.1.1 REGULATORY BACKGROUND

Federal Regulations

Clean Water Act

Under the Clean Water Act (CWA) of 1977, the United States Environmental Protection Agency (EPA) seeks to restore and maintain the chemical, physical, and biological integrity of the nation's waters. The statute employs a variety of regulatory and non-regulatory tools to reduce direct pollutant discharges into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff. The CWA authorizes the EPA to implement water quality regulations. The National Pollutant Discharge Elimination System (NPDES) permit program under Section 402(p) of the CWA controls water pollution by regulating stormwater discharges into the waters of the United States. California has an approved state NPDES program. The EPA has delegated authority for water permitting to the State Water Resources Control Board (SWRCB), which has nine regional boards. The Santa Ana Regional Water Quality Control Board (RWQCB Region 8) regulates water quality in the City.

Sections 401 and 404 of the CWA are administered through the Regulatory Program of the U.S. Army Corps of Engineers (Corps) and regulate the water quality of all discharges of fill or dredged material into waters of the United States, including wetlands and intermittent stream channels. Section 401, Title 33, Section 1341 of the CWA sets forth water-quality certification requirements for "any applicant applying for a federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters." If there are ephemeral drainages and wetlands identified in the Specific Plan area, construction and other activities may require the acquisition of a permit from the Corps under Section 404 of the CWA and water quality certification from the Santa Ana RWQCB under Section 401 of the CWA. Section 401 certification is required from the Santa Ana RWQCB prior to final issuance of Section 404 permits by the Corps.

Section 303(d) of the CWA requires that each state identify water bodies or segments of water bodies that are "impaired" (i.e., do not meet one or more of the state water quality standards). Such waters are polluted and need further attention to support their beneficial uses. Once the water body or segment is listed, the state must establish a total maximum daily load (TMDL) for the pollutant causing impairment. TMDL is the maximum amount of a pollutant that a water body can receive and still meet water quality standards. Typically, TMDL is the sum of the allowable loads of a single pollutant from all contributing point and nonpoint sources. The intent of the 303(d) list is to identify water bodies that require future development of a TMDL to maintain water quality. The RWQCB identifies impaired water bodies within its jurisdiction as well as the pollutant or stressor responsible.

National Pollutant Discharge Elimination System

The NPDES permit program was established by the CWA to regulate municipal and industrial discharges to surface waters of the United States from their municipal separate storm sewer systems (MS4s). All facilities that discharge pollutants into waters of the United States must obtain an NPDES permit. Requirements for stormwater discharges are also regulated under this program. In California, the NPDES permit program is administered by the SWRCB through the nine RWQCBs.

The project lies within the jurisdiction of Santa Ana RWQCB (Region 8) and is subject to the waste discharge requirements of the San Bernardino County MS4 Permit (Order No. R8-2010-0036) and NPDES Permit No. CAS618036. The San Bernardino County Flood Control District is the principal permittee, and the County of San Bernardino and the 16 incorporated cities of San Bernardino County are co-permittees under the MS4 permit. Pursuant to the MS4 permit, the permittees were required to develop and implement programs and policies to reduce the discharge of pollutants in urban runoff to Waters of the United States to the maximum extent practicable (MEP), and to implement best management practices (BMPs) to reduce, consistent with the MEP standard, the discharge of pollutants in urban stormwater from the MS4s. The City of Yucaipa, as a permittee under the general MS4 permit, has legal authority to enforce the permit in its jurisdiction.

The general MS4 permit requires that new development or significant redevelopment projects use BMPs, including site design planning, source control, and treatment techniques, to protect the quality of receiving waters. These requirements are detailed in the San Bernardino County Model Water Quality Management Plan (WQMP) and supplemental technical guidance document, revised May 2012, which the City of Yucaipa has incorporated into its project approval processes. Within the Specific Plan area, any new development project (i.e., adding 10,000 or more square feet of impervious surface) or significant redevelopment project (i.e., adding 5,000 or more square feet of impervious surface) is required to prepare a WQMP that specifies the BMPs and low impact development measures to minimize the effects of the project on regional hydrology, runoff flow rates and/or velocities, and pollutant loads. An operations and maintenance plan must be included in the WQMP and must designate terms, conditions, and requirements for maintaining the BMPs in perpetuity.

State Regulations

Porter-Cologne Water Quality Act

The Porter-Cologne Water Quality Act (Water Code § 13000 et seq.) is the basic water quality control law for California. Under this act, the SWRCB has ultimate co1ntrol over state water rights and water quality policy. In California, the EPA has delegated authority to issue NPDES permits to the SWRCB. The state is divided into nine regions related to water quality and quantity characteristics. The SWRCB, through its nine RWQCBs, carries out the regulation, protection, and administration of water quality in each region. Each regional board is required to adopt a water quality control plan or basin plan that designates beneficial uses and water quality objectives for the region's surface water and groundwater basins.

The Specific Plan area is subject to the Santa Ana RWQCB's Basin Plan, which is primarily within the Santa Ana River Watershed. The basin plan was adopted in 1995; comprehensive updates were made in February 2008; and minor, nonsubstantive changes were last made in 2016 (Santa Ana RWQCB 2016). It gives direction on the beneficial uses of state waters in Region 8; describes the water quality that must be maintained to support those uses; and provides programs, projects, and other actions to achieve the standards. The basin plan provides all the necessary information to carry out the state's antidegradation policy for surface waters and groundwater, 303(d) listing of impaired waters, and related TMDLs.

Applicable Plans and Programs

Storm Water Pollution Prevention Plans

Pursuant to the CWA, in 2012, the SWRCB issued a statewide general NPDES permit for stormwater discharges from construction sites (Order N. 2012-0006-DWQ; NPDES No. CAS000002). Under the statewide Construction General Permit, discharges of stormwater from construction sites with a disturbed area of one or more acres must be covered by an individual NPDES or the Construction General Permit. Coverage by the Construction General Permit is accomplished by completing and filing permit registration documents with the SWRCB, including a notice of intent, risk assessment, site map, Storm Water Pollution Prevention Plan (SWPPP), annual fee, and signed certification statement (SWRCB 2014).

Each applicant under the Construction General Permit must prepare a SWPPP before issuance of grading permits, and the SWPPP must be implemented during construction. The SWPPP must list BMPs implemented on the construction site to protect stormwater runoff; contain a visual monitoring program and a chemical monitoring program for "non-visible" pollutants to be implemented based on the risk level of the site; and inspection, reporting, training, and recordkeeping requirements. In Region 8, the SWRCB is the permitting agency and the Santa Ana RWQCB provides local oversight and enforcement.

National Flood Insurance Program

The National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973 mandate the Federal Emergency Management Agency (FEMA) to evaluate flood hazards. FEMA provides flood insurance rate maps (FIRMs) for local and regional planners to promote sound land use and floodplain development, identifying potential flood areas based on the current conditions. To delineate a FIRM, FEMA conducts

engineering studies referred to as Flood Insurance Studies. The most recent FIRMs were completed and published for the City of Yucaipa on August 28, 2008. Using information gathered in these studies, FEMA engineers and cartographers delineate Special Flood Hazard Areas on FIRMs.

The Flood Disaster Protection Act requires owners of all structures in identified Special Flood Hazard Areas to purchase and maintain flood insurance as a condition of receiving federal or federally related financial assistance, such as mortgage loans from federally insured lending institutions. Community members in designated areas are able to participate in the National Flood Insurance Program (NFIP) afforded by FEMA. The NFIP is required to offer federally subsidized flood insurance to property owners in communities that adopt and enforce floodplain management ordinances that meet minimum criteria. The National Flood Insurance Reform Act of 1994 further strengthened the NFIP by providing a grant program for state and community flood mitigation projects. The act also established the Community Rating System for crediting communities that implement measures to protect the natural and beneficial functions of their floodplains, as well as managing erosion hazards.

The design standard for flood protection established by FEMA is the 100-year flood event, also described as a flood that has a 1-in-100 chance of occurring in any given year.

Local Regulations

San Bernardino County Flood Control District

The San Bernardino County Flood Control District regulates runoff and water quality as the principal permittee under the general MS4 permit and municipal stormwater management plan. The City of Yucaipa is a co-permittee under the general MS4 permit and has legal authority for enforcing the terms of the permit in its jurisdiction.

The municipal stormwater management plan includes a new development and redevelopment program that incorporates watershed protection and stormwater quality management principles into the specific plan process, environmental review process, and development permit approval process. The new development and redevelopment program includes a "model" WQMP that identifies incorporation of BMPs in new development or redevelopment projects (SBCFCD 2006).

City of Yucaipa

The City of Yucaipa approves project-specific stormwater quality management plans as part of the development plan and approval process prior to the issuance of permits. All applicants for new development or redevelopment projects in Yucaipa are required to prepare and submit a stormwater quality management plans to the Engineering Department that addresses all BMPs that will be incorporated into the new development or redevelopment project to control stormwater and non-stormwater pollutants during and after construction and shall be revised as necessary during the life of the project.

City of Yucaipa Municipal Code

Chapter 2, Erosion and Sediment Control, includes provisions to eliminate and prevent conditions of accelerated erosion that lead to the degradation of water quality, loss of fish habitat, damage of property, loss of topsoil and vegetation cover, disruption of water supply, increased danger from flooding, and the deposit of sediments and associated nutrients.

Chapter 4, Section 810.0480, Stormwater Management, encourages landscape and grading design plans to minimize runoff and increase onsite retention and infiltration that recharge groundwater and improve water quality.

Chapter 13.04, Storm Drain System, promotes and ensures the future health, safety, and general welfare of inhabitants of the City by controlling discharges into the City storm drain system. It requires protecting and enhancing the water quality of local, state, and federal watercourses, water bodies, groundwater, and wetlands in a manner pursuant to and consistent with federal, state, and local laws and regulations.

5.8.1.2 EXISTING CONDITIONS

Hydrology

Regional Drainage

The City of Yucaipa is in the Santa Ana River Watershed. The Santa Ana River Watershed includes much of Orange County, the northwestern corner of Riverside County, part of southwestern San Bernardino County, and a small portion of Los Angeles County. The watershed is bounded by the Santa Margarita watershed to the south, on the east by the Salton Sea and Southern Mojave watersheds, and on the north/west by the Mojave and San Gabriel watersheds, respectively. The watershed covers approximately 2,800 square miles in area with about 700 miles of rivers and major tributaries.

The Santa Ana River extends 96 miles from the San Bernardino Mountains in San Bernardino County to the Pacific Ocean at the boundary between the cities of Huntington Beach and Newport Beach. Water flow in the Santa Ana River Watershed starts in the upper erosion zone of the San Bernardino and San Gabriel mountains. This upper zone has the steepest gradients, which do not allow large quantities of percolation of surface water into the ground. Primary slope direction is northeast to southwest. Flows in the upper zone consist mainly of snowmelt and storm runoff through mostly undeveloped San Bernardino National Forest lands.

Nearly the entire City is in the San Timoteo Hydrologic Unit of the Santa Ana River Watershed. The San Timoteo Hydrologic Unit spans about 122 square miles extending from part of the lower southwest slopes of the San Bernardino Mountains on the north to the San Timoteo Badlands on the south, and from the City of Beaumont on the east to the City of San Bernardino on the west. The primary stream in the San Timoteo Hydrologic Unit, San Timoteo Creek, flows northwestward and discharges into the Santa Ana River in the southern part of the City of San Bernardino. Drainage in most of this Hydrologic Unit is westward.

Small portions of the northernmost and northwest parts of the City are in the Upper Santa Ana River Hydrologic Unit that spans about 254 square miles in the southern and southwestern parts of the San Bernardino Mountains and the northeast part of the Upper Santa Ana River Valley. The Santa Ana River is the primary stream in this Hydrologic Unit.

Local Surface Waters and Drainage Facilities

The drainage for the overall site is surface runoff flowing southwest from Oak Glen Road to 2nd Street in Wilson Creek and Oak Glen Creek. The creeks eventually discharge into Live Oak Creek and San Timoteo Creek west of the proposed project.

Hydrology calculations to evaluate surface runoff associated with 2-year, 10-year, and 100-year hypothetical design storm frequencies from the tributary drainage areas were performed using the San Bernardino County Rational Method in the Advanced Engineering Software computer program. The rational method estimates peak discharges from small urban and developed areas. Hydrologic parameters used in the analysis, such as rainfall and soil classification, are from the San Bernardino County Hydrology Manual.

The project site was divided into 13 drainage areas, as shown in Figure 5.8-1, *Existing Condition Hydrology Map*. Existing peak flow rates for each drainage area during 2-year, 10-year, and 100-year storms are shown in Table 5.8-1, *Existing Peak Flow Rates*.

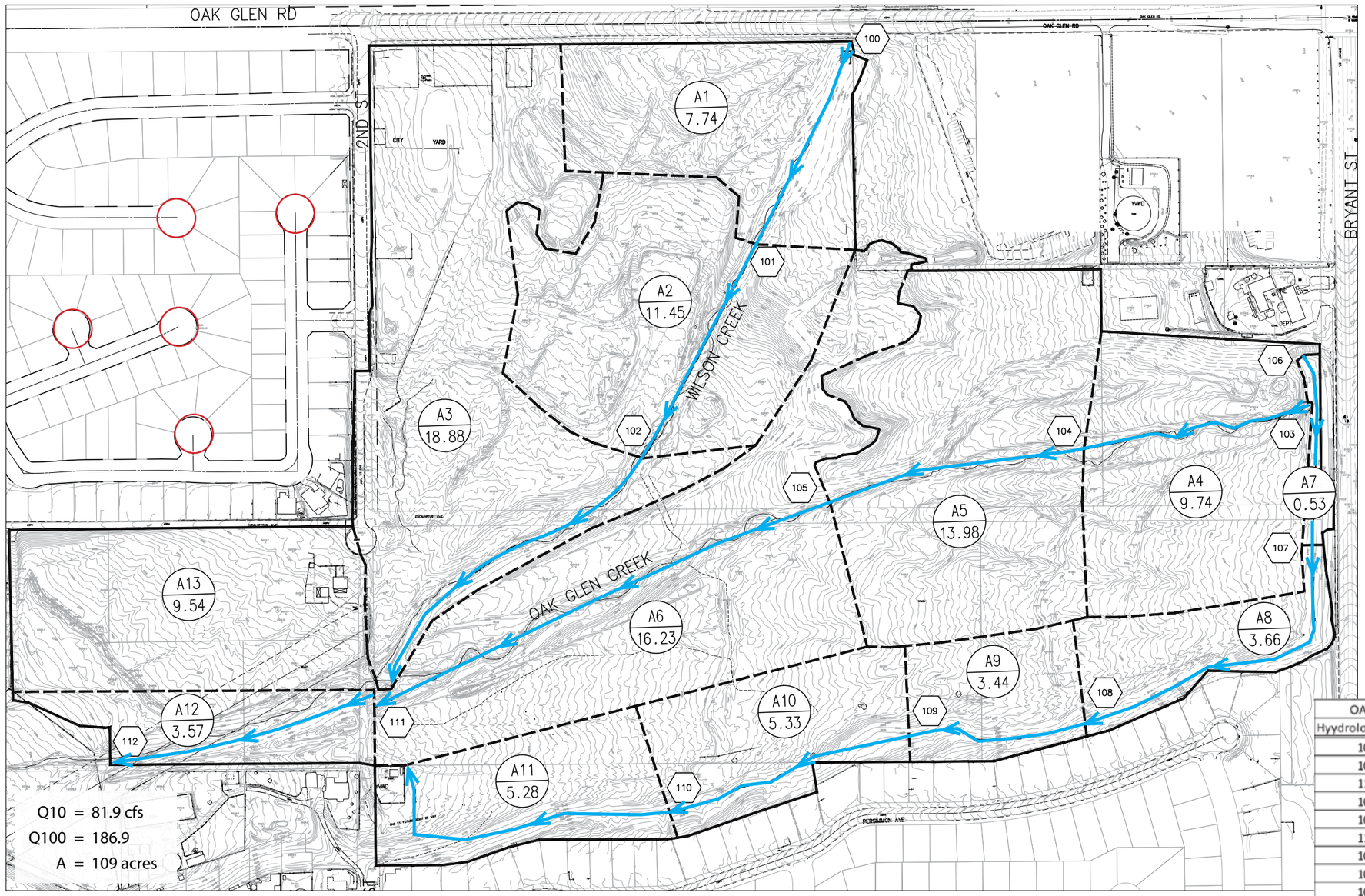
Table 5.8-1 Existing Peak Flow Rates

Drainage Area	Area (acres)	Peak Flow Rates, cubic feet per second (cfs)		
		2-year	10-year	100-year
A1	7.7	1.9	8.3	17.3
A2	11.5	0.6	9.6	22.3
A3	18.9	4.3	16.7	35.2
A4	9.7	2.5	10.7	21.3
A5	14.0	1.8	13.0	28.0
A6	16.2	3.3	12.7	29.3
A7	0.5	0.1	0.5	1.1
A8	3.7	0.04	2.6	5.8
A9	3.4	0.1	2.2	5.2
A10	5.3	0.1	3.1	7.7
A11	5.3	0.1	2.9	7.3
A12	3.6	0.5	3.2	7.0
A13	9.5	1.1	8.2	18.5

Source: Michael Baker 2016.

Figure 5.8-1 Existing Condition Hydrology Map

5. Environmental Analysis



LEGEND

- Drainage Boundary
- Flow Path
- A1 / 7.74 — Subarea Designation / Area (Acres)
- 101 — Hydrology Node

OAK GLEN CREEK HYDROLOGY SUMMARY			
Hyydrology Node	Area (Acres)	Q10 (cfs)	Q100 (cfs)
101	7.74	8.26	17.32
102	11.45	9.6	22.33
111	18.88	16.65	35.22
104	9.74	10.65	21.34
105	13.98	13.04	27.97
111	16.23	12.73	29.32
107	1.81	0.52	1.08
108	2.38	2.56	5.8
109	3.44	2.24	5.24
110	5.33	3.14	7.71
111	5.28	2.85	7.32
112	13.11	8.23	18.46

0 350
Scale (Feet)

Base Map Source: Michael Baker International, 2016

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Groundwater Basin

The project site lies within the Yucaipa Subbasin of the Upper Santa Ana Valley Groundwater Basin, which underlies the southeast part of the San Bernardino Valley, covering approximately 39 square miles. The Yucaipa Subbasin is bordered by the San Andreas fault to the north, the Redlands fault and the Crafton Hills to the west, the Banning fault to the south, and Yucaipa Hills to the east. Groundwater in the Yucaipa Subbasin is found chiefly in alluvium, with lesser quantities in the San Timoteo Formation and fractured bedrock beneath the alluvium. Dominant recharge to the subbasin occurs through the percolation of precipitation; infiltration within the channels of overlying streams, particularly Yucaipa and Oak Glen Creeks; underflow from the fractures within the surrounding bedrock beneath the subbasin; and artificial recharge at spreading grounds. Construction activities in Yucaipa would not require dewatering because groundwater in the Yucaipa Subbasin is typically between 200 to 280 feet below the surface (Yucaipa 2016).

Groundwater in the Yucaipa Subbasin is managed by the Yucaipa Valley Water District (YVWD). The YVWD also gets a portion of its water supply from the San Timoteo and Beaumont Subbasins; therefore, the YVWD actively monitors groundwater in the subbasins and participates with other agencies in monitoring and protecting the subbasins to ensure groundwater sustainability (Yucaipa 2016).

Groundwater Management of Yucaipa and San Timoteo Subbasins

The Yucaipa Subbasin has not been adjudicated. Under present management conditions, the basins are expected to have controlled overdraft conditions. Prior to 2007, the Yucaipa Subbasin was considered in overdraft due to overextraction by the YVWD, South Mesa Water Company, and Western Heights Mutual Water Company. In 2005, the YVWD began treating State Water Project water through a newly constructed Yucaipa Valley Regional Filtration Facility. This provided an opportunity to alleviate pumping from local supplies, increasing groundwater levels to 70 feet in one well in the Wilson Subbasin (Yucaipa 2016).

Water Quality

An important consideration in evaluating stormwater quality from the proposed project is to assess if it impairs the beneficial uses of the receiving waters. Nonpoint-source pollutants have been characterized by the following major categories to assist with determining the pertinent data and its use. Receiving waters can assimilate a limited quantity of various substances, but each has a threshold, beyond which it becomes a pollutant and results in an undesirable impact.

Major categories of stormwater pollutants that may be found in existing stormwater runoff are described below:

- **Sediment:** Sediment is made up of tiny soil particles that are washed or blown into surface waters. It is the major pollutant by volume in surface water. Suspended soil particles can cause the water to look cloudy or turbid. The fine sediment particles also act as a vehicle to transport other pollutants, including nutrients, trace metals, and hydrocarbons. Construction sites are the largest source of sediment for urban areas under development. Another major source of sediment is streambank erosion, which may be accelerated by increases in peak rates and volumes of runoff due to urbanization.

- **Nutrients:** Nutrients, especially phosphorous and nitrogen, can cause algal blooms and excessive vegetative growth. As a general rule of thumb, nutrient discharge is greatest from development sites with the most impervious areas. Other problems resulting from excess nutrients are 1) surface algal scums, 2) water discoloration, 3) odors, 4) toxic releases, and 5) overgrowth of plants.

  Sources of nitrogen in stormwater include organic matter in water bodies or chemical discharges, which occurs in many forms. Ammonia and nitrate are important nutrients for the growth of algae and other plants. Nitrification consumes dissolved oxygen in the water. Organic nitrogen breaks down into ammonia, which eventually becomes oxidized to nitrate-nitrogen, a form available for plants. The principal water quality criteria for nitrogen focus on nitrate and ammonia.

  Phosphorus is an important component of organic matter and is typically found in solid particles. Most phosphorus in urban stormwater is generally from fertilizers and other industrial products.

- **Trace Metals:** Trace metals are primarily a concern because of their toxic effects on aquatic life and their potential to contaminate drinking water supplies. The most common trace metals in urban runoff are lead, zinc, and copper. Fallout from automobile emissions is also a major source of lead in urban areas. A large fraction of the trace metals in urban runoff are attached to sediment, and this effectively reduces the amount that is immediately available for biological uptake and subsequent bioaccumulation. Metals associated with sediment settle out rapidly and accumulate in soil. Also, urban runoff events typically occur over a shorter duration, which reduces the amount of human exposure to trace metals, but could be toxic to the aquatic environment. The toxicity of trace metals in runoff varies with the hardness of the receiving water. As total hardness of the water increases, the less adverse the effects of the trace metals.

- **Oxygen-Demanding Substances:** Aquatic life is dependent on the dissolved oxygen in the water, and when organic matter is consumed by microorganisms, dissolved oxygen is consumed in the process. A rainfall event can deposit large quantities of oxygen-demanding substances or organic matter (e.g., sewage, food waste and dead plants) in lakes and streams. The biochemical oxygen demand of typical urban runoff is on the same order of magnitude as the effluent from an effective secondary wastewater treatment plant. A problem from low dissolved oxygen results when the rate of oxygen-demanding material exceeds the rate of replenishment. Oxygen demand is estimated by direct measure of dissolved oxygen and indirect measures such as biochemical oxygen demand, chemical oxygen demand, oil and grease, and total organic carbon.

- **Bacteria:** Bacteria levels in undiluted urban runoff exceed public health standards for water contact recreation almost without exception. Studies have found that total coliform counts exceed EPA water quality criteria at almost every site and almost every time it rains. The coliform bacteria that are detected may not be a health risk, but are often associated with human pathogens.

- **Oil and Grease:** Oil and grease contain a wide variety of hydrocarbons, some of which could be toxic to aquatic life in low concentrations. These constituents initially float on water and create the familiar rainbow-colored film. Hydrocarbons have a strong affinity for sediment and quickly become absorbed in

it. The major source of hydrocarbons, primarily crankcase oil and other lubricating agents, in urban runoff is from leaking automobile engines. Hydrocarbon levels are highest in the runoff from parking lots, roads, and service stations. Residential land uses typically have a lower discharge of hydrocarbons; however, the illegal disposal of waste oil into storm drains and urban runoff can be a local problem.

- **Other Toxic Chemicals:** Priority pollutants are generally related to hazardous wastes or toxic chemicals and can sometimes be detected in stormwater. Priority pollutant tests in previous studies of urban runoff have evaluated the presence of over 120 toxic chemicals and compounds. The scans rarely revealed toxins that exceeded the current safety criteria, and were primarily conducted in suburban areas not expected to have many sources of toxic pollutants (with the possible exception of illegally disposed or applied household hazardous wastes). Measures of priority pollutants in stormwater include 1) phthalate (plasticizer compound), 2) phenols and creosols (wood preservatives), 3) pesticides and herbicides, 4) oils and greases, and 5) metals.

To meet the requirements of the Porter-Cologne Act, the Santa Ana RWQCB defined the beneficial uses of its water bodies in the 2016 Santa Ana River Basin Water Quality Control Plan. Beneficial uses are the uses of water necessary for the survival or well-being of humans, plants, and wildlife. If pollutant concentrations in water bodies cause impairments to their beneficial uses, the water body is placed on the state list of impaired water bodies (303[d] list) until a TMDL is established for the water body (maximum discharge of pollutants). The beneficial uses of San Timoteo Creek are agricultural supply, groundwater recharge, water contact recreation, non-contact water recreation, warm freshwater habitat, and wildlife habitat.

Table 5.8-2, *Water Quality Data*, summarizes the latest water quality data for the receiving waters of the project site, including pollutants that are 303(d) listed, and if TMDLs have been developed for each pollutant.

Table 5.8-2 Water Quality Data

Receiving Water	303(d) Listed?	Pollutants	TMDL Developed?
Wilson Creek	No	NA	NA
Live Oak Creek	No	NA	NA
San Timoteo Creek	No	NA	NA
Santa Ana River			
Reach 4	Yes	Pathogens	No
Reach 3	Yes	Copper	No
		Lead	No
		Pathogens	Yes (2007)
Reach 2	Yes	Indicator Bacteria	No
Reach 1	No	None	NA

Source: Michael Baker 2016.
TMDL = total maximum daily load

Flood Hazards

The City of Yucaipa is a participant in the National Flood Insurance Program. Communities participating in the NFIP must adopt and enforce minimum floodplain management standards, including identification of flood hazards and flooding risks. Participation in the NFIP allows communities to purchase low-cost insurance protection against losses from flooding.

Significant portions of the project site are in a 100-year flood plain due to Wilson Creek and Oak Glen Creek traversing the site. FIRM No. 06071C8745H, effective on August 28, 2008, covers the project site and corresponds with the City's Floodplain Review Areas 1 and 2 for 100- and 500-year flood areas, respectively (see Figure 5.8-2, *Flood Hazard Map*).

Wilson Creek is a regional channel that provides major flood control protection for a large part of the City and is critical to the City's flood control plan. Wilson Creek and Oak Glen Creek are designated Floodplain Review Area 1, which corresponds with 100-year flood hazard areas.

Seismically Induced Dam Inundation

The City is not in dam inundation area, as there are no dams upstream from the City on Wilson Creek, Oak Glen Creek, or Yucaipa Creek. Seven Oaks Dam is on the Santa Ana River about four miles northwest of the City; the City is outside of the dam inundation area for Seven Oaks Dam.

5.8.2 Thresholds of Significance

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

HYD-1 Violate any water quality standards or waste discharge requirements.

HYD-2 Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted.

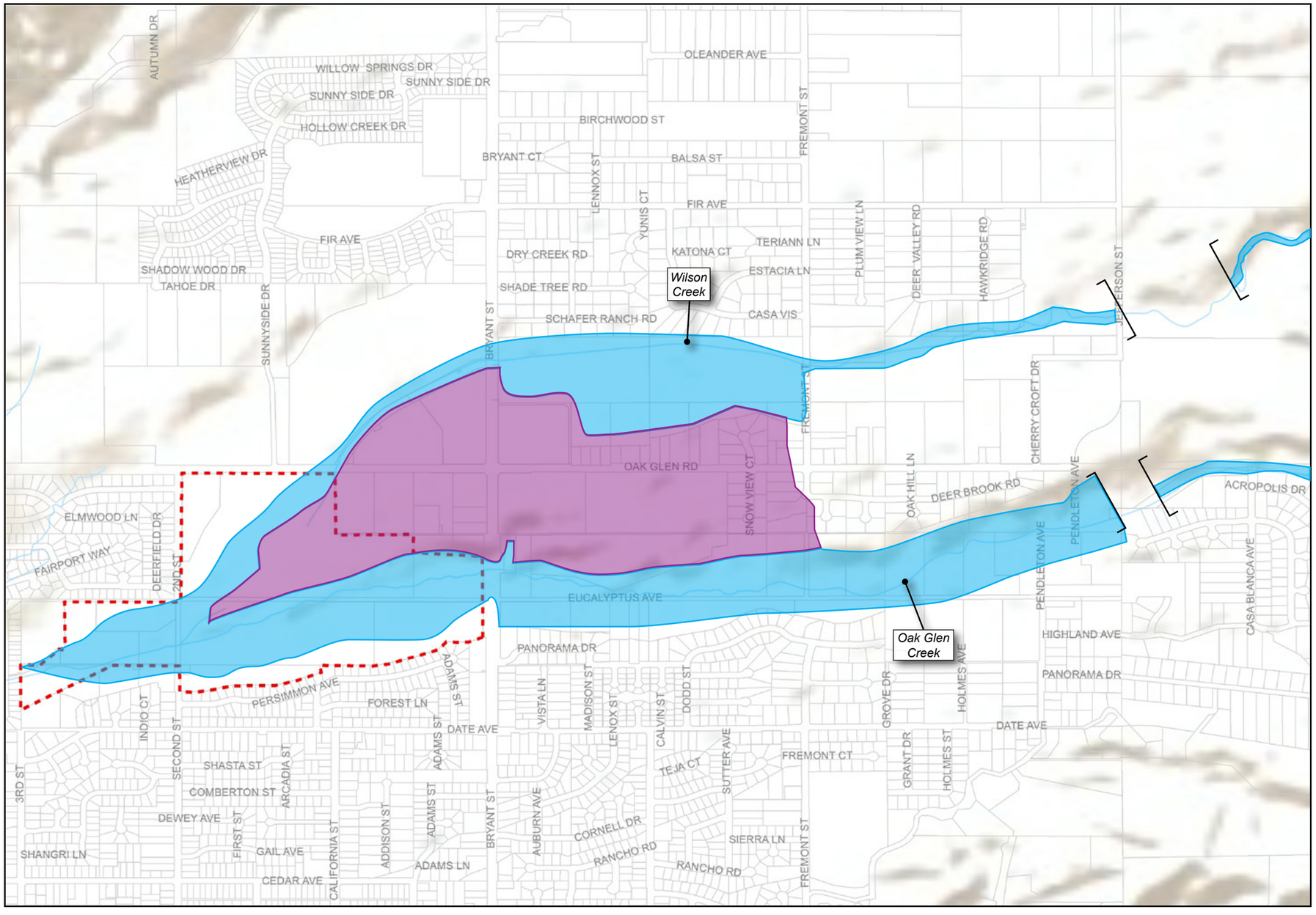
HYD-3 Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in a substantial erosion or siltation on- or off-site.

HYD-4 Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site.

HYD-5 Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff.

Figure 5.8-2 Flood Hazard Map

5. Environmental Analysis



Project Boundary

Overlay Designation

Floodplain Review Area 1 (100 Year Flood Area)

Floodplain Review Area 2 (500 Year Flood Area)

Limits of Study

Notes:
1. Floodplain Review Area 1 (FP1): FP1 shall include all areas subject to a 100-year flood as defined by the Federal Flood Insurance Regulations and the Federal Emergency Management Agency (FEMA).
2. Floodplain Review Area 2 (FP2): FP2 shall include all areas between limits of the 100-year flood and subject to a 500-year flood, and certain areas subject to 100-year flooding with an average depth of less than one foot or where the contributing drainage areas are less than one square mile, or areas protected by levees from the base flood.
3. Delineation of FEMA flood zones continues to changes in accordance with federal regulations and local flood control projects.

Project Boundary

0 0.25
Scale (Miles)

Base Map Source: USGS, NOAA, 2016; Data: FEMA, 2014 (with approved Letters of Map Revisions, 2015); DWR, 2016; USGS NHD, 2015

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HYD-6 Otherwise substantially degrade water quality.

HYD-7 Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map.

HYD-8 Place within a 100-year flood hazard area structures which would impede or redirect flood flows.

HYD-9 Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.

HYD-10 Be subject to inundation by seiche, tsunami, or mudflow.

Chapter 8, *Impacts Found Not to Be Significant*, substantiates that impacts associated with the following thresholds would be less than significant:

- Threshold HYD-9
- Threshold HYD-10

These impacts will not be addressed in the following analysis.

5.8.3 Environmental Impacts

The following impact analysis addresses thresholds of significance that may be potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

Impact 5.8-1: Construction and operation of the Oak Glen Creek Specific Plan may increase short- and long-term pollutant concentrations in runoff and alter the water quality of storm runoff; however, compliance with the Construction General Permit and the San Bernardino County NPDES Permit, and implementation of best management practices during construction activities and operation would reduce potential impacts. [Thresholds HYD-1 and HYD-6]

Impact Analysis: Urbanization has a tendency to increase pollutant discharges, which could impact adjacent streams and downstream receiving waters.

Construction Phase

During construction activities, the proposed project has the potential to produce typical pollutants such as nutrients, heavy metals, pesticides, and herbicides; toxic chemicals related to construction and cleaning; waste materials including wash water, paints, wood, paper, concrete, food containers, and sanitary wastes; and fuel and lubricants.

Future development of the proposed project would require compliance with the statewide Construction General Permit, which requires the preparation and implementation of a SWPPP. A SWPPP estimates

sediment risk from construction activities to receiving waters, and specifies BMPs that would be used by the project to minimize pollution of stormwater.

Categories of BMPs used in SWPPPs are described below in Table 5.8-3, *Construction BMPs*. Water quality impacts of project construction would be less than significant after implementation of the SWPPP.

Table 5.8-3 Construction BMPs

Category	Purpose	Examples
Erosion Controls and Wind Erosion Controls	Cover and/or bind soil surface, to prevent soil particles from being detached and transported by water or wind	Mulch, geotextiles, mats, hydroseeding, earth dikes, swales
Sediment Controls	Filter out soil particles that have been detached and transported in water.	Barriers such as straw bales, sandbags, fiber rolls, and gravel bag berms; desilting basin; cleaning measures such as street sweeping
Tracking Controls	Minimize the tracking of soil offsite by vehicles	Stabilized construction roadways and construction entrances/exits; entrance/outlet tire wash.
Non-Storm Water Management Controls	Prohibit discharge of materials other than stormwater, such as discharges from the cleaning, maintenance, and fueling of vehicles and equipment. Conduct various construction operations, including paving, grinding, and concrete curing and finishing, in ways that minimize non-stormwater discharges and contamination of any such discharges.	BMPs specifying methods for: paving and grinding operations; cleaning, fueling, and maintenance of vehicles and equipment; concrete curing; concrete finishing.
Waste Management and Controls (i.e., good housekeeping practices)	Management of materials and wastes to avoid contamination of stormwater.	Spill prevention and control, stockpile management, and management of solid wastes and hazardous wastes.

Operational Phase

Operation and maintenance of the project would produce typical pollutants, including suspended solids/sediment, nutrients, heavy metals, pathogens (bacteria/virus), pesticides, oil and grease, toxic organic compounds, trash and debris, and household hazardous wastes. Additionally, the vegetated areas in the Open Space District and landscaped areas throughout the site are likely to produce suspended solids/sediment, nutrients, and pesticides.

According to Order No. R8-2010-0036 NPDES Permit No. CAS618036 (MS4 permit), a project of this type is classified a Priority Development Project (New Development Project), because proposed construction would take place on previously undeveloped land. Therefore, a WQMP would be required for the project under the MS4 permit. The permit also requires the project to meet two separate requirements for stormwater quality: low impact development and hydromodification management.

Low Impact Development

The primary goal of LID is to preserve the predevelopment hydrology of a project site and address postdevelopment runoff through structural and nonstructural BMPs that store, infiltrate, evaporate, and

detain runoff. BMP implementation is evaluated by site design components and performance feasibility in preventive and mitigation measures. Preventive measures are site planning, design, and construction practices that focus on minimizing the amount of land disturbed and retaining, to the MEP, the project site's natural drainage characteristics. Mitigation measures include structural BMPs that manage impacts from stormwater runoff and provide pollutant reduction for mitigating the design capture volume (DCV) associated with each drainage area on the project site. The required DCV calculated is 4.2 acre-feet. Evaluation and implementation of LID BMPs to the MEP use the following order of priority:

1. Retention and infiltration BMPs
2. Harvest and use BMPs
3. Volume-based biotreatment BMPs
4. Flow-based biotreatment BMPs
5. An alternative compliance plan, including offsite BMPs

Hydromodification Management

Hydromodification control refers to the methods used to address hydrologic conditions of concern (HCOC) in a project's WQMP. Hydromodification control BMPs range from structural BMPs designed to control flow duration to in-stream measures such as grade control structures. In-stream measures can be desirable where stream channels are already degraded due to hydromodification caused by existing development. There are various alternatives for siting hydromodification control measures, including onsite, in-stream, and regional.

The BMPs in the future, project-specific WQMPs would contribute to meeting HCOC requirements. The volume of runoff retained by BMPs to meet the water quality DCV would typically serve to reduce the volume computed for the postdeveloped condition for a 2-year, 24-hour storm event. BMPs would also substantially reduce the postdeveloped condition runoff hydrograph, including the time of concentration and peak runoff when compared to the potential resulting postdevelopment hydrograph if no BMPs were incorporated. HCOC performance criteria for time of concentration and peak runoff require matching pre- and postdeveloped conditions within 5 percent. Per hydrologic analysis, the HCOC volume is 2.5 acre-feet that must be detained.

BMPs associated with LID and hydromodification management may include, but would not be limited to:

- Bioretention: the proposed storage/recharge basin would also function as a bioretention basin
- Rainfall harvest and use (cisterns, rain barrels, planter areas, permeable surfaces, drywells, French drains, etc.)
- Grass-lined swales
- Vegetated filter strips
- Green roofs

- Infiltration trenches
- Media filtration
- Porous pavement
- Permeable surfaces (porous concrete/asphalt, block pavers, open cell concrete, plastic grid systems, reinforced turf, etc.)

The Oak Glen Creek Specific Plan incorporates several water quality BMPs, including grass-lined swales and volume-based BMPs to meet these regulations. The greatest concentrations of pollutants can be found in runoff during small-volume storms and during the initial stages of large stormwater flows. Therefore, grass-lined swales would be implemented within the project's landscaped areas, and would filter runoff from surface water flows to reduce pollutants to the MEP. The following drainage development standards outlined in the Specific Plan would also assist in minimizing impacts to water quality:

- All project construction activities, including clearing, grading, and excavation affecting at least one acre of land, must obtain the appropriate NPDES permit. Mitigation measures to adequately protect water quality include the use of vegetated swales and monitoring programs.
- Prior to approval or issuance of building permits, improvement plans shall be submitted to the City's Public Works/Engineering Department for review and approval. The improvement plans shall include, but not be limited to the following:
    - Final Grading Plan
    - Drainage Plans
    - Hydrologic/Hydraulic Report
    - Water Quality Management Plan
    - Storm Water Pollution Prevention Plan
- The City of Yucaipa shall be responsible for the maintenance of all minor drainage facilities, including catch basins within the public street right-of-way and low-flow streams. The City of Yucaipa shall also be responsible for recreational facilities within the easterly portion of Oak Glen Creek and multiuse trails along the perimeter of the drainage facility.

Summary

The development of the proposed Residential and Innovation Districts would convert predominantly pervious areas to mostly impervious, resulting in impacts to stormwater quality under construction and operational phases. Thus, implementation of construction and operational BMPs, including the preparation of a plan (i.e., WQMP or functional equivalent document), a Notice of Intent, and a SWPPP, would aim to reduce water quality impacts to required levels. Additionally, to minimize construction activity impacts to waters of the United States (i.e., soils discharging into the water), the project would be required to obtain a

Section 404 permit from the Corps under the Clean Water Act. The Corps regulates the filling of "waters of the U.S.", including wetlands, pursuant to Section 404 of the Clean Water Act. A permit would be required from the Corps prior to commencement of any construction activities within the Corps delineated jurisdictional areas. Because the project would impact greater than 1/2-acre of non-tidal waters of the United States and/or more than 300 linear feet of stream bed an Individual Permit under Section 404 would be required from the Corps. Overall, the project would meet water quality standards delineated in adopted water quality permits from the Regional Water Quality Control Board, and construction and operational water quality impacts would be less than significant.

Impact 5.8-2: Development of the proposed project would increase the amount of impervious surfaces on the site; however, it would not interfere with groundwater recharge. [Threshold HYD-2]

Impact Analysis: As stated above, the project site lies within the Yucaipa Subbasin of the Upper Santa Ana Valley Groundwater Basin. The YVWD enhances groundwater storage through the YVWD's groundwater recharge program. The Yucaipa Groundwater Basin is recharged by infiltration in Yucaipa, Wilson, and Oak Glen Creeks (SBVMWD et al. 2016). The YVWD and the City enhance groundwater storage by "spreading" additional surface water to facilitate groundwater recharge. The proposed project would provide a more efficient trapezoidal channel design and retention basin at the confluence at Wilson Creek and Oak Glen Creek. While buildout of the Residential and Innovation districts would transform the mostly pervious project area to a predominantly impervious area (with the exception of landscaped areas), the proposed detention basin is designed to increase opportunities for groundwater recharge of natural stream flows and would have a volume capacity of 200 acre-feet. Pursuant to the MS4 permit, the site must be able to detain 4.2 acre-feet design capture volume and 2.5 acre-feet HCOC volume, which the 200-acre-foot detention basin substantially exceeds. Thus, despite the creation of new impervious areas, the project would increase the amount of groundwater recharge onsite and would provide a beneficial impact to the site's groundwater recharge ability. Overall, impacts would be less than significant.

Impact 5.8-3: Development pursuant to the proposed project would increase the amount of impervious surfaces on the site and increase surface water flows; however, implementation of the onsite stormwater system and detention basin coupled with installation of best management practices would reduce impacts. [Thresholds HYD-3, HYD-4 and HYD-5]

Impact Analysis: The proposed detention basin is a flood control facility designed to reduce the peak flow rates to the downstream channels and reduce flooding in the project area. As part of the project, the existing 2nd Street cul-de-sac would extend across the existing Oak Glen Creek bed and would function as the downstream embankment for the detention basin. The proposed realignment of Wilson Creek would run parallel to 2nd Street and Bryant Street, south of Oak Glen Road, and would enter the proposed basin at the prolongation of Eucalyptus Avenue. Wilson Creek upstream of the basin is proposed as an open trapezoidal channel.

Due to the realignment of Wilson Creek and the development of the site, the proposed project's drainage pattern would change from existing condition. Surface runoff would flow from Oak Glen Road at the north end of the project site through catch basins and storm drain lines to discharge south at the proposed

detention basin (see Figure 5.8-3, *Proposed Condition Hydrology Map*). Onsite flood attenuation would be achieved through this basin.

Table 5.8-4, *Proposed Condition Peak Flow Rates*, shows the proposed condition peak flow rates for each drainage area. The flows for 2-year storms are typically used to determine the water quality DCV. The flows for 10-year storms are used to determine the local drain sizing, and the 100-year storm analysis is used for larger master plan facilities and floodplain mapping.

Table 5.8-4 Proposed Condition Peak Flow Rates

Drainage Area	Area (acres)	Peak Flow Rates, cubic feet per second (cfs)		
		2-year	10-year	100-year
A1	6.7	8.6	15.4	23.7
A2	10.6	11.9	21.8	34.1
A3	17.2	18.2	33.4	52.7
A4	2.4	0.3	2.1	4.7
A5	5.6	0.0	3.4	8.9
A6	4.2	0.9	4.3	8.9
A7	5.1	0.4	4.4	9.8
A8	24.7	1.2	17.9	42.2
A9	9.6	0.0	7.2	16.7
A10	0.9	0.3	1.0	1.9
A11	4.5	0.1	3.1	7.6
A12	2.1	0.01	1.4	3.4
A13	5.6	7.0	12.6	19.3
A14	4.6	4.5	8.4	13.4
A15	5.7	0.3	4.3	9.9

Source: Michael Baker 2016.

Table 5.8-5, *Local Flow Rates Comparison*, compares the existing and proposed condition peak flows at the southwest end of the project site, where the creeks outflow to an existing channel.

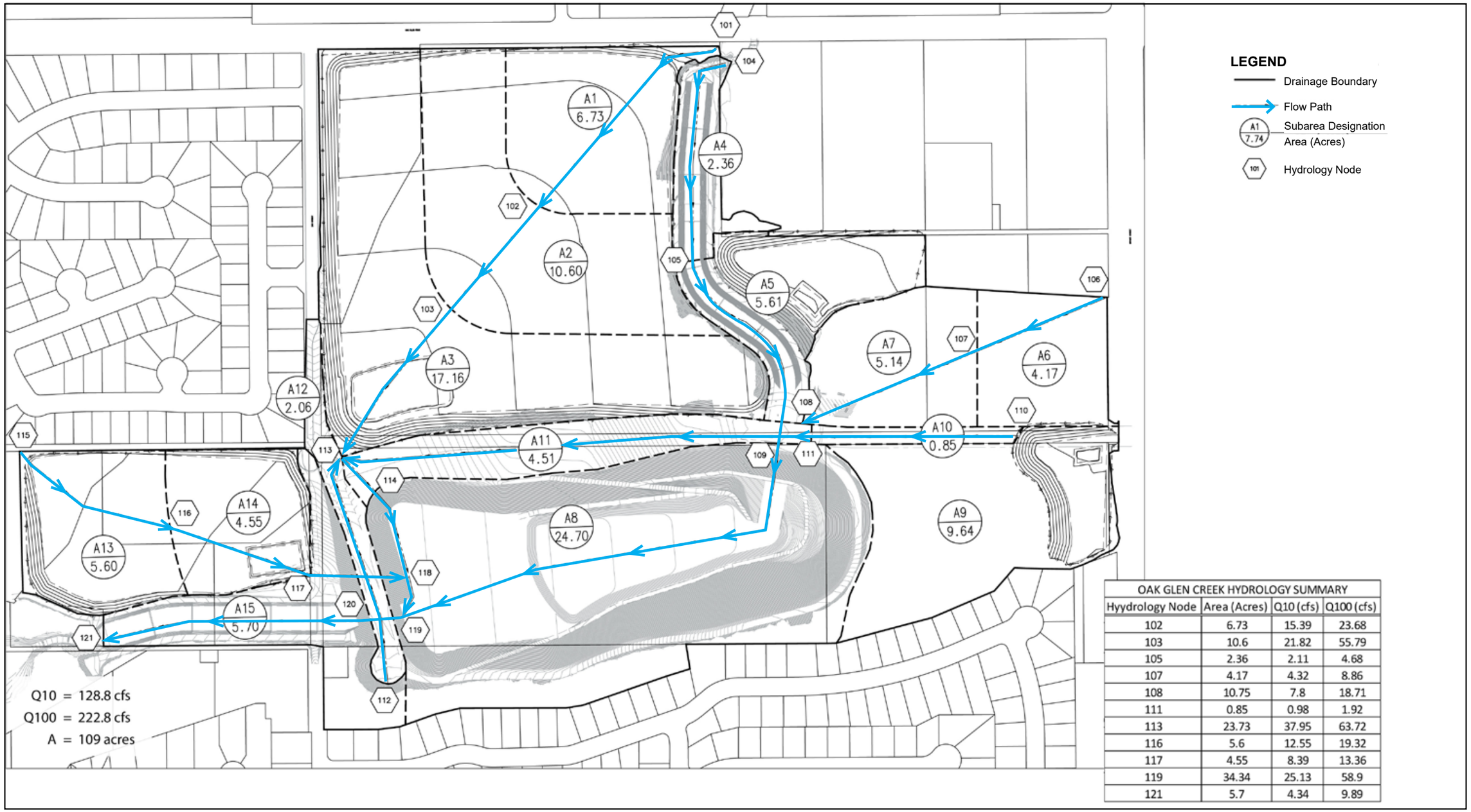
Table 5.8-5 Local Flow Rates Comparison

Condition	Node	Peak Flow Rates, cubic feet per second (cfs)		
		2-year	10-year	100-year
Existing	112	9.3	81.9	186.9
Proposed	121	47.3	128.8	222.8

Source: Michael Baker 2016.

Figure 5.8-3 Proposed Condition Hydrology Map

5. Environmental Analysis



OAK GLEN CREEK HYDROLOGY SUMMARY			
Hyydrology Node	Area (Acres)	Q10 (cfs)	Q100 (cfs)
102	6.73	15.39	23.68
103	10.6	21.82	55.79
105	2.36	2.11	4.68
107	4.17	4.32	8.86
108	10.75	7.8	18.71
111	0.85	0.98	1.92
113	23.73	37.95	63.72
116	5.6	12.55	19.32
117	4.55	8.39	13.36
119	34.34	25.13	58.9
121	5.7	4.34	9.89

Base Map Source: Michael Baker International, 2016

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With the construction of up to 200 single-family residences, 20,000 square feet of Innovation District uses, and internal roadways, the impervious area of the project site would increase, causing both an increase in stormwater runoff and volume. Thus, an onsite drainage system would help to prevent flooding and reduce the impacts of erosion. Appropriate storm drain and catch basin sizing would be installed in the internal roadways and connect to the City's existing stormwater system. The drainage system would be required to accommodate runoff volumes associated with a 10-year storm, would not exceed levels above the curb, and would flow below the right-of-way.

Due to the programmatic level of the site plan and available grading, there is not enough information to outline a preliminary storm drain system for the Residential and Innovation districts. However, as further developments are made within the Specific Plan area, a storm drain system would be required to convey all onsite flows to the project's detention basin. The basin would be a regional flood attenuation facility designed to reduce the ultimate condition flooding down to levels outlined in the City's master plan of drainage. As part of the tributary area, the proposed project's runoff would be mitigated through this regional facility, reducing the potential impacts of increased flows. Additionally, providing protection to minimize erosion and designing cross culverts for the realignment of Wilson Creek based on San Bernardino County Flood Control District requirements and WQMP and SWPPP BMPs would reduce the impacts of flooding, drainage, and erosion. Therefore, impacts would be less than significant.

Impact 5.8-4: Portions of the Specific Plan area are in FEMA-designated 100-year flood hazard zones; however, implementation of the basin would reduce on- and offsite flood hazards. [Thresholds HYD-7 and HYD-8].

Impact Analysis: Implementation of the proposed project would impact mapped 100-year floodplains. Portions of the project site are located in the 100- and 500-year flood hazard area along Oak Glen Creek and Wilson Creek (see Figure 5.8-2, *Flood Hazard Map*).

The proposed improvements and realignment of Wilson Creek would result in the channelization of the 100-year flows and take portions of the Residential and Open Space districts out of the 100-year flood hazard zone. The project applicant would be required to submit a letter of map revision to FEMA in order to change the existing FIRM to reflect changes to the 100-year flood zones after Wilson Creek and Oak Glen Creek are realigned and the proposed detention basin is implemented. Upon approval of the letter of map revision, future homes and structures associated with the Residential, Innovation, and Open Space districts could be developed. Any such buildings would be developed outside of the 100-year flood zones.

Wilson Creek is one of two regional drainage systems (the other being Wildwood Creek) that convey surface water runoff from the San Bernardino Mountains through the City of Yucaipa to Live Oak Creek just south of Interstate 10, on the west side of the City. Oak Glen Creek is a major tributary to Wilson Creek and forms a confluence with Wilson Creek near 2nd Street within the proposed project site. Wilson Creek is a regional channel that provides major flood control protection for a large part of the City and is critical to the City's flood control plan. Wilson Creek currently has a limited capacity that is below the 100-year design flow rates in some areas, which results in the potential for flooding in the City.

Controlling drainage flows through the site would reduce potential flooding in the downstream portions of the City. Drainage improvements have been constructed upstream of the property along Wilson Creek, north of Oak Glen Road, and Oak Glen Creek, east of Bryant Street. The ability to detain stormwater flows within the proposed basin will lessen downstream flooding in the Dunlap Acres area of the City. The Wilson III Basin Project, which the proposed project would implement, was updated and adopted into the City's master plan of drainage in 2012. The basin is a proposed flood control facility designed to reduce the peak flow rates to the downstream Wilson Creek channel. This facility was identified as a high priority project to assist in reducing the flood risk in the City.

Therefore, the project would reduce flooding impacts on- and offsite and would not place housing or structures in a 100-year floodplain. Impacts would be less than significant.

5.8.4 Cumulative Impacts

The area considered for cumulative hydrology and water quality impacts is the San Timoteo and Upper Santa Ana River hydrologic units of the Santa Ana River Watershed.

Drainage

Cumulative projects in the hydrologic units would increase impervious areas and would thus increase local runoff rates at those project sites. Other projects in the region would be required to capture and infiltrate runoff from a two-year storm, and many other projects in the region would be required to limit postproject runoff discharges to no greater than preproject runoff rates, in accordance with the MS4 permit.[1] Thus, no significant cumulative drainage impact would occur, and project drainage impacts would not be cumulatively considerable.

Flood Hazards

Portions of the project area are within 100-year flood zones. As with the proposed project, other projects in the region would be required to show that residential improvements are maintained at least one foot above 100-year-flood elevations in accordance with National Flood Insurance Program requirements, or are required to implement flood control improvements that remove the project from existing 100-year floodplains. No cumulative flood hazard impacts would occur.

Water Quality

Cumulative projects would generate pollutants during project construction and operation. While the specific types of pollutants would vary by land use category, the types of pollutants that would be generated by the proposed project are common to a range of developed land uses. Other construction projects of one acre or more in area would be required to prepare and implement SWPPPs in order to obtain coverage under the statewide Construction General Permit. Other projects in the region would also be required to prepare and implement water quality management plans specifying BMPs that would be used during project design and

[1] Order No. R8-2010-0036 issued by the Santa Ana Regional Water Quality Control Board in 2010, covering the portion of San Bernardino County (including incorporated cities) in the Santa Ana River Watershed.

project operation to minimize water pollution from project operation. Thus, no significant cumulative water quality impact would occur, and project water quality impacts would not be cumulatively considerable.

5.8.5 Existing Regulations

Federal

- United States Code, Title 33, Sections 1251 et seq.: Clean Water Act
- United States Code Title 42, Sections 300f et seq.: Safe Drinking Water Act
- Code of Federal Regulations Title 40 Parts 122 et seq.: National Pollutant Discharge Elimination System

State

- California Water Code Sections 13000 et seq.: Porter-Cologne Water Quality Act

Regional

- Order No. R8-2010-0036,Santa Ana Regional Water Quality Control Board (MS4 permit)

City of Yucaipa

- Yucaipa Municipal Code: Section 13.04.190, Stormwater Quality Management Plan

5.8.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant: 5.8-1, 5.8-2, 5.8-3, 5.8-4, and 5.8-5.

5.8.7 Mitigation Measures

No mitigation measures are required.

5.8.8 Level of Significance After Mitigation

Impacts would be less than significant.

5.8.9 References

LOR Geotechnical Group, Inc. (LOR). 2016, July 1. Preliminary Geotechnical Investigation Proposed Residential and Commercial Sites, City of Yucaipa, San Bernardino County, California.

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5.9 LAND USE AND PLANNING

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential impacts to land use in the City of Yucaipa from implementation of the Oak Glen Creek Specific Plan. Land use impacts can be direct or indirect. Direct impacts result in land use incompatibilities, division of neighborhoods or communities, or interference with other land use plans, including habitat or wildlife conservation plans. This section focuses on direct land use impacts. Indirect impacts are secondary effects resulting from land use policy implementation, such as an increase in demand for public utilities or services, or increased traffic on roadways. Indirect impacts are addressed in other topical sections of this DEIR.

5.9.1 Environmental Setting

5.9.1.1 REGULATORY BACKGROUND

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

Southern California Association of Governments

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

Only projects of potentially regionwide significance are subject to review for consistency with the regional comprehensive plan and regional transportation plan, the criteria for which are outlined in SCAG's Intergovernmental Review Procedures Handbook (November 1995) and Section 15206 of the CEQA Guidelines. Regionally significant projects include residential projects of more than 500 units, shopping centers or businesses encompassing more than 500,000 square feet of floor area, and hotel/motels with 500 rooms or more. Given that the proposed project would allow for a maximum of only 200 single-family residences and 20,000 square feet of building space, the Oak Glen Creek Specific Plan is not a project of regionwide significance, and therefore this DEIR is not required to address the project's consistency with the regional comprehensive plan or regional transportation plan.

Regional Transportation Plan/Sustainable Communities Strategy

The 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) was adopted in April 2016 (SCAG 2016). Major themes in the 2016 RTP/SCS include integrating strategies for land use and transportation; striving for sustainability; protecting and preserving existing transportation infrastructure; increasing capacity through improved systems managements; providing more transportation choices; leveraging technology; responding to demographic and housing market changes; supporting commerce, economic growth, and opportunity; promoting the links between public health, environmental protection, and economic opportunity; and incorporating the principles of social equity and environmental justice.

The SCS outlines a development pattern for the region, which, when integrated with the transportation network and other transportation measures and policies, would reduce GHG emissions from transportation (excluding goods movement). The SCS is meant to provide growth strategies that will achieve the regional GHG emissions reduction targets. However, the SCS does not require that local general plans, specific plans, or zoning be consistent with the SCS; instead, it provides incentives to governments and developers for consistency.

The 2016-2040 RTP/SCS projects that the SCAG region will meet or exceed the passenger vehicle per capita targets set in 2010 by the California Air Resources Board. Pursuant to the 2016-2040 RTP/SCS, SCAG anticipates lowering GHG emissions below 2005 levels by 8 percent by 2020, 18 percent by 2035, and 21 percent by 2040. Land use strategies to achieve the region's targets include planning for new growth around high quality transit areas and livable corridors, and creating neighborhood mobility areas to integrate land use and transportation and plan for more active lifestyles (SCAG 2016).

City of Yucaipa General Plan

Future development of all land in the City of Yucaipa is guided by the general plan, which consists of a series of state-mandated and optional elements to direct physical, social, and economic growth. Yucaipa's general plan was updated in April 2016. The general plan's elements—community design and land use; housing and neighborhoods; parks, recreation, trails, and open space; economic development; transportation; public safety; and public services and facilities—are described below. The proposed project's consistency with the various elements of the Yucaipa General Plan is addressed in this section in Table 5.9-1.

Community Design and Land Use Element. This element serves as a guide for the general plan, indicating the location and extent of existing and planned land uses. The City's community structure is defined, and land use designations and a diagram show allowable uses of land. Goals and policies are provided at three scales: citywide focus, focus areas, and project guidance. The community design and land use element aims to ensure the appropriateness and compatibility of land uses in Yucaipa.

Housing and Neighborhoods Element. The housing and neighborhoods element is the City's plan for accommodating the current and future housing needs of residents and providing quality neighborhoods for residents to invest in. In accordance with state law, this element consists of three related plans—the housing plan, the housing technical report, and the implementation plan.

Parks, Recreation, Trails, and Open Space Element. This element provides policy direction for three main topics: 1) the provision of parks, recreation, and community services; and 2) the preservation and conservation of multipurpose trails and natural open space; and 3) the preservation of the City's biological, cultural, and paleontological resources. The element provides context for each topic, followed by goals and policies.

Economic Development Element. The economic development element establishes long-term goals that describe what the community desires its local economy to provide regarding occupations, goods, and services; the kinds of shopping and business districts; the City's fiscal sustainability and resiliency; and the role of the City in developing a strong local economy.

Transportation Element. The transportation element is Yucaipa's plan for a balanced, multimodal transportation network. The element is intended to facilitate safe and efficient movement of automobiles, bicyclists, pedestrians, and public transit riders. It provides guidance to support the needs of business, emergency service providers, and other roadway users. It also recognizes key objectives for improving air quality, reducing the environmental impacts of vehicular travel, and achieving other community goals such as expanded transit service and pedestrian mobility.

Public Safety Element. The public safety element 1) recognizes the local hazards associated with Yucaipa's natural environment (geology, landforms, waterways, and weather), and 2) identifies methods to manage these risks and protect people, property, infrastructure, and structures from harm. This element is also implemented by a number of other City plans, including the master plan of drainage, fire services plan, hazard mitigation plan, and emergency operations plan.

Public Services and Facilities Element. Public services, facilities, and infrastructure are vital to the implementation of other general plan elements, such as land use and safety. This element implements the general plan vision for quality public facilities and schools and excellent infrastructure and community services for all residents.

5.9.1.2 EXISTING CONDITIONS

Onsite Land Uses

As shown in Figure 3-3, *Aerial Photograph,* the majority of the project site consists of natural, undeveloped land. The City maintenance yard is in the northwestern corner, a Yucaipa Valley Water District water well is in the southern portion of the site, and one single-family residences is at 11568 2nd Street.

Wilson Creek runs from the northern site boundary to the southwest corner, merging with Oak Glen Creek in the center of the site. Oak Glen Creek runs generally east to west from the eastern boundary at Bryant Street to the southwestern boundary of the project site. Portions of the creeks are improved upstream and downstream from the project site; however, both creeks are unimproved and in their natural states within the boundaries of the project site. Unofficial walking trails run along the southern boundary of the project site, continuing up the eastern project boundary. The uneven terrain is vegetated with shrubs, trees, grasses, and

other herbaceous plants. Figure 5.1-1, *Visual Resources*, shows the existing conditions of the project site, including the vegetation and terrain characteristics.

Surrounding Land Uses

The project site is surrounded by a mix of land uses including single-family residences, commercial, public, and open space land uses. Located within a developing area, the site adjoins single-family residential uses to the west and south; the Yucaipa Community Center, Wildwood Calvary Chapel and Wildwood Christian Academy, a mobile home park, and open space to the north; a Yucaipa Valley Water District water reservoir adjoining the property to the northeast; a California Department of Forestry and Fire Protection station along Bryant Street to the east; Oak Glen Creek flood control basins across Bryant Street to the east; and the Mousley Museum of Natural History to the southeast. Existing flood control and recharge basins for Wilson Creek are located to the northeast across Oak Glen Road and Bryant Street.

Chapman Heights residential homes are located along the western side of 2nd Street. Oak Glen Creek continues through the project site west and south of the Chapman Heights residences, into a cement culvert that directs the creek into a hard-bottomed channel.

5.9.2 Thresholds of Significance

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

LU-1 Physically divide an established community.

LU-2 Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

LU-3 Conflict with any applicable habitat conservation plan or natural community conservation plan.

Chapter 8, *Impacts Found Not to Be Significant*, substantiates that impacts associated with the following thresholds would be less than significant:

- Threshold LU-1
- Threshold LU-3

These impacts will not be addressed in the following analysis.

5.9.3 Environmental Impacts

The following impact analysis addresses thresholds of significance that may be potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

Impact 5.9-1: Implementation of the Oak Glen Creek Specific Plan would be consistent with the City of Yucaipa General Plan policies. [Threshold LU-2]

Impact Analysis: The project site is designated in the City's general plan as Institutional (IN) with a drainage overlay for the Wilson Creek Basin (WC-1), which is reflective of the nature of the public ownership (San Bernardino County Flood Control District) and use of the site. The City does not have a separate zoning map; the land use districts map has been adopted by both resolution and ordinance as plan policy and regulatory zoning, part of the City's "one map" system. The general plan also identifies parcels with overlay districts, which must adhere to specific siting, development, or environmental regulations in addition to the regulations of the underlying land use district. The project site is designated Oak Glen Creek Specific Plan on the City's land use modification overlay district map.

The Oak Glen Creek Specific Plan is a tool to carry out the goals and policies of the City's general plan and would act as the main governing policy guide to the project area related to the site's physical development, and it includes goals, policies, and action steps necessary for orderly development and growth.

The proposed project is required to be consistent with the goals and policies of the general plan, pursuant to Article 3 (Specific Plan Adoption and Amendment) of the City's municipal code. Projects that are consistent with the Specific Plan would be deemed consistent with the general plan. A detailed analysis of the proposed project's consistency with the applicable goals and policies of the general plan elements is provided in Table 5.9-1. The analysis in Table 5.9-1 discusses how the project would implement and exemplify general plan goals and policies, concluding that the proposed project would be consistent. Overall, it is consistent with general plan policies, and the project area would be developed in a manner similar to the general plan's vision. Therefore, impacts would be less than significant.

5. Environmental Analysis
LAND USE AND PLANNING

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Table 5.9-1 Yucaipa General Plan Consistency Analysis

Applicable General Plan Goals	Consistency Analysis
Community Design and Land Use Element	
CDL-1.1 Places to Live. Provide sites for a range of housing types, locations, and densities in a variety of neighborhood settings equipped with amenities that support a high quality of life.	**Consistent:** The proposed project would provide a new residential neighborhood in close proximity to open space amenities, such as trails and passive recreational use in the proposed Open Space District as well as nearby existing recreational areas like the Yucaipa Regional Park.
CDL-1.4 Places for Recreation and Conservation. Provide parks, recreational facilities, and multi-functional open spaces in sufficient quantities and in a manner that is consistent with the Emerald Collar articulated in the Parks, Recreation, Trails, and Open Space Element.	**Consistent:** The proposed Specific Plan would include an Open Space District that would have flood control improvements (detention basin) and passive recreational uses, such as multipurpose trails, landscaped drainage areas, and benches and tables. Additionally, there is opportunity for development of an educational facility or learning center related to environmental awareness in the Open Space District. The proposed multipurpose trails would tie into the existing trails network across Bryant Street and along 2nd Street and Oak Glen Road, which connects further north to the Yucaipa Regional Park and Crafton Hills trails.
CDL-1.6 Public Services for Quality of Life. Maintain appropriate sites for institutional and public facility uses that can accommodate the infrastructure and facilities needed to serve the community (water, schools, city hall, public safety, etc.).	**Consistent:** The proposed Innovation District would allow development of 20,000 square feet of nonresidential use, including institutional, office, medical, and professional related uses. Therefore, future needs for institutional and public facility sites within Yucaipa could be developed in the Specific Plan area.
CDL-2.2 Viewshed. Preserve views to and from hillsides and ridgelines to maintain the image and quality of Yucaipa where overlay districts apply. Preserve canyons, ridgelines, and rock outcrops through regulation of development as appropriate.	**Consistent:** The project site is not located in the City's hillside overlay district and would not be required to comply with hillside/ridgeline development standards in the City's municipal code. As detailed in Section 5.1, *Aesthetics*, the proposed project would not adversely impact views towards these hillsides and ridgelines, which include the Crafton Hills to the northwest, Yucaipa Hills to the southeast, and San Bernardino Mountains to the north. Additionally, because the project site naturally sits at a lower elevation than its neighboring properties, and the scale and height of the future buildings and structures would be similar to some of the existing residences and commercial uses in the surrounding neighborhoods, which include single- and multistory buildings and homes. Therefore, the scenic vistas of numerous mountain ranges, including the San Bernardino Mountains, Yucaipa Hills, and Crafton Hills, from various vantage points around and on the project site would not be obstructed.
CDL-2.5 Slope Protection. Require revegetation with native and/or naturalized species where grading or other activities have disturbed the site. In general, planting species that are native to the region, drought resistant, and effective at erosion control.	**Consistent:** The project would require substantial landform modification to create the basin; although cut and fill volumes would be balanced onsite. As detailed in Section 5.8, *Hydrology and Water Quality*, projects developed in accordance with the Specific Plan would be required to prepare and implement Stormwater Pollution Prevention Plans and water quality management plans, which include best management practices (BMPs) for construction and operation activities. BMPs related to erosion and sediment control include utilizing mulch, geotextiles, mats, hydroseeding, and swales to cover and/or bind soil surfaces to prevent soil from detaching and being transported by water or wind. Section 810.0220 of the City's municipal code also requires preparation and implementation of a Soil Erosion and Sediment Control Plan for all land clearing or grading activities, which would be applicable to projects developed in accordance with the proposed Specific Plan. Additionally, the Specific Plan requires use of native and drought-tolerant landscaping.

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	Additionally, mitigation measures detailed in Section 5.3, *Biological Resources*, require the preservation and/or restoration of several sensitive plant species onsite, which would also help revegetate the site and minimize soil erosion.
CDL-2.8 Materials. Building materials and colors should blend with the natural landscape. Treated wood or materials of wood-like appearance, with fire retardant properties, are encouraged for exterior surfaces. Contrasting colors should be kept to a minimum. Use of natural materials, such as river rock, is encouraged.	**Consistent:** The Oak Glen Creek Specific Plan details design guidelines and building material requirements that would ensure future developments would be consistent with the City's rural-suburban landscape. Table V-1 of the Specific Plan details building design; articulation/façade; materials, texture and colors; and rooflines, entries, windows and doors design criteria. For example, all sides of the building shall provide unique design treatments, and no large blank walls are allowed on any side of any structure. Exterior materials shall be durable and resistant to vandalism and weather damage. Natural colors, such as those found in nature are encouraged, while fluorescent paints and bright colors are strongly discouraged. Highly reflective surfaces, mirror glass, and metal exterior siding on buildings shall be avoided.
CDL-3.1 Public Landscaping. Ensure that all public landscaping in public right-of-ways (landscaping outside of parks) is attractive, adequately maintained, and utilizes California native, drought-tolerant, and/or other sustainable plant material.	**Consistent:** The Specific Plan includes landscaping design criteria for the proposed Residential and Innovation districts. Parkways along Oak Glen Road and 2nd Street shall be planted with shade trees similar to the existing features along these roadways. Buffered landscaping would also be implemented along 2nd Street to minimize lights and noise emanating from vehicle turning movements entering and exiting the adjacent Chapman Heights residences. This design may incorporate a raised landscape berm and the possible addition of a block wall on the berm. Additionally, scenic highway landscaping measures would include the use of automatic irrigation systems with moisture sensors installed to ensure plant material survives and installation of root barriers when trees are planted five feet or closer to any hardscape element (e.g., curbs, sidewalks, other paving, etc.) or structure. Oak Glen Road, 2nd Street, and internal roadways within the Residential District would be landscaped in accordance with an identified theme selected by the project developer and approved by the City of Yucaipa. Plant species intended for the project area are also identified in Appendix A of the Specific Plan and include California native, drought-tolerant species.
CDL-3.4 Lighting. Require that lighting be integrated with the design and layout of a project and/or building and that it provide a desirable level of security and appropriate illumination level relative to the activity, intended use, or size of the area.	**Consistent:** As detailed in Section 5.1, *Aesthetics,* projectwide design standards require future developers to incorporate lighting of driveways and walkways for the security and safety of future employees and visitors. Within the Open Space District, low level lighting is permitted to illuminate multiuse trails to enhance pedestrian safety. And street lighting is required to meet City design requirements identified in Section 400, *Street Lighting, Traffic Signals and Traffic Signs* of the City of Yucaipa Standard Design Guidelines. In addition to proposed lighting guidelines under the Specific Plan, the City's development code dictates that signs may only be lit by steady, stationary, shielded light directed only at the sign, by light inside the sign, and by direct neon lighting. The glare from such luminous source shall not exceed one-half (0.5) foot-candle (Section 87.0705). Further, Section 87.0710 prohibits all signs that are not effectively shielded to prevent beams or rays of light being directed at any portion of the traveled way or signs that are of such intensity or brilliance as to cause glare or to impair the vision of the driver of any motor vehicle.

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CDL-4.1 Streetscape. Incorporate design features along corridors that reinforce a positive image of Yucaipa. Utilize unifying and consistent streetscape elements to visually unify major corridors —landscaped parkways and distinctive medians, trees, lighting, decorative paving, street furniture, banners, and public signs.	**Consistent:** See response to Policy CDL-3.1 above. Additionally, the proposed Specific Plan includes sign design criteria which require providing a solid architectural base that supports signs and is made of traditional materials and colors typical of the project area (e.g., stone, brick, etc.). Major corridors and internal roadways would be landscaped in accordance with an identified theme selected by the project developer and approved by the City of Yucaipa.
CDL-4.4 Scenic Corridors. Protect designated scenic corridors (Yucaipa Boulevard, Live Oak Canyon Road, Oak Glen Road, Wildwood Canyon Road, and Bryant Street) by adhering to development requirements in the municipal code and policies in the General Plan.	**Consistent:** See response to Policy CDL-3.1 above. As detailed in Section 5.1, *Aesthetics,* the project would not adversely impact scenic corridors along the project boundary, including Oak Glen Road and Bryant Street. The proposed Specific Plan utilizes the City of Yucaipa Development Code as the existing foundation document for development criteria and procedures and includes additional design requirements and standards to enhance particular aspects to achieve a high quality development.
CDL-5.5 Streetscapes. Develop unifying streetscape plans for major corridors (Bryant, Yucaipa Boulevard, Oak Glen, etc.) and select districts that include specialized streetlights, landscaping, signage, and street furniture.	**Consistent:** See response to Policy CDL-3.1 and -4.1 above.
CDL-10.4 Design Variation. Encourage identifiable architectural designs, design variations, and well-planned projects that are visually interesting, neighborhood or district oriented, and well integrated with the surroundings.	**Consistent:** According to the Specific Plan, it is envisioned the Residential District would incorporate established themes that reflect recognizable attributes from well-known styles, including but not limited to Mediterranean, Craftsman, Spanish, Ranch, or Colonial. Sample architectural styles are shown in Figure V-1, *Residential Designs*, of the Specific Plan and provide an overview of the themes and materials that can be used within the Residential District. It is not required that specific themes be identified within the project area; however, they are encouraged. The important components of any selected design need to incorporate the character and materials portrayed through the sample styles. The end result is intended to distinguish the area from other residential development in its quality and design.
CDL-10.7 Basins. Design retention/detention basins to be visually attractive, with natural landscaping and a public use component such as trails, and well integrated with any associated project and with adjacent land uses.	**Consistent:** A main purpose of the proposed Specific Plan is to implement flood control improvements in the form of a detention basin in the southern portion of the site. The Open Space District would also include passive recreational uses surrounding the basin (e.g., multipurpose trails, benches, and tables) with natural landscaping and vegetation to encourage recreational use of the basin area. At project completion, the Open Space District would provide not only flood control improvements along Wilson Creek and Oak Glen Creek, but would also create a passive open space area for residents in the Specific Plan area.
CDL-10.8 Safe Community Design. Require the use of CPTED principles (Crime Prevention Through Environmental Design), including creating opportunities for "eyes on the street" and clearly distinguishing between public and private spaces to enhance community safety.	**Consistent:** CPTED principles include natural surveillance, access control, and territorial reinforcement. The propose Specific Plan encourages strategies related to natural surveillance, including the use of landscape designs that establish points of entry into the project area; prohibiting the use of screen walls that block pedestrian or drivers' line of sight; incorporating streets and multipurpose trails that increase pedestrian traffic; and requiring low-level security lighting to provide light without causing blinding glares or deep shadows that hinder views. Natural access control and

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	territorial reinforcement strategies are also included in the Specific Plan's design guidelines, such as requiring landscaping buffers and fencing between the northern Residential District area (private space) and the Open Space District (public space) where the detention basin and multipurpose trails would be developed; installing amenities like benches and picnic tables in the Open Space District (common areas) to help attract desired users; and improving outdoor residential areas with trees and vegetation to establish an active presence occupying the space.
CDL-10.9 Building Materials. Use high-quality, natural building materials that evoke a sense of quality and permanence, such as stucco, plaster, stone, and wood; natural colors and textures are preferred.	**Consistent:** See response to Policy CDL-2.8 above. The proposed Specific Plan does not require the use of recognized design styles, such as Craftsman or Mediterranean, but does identify the need to incorporate the types of materials typically used in those styles, which include stone, wood, and stucco.
CDL-10.10 Building Massing. Reduce the bulk and perceived size of large buildings by dividing their mass into smaller parts, stepping down to adjacent structures, recessing openings for doors/windows, and using pedestrian-scale features; single-plane massing is discouraged.	**Consistent:** The Specific Plan's Design Guidelines detail criteria related to building mass. Table V-1 of the Specific Plan suggest dividing exterior walls into smaller spaces that reduce height and bulk through a change in roof or wall plane or the installation of projecting elements to offset structure mass, and to use architectural details and materials on lower walls that relate to human scale (e.g., arches, trellises, or awnings). The Specific Plan also encourages varying roof lines and/or roof line features to reduce building bulk.
CDL-10.11 Building Footprint. Require and enforce appropriate residential and nonresidential development standards, including adequate building setbacks, to ensure that a building's footprint does not negatively affect adjacent uses or the visual quality of the area.	**Consistent:** Table IV-3 of the Specific Plan is reproduced in Chapter 3, *Project Description*, of this DEIR and includes development standards for each of the proposed districts. Building coverage, lot size, minimum lot depth/width, building height, setbacks, parking requirements, and open space/landscaping requirements are detailed in this table and would ensure that proposed residential and nonresidential development are consistent and compatible with adjacent uses and the City's overall development code.
CDL-10.12 Architectural Detail. While recognizing sensitivity to budget, require publicly visible sides of a building to contain architectural detail and façade articulation, strong patterns of shade and shadow, and integrated architectural detail; blank walls are discouraged.	**Consistent:** Table V-1 of the Specific Plan details style and design criteria specific to architectural details, including articulation/façade and building design. For example, design guidelines require the use of architectural details and materials on lower walls that relate to human scale, such as arches, trellises, or awnings; use of architectural elements to create shadow patterns that create character, such as overhangs, projections, trellises, varied materials/ texture, awnings, or insets; enhancement of entry areas and windows to create varied façade design; use of exterior louvers for screening; use of contrasting colors to accentuate details and aid in the creation of visual changes in façade design; and use of precast walls with exterior details, such as reveals, recessed panels, recessed windows, and/or moldings to articulate the façade. No large blank walls are allowed on any side of the buildings; instead, all building sides shall provide unique design treatments.
CDL-10.13 Sustainable Designs. Designs should incorporate sustainability concepts: incorporate measures to wisely reduce, conserve, or manage energy and water; control off-site drainage; and recycle construction and demolition debris as practical and cost-effective.	**Consistent:** The project would include installation of recycled-water lines in the roadway network to connect to existing recycled-water lines in 2nd Street and Oak Glen Road. The Specific Plan also limits turf areas to conserve water usage. Additionally, all future projects would be required to comply with Chapter 4, Water Conservation, of the City's development code, which requires compliance with an approved landscape documentation package detailing the project's water supply source, water efficient landscaping design, and irrigation design plan. Chapter 4 also requires an irrigation schedule regulated by automatic irrigation controllers, the use of recycled water and graywater

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	systems, implementation of stormwater management and rainwater retention best management practices, and water waste prevention by restricting overspray and runoff. Offsite drainage would be limited by development of the onsite detention basin and catch basins throughout the Residential and Innovation districts. The surface water flow would drain directly into the detention basin and subsequently into Oak Glen Creek and the downstream areas. Additionally, per Chapter 8.26 of the City's municipal code, future projects in accordance with the Specific Plan would be required to reuse, recycle, or divert the minimum percentage amount of designated recyclable and reusable materials from construction and demolition (C&D) debris as set forth by City Council resolution for landfills or disposal sites. Future applicants are also required to prepare waste management and diversion plans that detail the amount of C&D waste generated by the project, estimated weight of C&D waste and the facility or facilities that the C&D waste would be taken for recycling, diversion, or landfilling.
CDL-10.14 Lighting. Exterior lighting should be subdued and avoid glare for occupants of adjacent properties. Lighting should enhance building design, improve safety and security, and wisely use energy; lighting intensity should be sensitive to surrounding properties and other environmental considerations.	**Consistent:** See response to Policy CDL 3.4 above.
CDL-10.15 Landscaping. Implement creative landscape design transitions and buffers to create visual interest and reduce conflicts between different land uses. Promote water conservation with natural landscaping.	**Consistent:** See response to Policies CDL-3.1 and -10.13 above.
CDL-10.16 Building Setbacks. Require setbacks and other design elements to buffer residential units to the extent possible from the impacts of abutting roadway, commercial, rural, and industrial uses.	**Consistent:** See response to Policy CDL-10.11 above.
CDL-10.17 Walls and Fences. Use walls or fences to protect the privacy of residential areas; soften appearance of walls by varying alignment, adding landscaping and/or berms, and using surface detailing and natural materials. Chain-link fencing is discouraged.	**Consistent:** The proposed Specific Plan includes wall design criteria in its design guidelines. Walls, fences, and screening shall be made of materials commonly found in rural landscapes to soften the appearance of walls and to integrate well with the residential character of the project area. The following wall design criteria are reproduced from the Specific Plan: – Fences and walls shall be constructed of authentic materials (natural woods, common brick, stone, river rock, clinker brick, and wooden beams, for example). Vinyl and other manufactured fencing materials may be acceptable if the overall look appears authentic. – Nontransparent perimeter walls and/or fences shall provide decorative columns or pilasters to provide relief and incorporate landscaping. – Walls on sloping terrain shall be stepped to follow the terrain.

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	– Screen walls shall not be located where the wall blocks the sight lines of drivers entering, leaving or driving through the project site. – Wrought-iron fencing is acceptable for residential view properties and for commercial security purposes. – Chain-link fencing shall not be permitted. Implementation of these design criteria would ensure consistency with Policy CDL-10.17.
CDL-11.3 Project Compatibility. Strive to ensure appropriate transitions in scale, density, and intensity between residential and nonresidential uses; between adjacent residences or uses within a defined neighborhood; and within areas of different densities.	**Consistent:** Table IV-3 of the Specific Plan details development standards for each of the three proposed districts, including building coverage, lot size, minimum lot depth/width, building height, setbacks, parking requirements, and open space/landscaping requirements which ensure proposed residential and nonresidential development are consistent and compatible with adjacent uses and the City's overall development code. Additionally, the proposed Residential District would be developed in accordance with similar zoning of adjacent residences (i.e., single-family, low density residential). Therefore, the residences in the project area would have very similar densities and integrate well with one another.
Housing and Neighborhoods Element	
HN-1.3 Public Services and Infrastructure. Provide quality community facilities, parks and recreational options, infrastructure, water and sanitation, and other municipal services tailored to neighborhoods.	**Consistent:** A large portion of the project site is located in a 100-year flood zone as designated by the Federal Emergency Management Agency (see Figure 5.7-1, *Flood Hazards*). The proposed detention basin would provide flood control improvements in the project area to minimize flooding hazards and remove the majority of the Specific Plan area from the flood zone. Another primary purpose of the proposed project is to realign and improve Wilson Creek and Oak Glen Creek for flood control and groundwater management. Wilson Creek would be channelized and realigned to provide a more regularly shaped development area to the west for the northern Residential District. Additionally, the Wilson Creek channel would include a multipurpose trail that represents a continuation of the existing trail that extends north of Oak Glen Road. Oak Glen Creek would also be improved with multipurpose trails and passive open space areas for recreational use. Additional infrastructure improvements, including sewer, water, recycled water, and dry utilities (i.e., natural gas and electricity), would also be provided onsite.
HN-1.7 Neighborhood Identity. Recognize, preserve, and enhance neighborhood character through adherence to design, development, and other standards in the municipal code, overlay districts, and specific plans.	**Consistent:** The proposed Specific Plan utilizes the City of Yucaipa Development Code as the existing foundation document for development criteria and procedures and includes additional design requirements and standards to enhance particular aspects to achieve a high quality development (see Table 3-2 in Chapter 3, *Project Description*). Design guidelines in the Oak Glen Creek Specific Plan also work towards creating a unified Residential District that incorporates established themes that reflect recognizable attributes from well-known styles, including but not limited to Mediterranean, Craftsman, Spanish, Ranch, or Colonial. Design guidelines specific to the Innovation District also ensure that building design; articulation/façade; materials, texture and colors; and rooflines, entries, windows, and doors enhance the neighborhood's existing character.
HN-2.7 Supportive Infrastructure. Facilitate the provision of infrastructure and services necessary to encourage new residential development commensurate with community goals and expectations for quality of life.	**Consistent:** See response to Policy HN-1.3 above.

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HN-3.1 Design Features. Require new and rehabilitated residential units to be well designed, with appropriate attention to site planning, materials and colors, building treatments, landscaping, open space, parking, and environmentally sustainable practices.	**Consistent:** See response to Policies CDL-2.8, -3.1, -10.4, and -10.12 above.
HN-3.4 Natural Environment. Require appropriate measures to protect hillsides, viewsheds, sensitive habitat, oak trees, and other environmental resources in the review of applications for the development, expansion, and improvement of housing.	**Consistent:** See response to Policies CDL-2.2, -2.5, and -3.1 above. Additionally, as concluded in Section 5.3, *Biological Resources*, the project would impact sensitive plant communities, including alluvial fan sage scrub, southern cottonwood riparian woodland, and Parry's spineflower, but implementation of mitigation measures that replace these habitats on- and offsite would reduce these impacts to less than significant levels.
HN-3.6 Compatibility. Require that residential development and rehabilitation projects are compatible with the character of their neighborhood, comply with municipal code development standards, and follow appropriate site planning and project design practices.	**Consistent:** See response to Policies CDL-2.8, -3.1, -10.4, and -10.12 above.
HN-3.7 Resource Conservation. Design and build homes to incorporate cost-effective best practices in energy conservation and water conservation (including dual plumbing for recycled water) that will effectively address and comply with state and federal mandates.	**Consistent:** See response to Policy CDL-10.13 above.
Parks, Recreation, Trails, and Open Space Element	
PR-1.1 Park Acreage. Ensure that at least of 3.5 acres of developed parkland and appropriate amenities are available for every 1,000 Yucaipa residents; require all new development projects to satisfy this standard.	**Consistent:** As detailed in Section 5.13, *Recreation*, the City's park-to-population ratio is approximately 34.0 acres of parkland per 1,000 residents. The proposed project would introduce approximately 570 residents to the City, which would require approximately 2.0 acres to meet the City's parkland standard of 3.5 acres per 1,000 residents. The proposed Open Space District would include passive recreational uses surrounding the basin, such as multipurpose trails, benches, and tables. There is also potential for development of an educational center focused on environmental awareness in the Open Space District. However, no traditional parkland or recreational facilities (paseos, playgrounds, etc.) would be provided onsite. Therefore, the project applicant would be required to pay development impact fees for park facilities—$2,276.26 per dwelling unit—to offset project impacts on the City's existing park and recreation resources.
PR-3.1 Trail Development. Develop a multipurpose trail system for hiking, biking, and equestrians throughout Yucaipa, focusing on drainage channels, hillsides, parks, and other public use areas.	**Consistent:** The proposed Specific Plan would contribute to the City's goal of developing a multipurpose trail system. The Open Space District would include passive recreational uses, including multipurpose trails, along the proposed detention basin, which follows the drainage channels of Oak Glen Creek and Wilson Creek. The trails would connect with existing trails across Bryant Street and north along 2nd Street and Oak Glen Road, which connect to other trails in Yucaipa Regional Park and the Crafton Hills.
PR-3.2 Trail Access. Trails that navigate through residential neighborhoods shall be designed to be unobtrusive, respect the privacy of bordering residences, and not detract from the safety of neighborhoods.	**Consistent:** The proposed multipurpose trails would be located within the Open Space District along the detention basin. The trails would provide passive recreational opportunities for adjacent neighborhoods and would not

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	encroach into the Residential or Innovation districts. Additionally, landscaped buffers and fences would be installed along the border of the Open Space District and northern Residential District to respect the privacy of the residences and establish clear public and private spaces.
PR-3.3 Environmental Protection. Locate, design, and regulate the use of multipurpose trails so that they do not have a significant negative impact on natural habitat, wildlife, landforms, and cultural resources.	**Consistent:** The proposed multipurpose trails in the Open Space District would be located along the realigned Wilson Creek channel and around the detention basin. The trails would complement and enhance the open space areas by providing passive recreational use rather than a traditional park with playgrounds and structures. As detailed in Sections 5.3, *Biological Resources*, and 5.4, *Cultural Resources*, the project as a whole would impact sensitive habitat and could potentially impact previously undiscovered cultural resources. However, mitigation measures are provided to ensure impacts are reduced to less than significant. No impact would occur to existing landforms or sensitive wildlife.
PR-3.4 Trail Design. Design trails to accommodate different users, with sustainable materials, appropriate trail heads and trail staging areas, signage, educational materials, safety sign-ins, and other amenities.	**Consistent:** Several multipurpose trails are proposed through the Specific Plan area to provide access to proposed recreational uses and to connect with existing bike and trail facilities in the area. The proposed trails would be owned and maintained by the San Bernardino County Flood Control District, which would have the final determination as to the actual development, operation, and maintenance of the trails. Design of the trails would complement the general design guidelines of the Specific Plan area, including the use of natural colors and materials, appropriate signage, and adequate low-level lighting for security.
PR-3.5 Internal Connectivity. Strive to connect multipurpose trails to schools, local and regional parks, residential neighborhoods, open space areas, Uptown, and other community destinations in Yucaipa.	**Consistent:** A multipurpose trail is planned along the realigned Wilson Creek Channel from Oak Glen Road and would represent a continuation of the existing trail north of Oak Glen Road. An additional multipurpose trail would extend through the project site in an east-west direction along the northern side of the proposed basin from 2nd Street to Bryant Street and would provide a link to existing trails on the west side of 2nd Street and a Class II Bike Lane on Bryant Street. The proposed trails would connect with other existing trails across Bryant Street and further north in the Yucaipa Regional Park and Crafton Hills as well as Ridgeview Elementary School and Parkview Middle School directly east of Yucaipa Regional Park.
PR-3.7 Trail Safety. Promote the safe use of trails through lighting (where appropriate), signage, right-of-way and trail etiquette, safe crossings, trail improvements, and crime prevention strategies.	**Consistent:** See response to Policies CDL-3.4, -10.8 and PR-3.4 above.
PR-4.5 Creek Preservation and Restoration. Protect the integrity of natural drainage channels; secure grants and support to restore and preserve Yucaipa's creeks in a naturalized state for aesthetic, recreational, and wildlife value to the extent practical.	**Consistent:** A primary purpose of the proposed project is to realign and improve Wilson Creek and Oak Glen Creek for flood control and groundwater management. Wilson Creek would be channelized and realigned to provide a more regularly shaped development area to the west for the northern Residential District. Although Wilson Creek and Oak Glen Creek would be altered from their existing natural state, the project would be required to implement mitigation measures detailed in Section 5.3, *Biological Resources*, which ensure adequate restoration of impacted habitat, revegetation within the Open Space District with appropriate native plants, and development of passive recreational trails along the creek channels.
PR-4.6 Development Regulations. Require proposed private and public development to respect the integrity of the natural terrain of the city; ensure that potential impacts are fully mitigated, to the extent practical.	**Consistent:** See response to Policies CDL-2.2, -2.5, -3.1, and PR-4.5 above.

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PR-4.7 Scenic Resources. Protect Yucaipa's scenic resources, including scenic corridors along roads and views of the hillsides, prominent ridgelines, canyons, and other significant natural features, to the extent practical.	**Consistent:** See response to Policies CDL-2.2, -2.5, and -3.1 above.
PR-4.9 Dark Skies. Protect views of night skies in appropriate locations in Yucaipa through the regulation of project design, street lights, lighting and glare from buildings and land uses, and other features, to the extent practical.	**Consistent:** See response to Policy CDL-3.4 above.
PR-5.1 Resource Protection. Protect and conserve Yucaipa's biological resources, with a special focus on sensitive, rare, or endangered plant and wildlife species in accordance with state and federal resource agency requirements.	**Consistent:** As detailed in Section 5.3, *Biological Resources*, the project would impact sensitive species, including the alluvial fan sage scrub, southern cottonwood riparian woodland, and Parry's spineflower. However, mitigation in the form of on- and offsite habitat restoration and wildlife protocol surveys for burrowing owls and nesting birds is provided to ensure impacts are reduced to less than significant in accordance with state and federal agency requirements.
PR-5.3 Wildlife Corridors. Participate in the planning of drainage channels, ridgelines, and other areas that provide potential wildlife linkages between open space areas in the community and the vicinity.	**Consistent:** As shown on Figure 5.3-5, *Regional Open Space Connectivity/Wildlife Movement Routes*, the project site acts as a wildlife movement corridor/route between the upstream reaches of Wilson Creek and Oak Glen Creek and downstream confluence of Wilson Creek and Gateway Wash. The natural habitat of the two creeks would be redeveloped into the Open Space District, which would include landscaped drainage and passive recreational uses along the proposed basin. Although the Open Space District would not be developed with high intensity land uses, the existing vegetative cover and natural state of the two creeks would be altered; therefore, mitigation is provided to ensure the channels are improved with earthen bottoms; include stormwater treatment systems to minimize water quality changes that may impact downstream biological or aquatic resources; direct night lighting away from wildlife movement routes; and include landscape plans that avoid the use of invasive species adjacent to movement routes. Additionally, no features shall be utilized which would impede movement through the site by amphibians, reptiles, and small/large mammals.
PR-5.4 Biotic Resources Overlay. Require proposed land uses and development projects to conduct appropriate biological resource studies and propose mitigations where needed to address potential resource impacts.	**Consistent:** Several biological resources studies and jurisdictional delineations were prepared for the proposed project and are included as Appendices C1 through C4 of this DEIR. The findings of these studies are summarized in Section 5.3, *Biological Resources*, and mitigation is provided to minimize impacts to less than significant levels.
PR-5.5 Channels and Creeks. While completing necessary safety improvements, preserve the ecological integrity of watersheds and creek corridors that support riparian and wildlife resources by restoring native plants and other best practices to the extent practical.	**Consistent:** See response to Policy PR-4.5 above.
PR-5.6 Interagency Coordination. Coordinate with the CDFW and USFWS in the review of biological resource assessments and surveys for land development applications in accordance with state and federal resource agency requirements.	**Consistent:** See response to Policy PR-5.4 above. Habitat assessments, protocol surveys, and jurisdictional delineations were conducted as part of the biological technical reports in Appendices C1 through C4 of this DEIR and comply with CDFW and USFWS requirements.

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PR-6.3 Cultural Resources Overlay. Require developers of qualified projects to adhere to requirements of the cultural resources overlay district and applicable laws that require the identification, preservation of, and mitigation of potential impacts to cultural resources.	**Consistent:** Cultural resources reports were prepared for the proposed project (see Appendices D1 through D3). As concluded in Sections 5.4, *Cultural Resources*, and 5.15, *Tribal Cultural Resources*, the required grading for the proposed project could impact previously undiscovered cultural resources. Therefore, mitigation is provided requiring a qualified archaeologist and paleontologist to be on call during all ground-disturbing activities to conduct a formal evaluation of cultural significance if any resources are discovered. If significant Native American cultural resources are discovered, for which a treatment plan must be prepared, the developer or the archaeologist on call shall contact the Morongo Band of Mission Indians and, if requested, consult in good faith on the discovery and its disposition (e.g., avoidance, preservation, return of artifacts to tribe).
PR-6.6 Native American Consultation. Continue to offer and conduct consultations with the Native American Heritage Commission on development proposals in accordance with state and federal law.	**Consistent:** See response to Policy PR-6.3 above. In accordance with Assembly Bill 52 and Senate Bill 18 requirements, the City sent invitation letters to representatives of the Native American contacts provided by the NAHC on July 8, 2016, formally inviting tribes to consult with the City on the Oak Glen Creek Specific Plan.
Transportation Element	
T-2.1 Level of Service. To promote the safe and efficient movement of vehicular traffic, maintain a minimum level of service (LOS) C on all intersections and road segments except for two conditions: o At roadway intersections where traffic movements are controlled by roundabouts, LOS D shall be acceptable (e.g., average control delay of 30 seconds per vehicle or better). o On roadway segments where a roundabout controls at least one of the intersections at the ends of the segment, the lower half of LOS D shall be acceptable (e.g., V/C ratio of 0.849 or better). On-street parking, improvement levels, roundabouts, and infrastructure may be considered in furthering acceptable levels of service, safety, and other priorities.	**Consistent:** As concluded in Section 5.14, *Transportation and Traffic*, the project would impact level of service at the intersection of 2nd Street and Oak Glen Road, and at Bryant Street and Date Street. However, implementation of mitigation measures would require improving stop controls to signals and would reduce impacts to less than significant levels. All other roadways would operate at a minimum LOS C.
T-2.2 Multimodal Network. Assess roadway operations for new development and infrastructure projects with a balance between vehicle capacity, vehicle miles traveled, and multimodal transportation modes.	**Consistent:** The traffic impact analysis prepared for the project concluded that upon implementation of required improvements, roadways would operate at adequate levels of service (at least LOS C). Additionally, Class II bike lanes and pedestrian sidewalks already exist along Oak Glen Road and Bryant Street. The project would have an internal circulation plan with pedestrian and multiuse paths that would also provide access to Oak Glen Road, 2nd Street, and Bryant Street. Walkways between buildings would create a pedestrian-oriented environment by breaking up large blocks, providing more convenient connectivity throughout the project site, and shortening the walking distance to nearby destinations. The project site is also served by transit via Omnitrans, which is the public transit agency servicing the San Bernardino Valley.

Table 5.9-1 Yucaipa General Plan Consistency Analysis

Applicable General Plan Goals	Consistency Analysis
T-5.1 Scenic Corridor Designation. Prioritize the preservation of scenic qualities or environmental character of streets and highways designated on the local scenic highway plan (Figure T-4) in the design, construction, and modification of streets.	**Consistent:** See response to Policies CDL-3.1, -4.4, and -10.9 above. Additionally, landscape requirements along scenic corridors (i.e., Oak Glen Road and Bryant Street) shall be in accordance with the streetscape design for each street frontage, as detailed in the design guidelines of the proposed Specific Plan. Parkways shall be planted with shade trees along the scenic corridors to provide a pleasant pedestrian environment and contribute to streetscape continuity. Both scenic corridors would be landscaped in accordance with an identified theme selected by the project developer and approved by the City of Yucaipa.
T-5.2 Scenic Resource Overlay. Enforce the scenic resources overlay district, including regulations on building and structure placement, review area, undergrounding of utilities, access drives, landscaping, roads/walkways/ parking, grading, and signage.	**Consistent:** See response to Policies CDL-3.1, -3.4, -4.1, and -4.4 above.
T-5.3 Street Design. Apply special consideration in the design of street lighting, signage, landscaping palette, street furniture, and other appurtenances that complement the views from the roadway along scenic corridors.	**Consistent:** See response to Policies CDL-3.1, -3.4, -4.1, and -4.4 above.
T-5.4 Development Review. Exercise design review of all projects visible from a designated scenic route consistent with the Scenic Resources Overlay District; balance design considerations of projects with the preservation of the natural aesthetics of the area.	**Consistent:** See response to Policies CDL-3.1, -4.4, and -10.9 above.
T-5.5 Scenic Corridor Signage. Avoid free-standing signage along designated Scenic Corridors. Enforce design criteria for consideration of new freestanding outdoor advertising structures or signs along designated scenic corridors.	**Consistent:** The proposed Specific Plan includes sign design criteria for signs throughout the project area, including those along designated scenic corridors, which include Oak Glen Road and Bryant Street along the project frontage. The following sign design criteria would apply to all future project signs: – Sign locations: Signs in the restricted sidewalk/landscape easement shall not interfere with pedestrian movement or visibility along sidewalks. Signs shall not block motorist's visibility along the sidewalk, roadway or sight lines at entry driveways and circulation aisles are not blocked. – Base for monument style signs: Provide a solid architectural base that supports the sign and is comprised of traditional materials (e.g., stone, brick, etc.) – Materials and colors: Incorporate materials and colors into the sign support structure to match or be compatible with materials and colors typical of the project theme. – Proportion: Signs shall be in proportion to the size of the area in which they are located. – Design elements: Keep the design elements (e.g., base, side supports, sign panel area, and any roof-like features) in proportion with one another. – Screening: Electrical transformer boxes, electrical raceways, and conduits shall be concealed from view. – Illumination: Signs shall be illuminated by a direct source or light and not internally illuminated. Light shall not spill onto the right-of-way or into adjacent residential areas.

Table 5.9-1 Yucaipa General Plan Consistency Analysis

Applicable General Plan Goals	Consistency Analysis
	– Prohibited materials and signs: Freestanding pylon signs and roof-mounted signs are prohibited. Internally illuminated cabinet-style signs with translucent panels or panels with reflective surfaces, including but not limited to acrylic, fiberglass, plastic, or metal, are prohibited.
T-5.6 Scenic Corridor Treatment. Consider special scenic highway treatment, such as highway directional signs, guardrails and fences, provision of scenic outlooks, and appropriate lighting, where feasible.	**Consistent:** See response to Policies CDL-3.1, -3.4, -4.1, and -4.4 above.
Public Safety Element	
S-1.2 Geotechnical Analysis. In areas within the City's Geologic and Seismic Hazards Overlay District or as required by the Building Official, require development proposals to include a geotechnical hazard analysis.	**Consistent:** The project site is not within the City's geologic and seismic overlay district. However, several geologic investigations were conducted for the proposed project due to a concern that a potential hidden fault might exist through the project site (see Appendices E1 through E3). The evaluations concluded that potential trace faults under the project site would have no significant impact.
S-1.8 Natural Topography. Limit grading for future developments to the minimum amount needed to preserve Yucaipa's natural topography, preserve vegetation, and maintain soil and slope stability.	**Consistent:** See response to Policy CDL-2.5 and PR-5.1 above.
S-2.2 Floodplain Development. Promote the dedication of land within the 100-year floodplain and adjacent areas for park, multi-purpose trails, recreational uses, open spaces, and habitat conservation/mitigation.	**Consistent:** There are a number of multipurpose trails, passive recreational uses, and general open space areas proposed in the Open Space District, which is currently within a Federal Emergency Management Agency (FEMA) designated flood hazard zone (see Figure 5.8-2, *Flood Hazard Map*).
S-2.3 Land Use Regulations. Prohibit development of new essential and critical facilities and lifeline services in the 100-year floodplain. Prohibit facilities that use, store, transport, or dispose of hazardous materials from developing in the Floodplain Safety Overlay District.	**Consistent:** Although a large portion of the project site is located within a flood hazard zone, the primary purpose of the project is to realign and improve Wilson Creek and Oak Glen Creek for flood control and groundwater management. Upon implementation of the propose detention basin, most of the project site would be taken out of the 100-year flood hazard zone. The project applicant or future developer would be required to submit a Letter of Map Revision to FEMA for approval. Subsequently, development would be allowed to occur in the Specific Plan area, including critical facilities and services and uses that store, transport, or dispose of hazardous materials.
S-2.4 Building Codes. Require adherence to the latest building, site, and design codes in the California Building Code, FEMA flood control guidelines, and Floodplain Safety Overlay District to avoid or minimize the risk of flooding hazards in the community.	**Consistent:** All residences and nonresidential structures constructed in accordance with the Specific Plan would be required to comply with the California Building Code, FEMA flood control requirements, and the City's floodplain safety overlay district. Future plans would be reviewed by the City and applicable federal agencies prior to issuance of grading permits to ensure these codes and regulations are met.
S-2.6 Flood Control Facilities. Prioritize and fund maintenance and construction of improvements to drainage facilities and roadways identified in the City's Master Plan of Drainage and Hazard Mitigation Plan.	**Consistent:** Flood control improvements along Oak Glen Creek and Wilson Creek are included in the City's 1993 master plan of drainage. Therefore, implementation of the proposed project would help achieve that plan's goals.
S-2.7. Stormwater Runoff. Require new developments that add substantial amounts of impervious surfaces to integrate low impact development best management practices to reduce stormwater runoff.	**Consistent:** According to Order No. R8-2010-0036 NPDES Permit No. CAS618036 (Permit), the Oak Glen Creek Specific Plan is classified as a priority development project (new development project) because proposed construction would take place on previously undeveloped land. The permit requires the proposed project to meet two separate requirements for stormwater quality: low impact development (LID) and hydromodification management.

Table 5.9-1 Yucaipa General Plan Consistency Analysis

Applicable General Plan Goals	Consistency Analysis
	Implementation of the LID best management practices would minimize the effects of the project on regional hydrology, runoff flow rates and/or velocities, and pollutant loads.
S-2.8 Interagency Coordination. Establish and maintain cooperative working relationships among public agencies with responsibility for flood protection, including San Bernardino County Flood Control District, County Public Works, and other entities.	**Consistent:** A portion of the project is owned and maintained by the San Bernardino County Flood Control District (SBCFCD) and would require SBCFCD review and approval. For example, the following aspects of the proposed project would require approval by the City and SBCFCD: multipurpose trails along the Wilson Creek channel and detention basin; drainage and flood control facilities and improvements; internal site design and public rights-of-way; and detailed grading plan.
S-3.2 Fire Service Levels. Provide appropriate staffing levels, equipment, facilities, and training to maintain an Insurance Service Office Rating of 3; continue to strive to meet the latest industry standards in fire safety.	**Consistent:** As detailed in Section 5.12, *Public Services*, the project's impacts on fire services would be less than significant. The Yucaipa Fire Department and CAL FIRE would be able to serve the project site, and individual development projects within the Specific Plan area would be required to pay fire facilities fees required by the City's development code, which would help fund additional personnel, building, and material costs for fire services and facilities in the City.
S-3.3 Fire Codes. Require adherence to applicable fire codes for buildings and structures, fire access, and other standards in accordance with Fire Hazard Overlay Districts, California Fire Code, and municipal codes; encourage retrofit of nonconforming land uses.	**Consistent:** All residences and nonresidential structures constructed in accordance with the Specific Plan would be required to comply with the California Fire Code and the City's fire hazard overlay district requirements. Future plans would be reviewed by the City prior to issuance of occupancy permits to ensure these codes and regulations are met.
S-3.4 Fuel Modification. Require adherence to fuel modification and defensible space requirements to reduce wildfire hazards; work with CAL FIRE to coordinate fuelbreaks in very high fire severity zones.	**Consistent:** As shown on Figure 5.7-1, *Fire Hazards*, the entire project site is designated as either High or Very High Fire Hazard Severity Zone. Typically, larger, undeveloped open areas like the project site are susceptible to wildland fires that can be exacerbated by dry weather and Santa Ana winds. To minimize potential fire hazards onsite, future developers would be required to comply with Section 85.020220 of the Yucaipa Development Code, which includes various construction, building, and design standards, as well as erosion and sediment control measures as they relate to fire safety. Further, Chapter 8.20 (Refuse Abatement) of the City's municipal code requires every property owner to abate all noxious weeds or vegetation, dry grass, tumbleweeds, dead trees, and all combustible rubbish or noxious vegetation that constitute a fire, health, or safety hazard.
S-3.6 Adequate Water Supply and Redundancy. Work with public and private water distribution and supply facilities to ensure adequate water capacity and system redundancy to supply emergency firefighting needs.	**Consistent:** As concluded in Section 5.16, *Utilities and Service Systems*, the proposed project would generate a total water demand of approximately 161 acre-feet per year, which would be adequately supplied by the Yucaipa Valley Water District (YVWD). The project would also have to comply with specific conditions YVWD imposes on new development, such as connection to the City's recycled-water infrastructure to irrigate all greenbelt areas, commercial landscape areas, roadway medians, and front and rear yards. YVWD also requires applicants for new development projects to fund the purchase of 7 acre-feet of imported water per equivalent dwelling unit prior to issuance of grading or building permits. Therefore, individual projects developed in accordance with the Specific Plan would be required to adhere to these conditions to ensure adequate water supply.
S-6.1 Noise Assessment. Assess the compatibility of proposed land uses with the noise environment when preparing, revising, or reviewing applications for development projects or land use changes.	**Consistent:** A noise assessment was prepared for the proposed project and is included as Appendix H of this DEIR. Section 5.10, *Noise*, summarizes the findings from the noise assessment and provides mitigation measures to reduce noise project noise impacts to less than significant levels.

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Table 5.9-1 Yucaipa General Plan Consistency Analysis

Applicable General Plan Goals	Consistency Analysis
S-6.3 Noise Insulation and Vibration Standards. Require new projects to comply with noise insulation and vibration reduction standards in local, regional, state, and federal regulations, as applicable.	**Consistent:** Section 5.10.1.1, *Regulatory Framework*, of Section 5.10, *Noise*, details the federal, state, and local regulations related to noise and vibration that would apply to the proposed project. Upon implementation of regulatory requirements and applicable mitigation measures, project impacts on noise and vibration would be reduced to less than significant levels.
S-6.5 Development Patterns. Locate new development in areas where noise levels are appropriate for the use. Limit development of noise-producing uses adjacent to noise-sensitive receptors and require that noise-producing land uses have adequate mitigation.	**Consistent:** The project is located in an area of Yucaipa that is developed with single-family residential communities and neighborhood-serving commercial, institutional, and recreation uses (see Figure 3-3, *Aerial Photograph*). Therefore, the proposed Specific Plan would be compatible with existing noise levels in the project area. The proposed Residential and Open Space districts adjoining existing residential areas are appropriate and compatible land uses. Buildout of the two Innovation District areas would be relatively small—approximately 10,000 square feet each—and are not expected to adversely affect nearby residences due to the limited nature of the uses permitted. Regardless, mitigation measures are provided in Section 5.10, *Noise*, to minimize project noise impacts on surrounding uses.
S-6.6 Land Use-Noise Compatibility. Require mitigation of exterior and interior noise to the levels in Table S-1. Encourage the use of building design, site planning, landscaping, and other features to reduce noise levels.	**Consistent:** As concluded in Section 5.10, *Noise*, the proposed project would not generate significant operational noise impacts. Therefore, no mitigation is required. However, mitigation is provided to minimize construction noise impacts to less than significant levels. The proposed Specific Plan also requires buffered landscaping along 2nd Street to minimize lights and noise emanating from vehicle turning movements entering and exiting the adjacent Chapman Heights residential area. This design may incorporate the planting of trees and shrubs or a raised landscape berm and possible block wall on the berm, depending upon its height. A projectwide standard also requires that noise generated by development within the project site be mitigated to comply with the noise performance standards in the City's development code. Noise-generating uses that could affect noise-sensitive uses shall prepare an acoustical analysis.
S-6.7 Vibration Reduction. Minimize vibration impacts from construction sites, roadways, and other sources with a combination of setbacks, structural design features, and operational regulations as appropriate.	**Consistent:** Mitigation Measure 10-2 would ensure vibration impacts generated by construction activities are reduced to less than significant levels. This includes construction techniques such as minimizing the use of vibratory rollers near residential properties, and minimizing the use of large bulldozers, excavators, graders, and front-end loaders within 30 feet of residential properties.
S-7.6 Greenhouse Gas Reductions. Reduce communitywide greenhouse gas emissions locally through the implementation of Yucaipa's Climate Action Plan; actively support regional efforts to reduce greenhouse gases throughout the county.	**Consistent:** Section 5.6, *Greenhouse Gas Emissions,* concludes that because the proposed project is a program-level planning document, it cannot be determined at this this time whether future development projects accommodated under the proposed Oak Glen Creek Specific Plan would incorporate the necessary measures to meet the cumulative 100-point screening criteria to be considered consistent with the City's climate action plan (CAP). However, Mitigation Measure 6-5 would ensure future development projects incorporate design and construction measures to achieve a cumulative minimum of 100 points based on the appropriate screening tables in the City's CAP, thereby reducing impacts to less than significant levels.

Table 5.9-1 Yucaipa General Plan Consistency Analysis

Applicable General Plan Goals	Consistency Analysis
Public Services and Facilities Element	
PSF-4.1 Service Standards. Maintain appropriate response times to crime, traffic accidents, and other public safety incidents, consistent with community expectations and professional industry standards.	**Consistent:** As detailed in Section 5.12, *Public Services*, Yucaipa Fire Department/CAL FIRE and Yucaipa Police Department/San Bernardino County Sheriff's Department would adequately serve the proposed project while maintaining adequate response times and level of service.
PSF-4.2 Police Resources. Provide funding for police services to ensure the ample availability of well-trained staff, equipment, facilities, and technology to consistently achieve the community's service standards.	**Consistent:** Future development in accordance with the Specific Plan would be required to pay development impact fees related to police services required under Chapter 15.08 (Development Impact Fees) of the City's municipal code. The additional police facilities and equipment costs due to buildout of the project would be offset through the payment of these fees. Current fees are $1,871.40 per dwelling unit and $10,105.53 per net acre of commercial/industrial uses.
PSF-5.1 Water Quality. Work with water providers to ensure high-quality potable water for Yucaipa by managing stormwater runoff, protecting wellheads, using best management practices, monitoring quality, and employing the latest technology to clean water.	**Consistent:** As detailed in Section 5.8, *Hydrology and Water Quality*, the future developer would be required to prepare and implement water quality management plans (WQMPs) and stormwater pollution prevention plans (SWPPPs) to comply with the Santa Ana Regional Water Quality Control Board MS4 Permit and General Construction Permit requirements, respectively. The WQMP and SWPPPs would include best management practices (BMPs) associated with protecting water quality during construction and operational activities, such as low impact development BMPs and hydromodification management BMPs. The Oak Glen Creek Specific Plan also incorporates several water quality related BMPs, including grass-lined swales and volume-based BMPs to meet these regulations.
PSF-5.3 Water Supply. Routinely evaluate the impact of new development proposals in Yucaipa and require appropriate measures (fees, water supply assessments, etc.) to ensure long-term water supplies.	**Consistent:** See response to Policy S-3.6 above.
PSF-5.4 Use of Recycled Water. Increase use of recycled water in development projects and landscaping; implement best practices (e.g., dual plumbing) to expand recycled water use when safe, practical, and available.	**Consistent:** The project would include recycled-water lines in public streets and laterals extending onto private property within the Specific Plan area and connect to the existing 16-inch recycled-water lines in Oak Glen Road and 2nd Street.
PSF-6.1 Infrastructure. Work with service providers to assess the adequacy of utilities in existing developed areas, and implement needed improvements to address existing and future wastewater treatment needs.	**Consistent:** As detailed in Section 5.16, *Utilities and Service System*, the proposed project would generate a total of 27,134 gallons of wastewater per day. An onsite sewer system would collect the flow, which would connect with existing lines in 2nd Street and Bryant Street. YVWD has adequate capacity to accommodate existing wastewater demands and the City's planned projects, including the proposed Specific Plan.
PSF-6.6 Reduced System Demand. Reduce wastewater system demand by: requiring water-conserving designs and equipment; encouraging water-conserving devices; and designing wastewater systems to minimize inflow and infiltration.	**Consistent:** The YVWD imposes specific conditions on new development through the parcel development process. New developments that have access to recycled water are required to connect to recycled-water infrastructure to irrigate all greenbelt areas, commercial landscape areas, roadway medians, front yards of individual homes, and rear yards of individual homes. The YVWD also requires new development to be dual plumbed regardless of current access to recycled water so that it is available when recycled-water service is expanded. The proposed project has access to recycled water and would utilize recycled water for outdoor landscape needs. These parcel development process requirements imposed by the YVWD would reduce and/or offset the increased demand for water for the proposed project.

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Table 5.9-1 Yucaipa General Plan Consistency Analysis

Applicable General Plan Goals	Consistency Analysis
	Additionally, the YVWD enhances groundwater storage through the YVWD's groundwater recharge program. The YVWD and the City enhance groundwater storage by "spreading" additional surface water to facilitate groundwater recharge. The proposed project would provide a more efficient trapezoidal channel design and retention basin at the confluence at Wilson Creek and Oak Glen Creek, thereby increasing stormwater retention and groundwater recharge.
PSF-6.9 Stormwater Runoff. Require new developments that add substantial impervious surfaces to integrate low impact development best management practices (e.g., permeable pavements) to reduce stormwater runoff.	**Consistent:** See response to Policy PSF-5.1 above. The proposed project would be required to implement BMPs meeting LID performance criteria according to the Municipal Storm Water Permitting Program. The LID BMPs would help preserve the predevelopment hydrology of a project site, and address postdevelopment runoff through structural and nonstructural BMPs that store, infiltrate, evaporate, and detain runoff. Potential LID BMPs include: ▪ Bioretention: the proposed storage/recharge basin would also function as a bioretention basin ▪ Rainfall harvest and use (cisterns, rain barrels, planter areas, permeable surfaces, drywells, French drains, etc.) ▪ Grass-lined swales ▪ Vegetated filter strips ▪ Green roofs ▪ Infiltration trenches ▪ Media filtration ▪ Porous pavement ▪ Permeable surfaces (porous concrete/asphalt, block pavers, open cell concrete, plastic grid systems, reinforced turf, etc.)
PSF-9.4 Construction/Demolition. Require developers to recycle construction debris for residential, multifamily and commercial construction, and demolition projects that meet certain thresholds.	**Consistent:** Per Chapter 8.26 (Diversion of Construction and Demolition Waste) of the City's municipal code, all projects shall reuse, recycle, or divert the minimum percentage of designated recyclable and reusable materials as set forth by City Council resolution from landfills or disposal sites. Future developers would be required to submit a waste management and diversion plan (WMP) to the City as a part of the building and/or demolition permit process. The WMP is required to outline the construction and demolition (C&D) waste to be generated by the project, the estimated weight of C&D waste by material types, the estimated weight of C&D waste to be diverted, the facility or facilities the C&D waste will be taken, the estimated weight of C&D materials that will be landfilled, and the project's proposed diversion method.

Source: City of Yucaipa General Plan 2040, April 2016.

5.9.4 Cumulative Impacts

Implementation of the proposed project, in conjunction with other cumulative development in accordance with the City's general plan, could cause citywide land use and planning impacts. However, upon adoption of the Oak Glen Creek Specific Plan, the proposed project would be consistent with applicable plans, goals, policies, and regulations of the City's general plan and zoning regulations, as analyzed above. Cumulative development projects in accordance with the City's general plan would be subject to compliance with the regional and local plans reviewed in this section. Therefore, implementation of cumulative development projects would not combine with the proposed project to result in cumulatively considerable land use impacts.

5.9.5 Existing Regulations

No existing regulations are applicable to land use and planning impacts of the proposed project.

5.9.6 Level of Significance Before Mitigation

Impact 5.9-1 would be less than significant.

5.9.7 Mitigation Measures

No mitigation measures are required.

5.9.8 Level of Significance After Mitigation

Impacts would be less than significant.

5.9.9 References

Southern California Association of Governments (SCAG). 2016, April. The 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS): A Plan for Mobility, Accessibility, Sustainability, and a High Quality of Life. http://scagrtpscs.net/Documents/2016/final/f2016RTPSCS.pdf.

Yucaipa, City of. 2016, April. City of Yucaipa General Plan. http://yucaipa.org/development/general-plan/.

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5.10 NOISE

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential for implementation of the Oak Glen Creek Specific Plan to result in noise impacts in the City of Yucaipa. The section provides a brief introduction to the fundamentals of sound and vibration; identifies applicable federal, state, and local noise guidelines, policies, and standards; reviews existing noise levels; and evaluates potential noise impacts associated with the Oak Glen Creek Specific Plan. This evaluation uses procedures and methodologies as specified by Caltrans and the Federal Highway Administration (FHWA). The analysis in this section is based on traffic volumes provided by IBI Group (see Appendix J to this DEIR). Noise modeling data is included in Appendix H of this DEIR.

5.10.1 Environmental Setting

Noise and Vibration Fundamentals

Noise is defined as unwanted sound and is known to have several adverse effects on people, including hearing loss, speech and sleep interference, physiological responses, and annoyance. Although sound can be easily measured, the perception of noise and the physical response to sound complicate the analysis of its impact on people. People judge the relative magnitude of sound sensation in subjective terms such as "noisiness" or "loudness." Based on these known adverse effects of noise, the federal government, the State of California, and many local governments have established criteria to protect public health and safety and to prevent disruption of certain human activities.

Noise Descriptors

The following are brief definitions of terminology used in this chapter:

- **Sound.** A disturbance created by a vibrating object, which, when transmitted by pressure waves through a medium such as air, is capable of being detected by a receiving mechanism, such as the human ear or a microphone.

- **Noise.** Sound that is loud, unpleasant, unexpected, or otherwise undesirable.

- **Decibel (dB).** A unitless measure of sound on a logarithmic scale.

- **Vibration Decibel (VdB).** A unitless measure of vibration, expressed on a logarithmic scale and with respect to a defined reference vibration velocity. In the U.S., the standard reference velocity is 1 micro-inch per second ($1x10^{-6}$ in/sec).

- **A-Weighted Decibel (dBA).** An overall frequency-weighted sound level in decibels that approximates the frequency response of the human ear.

- **Equivalent Continuous Noise Level (L_{eq}); also called the Energy-Equivalent Noise Level.** The value of an equivalent, steady sound level which, in a stated time period (often over an hour) and at a

stated location, has the same A-weighted sound energy as the time-varying sound. Thus, the L_{eq} metric is a single numerical value that represents the equivalent amount of variable sound energy received by a receptor over the specified duration.

- **Statistical Sound Level (L_n).** The sound level that is exceeded "n" percent of time during a given sample period. For example, the L_{50} level is the statistical indicator of the time-varying noise signal that is exceeded 50 percent of the time (during each sampling period); that is, half of the sampling time, the changing noise levels are above this value and half of the time they are below it. This is called the "median sound level." The L_{10} level, likewise, is the value that is exceeded 10 percent of the time (i.e., near the maximum) and this is often known as the "intrusive sound level." The L_{90} is the sound level exceeded 90 percent of the time and is often considered the "effective background level" or "residual noise level."

- **Day-Night Sound Level (L_{dn} or DNL).** The energy-average of the A-weighted sound levels occurring during a 24-hour period, with 10 dB added to the sound levels occurring during the period from 10:00 PM to 7:00 AM.

- **Community Noise Equivalent Level (CNEL).** The energy average of the A-weighted sound levels occurring during a 24-hour period, with 5 dB added from 7:00 pm to 10:00 pm and 10 dB from 10:00 pm to 7:00 am. For general community/environmental noise, CNEL and L_{dn} values rarely differ by more than 1 dB (with the CNEL being only slightly more restrictive, that is, higher than the L_{dn} value). As a matter of practice, L_{dn} and CNEL values are interchangeable and are treated as equivalent in this assessment.

- **Sensitive Receptor.** Noise- and vibration-sensitive receptors include land uses where quiet environments are necessary for enjoyment and public health and safety. Residences, schools, motels and hotels, libraries, religious institutions, hospitals, and nursing homes are examples.

Characteristics of Sound

Sound is a pressure wave transmitted through the air. It is described in terms of loudness or amplitude (measured in decibels), frequency or pitch (measured in Hertz [Hz] or cycles per second), and duration (measured in seconds or minutes). The standard unit of measurement of the loudness of sound is the decibel (dB). Changes of 1 to 3 dB are detectable under quiet, controlled conditions and changes of less than 1 dBA are usually indiscernible. A 3 dB change in noise levels is considered the minimum change that is detectable with human hearing in outside environments. A change of 5 dB is readily discernable to most people in an exterior environment whereas a 10 dBA change is perceived as a doubling (or halving) of the sound. Because of the physical characteristics of noise transmission and perception, the relative loudness of sound does not closely match the actual amounts of sound energy. Table 5.10-1, *Change in Apparent Loudness*, presents the subjective effect of changes in sound pressure levels.

Table 5.10-1 Change in Apparent Loudness

± 3 dB	Threshold of human perceptibility
± 5 dB	Clearly noticeable change in noise level
± 10 dB	Half or twice as loud
± 20 dB	Much quieter or louder

Source: Bies and Hansen 2009.

The human ear is not equally sensitive to all frequencies. Sound waves below 16 Hz are not heard at all and are "felt" more as a vibration. Similarly, while people with extremely sensitive hearing can hear sounds as high as 20,000 Hz, most people cannot hear above 15,000 Hz. In all cases, hearing acuity falls off rapidly above about 10,000 Hz and below about 200 Hz. Since the human ear is not equally sensitive to sound at all frequencies, a special frequency dependent rating scale is usually used to relate noise to human sensitivity. The A-weighted decibel scale (dBA) performs this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear.

Measurement of Sound

Sound intensity is measured through the A-weighted measure to correct for the relative frequency response of the human ear. That is, an A-weighted noise level de-emphasizes low and very high frequencies of sound similar to the human ear's de-emphasis of these frequencies.

Unlike linear units such as inches or pounds, decibels are measured on a logarithmic scale, representing points on a sharply rising curve. On a logarithmic scale, an increase of 10 dB is 10 times more intense than 1 dB, while 20 dB is 100 times more intense, and 30 dB is 1,000 times more intense. A sound as soft as human breathing is about 10 times greater than 0 dB. The decibel system of measuring sound gives a rough connection between the physical intensity of sound and its perceived loudness to the human ear. Ambient sounds generally range from 30 dBA (very quiet) to 100 dBA (very loud).

Sound levels are generated from a source and their decibel level decreases as the distance from that source increases. Sound dissipates exponentially with distance from the noise source. This phenomenon is known as "spreading loss." For a single point source, sound levels decrease by approximately 6 dB for each doubling of distance from the source. This drop-off rate is appropriate for noise generated by on-site operations from stationary equipment or activity at a project site. If noise is produced by a line source, such as highway traffic, the sound decreases by 3 dB for each doubling of distance in a hard site environment. Line source noise in a relatively flat environment with absorptive vegetation decreases by 4.5 dB for each doubling of distance.

Time variation in noise exposure is typically expressed in terms of a steady-state energy level equal to the energy content of the time varying period (called L_{eq}), or alternately, as a statistical description of the sound level that is exceeded over some fraction of a given observation period. For example, the L50 noise level represents the noise level that is exceeded 50 percent of the time. Half the time the noise level exceeds this level and half the time the noise level is less than this level. This level is also representative of the level that is exceeded 30 minutes in an hour. Similarly, the L_2, L_8 and L_{25} values represent the noise levels that are exceeded 2, 8, and 25 percent of the time or 1, 5, and 15 minutes per hour. These "L" values are typically

used to demonstrate compliance for stationary noise sources with a city's noise ordinance, as discussed below. Other values typically noted during a noise survey are the L_{min} and L_{max}. These values represent the minimum and maximum root-mean-square noise levels obtained over the measurement period.

Because community receptors are more sensitive to unwanted noise intrusion during the evening and at night, state law and the City of Highland require that, for planning purposes, an artificial dB increment be added to quiet time noise levels in a 24-hour noise descriptor called the Community Noise Equivalent Level (CNEL) or Day-Night Noise Level (L_{dn}). The CNEL descriptor requires that an artificial increment of 5 dBA be added to the actual noise level for the hours from 7:00 pm to 10:00 pm and 10 dBA for the hours from 10:00 pm to 7:00 am. The L_{dn} descriptor uses the same methodology except that there is no artificial increment added to the hours between 7:00 pm and 10:00 pm. Both descriptors give roughly the same 24-hour level with the CNEL being only slightly more restrictive (i.e., higher).

Psychological and Physiological Effects of Noise

Physical damage to human hearing begins at prolonged exposure to noise levels higher than 85 dBA. Exposure to high noise levels affects our entire system, with prolonged noise exposure in excess of 75 dBA increasing body tensions, and thereby affecting blood pressure, functions of the heart and the nervous system. In comparison, extended periods of noise exposure above 90 dBA could result in permanent hearing damage. When the noise level reaches 120 dBA, a tickling sensation occurs in the human ear even with short-term exposure. This level of noise is called the threshold of feeling. As the sound reaches 140 dBA, the tickling sensation is replaced by the feeling of pain in the ear. This is called the threshold of pain. A sound level of 160 to 165 dBA will result in dizziness or loss of equilibrium. A sound level of 190 dBA will rupture the eardrum and permanently damage the inner ear.

In comparison, for community environments, the ambient or background noise problem is widespread, through generally worse in urban areas than in outlying, less-developed areas. Elevated ambient noise levels can result in noise interference (e.g., speech interruption/masking, sleep disturbance, disturbance of concentration) and cause annoyance.

Loud noise can be annoying and it can have negative health effects (USEPA 1978). The effects of noise on people can be listed in three general categories:

- Subjective effects of annoyance, nuisance, dissatisfaction.
- Interference with activities such as speech, sleep, learning.
- Physiological effects such as startling and hearing loss (both temporary and permanent).

In most cases, environmental noise produces effects in the first two categories only. However, unprotected workers in some industrial work settings may experience noise effects in the last category.

Vibration Fundamentals

Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. Vibration is normally associated with activities stemming

from operations of railroads or vibration-intensive stationary sources, but can also be associated with construction equipment such as jackhammers, pile drivers, and hydraulic hammers.

Like noise, vibration is transmitted in waves, but in this case through the earth or solid objects. Unlike noise, vibration is typically of a frequency that is felt, rather than heard. Vibration can be either natural as in the form of earthquakes, volcanic eruptions, sea waves, landslides, or man-made as from explosions, the action of heavy machinery or heavy vehicles such as trains. Both natural and man-made vibration may be continuous such as from operating machinery, or transient as from an explosion. As with noise, vibration can be described by both its amplitude and frequency. Amplitude may be characterized in three ways: displacement, velocity, and acceleration.

Vibration displacement is the distance that a point on a surface moves away from its original static position. The instantaneous speed that a point on a surface moves is the velocity, and the rate of change of the speed is the acceleration. Each of these descriptors can be used to correlate vibration to human response, building damage, and acceptable equipment vibration levels. During construction, the operation of construction equipment can cause groundborne vibration. During the operational phase of a project, receptors may be subject to levels of vibration that can cause annoyance due to noise generated from vibration of a structure or items within a structure.

Vibration amplitudes are usually described in terms of either the peak particle velocity (PPV) or the RMS velocity. PPV is the maximum instantaneous peak of the vibration signal and RMS is the square root of the average of the squared amplitude of the signal. PPV is more appropriate for evaluating potential building damage, whereas RMS is typically more suitable for evaluating human response.

The units for PPV and RMS velocity are normally inches per second (in/sec). Often, vibration is presented and discussed in dB units in order to compress the range of numbers required to describe the vibration. In this study, all PPV and RMS velocity levels are in in/sec and all vibration levels are in dB relative to 1 micro-inch per second (abbreviated as VdB). Typically, groundborne vibration generated by human activities attenuates rapidly with distance from the source of the vibration. Man-made vibration problems are, therefore, usually confined to relatively short distances (500 to 600 feet or less) from the source.

Vibrations also vary in frequency and this affects perception. Typical construction vibrations fall in the 10 to 30 Hz range and usually occur around 15 Hz. Traffic vibrations exhibit a similar range of frequencies; however, due to their suspension systems, buses often generate frequencies around 3 Hz at high vehicle speeds. It is less common, but possible, to measure traffic frequencies above 30 Hz.

The way in which vibration is transmitted through the earth is called propagation. Propagation of groundborne vibrations is complicated and difficult to predict because of the endless variations in the soil and rock through which waves travel. There are three main types of vibration propagation: surface, compression and shear waves. Surface waves, or Raleigh waves, travel along the ground's surface. These waves carry most of their energy along an expanding circular wave front, similar to ripples produced by throwing a rock into a pool of water. Compression waves, or P-waves, are body waves that carry their energy along an expanding spherical wave front. The particle motion in these waves is longitudinal (i.e., in a "push-pull" fashion). P-waves are analogous to airborne sound waves. Shear waves, or S-waves, are also body waves that

carry energy along an expanding spherical wave front. However, unlike P-waves, the particle motion is transverse, that is, side-to-side and perpendicular to the direction of propagation. As vibration waves propagate from a source, the energy is spread over an ever-increasing area such that the energy level striking a given point is reduced with the distance from the energy source. This geometric spreading loss is inversely proportional to the square of the distance. Wave energy is also reduced with distance as a result of material damping in the form of internal friction, soil layering, and void spaces. The amount of attenuation provided by material damping varies with soil type and condition as well as the frequency of the wave.

As with airborne sound, annoyance to vibrational energy is a subjective measure, depending on the level of activity or the sensitivity of the individual. To sensitive individuals, vibrations approaching the threshold of perception can be annoying. Persons exposed to elevated ambient vibration levels such as people in an urban environment may tolerate a higher vibration level. Table 5.10-2, *Human Reaction to Typical Vibration Levels*, displays human annoyance and the effects on buildings resulting from continuous vibration (in terms of various levels of PPV).

Table 5.10-2 Human Reaction to Typical Vibration Levels

Peak Particle Velocity (in/sec)	Human Reaction	Effect on Buildings
0.006–0.019	Threshold of perception, possibility of intrusion	Vibrations unlikely to cause damage of any type
0.08	Vibrations readily perceptible	Recommended upper level of vibration to which ruins and ancient monuments should be subjected
0.10	Level at which continuous vibration begins to annoy people	Virtually no risk of "architectural" (i.e., not structural) damage to normal buildings
0.20	Vibrations annoying to people in buildings	Threshold at which there is a risk to "architectural" damage to normal dwelling—houses with plastered walls and ceilings
0.4–0.6	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Vibrations at a greater level than normally expected from traffic, but would cause "architectural" damage and possibly minor structural damage

Source: Caltrans 2002.

Human response to ground vibration has been correlated best with the velocity of the ground; typically expressed in terms of the vibration decibel of VdB.[1] The Federal Transit Administration (FTA) has developed rational vibration limits that can be used to evaluate human annoyance to groundborne vibration. These criteria are primarily based on experience with rapid transit and commuter rail systems (FTA 2006). Railroad and transit operations are potential sources of substantial ground vibration depending on distance, the type and the speed of trains, and the type of track. Trains generate substantial vibration due to their engines, steel wheels, heavy loads, and wheel-rail interactions.

Similarly, construction operations generally include a wide range of activities that can generate groundborne vibration, which varies in intensity. In general, blasting and demolition of structures, as well as pile driving and vibratory compaction equipment generate the highest vibrations. Because of the impulsive nature of

[1] The reference velocity is 1 x 10^{-6} inch/second RMS, which equals 0 VdB, and 1 inch/second equals 120 VdB. The abbreviation "VdB" is used in this document for vibration decibels to reduce the potential for confusion with sound decibels.

such activities, the PPV descriptor is used to measure and assess groundborne vibration and assess the potential of vibration to induce structural damage and the degree of annoyance for humans. Vibratory compactors or rollers, pile drivers, and pavement breakers can generate perceptible amounts of vibration at up to 200 feet. Heavy trucks can also generate groundborne vibrations, which can vary, depending on vehicle type, weight, and pavement conditions. Potholes, pavement joints, discontinuities, differential settlement of pavement, all increase the vibration levels from vehicles passing over a road surface. Construction vibration is normally of greater concern than vibration from normal traffic flows on streets and freeways with smooth pavement conditions (Caltrans 2004).

5.10.1.1 REGULATORY BACKGROUND

To limit population exposure to physically and/or psychologically damaging as well as intrusive noise levels, the federal government, the State of California, various county governments, and most municipalities in the state have established standards and ordinances to control noise.

Federal Regulations

U.S. Environmental Protection Agency

The United States Environmental Protection Agency (EPA) has identified the relationship between noise levels and human response. The EPA has determined that over a 24-hour period, a L_{eq} of 70 dBA will result in some hearing loss. Interference with activity and annoyance will not occur if exterior levels are maintained at or below 55 dBA L_{eq} and interior levels at or below 45 dBA L_{eq}. While these levels are relevant for planning and design and useful for informational purposes, they are not land use planning criteria because they do not consider economic cost, technical feasibility, or the needs of the community.

The EPA also set 55 dBA L_{dn} as the basic goal for exterior residential noise intrusion. However, other federal agencies, in consideration of their own program requirements and goals, as well as difficulty of actually achieving a goal of 55 dBA L_{dn}, have settled on the 65 dBA L_{dn} level as their standard. At 65 dBA L_{dn}, activity interference is kept to a minimum, and annoyance levels are still low. It is also a level that can realistically be achieved.

State Regulations

The California Building Code (CBC), Title 24, Part 2, Volume 1, Chapter 12, *Interior Environment*, Section 1207.11.2, *Allowable Interior Noise Levels*, requires that interior noise levels attributable to exterior sources shall not exceed 45 dB in any habitable room. The noise metric is evaluated as either the day-night average sound level (Ldn) or the community noise equivalent level (CNEL), consistent with the noise element of the local general plan.

The California Green Building Standards Code, Chapter 5, Division 5.5, has additional requirements for insulation that affect exterior-interior noise transmission for non-residential structures (which include multi-family structures 4-stories or greater). Pursuant to section 5.507.4.1, Exterior Noise Transmission, Prescriptive Method, wall and roof-ceiling assemblies exposed to the noise source making up the building or addition envelope or altered envelope shall meet:

- a composite sound transmission class (STC) rating of at least 50 L_{dn} or CNEL, or
- a composite outdoor-indoor transmission class (OITC) rating of no less than 40 L_{dn} or CNEL with exterior windows of a minimum STC of 40, or
- OITC of 30 within a 65 dBA CNEL or L_{dn} noise contour of an airport, freeway, expressway, railroad, industrial source, or fixed-guideway source, as determined by the noise element of the general plan.

Where noise contours are not readily available, buildings exposed to a noise level of 65 dBA L_{eq} 1 hour during any hour of operation shall have building, addition or alteration exterior wall and roof-ceiling assemblies exposed to the noise source meeting a composite STC rating of at least 45 L_{dn} or CNEL (or OITC 35), with exterior windows of a minimum of STC 40 (or OITC 30).

Residential structures within the noise contours identified above require an acoustical analysis showing that the structure has been designed to limit intruding noise in the prescribed allowable levels. To comply with these regulations, applicants for new residential projects are required to submit an acoustical analysis report. The report is required to show topographical relationship of noise sources and dwelling site, identification of noise sources and their characteristics, predicted noise spectra at the exterior of the proposed dwelling structure considering present and future land usage, basis for the prediction (measured or obtained from published data), noise attenuation measures to be applied, and an analysis of the noise insulation effectiveness of the proposed construction showing that the prescribed interior noise level requirements are met. If interior allowable noise levels are met by requiring that windows be unopenable or closed, the design for the structure must also specify the means that will be employed to provide ventilation and cooling, if necessary, to provide a habitable interior environment.

City of Yucaipa Standards

The proposed project is subject to policies in the City's general plan and noise and vibration standards in the municipal code.

Public Safety Element: Noise and Vibration

Goals and policies from the noise and vibration section of the public safety element that are applicable to the project are:

- **Goal S-6: Appropriate community noise and vibration levels that balance the need for peaceful environments for sensitive land uses with the needs of local businesses and regional land uses.**
- **Policy S-6.4, Noise Nuisance Standards.** Regulate the control of residential noise nuisances—such as parties, barking dogs, other animals, and limited agricultural operations—through the City's municipal code.

- **Policy S-6.7, Vibration Reduction.** Minimize vibration impacts from construction sites, roadways, and other sources with a combination of setbacks, structural design features, and operational regulations as appropriate.

- **Policy S-6.8, Street Improvements to Reduce Noise.** Employ noise mitigation practices and materials when designing or improving streets; emphasize use of natural buffers or setbacks between roads and noise-sensitive areas.

The noise and vibration section also includes limits for interior and exterior noise levels from existing or projected future mobile or stationary sources, which are listed in Table 5.10-3, *Interior/Exterior Noise Level Standards, Mobile Noise Sources*.

Table 5.10-3 Interior/Exterior Noise Level Standards, Mobile Noise Sources

Categories	Land Uses	L_{dn} (or CNEL), dB	
		Interior	Exterior
Residential	Single & Multifamily Duplex	45	60*
	Mobile Home	45	60*
	Hotel, Motel, Lodging	45	60*
Commercial	Commercial Retail, Bank, Restaurant	50	---
	Office Building, R&D, Offices	45	65
	Amphitheater, Auditorium, Theater	45	---
Institutional/Public	Hospital, School, Church, Library	45	65
Open Space	Park and Recreational Areas	---	65

Source: Yucaipa 2016b, Table S-3.
An exterior noise level of up to 65 dB Ldn (or CNEL) will be allowed, provided exterior noise levels have been substantially mitigated through a reasonable application of the best available noise reduction technology and interior noise exposure does not exceed 45 dBA with windows and doors closed.

Development Code

Stationary sources of noise (such as HVAC, maintenance, and landscaping) are governed under Yucaipa Development Code, Chapter 87.0905, Noise. Section 87.0905(b) establishes the noise standards shown in Table 5.10-4, *Hourly Noise Level Performance Standards: Stationary and Other Locally Regulated Sources*.

Table 5.10-4 Hourly Noise Level Performance Standards: Stationary and Other Locally Regulated Sources

Affected Land Use (Receiving Land Use)	Noise Level (dBA)[1]	Time Period
Residential	55	7 AM–10 PM
	55	10 PM–7 AM
Professional Services	55	Anytime
Other Commercial	60	Anytime
Industrial	70	Anytime

Source: City of Yucaipa Development Code, Section 87.0905.
Notes:
- Noise levels at the receiving property are not to exceed:
  (A) The noise standard for that receiving land use for a cumulative period of more than 30 minutes in any hour. [In practical implementation, this is equivalent to the L_{50} noise level metric.]
  (B) The noise standard plus 5 dBA for a cumulative period of more than [~~five~~] [fifteen][2] minutes in any hour. [Under the premise of 15 minutes, this is equivalent to the L_{25} noise level metric in practical implementation.]
  (C) The noise standard plus 10 dBA for a cumulative period of more than five minutes in any hour. [In practical implementation, this is equivalent to the $L_{8.3}$ noise level metric.]
  (D) The noise standard plus 15 dBA for a cumulative period of more than one minute in any hour. [In practical implementation, this is equivalent to the $L_{1.6}$ noise level metric.]
  (E) The noise standard plus 20 dBA for any period of time. [In practical implementation, this is equivalent to the L_0 or L_{max} noise level metric.]
- If the measured ambient level exceeds any of the first four noise limit categories above, the allowable noise exposure standard shall be increased to reflect said ambient noise level. If the ambient noise level exceeds the fifth noise limit category, the maximum allowable noise level under this category shall be increased to reflect the maximum ambient noise level. Additionally, if the alleged offense consists entirely of impact noise or simple tone noise, each of the noise levels shall be reduced by 5 dBA.

[1] Although the Development Code lists the standard as the 24-hour L_{dn} metric, based on typical municipal code standards and the allowed exceedances provided in Section 87.0905, these standards shall be interpreted as 1 hour L_{eq}.

Construction Noise

Per Section 87.0905(e), noise sources associated with temporary construction, repair, or demolition are exempt from the City noise standards between the hours of 7:00 am to 7:00 pm, except Sundays and federal holidays.

Noise Hazard Overlay District

Article 4 of the Yucaipa Municipal Code establishes the Noise Hazard Overlay. According to Chapter 85.020505, the noise hazard overlay identifies areas where the L_{dn} is 65 dBA or greater. Figure S-6 of the public safety element shows areas with the noise hazard overlay, including the northern portion of the project site along Oak Glen Road and the eastern portion of the site along Bryant Street (Yucaipa 2016b).

Chapter 85.020510 states that when a land use application or development permit is proposed within a noise hazard overlay district, interior noise levels in all single-family and multifamily residences and educational institutions shall not exceed 45 dBA L_{dn}, and exterior noise levels in all single-family residential land use areas and multifamily residential land use areas should not exceed 65 dBA L_{dn} and shall not exceed 70 dBA for any residential use areas. Noise levels shall be identified through an acoustical report. In areas where levels exceed

[2] Items (B) and (C) have the same time frame, but have different decibel adjustments. This type of levels-versus-time hierarchy is common in California municipal codes, and given their typical progression, it is taken that item (B) should, in fact, say *fifteen* minutes rather than *five* minutes.

the noise standard, measures shall be taken to mitigate noise levels. All other structures shall not exceed the criteria in Table 5.10-5, *24-Hour Equivalent Sound Level (Interior)*.

Table 5.10-5 24-Hour Equivalent Sound Level (Interior)

Typical Uses	dBA L_{dn}
Educational, Institutions, Libraries, Churches, etc.	45 dBA
General Office, Reception, etc.	50 dBA
Retail Stores, Restaurants, etc.	55 dBA
Other Areas for Manufacturing, Assembly, Test, Warehousing, etc.	65 dBA

Source: City of Yucaipa Development Code, Section 87.0905.
Note: The analogous table in Code Section 87.0905 is entitled "12-Hour Equivalent Sound Level (Interior)," but because Ldn is by definition a 24-hour noise level metric, it is assumed that this standard is intended to apply over a 24-hour period.

Vibration

Under Chapter 87.0910, "No ground vibration shall be allowed which can be felt without the aid of instruments at or beyond the lot line, nor will any vibration be permitted which produces a particle velocity greater than or equal to two-tenths (0.2) inches per second measured at or beyond the lot line." However, construction activities are exempt from these standards. Therefore, thresholds for construction-generated vibration will be based on the FTA standards.

The FTA provides criteria for acceptable levels of ground-borne vibration for human annoyance and structural damage (FTA 2006). The limit for human annoyance in residential uses during the daytime is 78 VdB and 72 VdB during the nighttime. Industrial uses are not considered sensitive to vibration annoyance, but there are annoyance thresholds for workshops (90 VdB) and office uses (84 VdB). The threshold for architectural damage for buildings with reinforced concrete, steel, or timber (commercial and industrial uses) is 0.5 PPV (in/sec), and for buildings with non-engineered timber and masonry (residential uses) the criteria is 0.2 PPV (in/sec).

5.10.1.2 EXISTING CONDITIONS

The Specific Plan area is in a developed portion of the City and is primarily subject to noise from transportation sources; although stationary sources also contribute to the noise environment. The surrounding area is primarily residential and open space but also includes commercial uses, a fire station, a water pump, a City maintenance yard, churches, and a community center and park.

Local Noise Monitoring Data

PlaceWorks conducted noise measurements at several locations on Wednesday and Thursday, November 19 and 20, 2014, as part of the Yucaipa General Plan EIR. Given the proximity of some of these measurement locations, as well as their contemporaneousness with the proposed project, these ambient data are presented herein.

Ambient noise measurements at short-term noise monitoring locations were taken for a period of approximately 15 minutes, and measurements at long-term noise monitoring locations were taken for a period of 24 hours. The results for Short-Term Location 5 and Long-Term Location 2 are shown in Table 5.10-6, *Noise Level Measurements Proximate to the Oak Glen Creek Specific Plan*. These noise monitoring locations near the Oak Glen Specific Plan area are described below:

- **ST-5.** The sound level meter was placed in a dense residential area in the central part of the City. The location was in front of 35032 Kimberly Lane, off of Bryant Street between Date Avenue and Yucaipa Boulevard. There were a number of sources contributing to the ambient noise, including rustling vegetation, distant barking dogs, birds, hammering, wind chimes, kids playing, distant traffic on California Street and 2nd Street, and distant aircraft. The loudest event was a loud motorcycle passing by on Kimberly Lane.

- **LT-2.** In the parking lot of the Rite Aid on the corner of Oak Glen Road and Bryant Street. The sound level meter was placed at the light pole next to the trash container on the southern border of the lot, adjacent to the California Department of Forestry and Fire Protection property. The primary sources of noise were traffic on Bryant Street and rustling vegetation. Secondary sources included activity on the adjacent properties, including occasional banging from the lot to the west and a radio playing music. The noise pattern observed at LT-2 is typical of street traffic, with the highest levels close to the traffic AM and PM peak hours.

Table 5.10-6 Noise Level Measurements Proximate to the Oak Glen Creek Specific Plan

Noise Monitoring Location	Date	Time	L_{eq}	L_{min}	L_{max}
ST-5	Nov. 20, 2014	12:01–12:16 PM	54.1	33.7	78.3
Noise Monitoring Location	**CNEL**	**Highest 1-Hour L_{eq}**	**Hour**	**Lowest 1-Hour L_{eq}**	**Hour**
LT-2	59.1	58.9	7 AM	44.6	2 AM

Source: Yucaipa 2016a.

On-Road Vehicles

The major source of noise is mobile sources—specifically traffic traveling through the City on various roadways. Major transportation noise sources are traffic on Oak Glen Road and Bryant Street.

To facilitate the assessment of future traffic-related noise levels, the existing traffic noise conditions were modeled using the FHWA Traffic Noise Prediction computer model. Table 5.10-7, *Existing Conditions Traffic Noise Levels*, lists the calculated existing noise levels on roadways in the vicinity of the project site at 50 feet from the roadway centerline.

Table 5.10-7 Existing Conditions Traffic Noise Levels

Roadway	Segment	Daily Traffic Volumes	Noise Level at 50 Feet (dBA CNEL)	Distance to Noise Contour (feet)		
				70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
Oak Glen Road	2nd St to Bryant St	5,301	64.9	23	49	105
Oak Glen Road	Ave E to Yucaipa Blvd	5,811	65.3	24	52	112
Oak Glen Road	Bryant St to Fremont St	1,647	61.8	14	31	66
Oak Glen Road	Colorado Rd to Ave E	8,796	68.3	39	83	180
Oak Glen Road	Chapman Heights Rd to 5th St	6,843	67.2	33	71	152
Yucaipa Boulevard	1st St to California St	4,596	58.7	9	19	41
Yucaipa Boulevard	2nd Street to 3rd St	5,960	64.0	20	43	92
Yucaipa Boulevard	4th St to 3rd St	6,994	64.7	22	47	102
Yucaipa Boulevard	Oak Glen Road to 10th St	9,643	70.6	55	118	254
Yucaipa Boulevard	11th St to 10th St	9,105	70.3	53	114	245
Bryant Street	Oak Glen Road to Eucalyptus Ave	4,516	65.4	25	54	115
Bryant Street	Fir Avenue to Oak Glen Rd	4,799	66.9	31	67	144
Bryant Street	Yucaipa Blvd to Date St	2,633	59.6	10	22	47
Bryant Street	Fir St to Carter St	3,340	64.1	20	44	94
Bryant Street	Wildwood Canyon Rd to Ave E	2,146	63.4	18	39	84
Wildwood Canyon Road	5th St to 4th St	4,155	61.6	14	30	64
Wildwood Canyon Road	Bryant St to Douglas St	2,729	61.2	13	28	60
5th Street	Wildwood Canyon Rd to Ave E	3,131	61.8	14	30	66
Date St	2nd St to California St	684	53.8	4	9	19
Date St	3rd St to Preston Ln	673	50.4	2	5	11
2nd Street	Date Street to Shasta St	347	47.5	2	3	7
Avenue E	4th St to 3rd St	2,231	55.6	5	12	25
Avenue E	1st St to California St	1,898	58.2	8	18	38

Source: FHWA Highway Traffic Noise Prediction Model, based on traffic volumes provided by IBI Group in July 2016. Calculations included in Appendix H.

Stationary Source Noise

Stationary sources of noise are primarily associated with industrial and commercial land uses and for the most part are restricted to appropriate areas. However, in some areas residential land uses abut institutional and commercial uses. The adjacent residential uses generate noise from landscaping, maintenance activities, and air conditioning systems. The adjacent school, fire station, and well-pump uses and nearby commercial uses generate noise from HVAC systems, loading docks, and other sources; the existing maintenance yard generates noise from onsite truck and tractor movements. Noise generated by residential and commercial uses is generally short and intermittent compared to industrial uses, which generate noise on a more continual basis due to the nature of their activities.

Sensitive Receptors

Certain land uses are particularly sensitive to noise and vibration. These uses include residences, schools, hospital facilities, houses of worship, and open space/recreation areas where quiet environments are necessary for the enjoyment, public health, and safety of the community. Commercial and industrial uses are not considered noise and vibration sensitive. The nearest sensitive receptors to the project site are the Wildwood Calvary Chapel and Academy to the northeast and the residential communities to the west of 2nd Street, south of Oak Glen Creek, and east of Bryant Street.

5.10.2 Thresholds of Significance

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

N-1 Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

N-2 Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.

N-3 A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

N-4 A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

N-5 For a project located within an airport land use plan or where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels.

N-6 For a project within the vicinity of a private airstrip, expose people residing or working the project area to excessive noise levels.

Chapter 8, *Impacts Found Not to Be Significant*, substantiates that impacts associated with the following thresholds would be less than significant:

- Threshold N-5
- Threshold N-6

Significance Criteria

City of Yucaipa Traffic Noise Standards

A project will normally have a significant effect on the environment related to noise if it will substantially increase the ambient noise levels for adjoining areas. As shown previously in Table 5.10-1, most people can

detect changes in sound levels of approximately 3 dBA under normal, quiet conditions; changes of 1 to 3 dBA are detectable under quiet, controlled conditions; and changes of less than 1 dBA are usually indiscernible. A change of 5 dBA is readily discernible to most people in an exterior environment. These industry standards are combined with the City's exterior noise standards in the general plan.

The General Plan Public Safety Element Policy S-6.2 identified a threshold of 65 dBA CNEL for residential land uses.[3] A significant impact could occur if the proposed land use plan causes a substantial increase in noise levels at noise-sensitive land uses in areas where the ambient noise level clearly exceeds levels that are compatible for the designated land use. A substantial increase is defined as noise increases greater than 3 dBA over existing conditions. Sensitive land uses include residential, schools, churches, nursing homes, hospitals, and open space/recreation areas. Commercial and industrial areas are not considered noise sensitive and have much higher tolerances for exterior noise levels. Based on this, traffic noise impacts are significant if sensitive land uses experience 3+ dBA noise increases when the "with-project" noise levels exceed 65 dBA CNEL.

City of Yucaipa Stationary Source Standards

As discussed above in Section 5.10.1.1, *Regulatory Background*, the City's noise ordinance (Section 87.0905, Noise, of the municipal code) establishes hourly noise level standards at receiving land uses with a stepped scale of higher allowable levels versus diminishing allowable durations. The basic exterior noise level standards—in terms of the L_{50} noise level metric (i.e., for a maximum level in any 30 minutes of an hour)—are 55 dBA for Residential and Professional Services land uses, 60 dBA for Other Commercial uses, and 70 dBA for Industrial receptors.

FTA Vibration Standards

Per the FTA criteria, the thresholds for human annoyance in residential uses are 78 VdB during the daytime and 72 VdB during the nighttime. Vibration annoyance thresholds for workshops and office uses are 90 VdB and 84 VdB, respectively.

The threshold for architectural damage for buildings with reinforced concrete, steel, or timber (commercial and industrial uses) is 0.5 PPV (in/sec), and for buildings with non-engineered timber and masonry (i.e., residential uses), the criteria is 0.2 PPV (in/sec).

5.10.3 Environmental Impacts

The following impact analysis addresses thresholds of significance that may be potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

[3] Note that Table 5.10-3 of this DEIR (reproduced from the public safety element) lists 60 dBA CNEL as the basic exterior noise level standard, but allows an exterior noise level of up to 65 dB L_{dn} (or CNEL) provided exterior noise levels are substantially mitigated through a reasonable application of the best available noise reduction technology and interior noise exposure does not exceed 45 dB L_{dn} (or CNEL) with windows and doors closed. For purposes of this environmental impact assessment, 65 dBA CNEL is the practical limit for noise acceptability (including the noted provisions).

Impact 5.10-1: Construction activities would result in temporary noise increases in the vicinity of the proposed project. [Threshold N-3]

Impact Analysis: Implementation of the proposed project would allow for the project site to be developed into 115.6 acres of single-family residential, institutional, office, medical, open space, recreational, and internal roadway uses. These uses would be within three main districts—Residential, Open Space, and Innovation. According to the municipal code, Section 87.0905(e), noise sources associated with construction or building repair are exempt from the noise level performance standards between the hours of 7:00 am to 7:00 pm on weekdays and Saturdays, except when these days fall on a holiday.

Two types of temporary noise impacts could occur during construction of these land uses. First, the transport of workers and movement of materials to and from the site could incrementally increase noise levels along local access roads. The second type of temporary noise impact is related to demolition, site preparation, grading, and building construction. Construction is performed in distinct steps, each of which has its own mix of equipment, and, consequently, its own noise characteristics. Table 5.10-10, *Construction Equipment Noise Emission Levels*, lists typical construction equipment noise levels recommended for noise-impact assessments, based on a distance of 50 feet between the equipment and noise receptor.

Table 5.10-8 Construction Equipment Noise Emission Levels

Construction Equipment	Typical Max Noise Level (dBA L_{max}) at 50 feet from the source	Construction Equipment	Typical Max Noise Level (dBA L_{max}) at 50 feet from the source
Air Compressor	81	Pile-Driver (Impact)	101
Backhoe	80	Pile-Driver (Sonic)	96
Ballast Equalizer	82	Pneumatic Tool	85
Ballast Tamper	83	Pump	76
Compactor	82	Rail Saw	90
Concrete Mixer	85	Rock Drill	98
Concrete Pump	71	Roller	74
Concrete Vibrator	76	Saw	76
Crane, Derrick	88	Scarifier	83
Crane, Mobile	83	Scraper	89
Dozer	85	Shovel	82
Generator	81	Spike Driver	77
Grader	85	Tie Cutter	84
Impact Wrench	85	Tie Handler	80
Jack Hammer	88	Tie Inserter	85
Loader	85	Truck	88
Paver	89		

Source: FTA 2006.

As shown, construction equipment generates high levels of noise, with maxima ranging from 71 dBA to 101 dBA (at the commonly used reference distance of 50 feet). Construction of individual developments associated with implementation of the proposed project would temporarily increase the ambient noise

environment and would have the potential to affect noise-sensitive land uses in the vicinity of any individual project. These construction noise effects—although generally localized, intermittent, and of various durations—may result in significant noise impacts from the operation of heavy earthmoving equipment and truck hauls. Construction noise levels are dependent upon construction details, which have not yet been fully developed at this programmatic stage.[4] Nonetheless, generalized results for area-wide construction noise predictions can be calculated.

Most of the project site is currently undeveloped, but several noise-sensitive receptors—residences, churches, parks, and schools—are near the project site and along its boundaries. The average noise levels that would be experienced by the nearest sensitive receptors over the course of construction are shown in Table 5.10-9, *Specific Plan Average Construction Noise Levels.*

Table 5.10-9 Specific Plan Average Construction Noise Levels

Land Use	Average Construction Noise Levels (dBA L_{eq}) at Sensitive Land Uses			
	Residential Area West of 2nd Street	Residential Area, South of Oak Glen Creek	Wildwood Calvary Chapel/Academy	Residential Area East of Bryant Ave
Open Space, Basin Improvements[1]	**1,000 ft**	**350 ft**	**1,200 ft**	**1,500 ft**
Grading	65	74	63	61
Residential and Innovation Districts	**450 ft[2]**	**1,000 ft**	**1,100 ft**	**2,400 ft**
Demolition + Site Prep + Grading + Paving	73	66	65	58
Building Const + Architectural Coating	63	56	56	49

Notes: Calculations performed with the FHWA's RCNM software are included in Appendix H.
1 Numbers in this row are the distances to receptors for basin improvement activities.
2 Numbers in this row are the distances to receptors for Residential District and Innovation District activities.

As shown above, the highest noise levels experienced during project construction would be 74 dBA L_{eq} at the residences south of Oak Glen Creek during construction of the basin improvements, and 73 dBA L_{eq} at the residences west of 2nd Street during demolition, site preparation, grading, and paving of the Residential and Innovation districts. These levels are approximately 14 to 20 dBA above the ambient noise levels measured at locations ST-5 and LT-2. Therefore, construction of individual developments associated with implementation of the proposed project would temporarily increase the ambient noise environment in the vicinity of the project site. Basin activities are anticipated to last approximately 9 months, and construction of the residential and non-residential land uses would last from 12 to 18 months. However, the actual construction timeline may vary based on market demand. Given the proximity of noise-sensitive receptors to construction activities associated with the Open Space (basin improvements), Residential, and Innovation districts and the prolonged periods of time[5] that sensitive receptors would be exposed to elevated noise levels, construction noise impacts associated with implementation of the Oak Glen Creek Specific Plan are potentially significant.

[4] Although the Specific Plan graphically displays or delineates some of the criteria that must be met, it does not contain the level of detail normally associated with a site plan or subdivision application. Subsequent development approvals would be necessary from the City Planning Commission and/or City Council prior to requesting building permits for construction in the Residential and Innovation districts.

[5] See additional discussions in Section 3.3.2.10 of this DEIR concerning timing for construction of the Residential and Innovation districts.

Impact 5.10-2: Buildout of the individual land uses and projects for implementation of the Oak Glen Creek Specific Plan would expose sensitive uses to strong levels of groundborne vibration. [Threshold N-2]

Impact Analysis: The potential vibration impacts resulting from construction and operation of the Oak Glen Creek Specific Plan are addressed below.

Operational Phase Transportation-Related Vibration Impacts

The Residential District and Innovation District would not include any known transportation-related sources of substantial long-term vibration. Caltrans has studied the effects of propagation of vehicle vibration on sensitive land uses and notes that "heavy trucks, and quite frequently buses, generate the highest earthborne vibrations of normal traffic" (Caltrans 2002). Caltrans further notes that the highest traffic-generated vibrations are along freeways and state routes. Their study finds that "vibrations measured on freeway shoulders (five meters from the centerline of the nearest lane) have never exceeded 0.08 inches per second, with the worst combinations of heavy trucks. This level coincides with the maximum recommended safe level for ruins and ancient monuments (and historic buildings)" (Caltrans 2002). Typically, trucks do not generate high levels of vibration because they travel on rubber wheels and do not have vertical movement, which generates ground vibration. Because vibration dissipates rapidly with distance, transportation routes in the Specific Plan are not expected to generate excessive vibration at either offsite receptors or in the Specific Plan area (at subsequent developments).

Construction Vibration Impacts

Construction operations can generate varying degrees of ground vibration, depending on the construction procedures and equipment. Operation of construction equipment generates vibrations that spread through the ground and diminish with distance from the source. The effect on buildings in the vicinity of the construction site varies depending on soil type, ground strata, and receptor-building construction. The results from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibrations at moderate levels, to slight structural damage at the highest levels. Vibration from construction activities rarely reaches the levels that can damage structures, but can achieve the audible and perceptible ranges in buildings close to the construction site. Table 5.10-10, *Vibration Levels for Construction Equipment*, lists vibration levels for construction equipment.

Table 5.10-10 Vibration Levels for Construction Equipment

Equipment	Approximate Velocity Level at 25 Feet (VdB)	Approximate RMS[1] Velocity at 25 Feet (in/sec)
Pile Driver (impact) Upper Range	112	1.518
Pile Driver (impact) Lower Range	104	0.644
Pile Driver (sonic) Upper Range	105	0.734
Pile Driver (sonic) Lower Range	93	0.170
Large Bulldozer	87	0.089
Caisson Drilling	87	0.089
Jackhammer	79	0.035
Small Bulldozer	58	0.003
Loaded Trucks	86	0.076
FTA Criteria, Human Annoyance (Daytime/Nighttime)	78/72	—
FTA Criteria, Structural Damage	—	0.200

Source: FTA 2006.
[1] RMS velocity calculated from vibration level (VdB) using the reference of 1 microinch/second.

As shown in Table 5.10-10, vibration generated by construction equipment has the potential to be substantial, since it has the potential to exceed the FTA criteria for human annoyance of 78 VdB and structural damage of 0.200 in/sec. However, groundborne vibration is almost never annoying to people who are outdoors, so it is usually evaluated in terms of indoor receivers (FTA 2006). Construction vibration levels are dependent upon construction details, which have not yet been developed at this programmatic stage. However, generalized results for area-wide construction vibration effects can be calculated.

Vibration Annoyance

Construction vibration is measured based on the average distance from indoor vibration-sensitive uses to construction activities because it is the vibration levels that would be experienced by the sensitive uses the majority of the time. Construction annoyance levels at the nearest sensitive receptors during the construction of the basin improvements are shown in Table 5.10-11, *Average Construction Vibration Levels, Basin Improvements.*

Table 5.10-11 Average Construction Vibration Levels, Basin Improvements

Equipment	Average Vibration Levels (VdB) at Sensitive Land Uses	
	Residential Community West of 2nd Street (1,000 ft)[1]	Residential Community South of Oak Glen Creek (350 ft)[1]
Vibratory Roller	62	71
Large Bulldozer	55	64
Loaded Trucks	54	63
Jackhammer	47	56
Small Bulldozer	26	35

Source: FTA 2006.
[1] Distances for average vibration levels are measured from the center of the construction site.

As shown in Table 5.10-11, average vibration levels during the basin construction would not exceed the annoyance threshold of 78 VdB at any of the nearest sensitive receptors. Receptors that are farther than 1,000 feet from the center of the construction zone would experience lower vibration levels than those at the residences west of 2nd Street. Table 5.10-12, *Average Construction Vibration Levels, Residential and Innovation Districts,* shows construction annoyance levels for the nearest sensitive receptors during construction of the Residential Districts or Innovation Districts.

Table 5.10-12 Average Construction Vibration Levels, Residential and Innovation Districts

Equipment	Average Vibration Levels (VdB) at Sensitive Land Uses	
	Residential Community West of 2nd Street (450 ft)[1]	Residential Community south of Oak Glen Creek (1,000 ft)[1]
Vibratory Roller	69	62
Large Bulldozer	62	55
Loaded Trucks	61	54
Jackhammer	54	47
Small Bulldozer	33	26

Source: FTA 2006.
[1] Distances for average vibration levels are measured from the center of the construction site.

As shown in Table 5.10-12, average vibration levels during the Residential District and Innovation District construction would not exceed the annoyance threshold of 78 VdB at any of the nearest sensitive receptors. Receptors that are farther than 1,000 feet from the center of the construction zone would experience lower vibration levels than those at the residences south of Oak Glen Creek.

Since construction would be required to comply with the construction hours in the municipal code, and average vibration levels would not exceed the annoyance threshold at any sensitive receptors during either the basin improvements or construction of the Residential Districts and Innovation Districts, vibration annoyance impacts would be less than significant.

Structural Damage

For the structural damage vibration assessment, vibration impacts are based on peak vibration levels (rather than average vibration levels); and therefore, impacts are based on the closest distance the equipment would be operating to the nearest structure. During construction of the basin improvements, the residences south of Oak Glen Creek would be as little as 10 feet from the boundary of construction activities. During construction of the Residential and Innovation districts, the residences west of 2nd Street would be approximately 25 feet from the edge of the construction site. At 10 feet, the buildings would experience vibration levels in excess of the 0.200 in/sec structural damage threshold when vibratory rollers or other heavy equipment (large bulldozers, loaded trucks) operate near the construction boundary. At 25 feet, the residences would be susceptible to levels in excess of the threshold when vibratory rollers operate near the construction boundary. At distances of 30 feet or more, no standard construction equipment operating would generate vibration levels in excess of the threshold for structural damage (that is, 0.200 in/sec). Construction-generated vibration levels at surrounding structures could potentially exceed the threshold for structural damage.

Impact 5.10-3: Buildout of the Oak Glen Creek Specific Plan would not cause a substantial noise increase related to traffic on local roadways. [Thresholds N-1 and N-3]

Impact Analysis: Future development in accordance with the Specific Plan would cause increases in traffic along local roadways. Traffic noise levels were estimated using the FHWA Highway Traffic Noise Prediction Model. Traffic volumes for existing (2016), 2018, and 2040 conditions, without and with the project, were obtained from the traffic impact analysis prepared for the project (IBI 2016). The FHWA model predicts noise levels through a series of adjustments to a reference sound level. These adjustments account for distances from the roadway, traffic flows, vehicle speeds, car/truck mix, length of exposed roadway, and road width. The distances to the 70, 65, and 60 CNEL contours for selected roadway segments in the vicinity of the proposed project site are included in Appendix H.

A significant impact could occur if project-related traffic causes a substantial increase in noise levels at noise-sensitive land uses in areas where the ambient noise level clearly exceeds levels that are compatible for the designated land use. A substantial increase is defined as noise increases greater than 3 dBA over baseline conditions when the "with project" noise levels exceed 65 dBA CNEL (at residential land uses).

The traffic-related noise conditions at the pertinent timeframe milestones for the project are discussed below with respect to the above significance threshold.

Traffic Noise, Existing Plus Project Conditions

Table 5.10-13, *Project-Related Increase in Traffic Noise, Existing Plus Project Conditions*, presents the noise level increases on roadways over existing conditions at 50 feet from the centerline of each roadway segment.

Table 5.10-13 Project-Related Increase in Traffic Noise, Existing Plus Project Conditions

Roadway	Segment	dBA CNEL			Potentially Significant?
		Existing	Existing Plus Project	Increase	
Oak Glen Road	2nd St to Bryant St	64.9	65.0	0.1	no
Oak Glen Road	Ave E to Yucaipa Blvd	65.3	66.4	1.1	no
Oak Glen Road	Bryant St to Fremont St	61.8	62.4	0.6	no
Oak Glen Road	Colorado Rd to Ave E	68.3	69.1	0.8	no
Oak Glen Road	Chapman Heights Rd to 5th St	67.2	68.6	1.4	no
Yucaipa Boulevard	1st St to California St	58.7	59.1	0.4	no
Yucaipa Boulevard	2nd Street to 3rd St	64.0	64.4	0.4	no
Yucaipa Boulevard	4th St to 3rd St	64.7	65.0	0.3	no
Yucaipa Boulevard	Oak Glen Road to 10th St	70.6	71.0	0.4	no
Yucaipa Boulevard	11th St to 10th St	70.3	70.7	0.4	no
Bryant Street	Oak Glen Road to Eucalyptus Ave	65.4	66.5	1.1	no
Bryant Street	Fir Avenue to Oak Glen Rd	66.9	67.1	0.2	no
Bryant Street	Yucaipa Blvd to Date St	59.6	61.1	1.5	no
Bryant Street	Fir St to Carter St	64.1	64.4	0.3	no
Bryant Street	Wildwood Canyon Rd to Ave E	63.4	63.8	0.4	no

Table 5.10-13 Project-Related Increase in Traffic Noise, Existing Plus Project Conditions

Roadway	Segment	dBA CNEL			Potentially Significant?
		Existing	Existing Plus Project	Increase	
Wildwood Canyon Road	5th St to 4th St	61.6	61.8	0.2	no
Wildwood Canyon Road	Bryant St to Douglas St	61.2	61.5	0.3	no
5th Street	Wildwood Canyon Rd to Ave E	61.8	62.8	1.0	no
Date St	2nd St to California St	53.8	54.9	1.1	no
Date St	3rd St to Preston Ln	50.4	51.5	1.1	no
2nd Street	Date Street to Shasta St	47.5	49.5	2.0	no
Avenue E	4th St to 3rd St	55.6	56.0	0.4	no
Avenue E	1st St to California St	58.2	58.6	0.4	no

Notes: Traffic Noise Model calculations included in Appendix H.
A potentially significant impact would occur if the project would cause an increase greater than 3 dBA and the resulting level with the project would be greater than 65 dBA CNEL.

Table 5.10-13 shows that traffic noise increases along roadways would be up to 2.0 dB CNEL due to implementation of the Specific Plan. No segments would result in an increase greater than 3 dB, irrespective of the receiving land use. Thus, traffic noise increases for existing plus project conditions would be less than significant.

Traffic Noise, Buildout Year 2018 Conditions

Table 5.10-14, *Project-Related Increase in Traffic Noise, Buildout Year 2018 Conditions*, presents the noise level increases on roadways during 2018 conditions at 50 feet from the centerline of each roadway segment.

Table 5.10-14 Project-Related Increase in Traffic Noise, Buildout Year 2018 Conditions

Roadway	Segment	dBA CNEL			Significant?
		2018 No Project	2018 Plus Project	Increase	
Oak Glen Road	2nd St to Bryant St	64.9	65.1	0.2	no
Oak Glen Road	Ave E to Yucaipa Blvd	65.3	66.4	1.1	no
Oak Glen Road	Bryant St to Fremont St	61.9	62.4	0.5	no
Oak Glen Road	Colorado Rd to Ave E	68.4	69.2	0.8	no
Oak Glen Road	Chapman Heights Rd to 5th St	67.2	68.6	1.4	no
Yucaipa Boulevard	1st St to California St	58.7	59.1	0.4	no
Yucaipa Boulevard	2nd Street to 3rd St	64.1	64.5	0.4	no
Yucaipa Boulevard	4th St to 3rd St	64.7	65.1	0.4	no
Yucaipa Boulevard	Oak Glen Road to 10th St	70.7	71.0	0.3	no
Yucaipa Boulevard	11th St to 10th St	70.4	70.8	0.4	no
Bryant Street	Oak Glen Road to Eucalyptus Ave	65.8	66.8	1.0	no
Bryant Street	Fir Avenue to Oak Glen Rd	67.0	67.2	0.2	no
Bryant Street	Yucaipa Blvd to Date St	59.9	61.3	1.4	no
Bryant Street	Fir St to Carter St	64.4	64.6	0.2	no

Table 5.10-14 Project-Related Increase in Traffic Noise, Buildout Year 2018 Conditions

Roadway	Segment	dBA CNEL			Significant?
		2018 No Project	2018 Plus Project	Increase	
Bryant Street	Wildwood Canyon Rd to Ave E	63.8	64.2	0.4	no
Wildwood Canyon Road	5th St to 4th St	61.8	62.0	0.2	no
Wildwood Canyon Road	Bryant St to Douglas St	61.2	61.5	0.3	no
5th Street	Wildwood Canyon Rd to Ave E	61.8	62.8	1.0	no
Date St	2nd St to California St	53.8	55.0	1.2	no
Date St	3rd St to Preston Ln	50.4	51.6	1.2	no
2nd Street	Date Street to Shasta St	47.6	49.6	2.0	no
Avenue E	4th St to 3rd St	55.8	56.2	0.4	no
Avenue E	1st St to California St	58.3	58.7	0.4	no

Notes: Traffic Noise Model calculations included in Appendix H.
A potentially significant impact would occur if the project would cause an increase greater than 3 dBA and the resulting level with the project would be greater than 65 dBA CNEL.

Table 5.10-14 shows that traffic noise increases along roadways would be up to 2.0 dB CNEL due to implementation of the Specific Plan. No segments would result in an increase greater than 3 dB, irrespective of the receiving land use. Thus, traffic noise increases for Buildout Year 2018 conditions would be less than significant.

Traffic Noise, General Plan Buildout 2040 Conditions

Table 5.10-15, *Project-Related Increase in Traffic Noise, General Plan Buildout 2040 Conditions*, presents the noise level increases on roadways during 2040 conditions at 50 feet from the centerline of each roadway segment.

Table 5.10-15 Project-Related Increase in Traffic Noise, General Plan Buildout 2040 Conditions

Roadway	Segment	dBA CNEL			Significant?
		2040 No Project	2040 Plus Project	Increase	
Oak Glen Road	2nd St to Bryant St	65.9	66.0	0.1	no
Oak Glen Road	Ave E to Yucaipa Blvd	66.0	67.0	1.0	no
Oak Glen Road	Bryant St to Fremont St	62.2	62.7	0.5	no
Oak Glen Road	Colorado Rd to Ave E	69.2	69.8	0.6	no
Oak Glen Road	Chapman Heights Rd to 5th St	67.2	68.6	1.4	no
Yucaipa Boulevard	1st St to California St	59.0	59.4	0.4	no
Yucaipa Boulevard	2nd Street to 3rd St	65.0	65.4	0.4	no
Yucaipa Boulevard	4th St to 3rd St	65.7	66.0	0.3	no
Yucaipa Boulevard	Oak Glen Road to 10th St	71.4	71.7	0.3	no
Yucaipa Boulevard	11th St to 10th St	71.2	71.5	0.3	no
Bryant Street	Oak Glen Road to Eucalyptus Ave	69.1	69.6	0.5	no
Bryant Street	Fir Avenue to Oak Glen Rd	68.3	68.5	0.2	no
Bryant Street	Yucaipa Blvd to Date St	62.8	63.5	0.7	no
Bryant Street	Fir St to Carter St	67.0	67.2	0.2	no

Table 5.10-15 Project-Related Increase in Traffic Noise, General Plan Buildout 2040 Conditions

Roadway	Segment	dBA CNEL			Significant?
		2040 No Project	2040 Plus Project	Increase	
Bryant Street	Wildwood Canyon Rd to Ave E	68.8	68.9	0.1	no
Wildwood Canyon Road	5th St to 4th St	63.9	64.1	0.2	no
Wildwood Canyon Road	Bryant St to Douglas St	61.7	62.0	0.3	no
5th Street	Wildwood Canyon Rd to Ave E	61.9	62.9	1.0	no
Date St	2nd St to California St	54.8	55.7	0.9	no
Date St	3rd St to Preston Ln	50.7	51.8	1.1	no
2nd Street	Date Street to Shasta St	49.2	50.7	1.5	no
Avenue E	4th St to 3rd St	58.6	58.8	0.2	no
Avenue E	1st St to California St	59.2	59.6	0.4	no

Notes: Traffic Noise Model calculations included in Appendix H.
A potentially significant impact would occur if the project would cause an increase greater than 3 dBA and the resulting level with the project would be greater than 65 dBA CNEL.

Table 5.10-15 shows that traffic noise increases along roadways would be up to 1.5 dB CNEL due to implementation of the Specific Plan. No segments would result in an increase greater than 3 dB, irrespective of the receiving land use. Thus, traffic noise increases for Buildout Year 2040 conditions would be less than significant.

Summary

Since there would be no segments for existing, 2018, or 2040 conditions that would result in substantial (3+ dB) noise increases due to traffic generated by the proposed project, traffic noise impacts would be less than significant.

Impact 5.10-4: Noise-sensitive uses could be exposed to elevated noise levels from stationary sources; however, compliance with the City's municipal code would ensure that noise levels would not substantially increase the noise environment. [Thresholds N-1 and N-3]

Impact Analysis: Noise is regulated by numerous codes and ordinances across federal, state, and local agencies. In addition, the City regulates stationary-source noise through the municipal code. Buildout of the Specific Plan would result in an increase in single-family residential, Innovation District uses (e.g. government facilities, institutional, office, and medical uses), and spaces for passive recreational uses. The primary noise sources from Residential District uses would be landscaping, maintenance activities, and air conditioning systems. The primary noise sources from Innovation District uses would be landscaping (such as lawn mowers and leaf blowers) and maintenance activities, parking lots, mechanical equipment (such as trash compactors), and HVAC systems. These noise sources for both districts would be expected to produce noise emissions of less than 85 dBA at 10 feet, which would result in only localized noise effects in close proximity to each source.

Noise generated by the residential and non-residential uses would generally be short and intermittent and would not add any types of noise sources that are not already present in the general area (at existing nearby

residential and/or commercial uses). Therefore, these types of sources would not noticeably increase the ambient noise levels in the vicinity of the project site. Additionally, the City requires that noise from new stationary sources comply with the City's noise ordinance, which limits the acceptable noise at the property line of the impacted property to reduce nuisances to sensitive land uses. In addition, Sections 87.0905 and 85.020505 of the municipal code establish noise compatibility standards for various land use zonings. Under the assumption that new developments at the project site would comply with the standards in the municipal code, stationary-source noise from these types of proposed land uses would not substantially increase the noise environment. Therefore, impacts due to stationary sources would be less than significant.

5.10.4 Existing Regulations and Standard Conditions

State

- California Code of Regulations, Title 24, Part 11, California Green Building Standards Code.

City of Yucaipa

- City of Yucaipa Municipal Code, Section 87.0905, Noise
- City of Yucaipa Municipal Code, Article 4, Noise Hazard Overlay District
- City of Yucaipa Municipal Code, Section 87.0910, Vibration
- City of Yucaipa General Plan Public Safety Element, Noise and Vibration, Goal S-6 and policies S-6.4, S-6.7, and S-6.8

5.10.5 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant: 5.10-3, 5.10-4, and 5.10-5.

Without mitigation, the following impacts would be **potentially significant**:

- **Impact 5.10-1** Noise from construction activities from implementation of projects in the Specific Plan area could potentially result in substantial impacts to sensitive receptors.
- **Impact 5.10-2** Groundborne vibration from construction activities from implementation of projects in the Specific Plan area could potentially result in substantial impacts to sensitive receptors.

5.10.6 Mitigation Measures

Impact 5.10-1

10-1 From the outset and throughout the entire demolition, grading, and construction phase of project development, the property owner/developer shall be responsible for requiring contractors to implement the following measures to limit construction-related noise:

- Construction activity shall be limited to the daytime hours between 7 am and 7 pm, as prescribed in the municipal code.
- A sign shall be posted at the entrance to the job site, clearly visible to the public, with the name and telephone number of the contractor's authorized representative to respond in the event of a vibration or noise complaint. If the authorized representative receives a complaint, he/she shall investigate, take appropriate corrective action, and report the action to the City of Yucaipa Community Development Department.
- All internal combustion engines on construction equipment and trucks shall be fitted with properly maintained mufflers that are no less effective than the original equipment installed by the equipment manufacturer.
- Stationary equipment such as generators and air compressors shall be located as far as feasible from nearby noise-sensitive uses.
- Stockpiling shall be located as far as feasible from nearby noise-sensitive receptors.
- Construction traffic shall be limited to the haul routes established by the City of Yucaipa so as to minimize pass-bys of residential or other noise-sensitive areas around the project site.

The conditions above shall be included on the permit applicant drawings with verification by the City of Yucaipa Community Development Department Plan Check staff. Additionally, all the above conditions shall be verified in the field by the Community Development Department field inspection staff at the project site.

Impact 5.10-2

10-2 For demolition, construction, grading, foundation, and erection activities that would use vibration-producing equipment within 100 feet of existing, offsite buildings, the following mitigation measure shall be implemented by the construction contractor in close coordination with City staff so that alternative construction techniques are undertaken.

- Implement Mitigation Measure 10-1.
- The use of vibratory rollers shall be minimized, to the extent feasible, within 50 feet of residential properties.

- The use of large bulldozers,[6] excavators, graders, front-end loaders, and loaded trucks shall be minimized, to the extent feasible, within 30 feet[7] of residential properties.
- Where feasible, all stationary vibration-generating equipment shall be located as far away as possible from neighboring property lines.
- Grade-surface irregularities shall be minimized on construction sites.
- Prior to the start of construction activities, City staff shall meet with the construction contractor to discuss feasible alternative methods to reduce vibration impacts for all construction activities that would occur within 100 feet[8] of existing, offsite buildings. During the preconstruction meeting, the construction contractor shall identify feasible construction methods not involving vibration-intensive equipment or activities.
- Prior to the start of construction activities, the constructor contractor shall document all feasible reduced-vibration alternative methods identified in the preconstruction meeting on the construction drawings submitted during plan check for building permits. The constructor contractor shall implement these reduced-vibration methods during excavation, grading, and construction for work conducted within 100 feet[9] of offsite buildings.

All the above conditions shall be included on the permit applicant drawings with verification by the Community Development Department Check staff. Additionally, all the above conditions shall be verified in the field by the Community Development Department field inspection staff at the project site.

5.10.7 Level of Significance After Mitigation

Impact 5.10-1

Mitigation Measure 10-1 would reduce potential noise impacts during construction to less than significant levels.

Impact 5.10-2

Mitigation Measures 10-1 and 10-2 would reduce potential vibration impacts during construction to less than significant levels.

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6 "Large" bulldozers are considered to be above an operating weight of 85,000 pounds (e.g., Caterpillar D8-class or larger); "medium" bulldozers are considered to be in the operating weight range of 25,000 to 60,000 pounds (e.g., Caterpillar D6- or D7-class); and "small" bulldozers are considered to be in the operating weight range of 15,000 to 20,000 pounds (e.g., Caterpillar D3-, D4-, or D5-class).

7 Measured from the nearest equipment placement to the nearest residential structure.

8 Measured from the center of the project site.

9 Measured from the center of the project site.

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5.11 POPULATION AND HOUSING

This section of the Draft Environmental Impact Report (DEIR) examines the potential for socioeconomic impacts of the proposed Oak Glen Creek Specific Plan on the City of Yucaipa, including changes in population, employment, and housing. Cumulative impacts related to population and housing would be contiguous with the City boundaries.

5.11.1 Environmental Setting

5.11.1.1 REGULATORY BACKGROUND

California Housing Element Law

California planning and zoning law requires each city and county to adopt a general plan for future growth (Government Code § 65300). This plan must include a housing element that identifies housing needs for all economic segments and provides opportunities for housing development to meet that need. At the state level, the Housing and Community Development Department (HCD) estimates the relative share of California's projected population growth that would occur in each county based on California Department of Finance population projections and historical growth trends. These figures are compiled by HCD into a Regional Housing Needs Assessment (RHNA) for each region of California. Where there is a regional council of governments, the HCD provides the RHNA to the council. The council assigns a share of the regional housing need to each of its cities and counties. The process of assigning shares gives cities and counties the opportunity to comment on the proposed allocations. The HCD oversees the process to ensure that the council of governments distributes its share of the state's projected housing need.

State law recognizes the vital role local governments play in the supply and affordability of housing. To that end, California Government Code requires that the housing element achieve legislative goals to:

- Identify adequate sites to facilitate and encourage the development, maintenance, and improvement of housing for households of all economic levels, including persons with disabilities.
- Remove, as legally feasible and appropriate, governmental constraints to the production, maintenance, and improvement of housing for persons of all incomes, including those with disabilities.
- Assist in the development of adequate housing to meet the needs of low and moderate income households.
- Conserve and improve the condition of housing and neighborhoods, including existing affordable housing. Promote housing opportunities for all persons regardless of race, religion, sex, marital status, ancestry, national origin, color, familial status, or disability.
- Preserve for lower income households the publicly assisted multifamily housing developments in each community.

The California housing element laws (Government Code §§ 65580–65589) require each city and county to identify and analyze existing and projected housing needs within its jurisdiction and prepare goals, policies, and programs to further the development, improvement, and preservation of housing for all economic segments of the community, commensurate with local housing needs.

Southern California Association of Governments

The Southern California Association of Governments (SCAG) represents Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura counties. It is a regional planning agency and serves as a forum for addressing regional issues concerning transportation, the economy, community development, and the environment.

Regional Transportation Plan/Sustainable Communities Strategy

The 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) was adopted in April 2016 (SCAG 2016). Major themes in the 2016 RTP/SCS include integrating strategies for land use and transportation; striving for sustainability; protecting and preserving existing transportation infrastructure; increasing capacity through improved systems managements; providing more transportation choices; leveraging technology; responding to demographic and housing market changes; supporting commerce, economic growth, and opportunity; promoting the links between public health, environmental protection, and economic opportunity; and incorporating the principles of social equity and environmental justice into the plan.

5.11.1.2 EXISTING CONDITIONS

Methodology

The project area's demographics are examined in the context of existing and projected populations and housing units for the San Bernardino County region and the City of Yucaipa. Information on population, housing, and employment for the project area is available from several sources:

- **California Department of Finance.** The Department of Finance prepares and administers California's annual budget. Other duties include estimating population demographics and enrollment projections.
- **Southern California Association of Governments.** The 2016 RTP/SCS expresses policies; programs; and employment, housing, and population projections adopted by SCAG to achieve regional objectives.
- **United States Census Bureau.** The official US census is described in Article I, Section 2 of the US Constitution. It calls for an actual enumeration of the people every 10 years to be used for apportionment among the states of seats in the House of Representatives. The US Census Bureau publishes population and household data gathered in the decennial census.

- **American Community Survey.** The American Community Survey by the US Census Bureau provides statistics about population, housing, household, economic, and transportation trends between decennial censuses.

Population

Table 5.11-1 shows the populations of the City of Yucaipa and San Bernardino County (for comparison purposes) from the 2000 and 2010 censuses and 2016 Department of Finance estimates. Population growth between 2000 and 2016 in Yucaipa and San Bernardino County were similar, but Yucaipa had a higher growth rate, 30.5 percent compared to 25.2 percent.

Table 5.11-1 City of Yucaipa and San Bernardino County Population, 2000–2016

	2000	2010	2016	Change, 2000–2016	Percent Change, 2000–2016
City of Yucaipa	41,207	51,367	53,779	22,572	30.5%
San Bernardino County	1,709,434	2,035,210	2,139,570	429,936	25.2%

Sources: US Census 2000, 2010; DOF 2016.

Population Forecast

Taking into account a combination of recent and past trends, technical assumptions, and local or regional growth policies, SCAG generates regional growth forecasts for counties and cities. SCAG's growth forecasts for 2020, 2035, and 2040 for Yucaipa and San Bernardino County are compared to 2010 census populations in Table 5.11-2. SCAG's forecast shows the City growing at a slower pace than the rest of San Bernardino County. Note also that the population of the City is forecast to grow faster from 2012 to 2040 (38.6 percent) than it did between 2000 and 2016 (30.5 percent).

Table 5.11-2 Population Forecast, City of Yucaipa and San Bernardino County

	2012	2020	2035	2040	Change, 2012–2040	Percent Change, 2012–2040
City of Yucaipa	52,300	58,100	68,900	72,500	20,200	38.6%
San Bernardino County	2,068,000	2,197,400	2,637,400	2,731,300	663,300	32.1%

Source: SCAG 2016.

Housing

Estimated available housing in Yucaipa and San Bernardino County, including unit type, is listed in Table 5.11-3.

Table 5.11-3 Housing Units, City of Yucaipa and San Bernardino County

Housing Unit Type	City of Yucaipa	San Bernardino County
Single-Family Detached	13,689	506,601
Single-Family Attached	550	24,887
Multifamily	1,322	136,523
Mobile Homes	4,426	43,770
Total	**19,987**	**711,781**
Average Household Size	2.85	3.33
Vacancy Rate	6.4%	11.3%

Source: DOF 2016.

Regional Housing Needs Assessment

The RHNA is mandated by state housing law as part of the periodic process of updating housing elements of local general plans. RHNA targets are set by HCD to encourage jurisdictions to provide their fair shares of very low, low, moderate, and upper income housing. The RHNA does not promote growth, but provides a long-term outline for housing within the context of local and regional trends and housing production goals.

Starting with the HCD's regional RHNA allocation, SCAG determines total housing need for each community in southern California based on three general factors: 1) the number of housing units needed to accommodate future population and employment growth; 2) the number of additional units needed to allow for housing vacancies; and 3) the number of extremely low, very low, low, moderate, and above moderate income households needed in the community. Additional factors used to determine the RHNA allocations include tenure, the average rate of units needed to replace housing units demolished, and other factors.

The City of Yucaipa's RHNA allocation for the 2014–2021 period is shown in Table 5.11-4. The City is required to ensure that sufficient sites are planned and zoned for housing to accommodate its need and to implement proactive programs that facilitate and encourage the production of housing commensurate with its housing needs.

Table 5.11-4 City of Yucaipa RHNA Goals, 2014–2021

Income Category	Definition	RHNA	
		Target (Units)	Percentage
Extremely Low Income	30% of less of MFI	188	12%
Very Low Income	31-50% of MFI	188	12%
Low Income	51-80% of MFI	261	16%
Moderate Income	81-120% of MFI	299	19%
Above Moderate Income	Above 120% of MFI	669	42%
	Total	**1,605**	**100%**

Source: Yucaipa 2013.

Housing Forecast

SCAG forecasts the number of households in the City of Yucaipa to increase by 5,400 units between 2012 and 2040, as shown in Table 5.11-5. Household forecasts for San Bernardino County are provided as a comparison, and the county is forecast to grow approximately 14 percent slower than Yucaipa.

Table 5.11-5 Households Forecast, City of Yucaipa and San Bernardino County

	2012	2020	2035	2040	Change, 2012–2040	Percent Change, 2012–2040
City of Yucaipa	18,400	21,300	26,600	28,200	9,800	53.3%
San Bernardino County	615,300	687,100	824,600	854,300	239,000	38.8%

Source: SCAG 2016.

The project site has one single-family residence at 11568 2nd Street.

Employment

Based on the U.S. Census 2010-2014 American Community Survey 5-Year Estimate, there are approximately 21,394 workers in the City of Yucaipa and 812,707 workers in San Bernardino County (US Census 2014). SCAG employment projections for Yucaipa and San Bernardino County for 2020, 2035, and 2040 are shown in Table 5.11-6.

Table 5.11-6 Employment Projections, City of Yucaipa and San Bernardino County

	2012	2020	2035	2040	Change, 2012–2040	Percent Change, 2012–2040
City of Yucaipa	8,200	12,600	14,400	15,000	6,800	83.0%
San Bernardino County	659,500	789,500	998,000	1,028,100	368,600	55.9%

Source: SCAG 2016.

Currently, there are no jobs or employees onsite.

Jobs-Housing Balance

The jobs-housing ratio is a general measure of the total number of jobs and housing units in a defined geographic area, without regard to economic constraints or individual preferences. The balance of jobs and housing in an area—in terms of the total number of jobs and housing units as well as the type of jobs versus the price of housing—has implications for mobility, air quality, and the distribution of tax revenues. The jobs-housing ratio is one indicator of a project's effect on growth and quality of life in the project area.

SCAG applies the jobs-housing ratio at the regional and subregional levels to analyze the fit between jobs, housing, and infrastructure. A major focus of SCAG's regional planning efforts has been to improve this balance, although jobs-housing goals and ratios are advisory only. No ideal jobs-housing ratio is adopted in state, regional, or city policies. The American Planning Association is an authoritative resource for community

planning best practices, including recommendations for assessing jobs-housing ratios. Although it recognizes that an ideal jobs-housing ratio will vary from jurisdiction to jurisdiction, its recommended target ratio is 1.5, with a recommended range of 1.3 to 1.7 (Yucaipa 2013; Weltz 2003).

Yucaipa is a housing-rich and jobs-poor community. As shown in Table 5.11-7, the jobs-housing balance in Yucaipa is forecast to slightly increase between 2012 and 2040, from 0.45 to 0.53, although the City would remain housing-rich. The jobs-housing balance in San Bernardino County is estimated to increase from 1.07 to 1.20 during the same period and would reach a healthier balance. SCAG predicts that between 2012 and 2040, the City will have a consistently imbalanced jobs-housing ratio, and the region will experience a stronger jobs-housing balance over time. This may be the case given Yucaipa's character as a bedroom community. The vast majority of working residents commute to jobs outside of the City (Yucaipa 2016).

Table 5.11-7 Jobs-Housing Balance

	Year	Employment	Households	Jobs-Housing Ratio
City of Yucaipa	2012	8,200	18,400	0.45
	2040	15,000	28,200	0.53
San Bernardino County	2012	659,500	615,300	1.07
	2040	1,028,100	854,300	1.20

Source: SCAG 2016.

5.11.2 Thresholds of Significance

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

P-1 Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).

P-2 Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.

P-3 Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

Chapter 8, *Impacts Found Not to Be Significant*, substantiates that impacts associated with the following thresholds would be less than significant:

- Threshold P-2
- Threshold P-3

These impacts will not be addressed in the following analysis.

5.11.3 Environmental Impacts

The following impact analysis addresses thresholds of significance that may be potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

Impact 5.11-1: The proposed project would directly result in population growth in the Specific Plan area by introducing up to 200 single-family homes and 570 residents; however, the growth is within SCAG's projections and would not substantially affect the jobs-housing ratio. [Threshold P-1]

Impact Analysis: As discussed Chapter 3, *Project Description*, of this DEIR, implementation of the Oak Glen Creek Specific Plan would result in an increase of 570 people and 42 jobs in the City.

Population

According to the 2016 California Department of Finance population and housing estimates, the City of Yucaipa has an average household size of 2.85 (DOF 2016). Therefore, development of up to 200 single-family homes in the Specific Plan area would introduce approximately 570 additional residents. The estimated population growth due to project buildout is well within the forecast population increase for the City of Yucaipa—20,200 residents between 2012 and 2040 (see Table 5.11-2)—and would represent approximately 2.8 percent of the expected growth. Thus, population growth impacts would be less than significant.

Housing

The project would introduce up to 200 single-family homes into the City and provide more housing opportunities. The proposed residential units would represent 2.0 percent of the forecast housing growth of 9,800 units anticipated between 2012 and 2040 for the City (see Table 5.11-5). Thus, the project would also be within SCAG's projected housing growth.

Jobs-Housing Balance

Development of the Oak Glen Creek Specific Plan would introduce residential and nonresidential development, contributing both to the City's housing stock and employment opportunities. The Innovation District would allow development of institutional, medical, office, and professional uses and would generate approximately 42 jobs.[1] The proposed jobs would represent less than 1 percent of the forecast employment growth of 6,800 jobs anticipated between 2012 and 2040 for the City (see Table 5.11-6). Thus, the project would also be within SCAG's projected job growth. Incorporating the 200 units and 42 jobs into SCAG's household and employment projections for 2040 would not affect the City's projected jobs-housing ratio (0.53), and the City would still be considered housing-rich.

Overall impacts to population, housing, and jobs-housing balance would be less than significant.

[1] Buildout of General Commercial and Commercial Service land uses in the Yucaipa General Plan uses average employment generation factors of 500 and 450 square feet per employee, respectively. An average of the two factors—475 square feet per employee—was used to calculate the employment generation of the proposed Innovation District.

5.11.4 Cumulative Impacts

Future development projects associated with buildout of the City's General Plan would include the development of residential and nonresidential uses in Yucaipa. SCAG projections for net increases in population, housing, and employment in the City between 2012 and 2040 are discussed above in Section 5.11.1, *Environmental Setting*. The proposed project in combination with buildout of the City's General Plan would not exceed SCAG's 2040 population, housing, and employment projections for the City. The proposed project's growth represents less than 3 percent of the population, housing, and employment growth as a result of the additional 570 residents, 200 households, and 42 jobs. As a result, the job-housing ratio in the City would not be substantially affected by the proposed project. Overall, cumulative impacts are considered less than significant.

5.11.5 Existing Regulations

State

- California Government Code, Article 10.6, Housing Elements (§§ 65580–65589.8.)

5.11.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, Impact 5.10-1 would be less than significant.

5.11.7 Mitigation Measures

No mitigation measures are required.

5.11.8 Level of Significance After Mitigation

Impacts would be less than significant.

5.11.9 References

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5.12 PUBLIC SERVICES

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential for implementation of the Oak Glen Creek Specific Plan to impact public services including: fire protection and emergency services, police protection, school services, and library services. Park services are addressed in Section 5.13, *Recreation*. Public and private utilities and service systems, including water supply and distribution systems, wastewater (sewage) conveyance and treatment, storm drainage systems, and solid waste collection and disposal services; are addressed in Section 5.16, *Utilities and Service Systems*. Cumulative impacts related to public services would be contiguous with the service area boundaries of the Yucaipa Fire Department, Yucaipa Police Department, Yucaipa-Calimesa Joint Unified School District, and the San Bernardino County Library System. Responses to service provider questionnaires are included as Appendix I to this DEIR.

5.12.1 Fire Protection and Emergency Services

5.12.1.1 ENVIRONMENTAL SETTING

Regulatory Background

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

International Fire Code

The International Fire Code is a model code regulating minimum fire-safety requirements for new and existing buildings, facilities, storage, and processes. The code includes specialized, technical, fire- and life-safety regulations, with topics addressing fire-department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, use and storage of hazardous materials, protection of emergency responders, industrial processes, and many other general and specialized fire-safety requirements for new and existing buildings.

State Regulations

California Fire Code

The California Fire Code (Title 24 California Code of Regulations, Part 9) is based on the 2012 International Fire Code and includes amendments from the State of California fully integrated into the code. The California Fire Code has fire safety-related building standards that are referenced in other parts of Title 24 of the California Code of Regulations.

California Health and Safety Code Sections 13000 et seq.

Sections 13000 et seq. of the California Health and Safety Code include fire regulations for building standards (also in the California Building Code), fire-protection and -notification systems, fire-protection devices such as extinguishers and smoke alarms, high-rise building and childcare facility standards, and fire-suppression training.

Local Regulations

City of Yucaipa Development Code

The following provisions from the City's development code help minimize impacts to fire protection and emergency services associated with new development projects and are relevant to the proposed project.

- **Division 11, Chapter 4 (Fire Facilities Financing).** This chapter outlines the provisions for payment of fire facilities fees for new development within the boundaries of an adopted fire facilities plan. These fees defray the actual or estimated costs of constructing fire facilities that are necessary to accommodate new development. Currently, the development impact fee for fire facilities is $859.14 per new dwelling unit and $0.4999 per square foot for new commercial/industrial development (Yucaipa 2015).

- **Division 5, Section 85.020220 (Area FR1 and FR2 Requirements).** The City of Yucaipa designates fire safety overlay districts in areas that are prone to wild brush fires and establishes fire safety development standards for these areas. The development code outlines the special fire protection measures that are required for all development projects within fire safety overlay districts (FR) 1 and 2. Such measures include building construction standards, building separation standards, project design requirements, fuel modification, and erosion and sediment control. The project site is within a FR2 zone, which is less hazardous than FR1. FR2 includes relatively flat land that is either partially or completely developed, or, if it is not developed, is usually suitable for development. Present and future development within FR2 is exposed to the impacts of wildland fires and other natural hazards primarily due to its proximity to FR1.

Existing Conditions

Fire Stations and Equipment

The City of Yucaipa Fire Department contracts fire protection and paramedic services from the California Department of Forestry and Fire Protection (CAL FIRE). Specifically, CAL FIRE provides wildland fire protection for 5,800 acres in the City and resources such as aircraft, bulldozers, hand crews, and related support personnel and equipment at no additional cost to the City. Under this agreement, additional equipment, engine companies, bulldozers, hand crews, and aircraft can be dispatched from county- or statewide resources in the event of an emergency. The City and CAL FIRE also have a number of mutual aid agreements with other federal, state, and local firefighting organizations, including the US Forest Service, the County of San Bernardino, and other cities and jurisdictions throughout Southern California (Yucaipa 2016).

There are four fire stations in the City of Yucaipa. The locations of the fire stations and their distances from the project site are listed in Table 5.12-1, *Yucaipa Fire Department Fire Stations*.

Table 5.12-1 Yucaipa Fire Department Fire Stations

Station	Location/ Distance from Project Site	Equipment	Daily Staffing
CAL FIRE Station No. 1	11416 Bryant Street (Abuts northeastern boundary of project site)	• 1 Front Line Type I Fire Engine • 2 Front Line Type III Fire Engines	3 person ALS municipally staffed Type I (1-Captain, 1-Engineer, 1-Firefighter) One will be paramedic-qualified. Each Type III Engine will be minimum staffed at 3 person, 1 Captain or Engineer and 2 Firefighters
Crafton Hills Fire Station No. 2	32664 Yucaipa Boulevard (2.8 miles southwest)	• 1 Front Line Type I Fire Engine • 1 Reserve Type I Fire Engine • 1 Type II Fire Engine	3 person ALS municipally staffed Type I (1-Captain, 1-Engineer, 1-Firefighter) One will be paramedic-qualified.
Yucaipa Fire Station No. 3	34259 Wildwood Canyon Road (2 miles southwest)	• 1 Front Line Type I Fire Engine • 1 Reserve Type I Fire Engine • 1 Utility (Pick up)	3 person ALS municipally staffed Type I (1-Captain, 1-Engineer, 1-Firefighter) One will be paramedic-qualified.
Oak Glen Fire Station (Volunteer)	11877 Oak Glen Road (5.7 miles east)	• 1 Type I Fire Engine • 1 Type IV Fire Engine • 1 Type II Water Tender	Varied depending on Reserve (Volunteer) Firefighters

Source: Janssen 2016.

Station No. 1 is adjacent to the project site and would provide first response to the project site. Equipment available at each station is detailed in Table 5.12-1. The Oak Glen Fire Station is a volunteer station staffed with 20 reserve firefighters. They serve as back up in order to enhance career staffing. They are called upon when needed by radio pager in the event of an emergency.

The Yucaipa Fire Department's plan for the future includes the development of a fifth station within either the Wildwood Canyon area or the freeway corridor in order to improve emergency response call times (Janssen 2016). The addition of an aerial apparatus to the Yucaipa Fire Department's equipment and personnel to staff it may also be required if any commercial development is built that exceeds a height of 28 feet (Janssen 2016). Staffing of any new facilities would be to the same standard as the current staffing, and funding would be through the mechanisms already in place and being used. The Yucaipa Fire Department concludes that there are no existing deficiencies in the level of fire protection services currently provided to the project area (Janssen 2016).

Call Statistics

According to the Yucaipa Fire Department 2015 Annual Report, there were a total of 7,536 emergency responses, averaging 20.6 responses per day in the City. In 2014, there were a total of 7,069 responses, averaging 19.4 responses per day. Currently, the Yucaipa Fire Department has a response time goal of 5:00 minutes for emergency calls, and an average response time of 5:09 minutes for emergency calls, including dispatch and turn-out time (Janssen 2016).

Table 5.12-2, *Yucaipa Fire Department 2015 Emergency Responses*, shows the 2015 emergency responses based on call types; the majority of the emergency responses (72 percent) were for medical aid.

Table 5.12-2 Yucaipa Fire Department 2015 Emergency Responses

Call Types	Number of Calls	Percentage of Total
Medical Aids	5,423	72.0%
Traffic Collisions	533	7.1
False Alarms	363	4.8
Assists	111	1.5
Public Service Assistance	469	6.2
Structure Fires	119	1.6
Vegetation Fires	73	1.0
Investigations	101	1.3
Fire Menace Standby	111	1.5
Vehicle Fires	64	0.8
Other Fires	122	1.6
Cover	22	0.3
Hazardous Materials	25	0.3
TOTAL	**7,536**	**100%**

Source: Yucaipa Fire Department Annual Report 2015.

Funding

Funding for the Yucaipa Fire Department comes from the general fund and development impact fees outlined in the City's development code, Division 11, Public Facilities Financing, Chapter 4, Fire Facilities Financing. The chapter outlines the requirement of payment of fire facilities fees for all new developments, residential, commercial, and industrial, for the purpose of constructing, financing, or purchasing fire facilities or equipment and/or to reimburse the City for the cost of engineering, property acquisition, and administrative services required to design, finance, construct, or purchase facilities or equipment. Table 5.12-3, *Fire Facilities Development Impact Fees*, shows the current fire facilities fees for each type of development.

Table 5.12-3 Fire Facilities Development Impact Fees

Land Use Type	Impact Fee
Residential	$859.14 per dwelling unit
Commercial	$0.4999 per square foot
Industrial	$0.4999 per square foot

Source: Janssen 2016.

5.12.1.2 THRESHOLDS OF SIGNIFICANCE

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

FP-1 Result in a substantial adverse physical impact associated with the provisions of new or physically altered governmental facilities, need for new or physically altered governmental

facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection services.

5.12.1.3 ENVIRONMENTAL IMPACTS

The following impact analysis addresses thresholds of significance that may be potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

Impact 5.12-1: The proposed project would introduce up to 200 single family homes, approximately 570 residents, and 42 employees into the Yucaipa Fire Department and CAL FIRE service boundaries, thereby increasing the demand for fire protection facilities and personnel; however, payment of development impact fees and review of future development applications by the Yucaipa Fire Department would reduce potential impacts. [Threshold FP-1]

Impact Analysis: The project site would be served by fire stations in the City, with Station No. 1 providing first response to the project site. As stated above, supplemental fire services support is provided under a contractual agreement between the Yucaipa Fire Department and CAL FIRE as well as mutual aid agreements with other federal, state, and local firefighting organizations—including the US Forest Service, the County of San Bernardino, and other cities and jurisdictions throughout the southern California region. In addition to the existing fire stations and the mutual aid agreements, potential plans include a fifth station to improve emergency response times, if needed (Janssen 2016).

The proposed land uses of the Oak Glen Creek Specific Plan are expected to create the typical range of fire service calls, such as structure fires, garbage bin fires, car fires, and electrical fires. Because the project area is currently vacant, new development in accordance with the proposed project would increase the number of calls for service to the project area, which would increase the demand for existing fire services and facilities. Thus, the Yucaipa Fire Department's costs to maintain equipment and apparatus and to train and equip personnel would also increase. As identified by the Yucaipa Fire Department, the addition of an aerial apparatus and personnel to staff it may be required if any commercial development is built that exceeds a height of 28 feet (Janssen 2016). The maximum building height for the Innovation District is 45 feet; therefore, the proposed project could result in demand for this additional equipment.

Individual development projects in the Specific Plan area would be reviewed by the City of Yucaipa and Yucaipa Fire Department and would be required to comply with the requirements in effect at the time building permits are issued, including the payment of fire facilities fees required by the City's development code (see Table 5.12-3). The additional personnel, building, and materials costs for fire services and facilities in the City due to new developments in accordance to the proposed project would be offset through the payment of the required fire facilities fees. Furthermore, the City's general fund would gradually grow in rough proportion to development from property and sales tax generated by office, institutional, and medical use development anticipated from Specific Plan buildout. Therefore, sufficient revenue would be available for necessary service improvements to provide for adequate fire facilities, equipment, and personnel for the proposed project.

In addition, future development on the project site would be required to adhere to the FR2 special fire protection measures outlined in Section 85.020220 of the City's municipal code, which includes building construction standards, building separation standards, project design requirements, fuel modification, and erosion and sediment control. During the development review and permitting process, the Yucaipa Fire Department would also review and approve development plans to ensure that adequate access, traffic circulation, water, and hydrant systems are provided during development of the Specific Plan to serve the needs of the Yucaipa Fire Department. Subsequent developments would also be regulated by standards and codes set by the City and the Yucaipa Fire Department, thereby avoiding any interference with emergency access during construction. Furthermore, all development projects in the City of Yucaipa are required to comply with the most current adopted fire codes, building codes, and nationally recognized fire and life safety standards of the City of Yucaipa, San Bernardino County, and the State of California.

Finally, any proposed businesses in the Specific Plan area that would handle more than a specified amount ("reporting quantity") of hazardous material or extremely hazardous material would be required to submit a hazardous material business plan to the Yucaipa Fire Department, pursuant to California Health and Safety Code Section 25500 et seq., and would be subject to the hazardous materials disclosure programs of the Unified Program administered by the California Environmental Protection Agency. Compliance with existing regulations and requirements would ensure that no significant fire risks related to the storage or handling of hazardous materials would occur.

Therefore, project implementation is not anticipated to have a significant, adverse impact on fire protection and emergency services, and impacts would be less than significant.

5.12.1.4 CUMULATIVE IMPACTS

Implementation of the proposed project in conjunction with other planned projects in the City of Yucaipa could contribute to a potentially significant adverse cumulative impact on the Yucaipa Fire Department's fire protection and services needs and its ability to provide an acceptable level of service. These impacts would include an increased number of emergency and public service calls due to cumulative development, placing additional demands on station and equipment maintenance, training, and fire prevention inspection. The additional personnel and materials costs would be offset through each developer's pro rata, fair-share funding of capital improvements necessary to establish and maintain adequate fire protection, in accordance with the City's fire facilities fees required under Chapter 4 of the City's development code. Therefore, a funding mechanism is in place to expand fire protection services to adequately serve cumulative development. Furthermore, as noted above, future plans include potential construction of a fifth fire station to provide additional services to the project site and the City, if needed.

Additionally, as with the proposed project, future cumulative development projects would be reviewed by the City and Yucaipa Fire Department and be required to adhere to the FR2 special fire protection measures outlined in Section 85.020220 of the City's municipal code, which include building construction standards, building separation standards, project design requirements, fuel modification, and erosion and sediment control. During the development review and permitting process, the Yucaipa Fire Department would review and approve development projects to ensure that adequate access, traffic circulation, water, and hydrant

systems are provided during the development phase of a project to serve the needs of the fire department. Furthermore, all development projects in the City of Yucaipa are required to comply with the most current adopted fire codes, building codes, and nationally recognized fire and life safety standards of Yucaipa, San Bernardino County, and the State of California.

Therefore, the increase in fire protection service demand due to the proposed project would not result in cumulatively considerable impacts. Impacts would be less than significant.

5.12.1.5 EXISTING REGULATIONS

Federal

- International Fire Code

State

- California Health and Safety Code Section 25500 et seq.
- Unified Program Hazardous Materials Disclosure Programs
- California Fire Code

Local

- City of Yucaipa Development Code, Division 11 (Public Facilities Financing), Chapter 4 (Fire Facilities Financing)
- City of Yucaipa Development Code, Division 5 (Overlay Districts), Section 85.020220 (Area FR1 and FR2 Requirements)

5.12.1.6 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Upon implementation of regulatory requirements, the following impact would be less than significant: 5.12-1.

5.12.1.7 MITIGATION MEASURES

No significant impacts were identified and no mitigation measures are necessary.

5.12.1.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

With implementation of the existing regulations, potential impacts associated with fire protection and emergency services would be reduced to a level that is less than significant. Therefore, no significant unavoidable adverse impacts relating to fire protection and emergency services were identified.

5.12.2 Police Protection

5.12.2.1 ENVIRONMENTAL SETTING

Regulatory Background

Local laws, regulations, plans, or guidelines that are potentially applicable to the proposed project are summarized below.

City of Yucaipa Municipal Code

The following provisions from the City's municipal code help minimize impacts to police protection and services associated with new development projects and are relevant to the proposed project.

- **Chapter 15.08 (Development Impact Fees).** The development impact fee provides a mechanism to fund public facilities and services improvements, including police services. New residential and nonresidential development in the City pay development impact fees to mitigate the impacts of development on public services and facilities. Fees are deposited into a separate fund and are due and payable on the date of final inspection, or the date the certificate of occupancy is issued. The amount of each fee may be more specifically set and revised periodically by resolution of the city council.

Existing Conditions

Staffing and Equipment

Police protection service in the City Yucaipa, including the project area, is provided by the Yucaipa Police Department under a contract with the San Bernardino County Sheriff's Department. The Yucaipa Police Station is at 34144 Yucaipa Boulevard and serves both the City and portions of the unincorporated areas of San Bernardino County. This station staffs 33 sworn officers and 10 administrative personnel. (Collins 2016). The state-of-the-art facility opened in July 2014 and was built to meet expected needs through 2040 (Yucaipa 2016).

The City of Yucaipa supports the county's contractual services by providing supervisory, clerical, crime prevention, and investigative personnel at the station level. The county provides various support units such as aviation, K-9, crime lab, and specialized investigations, including homicide, narcotics, arson/bomb, and crimes against children. The county receives additional support from Yucaipa's citizen volunteers. The 2015 Yucaipa Police Department Annual Report concluded that 135 volunteers provided nearly 47,709 service hours over the 2015 calendar year, including unit duties such as assisting the Yucaipa Police Department in meeting law enforcement objectives during the normal course of operation and times of disasters and emergencies. The volunteer program encourages community support and understanding of law enforcement through involvement in volunteer units such as Citizen on Patrol; Equestrian on Patrol; and many administrative, specialized, and support functions.

During an emergency, state aid is rendered as required in accordance with the state's Law Enforcement Mutual Aid Plan. Depending on the type and magnitude of the emergency, there are four levels of response.

At the first level, the Yucaipa Police Department would contact other San Bernardino County Sheriff's Department offices (i.e., City of Highland, Loma Linda, etc.) for mutual aid. At the second and third level, the Yucaipa Police Department would reach out to nearby jurisdictions in predefined operational areas or in the region of several operational areas. If further support is needed on a statewide level, the Office of Emergency Services is sought.

Call Statistics and Response Times

The Yucaipa Police Department does not have a set response time goal for calls, since calls for service are taken on a priority basis and are constantly monitored by management staff in real time. Current average response time to emergency calls is 5:43 minutes (Collins 2016).

Table 5.12-4, *2013–2015 Total Calls and Response Times*, shows the total number of calls and the response times over the last three years, from 2013 through 2015.

Table 5.12-4 2013–2015 Total Calls and Response Times

	2013	2014	2015
Total Calls	34,958	32,558	32,676
Response Times	5 minutes 59 seconds	4 minutes 24 seconds	4 minutes 58 seconds

Source: Yucaipa Police Annual Report 2015.

Performance Standards

The industry standard in determining adequate police services is one field officer or deputy per 1,000 residents. However, the Yucaipa Police Department's officer-to-resident ratio goal is 0.62 per 1,000 residents (Collins 2016). Currently, the officer-to-resident ratio is 0.61 officer per 1,000 residents, based on a current population of 53,779 and 33 sworn officers.

Funding

Funding for the Yucaipa Police Department staff comes from the general fund, and funding for equipment and facilities come from development impact fees outlined in the City's municipal code, Title 15, Building and Construction, Chapter 15.08, Development Impact Fees. Developers must pay these fees for new developments in the City to finance public facilities, such as police stations and related equipment. Table 5.12-5 reflects the current public facilities development impact fees for various land uses.

Table 5.12-5 Public Facilities Development Impact Fees

Land Use Type	Impact Fee
Residential	$1,871.40 per dwelling unit
Commercial	$10,105.53 per net acre
Industrial	$10,105.53 per net acre

Source: Collins 2016.

5.12.2.2 THRESHOLDS OF SIGNIFICANCE

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

PP-1 Result in a substantial adverse physical impact associated with the provisions of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for police protection services.

5.12.2.3 ENVIRONMENTAL IMPACTS

The following impact analysis addresses thresholds of significance that may be potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

Impact 5.12-2: The proposed project would introduce up to 200 single family homes, approximately 570 residents, and 42 employees into the project area, thereby increasing the demand for the Yucaipa Police Department facilities and personnel; however, payment of development impact fees and review of future development applications by the Yucaipa Police Department would reduce potential impacts. [Threshold PP-1]

Impact Analysis: Future growth in accordance with buildout of the proposed project is expected to increase demand for police services. As a result, additional police equipment, facilities, and personnel would be required to provide adequate response times, acceptable public service ratios, and other performance objectives for law enforcement services.

The project area would be served by the Yucaipa Police Station. The increase in population, employment, and traffic due to the Specific Plan would increase calls for service in the area and place more demand on law enforcement. If calls for service increase with no increase in police work force, response times would most likely increase.

The Yucaipa Police Department states that existing staff and resources are able to adequately serve the community. The current officer-to-resident ratio is 0.61 officer per 1,000 residents, based on a current population of 53,779 and 33 sworn officers. The department's goal is 0.62 officers per 1,000 residents (Collins 2016). The proposed project would introduce an additional 570 residents in the City, which would result in an officer-to-resident ratio of 0.60 officer per 1,000 residents. To reach its goal of 0.62, the Yucaipa Police Department would need to hire one additional officer.

Individual development projects under the Specific Plan would be reviewed by both the City and Yucaipa Police Department and would be required to comply with provisions in effect at the time building permits are issued, including the payment of development impact fees required under Chapter 15.08 of the municipal code. The additional facilities and equipment costs of police services in the City due to buildout of the Specific Plan would be offset by the payment of required public facilities development impact fees, as detailed in Table 5.12-5. Furthermore, staffing costs to hire additional sworn officers would be funded by the City's

general fund, which would gradually grow in rough proportion to development from property and sales tax generated by office, institutional, and medical uses anticipated under the Specific Plan. Therefore, sufficient revenue would be available for necessary service improvements to provide for adequate police facilities, equipment, and personnel for the proposed project.

Furthermore, during the development review and permitting process, the Yucaipa Police Department would also review and approve development plans to ensure that adequate access, traffic circulation, site security, lighting, pedestrian flow, barriers, and other project components are provided during development of the proposed project to serve the needs of the Yucaipa Police Department.

Therefore, project implementation is not anticipated to have an adverse impact on police protection and services, and impacts would be less than significant.

5.12.2.4 CUMULATIVE IMPACTS

Implementation of the proposed project in conjunction with other planned projects in the City of Yucaipa could contribute to a potentially significant adverse cumulative impact on the Yucaipa Police Department's police protection and services needs and its ability to provide an acceptable level of service. If development of the proposed project and other growth in the area are not provided with sufficient law enforcement personnel, this would affect response times to calls and could reduce service in the City. The additional personnel and materials costs would be offset through each developer's pro rata, fair-share funding of capital improvements necessary to establish and maintain adequate police protection, in accordance with the City's development impact fees, required under Chapter 15.08 of the City's municipal code. Therefore, a funding mechanism is in place to expand police protection services to adequately serve cumulative development.

Additionally, as with the proposed project, future cumulative development projects would be reviewed by the City and Yucaipa Police Department to ensure that adequate access, traffic circulation, site security, lighting, pedestrian flow, barriers, and other project components are provided during the development phase of a project to serve the needs of the police department.

Therefore, the increase in police protection service demand due to the proposed project would not result in cumulatively considerable impacts.

5.12.2.5 EXISTING REGULATIONS

- City of Yucaipa Municipal Code, Chapter 15.08 (Development Impact Fees)

5.12.2.6 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Upon implementation of regulatory requirements, the following impact would be less than significant: 5.12-2.

5.12.2.7 MITIGATION MEASURES

No significant impacts were identified and no mitigation measures are necessary.

5.12.2.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

With implementation of the existing regulations, potential impacts associated with police protection and services would be reduced to a level that is less than significant. Therefore, no significant unavoidable adverse impacts relating to police protection and services were identified.

5.12.3 School Services

5.12.3.1 ENVIRONMENTAL SETTING

Regulatory Background

State

California State Assembly Bill 2926: School Facilities Act of 1986

To assist in providing school facilities to serve students generated by new development, Assembly Bill (AB) 2926 was enacted in 1986 and authorizes a levy of impact fees on new residential and commercial/industrial development. The bill was expanded and revised in 1987 through the passage of AB 1600, which added Sections 66000 et seq. to the Government Code. Under this statute, payment of impact fees by developers serves as CEQA mitigation to satisfy the impact of development on school facilities.

California Senate Bill 50

Senate Bill (SB) 50, passed in 1998, provides a comprehensive school facilities financing and reform program and enables a statewide bond issue to be placed on the ballot. Under the provisions of SB 50, school districts are authorized to collect fees to offset the cost of increasing school capacity as a result of development and related population increases. The funding goes to acquiring school sites, constructing new school facilities, and modernizing existing school facilities. SB 50 establishes a process for determining the amount of fees developers will be charged to mitigate the impact of development on school districts from increased enrollment. According to Section 65996 of the California Government Code, development fees authorized by SB 50 are deemed to be "full and complete school facilities mitigation."

Under this legislation, there are three levels of developer fees. Level I fees are based on the proposed square footage of residential, commercial/industrial, and/or parking structure uses. Level II fees require the developer to provide one-half of the costs of accommodating students in new schools, and the state provides the remaining half. To qualify for Level II fees, the governing board of the school district must adopt a school facilities needs analysis and meet other prerequisites in accordance with Section 65995.6 of the California Government Code. Level III fees apply if the state runs out of bond funds, allowing the governing school district to impose on the developer 100 percent of the cost of school facility or mitigation minus any local dedicated school monies.

City of Yucaipa Development Code

The following provisions from the City's municipal code help minimize impacts to schools in the Yucaipa-Calimesa Joint Unified School District associated with new development projects and are relevant to the proposed project.

- **Chapter 15.08 (Development Impact Fees).** The development impact fee provides a mechanism to fund public facilities and services improvements, including school services. New residential and nonresidential development in the City pay development impact fees to mitigate the impacts of development on public services and facilities. Fees are deposited into a separate fund and are due and payable on the date of final inspection, or the date the certificate of occupancy is issued. The amount of each fee may be more specifically set and revised periodically by resolution of the city council.

Existing Conditions

Students in the project area would be served by the Yucaipa-Calimesa Joint Unified School District (YCJUSD), which provides school services to all of Yucaipa and the northern portion of Calimesa. YCJUSD has six elementary schools (Grades K–6 or K–8), two middle schools (Grades 6–8 or 7–8), and one high school (Grades 9–12). YCJUSD also has one dependent International Baccalaureate charter school (Grades K–8), a continuation high school (Grades 9–12), a special education success program (Grades K–12), and an adult continuing education program. Table 5.12-6, *YCJUSD Schools Serving the Project Site*, provides details regarding existing capacity and current enrollment information on the schools likely to serve the project site.

Table 5.12-6 YCJUSD Schools Serving the Project Site

School & Location	Grades	Total Capacity	Current 2015–2016 Enrollment	Remaining Capacity
Elementary School				
Chapman Heights Elementary School 33692 Cramer Road, Yucaipa	K–6	925	794	131
Ridgeview Elementary School 11021 Sunnyside Drive, Yucaipa	K–6	900	730	170
Elementary School Total	**—**	**1,825**	**1,524**	**301**
Middle Schools				
Park View Middle School 34875 Tahoe Drive, Yucaipa	7–8	1,250	956	294
High Schools				
Yucaipa High School 33000 Yucaipa Boulevard, Yucaipa	9–12	3,100	2,604	496
	TOTAL	**6,175**	**5,084**	**1,091**

Source: Stevenson 2016.

Funding

School funding comes predominantly from federal, state, and local contributions, such as business and personal income taxes, sales tax, and property tax. YCJUSD charges Level I developer impact fees pursuant to SB 50. As of June 2016, residential development fees are $6.09 per unit, and commercial development fees are $0.56 per square foot (Stevenson 2016).

5.12.3.2 THRESHOLDS OF SIGNIFICANCE

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

SS-1 Result in a substantial adverse physical impact associated with the provisions of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for school services.

5.12.3.3 ENVIRONMENTAL IMPACTS

The following impact analysis addresses thresholds of significance that may be potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

Impact 5.12-3: The proposed project would generate approximately 94 additional students in the Yucaipa-Calimesa Joint Unified School District; however, the affected schools have sufficient remaining capacity, and payment of impact fees would offset any increase in demand for school facilities. [Threshold SS-1]

Impact Analysis: Student generation rates are used by school districts, including YCJUSD, to estimate the number of students generated by new development in order to determine whether or not existing school facilities would be adequate for future student enrollment. Using these rates, the proposed 200 single family homes would introduce approximately 94 students into the attendance area of Chapman Heights Elementary School, Ridgeview Elementary School, Park View Middle School, and Yucaipa High School (see Table 5.12-7, *Oak Glen Creek Student Generation*).

Table 5.12-7 Oak Glen Creek Student Generation

	Units	Student Generation Rate	Generated Students	Current Enrollment + Generated*	Current Capacity*	Remaining Capacity*
Elementary School (ES)	200	0.2320	47	1,571	1,825	254
Middle School (MS)		0.0716	15	971	1,250	279
High School (HS)		0.1569	32	2,636	3,100	464
TOTAL	**NA**	**NA**	**94**	**NA**	**NA**	**NA**

Source: Stevenson 2016.
Notes: ES = elementary school (K-6); MS = middle school (7-8); HS = high school (9-12); NA = not applicable
* Relative to the YCJUSD schools in Table 5.12-6 that would serve the Oak Glen Creek Specific Plan area.

As shown in Table 5.12-7, Chapman Heights Elementary School, Ridgeview Elementary School, Park View Middle School, and Yucaipa High School would be able to accommodate the estimated 94 additional students generated by the proposed project based on the current capacity and enrollment.

The project applicant would be required to pay development impact fees to YCJUSD, which is at a current rate of $6.09 per square foot of residential development and $0.56 per square foot of commercial development, per SB 50 (Stevenson 2016). The fees would be collected by YCJUSD at the time of issuance of building permits. As stated in Government Code Section 65995(h), "The payment or satisfaction of a fee, charge, or other requirement levied or imposed …are hereby deemed to be full and complete mitigation of the impacts of any legislative or adjudicative act, or both, involving, but not limited to, the planning, use, or development of real property, or any change in governmental organization or reorganization …on the provision of adequate school facilities." Payment of these fees would offset impacts from increased demand for school services associated with development of the proposed project by providing an adequate financial base to construct and equip new and existing schools as needed. Overall, YCJUSD would be able to provide adequate school facilities for the projected student residents of the proposed project, and payment of impact fees would ensure that impacts are offset and remain less than significant.

5.12.3.4 CUMULATIVE IMPACTS

Implementation of the proposed project in conjunction with other planned projects in the City of Yucaipa could contribute to a potentially significant adverse cumulative impact on the YCJUSD's ability to serve students in its service area. If development of the proposed project and growth in the area are not provided with sufficient school facilities, this would affect YCJUSD's ability to serve students. The additional personnel and materials costs would be offset through each developer's pro rata, fair-share funding of capital improvements necessary to establish and maintain adequate school services, in accordance with the City's development impact fees required under Chapter 15.08 of the municipal code. Therefore, a funding mechanism is in place to expand school facilities to adequately serve cumulative development.

In addition, as with the proposed project, future cumulative development projects would be reviewed by the City and YCJUSD to ensure that classroom, athletic, recreational, and other school facilities are available to serve future students generated by development of these projects.

Therefore, the increase in school facilities and services demand due to the proposed project would not result in cumulatively considerable impacts.

5.12.3.5 EXISTING REGULATIONS

- California State Assembly Bill 2926: School Facilities Act of 1986
- California Senate Bill 50

5.12.3.6 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant: 5.12-3.

5.12.3.7 MITIGATION MEASURES

Impacts are less than significant, and no mitigation measures are required.

5.12.3.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

No mitigation measures are identified, and impacts are less than significant.

5.12.4 Library Services

5.12.4.1 ENVIRONMENTAL SETTING

The San Bernardino County Library system (SBCL) is a network of 32 branch libraries that provides services to patrons in the County of San Bernardino. The only branch of the SBCL system in the City of Yucaipa is the Yucaipa Branch Library. The next closest SBCL library is the Mentone Senior Center and Library, approximately 5.32 miles from the Specific Plan area in the City of Mentone.

The Yucaipa Branch Library is 0.66 mile southwest of the Specific Plan area and would provide services to any new residents of the proposed housing of the Specific Plan. The Yucaipa Branch Library is 12,070 square feet and has 42,970 items and 42 computers available to patrons (Merryman 2016). The library also has the following resources available to patrons:

- Open computer lab available for instruction and public use
- Adult literacy tutor program
- Summer reading program open to children, teens, and adults
- Variety of children's programs, including ages 0 to 5 and elementary age
- Teen craft and movie programs
- Adult basic computer classes
- Adult English improvement class

In addition to the resources listed above, the Yucaipa Branch Library allows customers free access to several online databases, digital borrowing platforms, music, and movies through the SBCL's OverDrive system (Merryman 2016).

Over the next several years, the SBCL plans to enhance service by replacing outdated computer hardware and software; restoring the library's material budget; and adding high demand items to the collection, including an expanded digital book collection. However, new or expanded facilities would depend heavily on funding availability (Yucaipa 2016).

Funding

According to the San Bernardino County Annual Budget 2013–2014, the SBCL receives funding from Special Revenue Funds, which include sources such as property tax allocations; library fines and fees collected from patrons; and state, federal, or governmental aid. Annual funding for 2013–2014 for SBCL is approximately

$13.8 million allocated between all 32 branch libraries. In addition, public facility fees collected by the City of Yucaipa contribute to Yucaipa Branch Library's capital needs. The City has made one-time allocations from the City's general fund to the library as well (Yucaipa 2016).

5.12.4.2 THRESHOLDS OF SIGNIFICANCE

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

LS-1 Result in a substantial adverse physical impact associated with the provisions of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for library services.

5.12.4.3 ENVIRONMENTAL IMPACTS

The following impact analysis addresses thresholds of significance that may be potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

Impact 5.12-4: The proposed project would introduce approximately 570 additional residents to the Specific Plan area and would increase the service demands on the Yucaipa Branch Library of the San Bernardino County Library system; however, as development occurs under the Oak Glen Creek Specific Plan, the general funds should grow proportionally with property tax collections. [Threshold LS-1]

Impact Analysis: Specific Plan buildout would introduce 570 new residents into the project site, increasing the demands on SBCL services. The existing library space, collections, and programs provided by Yucaipa Branch Library are considered adequate for the existing residents. However, SBCL notes that additional space to house a larger collection of materials, provide larger program space, and add more computers for public use may be needed to adequately serve the Specific Plan area (Merryman 2016).

Future residents of the Specific Plan area would be mainly served by the Yucaipa Branch Library; however, residents would have access to all 32 library branches in SBCL's system. The Mentone Senior Center and Library, a branch of SBCL, is 5.3 miles from the project site. The ability for new residents to freely visit other libraries in the SBCL system would alleviate usage of the Yucaipa Branch Library and allow patrons to use interlibrary loans and resources from any SBCL branch library. Therefore, library resources would not be limited to what is provided by the Yucaipa Branch Library.

According to the City of Yucaipa's Municipal Code, project developments in the City are required to pay development impact fees related to public services, which are placed into a Public Services Fund and could in part go toward funding Yucaipa libraries. According to Yucaipa's Development Impact Fee Worksheet, a fee of $1,871.40 per dwelling unit must be paid to support public services. The 200 single-family homes of the proposed project would generate $374,080 in fees toward the public services fund that could be used for the development of new libraries in the City.

Funding for library services comes primarily from San Bernardino County's general fund, from sources such as property tax allocations; library fines and fees collected from patrons; and state, federal, or governmental aid. In addition, public facility fees collected by the City of Yucaipa contribute to Yucaipa Branch Library's capital needs. The City has made one-time allocations from the City's general fund to the library as well. Therefore, as development occurs under the Oak Glen Creek Specific Plan, the general fund should grow proportionally with property tax collections. Overall, project impacts to library services would be less than significant.

5.12.4.4 CUMULATIVE IMPACTS

Implementation of the proposed project in conjunction with other planned projects in the City of Yucaipa could contribute to a potentially significant adverse cumulative impact on the Yucaipa Branch Library's and SBCL's ability to serve residents of the City. If development of the proposed project and growth in the area are not provided with sufficient library facilities and resources, such as books and computers, this would affect SBCL's ability to serve residents of all areas within its boundaries. The additional personnel and materials costs would be offset by funds gathered from development impact fees related to public services collected by the City; the county's general fund, generated through property tax allocation; special district taxes; and funding from various library activities. Therefore, a funding mechanism is in place to expand library services to adequately serve cumulative development.

In addition, as with the proposed project, development of future cumulative projects would be reviewed by the City and SBCL to ensure that library facilities and resources will be available to serve future residents generated by the projects.

Therefore, the increase in library services demand due to the proposed project would not result in cumulatively considerable impacts.

5.12.4.5 EXISTING REGULATIONS

There are no existing regulations related to library services.

5.12.4.6 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant: 5.12-1.

5.12.4.7 MITIGATION MEASURES

Impacts are less than significant, and no mitigation measures are required.

5.12.4.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

No mitigation measures are identified, and impacts would be less than significant.

5.12.5 References

Collins, Rick (administrative sergeant). 2016, July 6. Questionnaire Response. Yucaipa Police Department/San Bernardino County Sheriff.

Janssen, Ron (chief). 2016, June 1. Questionnaire Response. CAL FIRE/Yucaipa Fire and Paramedic Department.

Merryman, Shauna (regional manager). 2016, June 2. Questionnaire Response. San Bernardino County Library.

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———. 2016, April. City of Yucaipa General Plan. http://yucaipa.org/wp-content/uploads/dev_svcs/general_plan/Yucaipa_General_Plan.pdf.

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5.13 RECREATION

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential for implementation of the Oak Glen Creek Specific Plan to impact public parks and recreational facilities. Cumulative impacts related to recreation would be within the City boundaries.

5.13.1 Environmental Setting

5.13.1.1 REGULATORY BACKGROUND

State Regulations

California Public Park Preservation Act

The primary instrument for protecting and preserving parkland is California's Public Park Preservation Act of 1971 (Public Resources Code §§ 5400–5409). Under this act, cities and counties may not acquire any real property that is in use as a public park for any nonpark use unless compensation, land, or both are provided to replace the parkland acquired. This provides no net loss of parkland and facilities.

Quimby Act of 1975

The Quimby Act (Government Code § 66477) gives cities and counties the authority to require developers to dedicate land as parkland, pay in-lieu fees, or both as a condition of approval for a tentative or final tract map or parcel map for a residential subdivision. Revenue generated through the Quimby Act cannot be used for operation or maintenance of existing park facilities. The Quimby Act also sets a statewide minimum standard of three acres of parkland for every 1,000 residents; if the amount of existing neighborhood and community park area exceeds that limit, the city or county may establish a higher standard. The City's park ordinance establishes a standard of 3.5 acres of passive and active parks per 1,000 residents.

Mitigation Fee Act

The California Mitigation Fee Act (Government Code §§ 66000 et seq.) allows cities to impose fees on development projects for the purpose of mitigating the impact that the development projects have on city's ability to provide specified public facilities. In order to comply with the Mitigation Fee Act, a city must follow four primary requirements: 1) Make certain determinations regarding the purpose and use of a fee and establish a nexus or connection between a development project or class of project and the public improvement being financed with the fee; 2) Segregate fee revenue from the general fund in order to avoid commingling capital facilities fees and general funds; 3) Make findings each fiscal year describing the continuing need for fees that have been in the possession of the city for five years or more and that have not been spent or committed to a project; and 4) Refund any fees with interest for developer deposits for which the findings noted above cannot be made.

Local

City of Yucaipa Municipal Code/Development Code

Development Code, Chapter 3, Division 11, Public Facilities Financing

The City's Quimby Act standard requires dedication of land, payment of a development impact fee in lieu thereof, or both, to satisfy the City's park standard, which is 3.5 acres of passive and active parks per 1,000 residents (§ 811).

New residential subdivisions can offset park fees by providing private open space that is maintained and operated by the homeowner's association so long as the following criteria are met:

- The private parkland meets a minimum size requirement of one-third acre.
- The proposed private parkland is reasonably adaptable for park and recreational purposes, taking into consideration such factors as size, shape, topography, geology, access, and location.
- The following areas or subdivision design features shall not be eligible for private park credit: yards, court areas, setbacks, subdivision edges, landscaped subdivision entries, greenbelts, meandering streams, and circulation improvements such as bicycle, hiking, and equestrian trails.
- The location of the land provides convenient access to housing and schools.
- The perpetual private ownership and maintenance of the land is adequately provided for by a recorded written agreement.
- The use of the private parkland is perpetually restricted for park and recreational purposes that cannot be defeated or eliminated without the consent of the City Council and without providing equivalent park and recreational space elsewhere in the subdivision.

Municipal Code Chapter 15.08, Development Impact Fees

Development impact fees are imposed on all new development to finance the cost of additional public facilities and improvements, including park facilities for new residential uses. Park facilities fees are currently set at $2,276.26 per dwelling unit (Yucaipa 2015).

5.13.1.2 EXISTING CONDITIONS

Parks and Recreational Facilities

The City of Yucaipa provides 550.7 acres of local parks, community parks, regional parks, and special use facilities and 1,253 additional acres of natural open space for a total of 1,803.7 acres. In addition to City parks, Yucaipa is home to the 844-acre Wildwood Canyon State Park and the 385-acre Yucaipa Regional Park with campgrounds and three lakes that may be used for swimming, boating, and fishing (Yucaipa 2016).

Table 5.13-1 shows the existing local, community, and regional parks and special use facilities within a one-mile radius as well as natural open space areas that would likely serve future residents of the Oak Glen Creek Specific Plan. Mini and neighborhood parks range from 1 to 10 acres. These smaller parks are intended to serve residents living within a half mile of the park and typically offer playgrounds. Community parks are larger than local parks—about 10 to 30 acres. They feature larger amenities, like soccer, baseball, and softball fields.

Table 5.13-1 Parks Serving the Project Site

Facility Name	Size (acres)	Address/Location	Distance from the Project Site (miles)	Type	Amenities
Local Parks, Community Parks, Regional Parks, and Special Use Facilities within a Mile of the Project Site					
Avenue "A" Park	0.5	Avenue A and California Street	0.66	M	Picnic area
Bryant Glen Sports Park	13.3	11092 Sunnyside Drive	0.02	C	Play equipment, sports fields
Center Park	1.0	1st Street and Avenue B	0.73	M	Picnic area, play equipment, basketball court
Flag Hill Veterans Memorial Park	7.8	Yucaipa Boulevard and Fremont Street	0.76	N	Picnic area, play equipment, basketball court
John Tooker City Park	0.5	In front of City Hall on Yucaipa Boulevard	0.75	N	Trails/water
Lillian Eaton Park	0.5	Yucaipa Boulevard, just below 5th Street	0.70	M	Picnic area
McCown Soccer Complex	13.2	33900 Oak Glen Road	0.58	C	Sports fields
Yucaipa Community Park	31.1	34900 Oak Glen Road	0.01	C	Picnic area, play equipment, basketball court, sports fields, trails/water, recreation center
Yucaipa Regional Park	385	33900 Oak Glen Road	0.13	R	Picnic area, play equipment, trails/water, aquatics, biking, equestrian, camping, boating, fishing
13th Street Sports Complex	29.8	NA	2.20	C	NA
Subtotal	**482.7**				
Natural Open Space					
Wildwood Canyon Open Space area	75	Wildwood Canyon Road	2.15	O	NA
El Dorado Ranch Park	334	Oak Glen Road	2.49	O	Picnic area, trails/water, camping
Wildwood Canyon State Park	844	12261 Wildwood Canyon Road	2.67	O	Trails/water, biking, equestrian
Subtotal	**1,253**				
TOTAL	**1,735.7**				

Source: Yucaipa 2016.
Notes: M=Mini Park; N=Neighborhood Park; C=Community Park; R=Regional Park; S=Special Use; O=Open Space

Multiuse Trails

The City of Yucaipa's Trails and Open Space Committee is involved in promoting recreation through the provision of trails and open space. Yucaipa offers trails for hiking, bike, and equestrian uses. The City continues to build multiuse trails as an active part of the majority of its drainage and infrastructure improvements (Yucaipa 2014). There are several existing multipurpose trails near the Specific Plan area—along 2nd Street and Oak Glen Road along the project frontage, and across Bryant Street. The existing site is occasionally used by local residents, but there are no formal trails within the Specific Plan area.

Parkland Standard

The City of Yucaipa established a minimum 3.5 acres per 1,000 residents standard for providing adequate parkland and recreational facilities to its residents (Yucaipa 2016). The City provides 550.7 acres of local parks, community parks, regional parks, and special use facilities that count toward the City's parkland standard. The park-to-population ratio, based on the City's estimated 2016 population of 53,779 (DOF 2016), is 10.24 acres of parkland per 1,000 residents.

Facility Funding

Quimby ordinance fees, developer agreements, and grants fund the acquisition of parkland, and impact fees and grants pay for improvements to parks. These fees are sufficient to develop new park and recreational facilities, but additional funds are needed to maintain and renovate park and recreational facilities. Funding sources may include, but are not limited to, assessment districts, foundation grants, gifts, and other sources.

Per the City of Yucaipa Municipal Code (Chapter 15.08) and Development Code (Chapter 3, Division 11, *Public Facilities Financing*), dedication of land, payment of development impact fees, or both are required for new residential subdivisions. If the parkland requirement for a new residential subdivision is not fully satisfied by onsite park dedication, development impact fees finance offsite public facilities and improvements required by the new development. For park facilities, new developments are required to pay $2,276.26 per dwelling unit unless otherwise noted (Yucaipa 2015).

5.13.2 Thresholds of Significance

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

R-1 Would increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.

R-2 Includes recreational facilities or requires the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

5.13.3 Environmental Impacts

The following impact analysis addresses thresholds of significance that may be potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

Impact 5.13-1: The proposed project would introduce approximately 570 additional residents that would increase the use of existing parks and recreational facilities, but the project would not substantially deteriorate existing facilities in the project vicinity, and it would result in creation of new multipurpose trails to expand existing recreational facilities. [Threshold R-1]

Impact Analysis: Based on the 2016 California Department of Finance population and housing estimates, the average household size in Yucaipa is 2.85 (DOF 2016). Therefore, development of 200 single-family homes in the project area would introduce approximately 570 additional residents, which may increase the use of existing parks and recreational facilities.

Based on the City's parkland standard of 3.5 acres per 1,000 residents, the proposed project would require 2.0 acres of parkland (Yucaipa 2016). Basin improvements associated with the proposed project would allow for the installation of multipurpose trails around portions of the site that would connect to existing bike and trail facilities in the City. A multiuse trail is intended along Wilson Creek Channel from Oak Glen Road as a continuation of the existing trail north of Oak Glen Road. The trail would be owned and maintained by the San Bernardino Flood Control District, who would make the final determinations for its development, operation, and maintenance. Another multiuse trail through the project site extends along the north side of the flood control basin from 2nd Street to Bryant Street and would provide a link to existing trails on the west side of 2nd Street (see Figure PR-3, Multi-Purpose Trails, of the Yucaipa General Plan). This trail would also connect to a Class II Bike Lane on Bryant Street.

Portions of the area surrounding the proposed detention basin in the Open Space District would be revegetated to provide natural open space and resting areas with benches and tables. However, no traditional parkland or recreational facilities would be provided onsite. Therefore, the project applicant would be required to pay development impact fees for park facilities, which has a current rate of $2,276.26 per dwelling unit to offset project impacts on the City's existing park and recreation resources. Payment of development impact fees would allow the City to continue to fund new park and recreational facilities in the City.

Nevertheless, the City currently has 550.7 acres of local, community, and regional public parks and special use facilities available for its residents. With the additional residents generated by the proposed project, the City would have a population of 54,349, which would result in approximately 10.13 acres of parkland per 1,000 residents. This is still substantially more than the required 3.5 acres per 1,000 residents even with the additional demand created by the proposed project.

Overall, the City of Yucaipa is already rich in existing parkland and recreational facilities. Therefore, implementation of the proposed project, even with the increased demand, would not result in deterioration of existing park facilities in the City. Furthermore, implementation of the proposed project would result in the creation of new multipurpose trails that would have a beneficial impact on the City's parks and recreational facilities. Thus, impacts would be less than significant.

Impact 5.13-2: The proposed project would create passive open space and multipurpose trails; the construction of which would not create an adverse physical effect on the environment. [Threshold R-2]

Impact Analysis: The proposed recreational uses allowed in the Open Space District of the proposed project would not have an adverse physical effect on the environment given that they have passive recreational features such as multiuse trails, benches, and tables. Environmental impacts associated with the construction of these facilities are addressed separately. For example, construction-related air quality and noise impacts of the project are described in Section 5.2, *Air Quality*, and Section 5.10, *Noise*. Consequently, the proposed project would not result in significant impacts relating to new or expanded recreational facilities.

5.13.4 Cumulative Impacts

Cumulative impacts related to recreation are assessed based on projects within the City's boundaries; buildout of the City's General Plan is also considered. A total of 30,077 housing units and 77,328 residents are expected at full buildout of the City's General Plan (Yucaipa 2016). The City of Yucaipa currently has 550.7 acres of parkland. With the 570 additional residents generated by the proposed project, the City would have a population of 77,898 at General Plan buildout, resulting in approximately 7.12 acres of parkland per 1,000 residents. This is substantially more than the required 3.5 acres per 1,000 residents. Additionally, under the City's park dedication requirements (Municipal Code Chapter 15.08 and Development Code Chapter 3, Division 11), all new residential development are required to pay development impact fees to offset the cost to expand or construct new park and recreational space and facilities to adequately serve the City's growing population. Therefore, cumulative impacts related to parks and recreational facilities would be less than significant.

5.13.5 Existing Regulations

State

- California Public Park Preservation Act
- Mitigation Fee Act

Local

- City of Yucaipa Development Code, Chapter 3, Recreational Facilities Financing.
- City of Yucaipa Municipal Code, Chapter 15.08, Development Impact Fees

5.13.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant: 5.13-1 and 5.13-2.

5.13.7 Mitigation Measures

No mitigation measures are required.

5.13.8 Level of Significance After Mitigation

No mitigation measures are required, and impacts would remain less than significant.

5.13.9 References

Department of Finance (DOF). 2016, May 1. Report E-5: Population and Housing Estimates for Cities, Counties, and the State: January 1, 2011–2016, with 2010 Benchmark. http://www.dof.ca.gov/research/demographic/reports/estimates/e-5/2011-20/view.php.

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5. Environmental Analysis
RECREATION

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5.14 TRANSPORTATION AND TRAFFIC

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential for implementation of the Oak Glen Creek Specific Plan to result in transportation and traffic impacts in the City of Yucaipa. The analysis in this section is based in part on the following technical report(s):

- *Traffic Impact Analysis for the Oak Glen Creek Specific Plan, Yucaipa, California*, IBI Group, Inc., July 18, 2016.

A complete copy of this study is included in the technical appendices to this Draft EIR (Volume II, Appendix J).

5.14.1 Environmental Setting

Traffic Study Operations Methodology

The traffic impact analysis (TIA) analyzed the operation of the roadway system, including roadway segments and intersections. Operations for these facilities are expressed in terms of level of service (LOS), which is a general measure of traffic operating conditions, from LOS A (no congestion) to F (high levels of congestion). LOS E represents "at capacity" operations. LOS qualitatively measures the operating conditions within a traffic system and how drivers and passengers perceive these conditions.

The flow of vehicles without significant impediments is considered "stable," but when traffic encounters interference that limits the capacity acutely, the flow becomes "unstable." These grades represent the perspective of drivers only and are an indication of the comfort and convenience associated with driving as well as speed, travel time, traffic interruptions, and freedom to maneuver.

Intersection Levels of Service

Chapter 16 of the Highway Capacity Manual (HCM) 2000 contains the operations methodology for signalized intersections, which evaluates LOS based on controlled delay per vehicle. Controlled delay is defined as the portion of the total delay attributed to the traffic signal operation, including deceleration delay, queue move-up time, stopped delay, and final acceleration delay. The relationship between controlled delay per vehicle and LOS for signalized intersections is summarized in Table 5.14-1, *Intersection Level of Service for Signalized Intersections*.

Table 5.14-1 Intersection Level of Service for Signalized Intersections

Level of Service	Description of Traffic Conditions	Controlled Delay (sec/veh)
A	Insignificant delays: no approach phase is fully utilized and no vehicle waits longer than one red indication.	≤ 10
B	Minimal delays: an occasional approach phase is fully utilized. Drivers begin to feel restricted.	> 10–20
C	Acceptable delays: major approach phase may become fully utilized. Most drivers feel somewhat restricted.	> 20–35
D	Tolerable delays: drivers may wait through more than one red indication. Queues may develop but dissipate rapidly, without excessive delays.	> 35–55
E	Significant delays: volumes approaching capacity. Vehicles may wait through several cycles and long vehicle queues form upstream.	> 55–80
F	Excessive delays: represents conditions at capacity, with extremely long delays. Queues may block upstream intersections.	> 80

Source: IBI 2016.

The methodology described in HCM 2000 Chapter 17 is used for all unsignalized intersections, including roundabouts. With this methodology, LOS is related to the controlled delay for each stop-controlled movement. The relationship between controlled delay per vehicle and LOS for unsignalized intersections is summarized in Table 5.14-2, *Intersection Level of Service for Unsignalized Intersections*.

Table 5.14-2 Intersection Level of Service for Unsignalized Intersections

Level of Service	Description of Traffic Conditions	Controlled Delay (sec/veh)
A	No delay for stop-controlled approaches.	≤ 10
B	Operations with minor delay.	> 10–15
C	Operations with moderate delays.	> 15–25
D	Operations with some delays.	> 25–35
E	Operations with high delays and long queues.	> 35–50
F	Operation with extreme congestion, with very high delays and long queues unacceptable to most drivers.	> 50

Source: IBI 2016.

The HCM level of service analysis for signalized and unsignalized intersections is performed using the TRAFFIX software, version 8.0. For roundabouts, the LOS analysis was performed using the Highway Capacity Software (HCS+) 2010.

5.14.1.1 REGULATORY BACKGROUND

The regulatory background discusses the regulatory agencies/policies that affect transportation in the City of Yucaipa and the Specific Plan area. Major policy documents impacting the transportation system in Yucaipa include laws at the state level and planning documents at a regional level.

State Regulations

Assembly Bill 1358, California Complete Streets Act

The California Complete Streets Act of 2008 was signed into law on September 30, 2008. Beginning January 1, 2011, Assembly Bill 1358 required circulation elements to address the transportation system from a multimodal perspective. The bill states that streets, roads, and highways must "meet the needs of all users…in a manner suitable to the rural, suburban, or urban context of the general plan." Essentially, this bill requires a circulation element to plan for all modes of transportation where appropriate—including walking, biking, car travel, and transit.

The Complete Streets Act also requires circulation elements to consider the multiple users of the transportation system, including children, adults, seniors, and the disabled. For further clarity, AB 1358 tasked the Governor's Office of Planning and Research to release guidelines for compliance with this legislation by January 1, 2014.

Senate Bill 743

On September 27, 2013, Senate Bill (SB) 743 was signed into law. The legislature found that with the adoption of the Sustainable Communities and Climate Protection Act of 2008 (SB 375), the state had signaled its commitment to encourage land use and transportation planning decisions and investments that reduce vehicle miles traveled (VMT) and thereby contribute to the reduction of greenhouse gas emissions, as required by the California Global Warming Solutions Act of 2006 (AB 32). Additionally, AB 1358, described above, requires local governments to plan for a balanced, multimodal transportation network that meets the needs of all users.

SB 743 started a process that could fundamentally change transportation impact analysis as part of CEQA compliance. These changes will include the elimination of auto delay, LOS, and similar measures of vehicular capacity or traffic congestion as the basis for determining significant impacts in many parts of California (if not statewide). As part of the new CEQA Guidelines, the new criteria "shall promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses" (Public Resources Code § 21099[b][1]). On January 20, 2016, the Governor's Office of Planning and Research released revisions to its proposed CEQA guidelines for the implementation of SB743. Final review and rulemaking for the new guidelines are targeted for early 2017. Once the guidelines are prepared and certified, "automobile delay, as described solely by level of service of similar measures of vehicular capacity or traffic congestion, shall not be considered a significant impact on the environment" (Public Resources Code § 21099[b][2]). Certification and implementation of the guidelines are also expected in early 2017. Since the Governor's Office of Planning and Research has not yet amended the CEQA Guidelines to implement this change, automobile delay is still considered a significant impact, and the City of Yucaipa will continue to use the established LOS criteria.

Regional Regulations

Southern California Association of Governments

The Southern California Association of Governments' 2016 Regional Transportation Plan/Sustainable Communities Strategy provides a regional transportation plan for six counties in Southern California: Orange, San Bernardino, Riverside, Los Angeles, Ventura, and Imperial. The primary goal of the regional transportation plan is to increase mobility for the region. With recent legislation, this plan also encompasses sustainability as a key principle in future development.

San Bernardino County

The San Bernardino Associated Governments (SANBAG) is the subregional planning agency for San Bernardino County. SANBAG is responsible for the preparation and adoption of the county's congestion management program (CMP). The CMP defines a network of state highways and arterials, LOS standards, and related procedures and provides technical justification for the approach. The CMP for San Bernardino County was originally adopted in 1992 and updated in 2016, which serves as the current version. SANBAG is in the process of preparing a major update of the CMP.

The CMP establishes a countywide network of state highways and arterial roadways that are monitored using established metrics for level of service to ensure that new development properly mitigates potential increases in traffic volume along the designated highways and roadways. All traffic studies prepared in San Bernardino County must conform to the CMP guidelines, and regional projects, including this Specific Plan, must analyze whether the forecast increase in traffic volumes would result in significant impacts to the CMP highway and roadway network.

Intersections along designated CMP roadways have a minimum acceptable LOS of E, as defined by the SANBAG CMP. The designated facilities identified as operating at deficient level will be required to have a deficiency plan to restore operations to an acceptable level of service. In Yucaipa, several roadway segments and intersections are identified as CMP facilities. Study area CMP facilities include Interstate 10 (I-10), Yucaipa Boulevard, 14th Street, Oak Glen Road, and Bryant Street.

California Department of Transportation

Intersections associated with freeway on-ramps and off-ramps fall under the jurisdiction of the California Department of Transportation (Caltrans). Caltrans targets a minimum acceptable LOS at the transition between LOS C and LOS D, as discussed in the Guide for the Preparation of Traffic Impact Studies (Caltrans 2002). For intersection analysis, this limit is the equivalent of a delay of about 35 seconds per vehicle for signalized intersections using the HCM 2000 methodology. Caltrans and the City of Yucaipa both require use of the HCM 2000 methodology for the analysis of traffic conditions. Caltrans has also recently encouraged the use of roundabout intersections at freeway ramp terminals rather than signalized intersections.

Local Regulations

General Plan Circulation Element

The General Plan Circulation Element identifies the existing transportation conditions in the City, including roadway configuration and capacities. In addition, the element identifies issues and opportunities, goals, policies, and actions related to circulation in the City, including the following policy:

- **Policy T-2.1: Level of Service.** To promote the safe and efficient movement of vehicular traffic, maintain a minimum level of service (LOS) C on all intersections and road segments except for two conditions:
    - At roadway intersections where traffic movements are controlled by roundabouts, LOS D shall be acceptable (e.g., average control delay of 30 seconds per vehicle or better).
    - On roadway segments where a roundabout controls at least one of the intersections at the ends of the segment, the lower half of LOS D shall be acceptable (e.g., V/C ratio of 0.849 or better).
    - On-street parking, improvement levels, roundabouts, and infrastructure may be considered in furthering acceptable levels of service, safety, and other priorities.

5.14.1.2 EXISTING CONDITIONS

Existing Roadway Network

The circulation network considered for analysis consists of streets in the vicinity of the Oak Glen Creek Specific Plan that could be affected by the traffic volumes generated by the project. Figure 5.14-1, *Project Traffic Study Area*, shows the study area and study intersection locations. This network includes the following roadways:

- **Yucaipa Boulevard** is designated as an east-west major highway in the circulation element of the City's general plan from I-10 to 5th Street, a secondary highway from 5th Street to 3rd Street, and a controlled/limited access collector from 3rd Street to Bryant Street. The posted speed limit ranges from 45 mph between I-10 and 14th Street to 25 mph between 2nd Street and Bryant Street. The roadway's existing lane configuration is four-lane divided roadway between Interstate 10 and 15th Street; six-lane divided roadway between 15th Street and 5th Street; four-lane with center-turn lane from 5th Street to 2nd Street; and two-lane undivided from 2nd Street to Bryant Street.

- **Oak Glen Road** is classified as a major highway from Calimesa Boulevard to Colorado Street, a secondary highway between Colorado Street and Bryant Street, and a collector street east of Bryant Street. Oak Glen Road currently is a 5-lane divided roadway from Calimesa Boulevard to Colorado Street; four-lane divided road from Colorado Street to the vicinity of Chapman Heights Road; four-lane undivided roadway from Chapman Heights Road to Bryant Street; and 2-lane undivided roadway east of Bryant Street. The posted speed limit ranges from 40 mph to 50 mph. The roadway has striped Class II

bike lanes from Calimesa Boulevard to Yucaipa Boulevard and from 5th Street to Fremont Street (east of Bryant Street).

- **Date Street** is an east-west local street that runs south of the project site. It has one lane in each direction, and parking is allowed on both sides of the street. The posted speed limit is 25 mph.

- **Avenue E** is designated as an east-west secondary highway from 14th Street to Bryant Street and as a local street otherwise. The roadway is not built to facility standards for most of the extension designated as secondary highway. The posted speed limit ranges from 35 to 40 mph.

- **Wildwood Canyon Road** is designated as an east-west secondary highway west of Bryant Street and as a collector from Bryant Street to City limits. It is currently configured as a two-lane undivided roadway with a posted speed limit ranging from 40 mph to 45 mph.

- **5th Street** is designated as a secondary highway. Currently, the roadway is only built to standard between Oak Glen Road and Yucaipa Boulevard; south of Yucaipa Boulevard it has only one traffic lane in each direction. Posted speed limit is 35 mph.

- **2nd Street** is a local street that runs north-south to the west of the project site. The street begins at Oak Glen Road and cul-de-sacs 0.3 mile from its start. The street resumes between Persimmon Avenue and Wildwood Canyon Road.

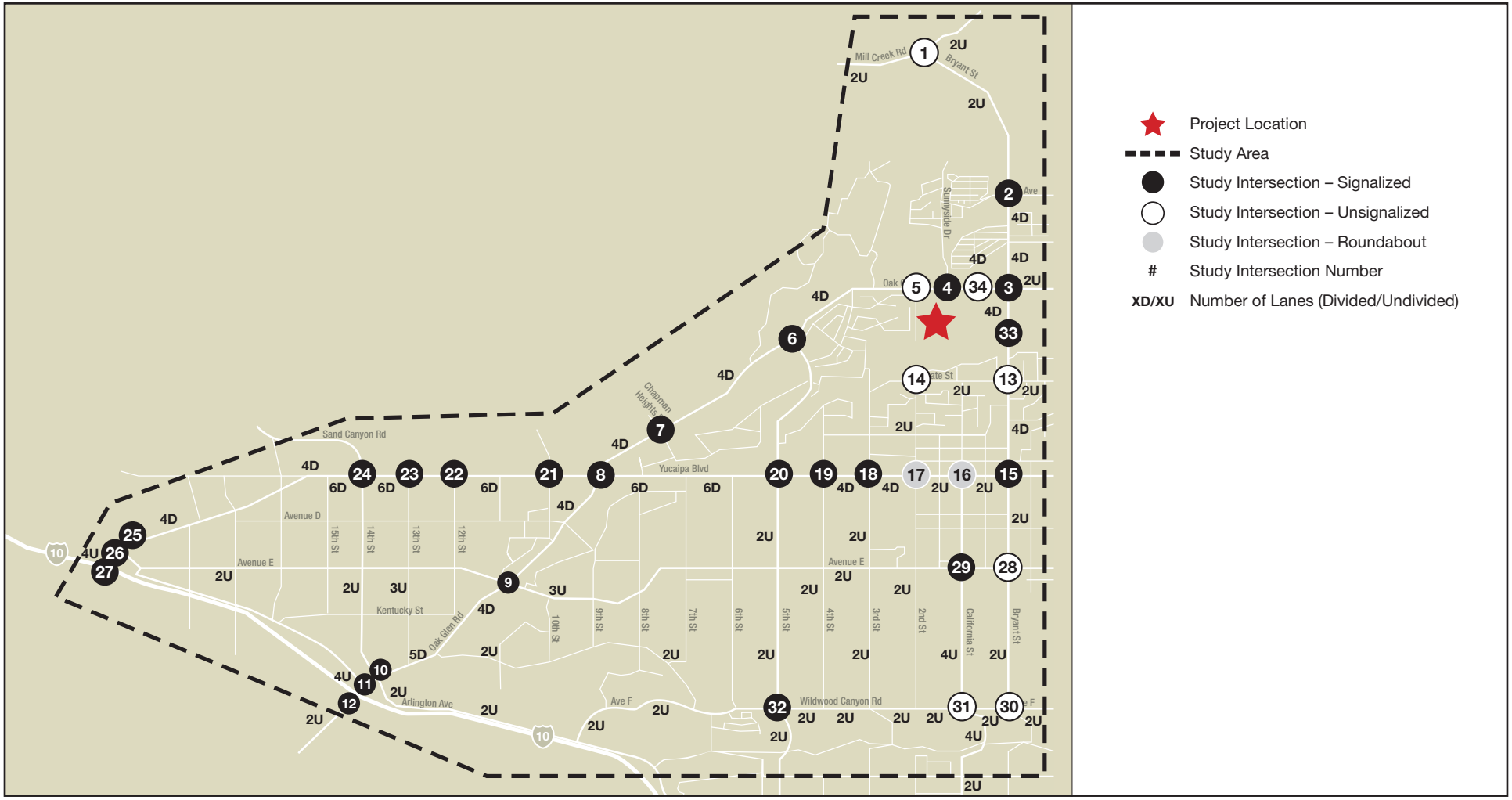
- **California Street** is a north-south roadway, and is designated as controlled/limited access collector from Yucaipa Boulevard to Avenue D and as secondary highway between Avenue D and County Line Road. Current configuration is a two-lane divided roadway from Yucaipa Boulevard and Avenue E with posted speed limit of 25 mph; four-lane divided roadway from Avenue E to Ave H with 40 mph speed limit; and two-lane undivided with posted speed limit of 35 mph south of Avenue H. On-street parking is striped north of Avenue C.

- **Bryant Street** is designated as a secondary highway. Current configurations are: two-lane undivided with bike lane from Mill Creek Road/State Route 38 to Juniper Avenue; two-lane with center turn-lane and bike lane from Juniper Avenue to Carter Street; three-lane with center turn-lane and bike lane from Carter Street to Sunnyside Drive; four-lane divided by center turn-lane and bike lane from Sunnyside Drive to Yucaipa Boulevard; and two-lane undivided south of Yucaipa Boulevard. Posted speed limits range from 35 to 50 mph.

- **Interstate 10** provides east-west regional connection to the City of Yucaipa. In the segment inside the study area, it currently has four travel lanes in each direction west of Oak Glen Road, and three lanes in each direction east of Oak Glen Road.

Figure 5.14-1 Project Traffic Study Area

5. Environmental Analysis



NOT TO SCALE

Base Map Source: IBI Group, 2016

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Existing Traffic Conditions

Existing Intersection Traffic Level of Service Analysis

Existing traffic volumes at study intersections were determined using counts taken for recent traffic impact analyses prepared for projects in the City. In locations where traffic counts less than three years old were unavailable, or where changes to street geometry may have changed traffic patterns, new traffic counts were collected. Counts taken before 2016 were subject to the application of a 1.5 percent annual traffic growth factor to estimate 2016 traffic conditions. Specific technical details and adjustments to calculate baseline conditions peak hour intersection turn movement volumes are provided in Section 4.2.1 of the TIA (see Appendix J). Figures 4-2 and 4-3 of the TIA include the existing traffic volumes for study area intersections.

Table 5.14-3, *Intersection LOS for Existing Conditions*, presents the results for the existing conditions traffic analysis without the proposed project. Figure 5.14-2, *Existing Roadway Configuration and Intersection Control*, presents the intersection lane geometries and traffic controls. The number of midblock lanes of the street network is also included in the figure. Under existing conditions, all intersections and roundabouts operate at acceptable LOS.

Table 5.14-3 Intersection LOS for Existing Conditions

Intersection		Control	AM Peak Hour			PM Peak Hour		
			LOS	Delay (s)	V/C	LOS	Delay (s)	V/C
1	Bryant Street & Mill Creek Road	TWSC	C	17.9	0.609	B	13.7	0.298
2	Bryant Street & Fir Avenue	Signal	B	17.2	0.337	A	4.4	0.172
3	Bryant Street & Oak Glen Road	Signal	C	29.6	0.656	C	27.0	0.426
4	Sunnyside Drive & Oak Glen Road	Signal	C	30.1	0.798	B	12.9	0.315
5	2nd Street & Oak Glen Road	TWSC	C	22.4	0.064	C	19.9	0.146
6	5th Street & Oak Glen Road	Signal	B	15.0	0.487	A	8.0	0.368
7	Chapman Heights Road & Oak Glen Rd	Signal	C	20.9	0.525	B	15.3	0.361
8	Oak Glen Road & Yucaipa Boulevard	Signal	C	29.7	0.639	C	30.0	0.575
9	Oak Glen Road & Avenue E	Signal	B	17.4	0.468	B	13.4	0.486
10	Oak Glen Road & Arlington Avenue	Signal	C	26.2	0.702	B	17.8	0.533
11	Oak Glen Road & NB I-10 Ramps (WB)	Signal	A	9.3	0.543	B	19.0	0.580
12	Oak Glen Road & SB I-10 Ramps (EB)	Signal	B	17.4	0.294	C	20.5	0.634
13	Bryant Street & Date Street	AWSC	C	16.1	0.572	B	11.4	0.413
14	2nd Street & Date Street	AWSC	A	7.5	0.125	A	7.4	0.112
15	Bryant Street & Yucaipa Boulevard	Signal	C	23.2	0.375	C	24.0	0.386
16	California Street & Yucaipa Blvd	RBT	A	7.6	0.42*	A	9.8	0.59*
17	2nd Street & Yucaipa Boulevard	RBT	A	9.4	0.55*	B	13.6	0.74*
18	3rd Street & Yucaipa Boulevard	Signal	B	12.3	0.270	B	12.6	0.356
19	4th Street & Yucaipa Boulevard	Signal	B	10.3	0.306	B	12.9	0.379
20	5th Street & Yucaipa Boulevard	Signal	C	21.2	0.429	C	21.6	0.381
21	10th Street & Yucaipa Boulevard	Signal	B	13.9	0.467	B	14.6	0.347
22	12th Street & Yucaipa Boulevard	Signal	C	29.9	0.629	B	13.6	0.387
23	13th Street & Yucaipa Boulevard	Signal	B	17.9	0.392	A	5.4	0.311

Table 5.14-3 Intersection LOS for Existing Conditions

Intersection		Control	AM Peak Hour			PM Peak Hour		
			LOS	Delay (s)	V/C	LOS	Delay (s)	V/C
24	Sand Canyon Road & Yucaipa Boulevard	Signal	C	26.8	0.468	C	22.5	0.462
25	Yucaipa Boulevard & Avenue E	Signal	B	19.5	0.507	B	12.7	0.505
26	Yucaipa Boulevard & NB I-10 Ramps (WB)	Signal	A	9.7	0.242	A	7.8	0.399
27	Yucaipa Boulevard & SB I-10 Ramps (EB)	Signal	B	15.0	0.372	B	11.8	0.608
28	Bryant Street & Avenue E	AWSC	B	11.7	0.513	B	10.6	0.427
29	California Street & Avenue E	Signal	B	20.0	0.291	B	19.8	0.259
30	Bryant Street & Wildwood Canyon Road	AWSC	C	20.4	0.809	B	12.9	0.535
31	California Street & Wildwood Canyon Rd	AWSC	C	18.7	0.787	C	18.6	0.788
32	5th Street & Wildwood Canyon Road	Signal	C	22.7	0.461	C	25.1	0.490
33	Bryant Street & Eucalyptus Avenue[1]	--	--	--	--	--	--	--
34	Oak Glen Road & Innovation Access[1]	--	--	--	--	--	--	--

Source: IBI 2016.
Notes: TWSC – Two-way stop control intersection
AWSC – All-way stop control intersection
RBT – Roundabout
* Critical movement V/C ratio (Upper bound/Lower bound)
[1] Intersection #33 and #34 are future intersections/driveways.

Existing Pedestrian and Bicycle Facilities

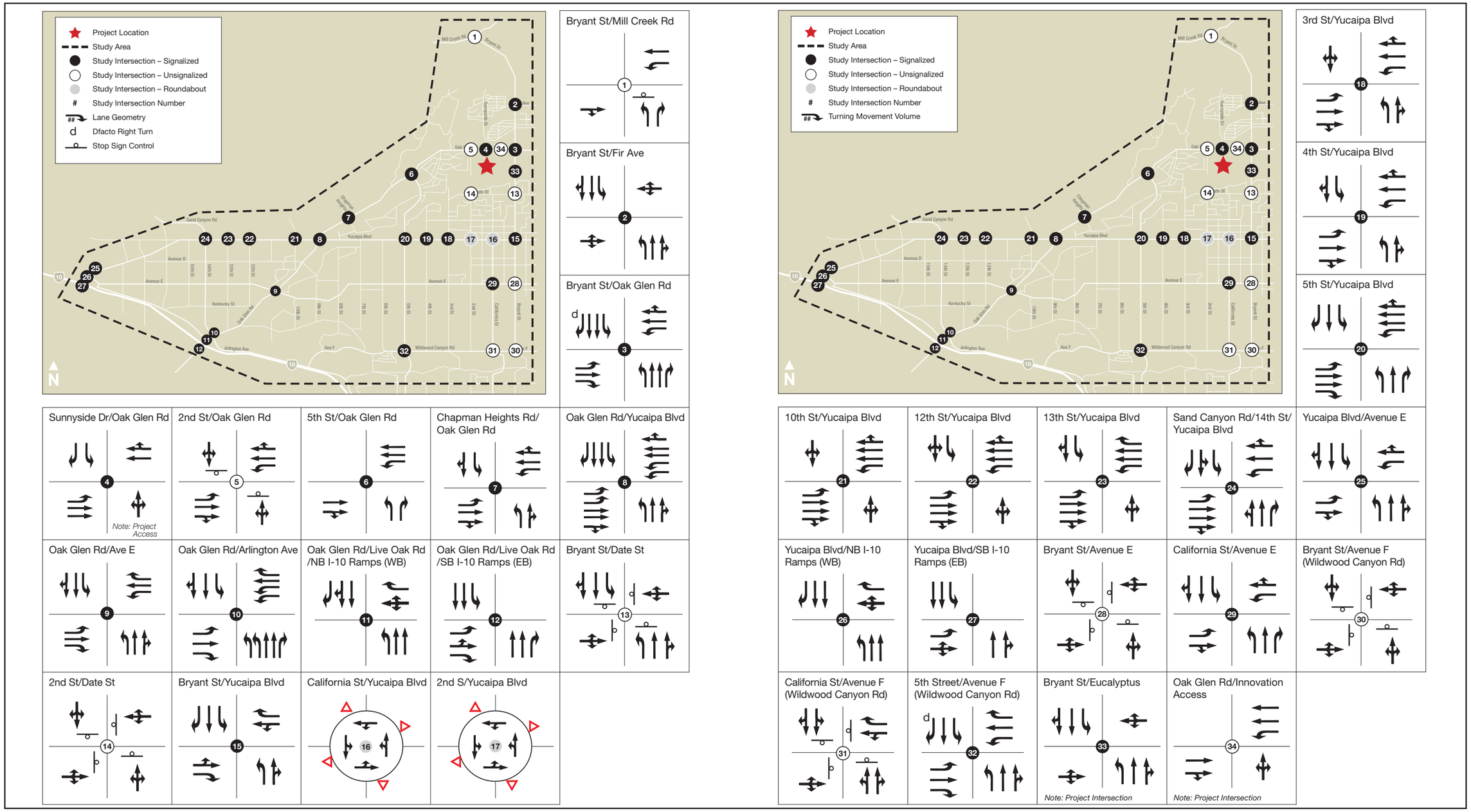
Pedestrian and bicycle transportation are important parts of multimodal mobility for Yucaipa residents. The City has been working to implement additional pedestrian and bicycle infrastructure in recent years. Additionally, the general plan further encourages maintenance of existing pedestrian and bicycle facilities as well as the implementation of more of these facilities in the future.

The City of Yucaipa classifies bikeways as follows:

- **Class I Bikeway (Bike Path).** An off-street paved pathway for use by bicyclists and pedestrians.
- **Class II Bikeway (Bike Lane).** An on-street striped bicycle lane for use by bicyclists.
- **Class III Bikeway (Bike Route).** An on-street signed or marked bicycle route that allows for shared use of a travel lane by bicyclists and automobiles.

Existing bicycle facilities in the City include bikeways in all three classifications. Yucaipa has 18 miles of bicycle routes that run adjacent to the community's major corridors. Key routes in the vicinity of the project site include Class I and II bike routes along portions of Oak Glen Road, Class II routes along portions of Bryant Street, and Class III bicycle routes on portions of Oak Glen Road and Wildwood Canyon Road.

Figure 5.14-2 Existing Roadway Configuration and Intersection Control



Base Map Source: IBI Group, 2016

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Existing Transit Service

Regional bus and shuttle services are provided by Omnitrans, which is the transit provider for the valley portions of San Bernardino County. For the project, Omnitrans service would be available at the Yucaipa Transit Center. There are two bus routes that connect Yucaipa directly to San Bernardino:

- **Route 8: San Bernardino-Mentone-Yucaipa.** Route 8 provides daily service to Yucaipa from San Bernardino via Loma Linda, Redlands, and Mentone. Route 8 provides connection to San Bernardino International Airport, Crafton Hills College, Redlands Mall, Yucaipa City Hall, Yucaipa High School, Yucaipa Square Shopping Center, and Yucaipa Transit Center. Monday through Saturday, frequencies are 60 minutes, with 120-minute frequencies on Sundays.

- **Route 308/309/310: OmniGo Yucaipa.** OmniGo Routes 308, 309 and 310 provide local Yucaipa service. Route 308 loops counter-clockwise from Yucaipa Transit Center, via 5th, County Line, California and Yucaipa. Route 309 loops clockwise. Route 310 loops the northern community clockwise via 5th, Oak Glenn, Bryant and Yucaipa on weekdays only. OmniGo Yucaipa provides connection to Community Bank (Yucaipa), Norton Younglove Senior Center, Oak Glenn Fire Station, Parkview Middle School, Ridgeview Elementary School, Stater Bros. (Oak Glenn), Stater Bros. (Yucaipa), U.S. Post Office (Yucaipa), Yucaipa City Library, Yucaipa Community Park, Yucaipa Fire Department, Yucaipa Little Theater, Yucaipa News Mirror, Yucaipa Police, Yucaipa Regional Parks, Yucaipa Senior Center, Yucaipa Transit Center. Monday through Friday frequencies are 30 minutes.

5.14.2 Thresholds of Significance

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

T-1 Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.

T-2 Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.

T-3 Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.

T-4 Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

T-5 Result in inadequate emergency access.

T-6 Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

Chapter 8, *Impacts Found Not to Be Significant*, substantiates that impacts associated with the following thresholds would be less than significant:

- Threshold T-3
- Threshold T-4
- Threshold T-5

These impacts will not be addressed in the following analysis.

Significance Criteria

Local Intersections

As identified in the current Yucaipa General Plan, a significant impact would occur if the project would:

- Standard Intersections: Degrade levels of service from an acceptable LOS C or better to LOS D, E, or F.
- Roundabout Intersections: Degrade levels of service from an acceptable LOS D (average control delay of 30 seconds per vehicle or better) or better to LOS E or F.

CMP Intersections

For CMP intersections, the acceptable LOS standard is LOS E. Significant impacts to CMP-designated locations would occur if the addition of project traffic causes:

- A CMP-designated intersection to degrade from an acceptable level of service (LOS E or better) to LOS F.

Caltrans

Based on the Caltrans Guide for the Preparation of Traffic Impact Studies, the acceptable level of service for Caltrans intersections is the threshold between LOS C and LOS D. LOS C is considered the minimum acceptable operating level for Caltrans-controlled facilities. A significant impact would occur to a Caltrans facility if the project:

- Degrades level of service from an acceptable LOS C or better to LOS D, E, or F; or
- Increases traffic on a facility operating at an unacceptable level. For intersection analysis, the threshold is the equivalent of having a delay of about 35 seconds per vehicle for signalized intersections using the HCM 2000 methodology.

5.14.3 Environmental Impacts

Methodology

Trip Generation

Project-related traffic volumes were obtained using the 9th edition of the Institute of Transportation Engineers (ITE) *Trip Generation* rates for vehicles. The Innovation District includes a broad set of potential uses, and the ITE rates selected are intended to provide a high potential trip "cap" for the Innovation District site, where a range of potential uses could be accommodated within the proposed building size and the number of generated automobile trips. Table 5.14-4, *Oak Glen Creek Specific Plan Vehicle Trip Generation Rates*, summarizes the trip rates for the Specific Plan land uses. The project is anticipated to generate 2,102 daily trips, of which 180 would occur in the AM peak hour, and 228 would occur in the PM peak hour.

Table 5.14-4 Oak Glen Creek Specific Plan Vehicle Trip Generation Rates

Representative Land Use Category	Unit	Daily (Trips/Unit)	AM Peak Hour (Trips/Unit)			PM Peak Hour (Trips/Unit)		
			In	Out	Total	In	Out	Total
Trip Rates (Land Use Code)								
Research and Development Center (760)	TSF	8.11	1.01	0.21	1.22	0.16	0.91	1.07
Single Tenant Office (715)	TSF	11.65	1.60	0.20	1.80	0.26	1.48	1.74
Single-Family Detached Housing (210)	DU	9.52	0.19	0.56	0.75	0.63	0.37	1.00
Project Trip Generation								
Innovation District – Administrative-Office-Education Center	10	81	10	2	12	2	9	11
Innovation District – Corporate Yard	10	117	16	2	18	3	15	17
Residential District	200	1,904	38	113	150	126	74	200
Total Project Trip Generation	**NA**	**2,102**	**64**	**117**	**180**	**130**	**98**	**228**

Source: IBI 2016.
Notes:
NA – Not Applicable
ADT – Average Daily Trips
TSF – Thousand Square Feet
DU – Dwelling Unit

The project-generated trips are distributed to the network based on plots extracted from the travel demand model for the region and are shown on Figure 5.14-3, *Project Trip Distribution*. Project-generated traffic volumes were added to the "without project" traffic volumes for the "with project" analysis. Cumulative projects in and near the study area are considered as being included in the travel demand model.

Future Roadway Network

For the 2040 General Plan Buildout scenario, the changes to Yucaipa's roadway system anticipated to be in place in the year 2040 consist of:

- The Wildwood Canyon Road Interchange with I-10 would be constructed and operational.

- Widening of Wildwood Canyon Road, Yucaipa Boulevard, 5th Street, and Bryant Street to meet the standards in the general plan transportation element. The improvements are described below:
  - Wildwood Canyon Road from Calimesa to Colorado: from 2 to 4 lanes
  - Yucaipa Boulevard from 14th Street to 16th Street: from 4 to 6 lanes
  - 5th Street from Oak Glen Road to County Line Road: from 2 to 4 lanes
  - Bryant Street from Yucaipa Boulevard to City limits: from 2 to 4 lanes
- Intersection control changes to meet the standards established in the City of Yucaipa General Plan Transportation Element.
  - Ave E & California St: from all-way stop sign to roundabout
  - Ave E & Bryant Street: from all-way stop to dual-lane roundabout
  - Ave F (Wildwood Canyon Rd) & Bryant Street: from all-way stop sign to signal
  - Mill Creek Road & Bryant Street: from northbound stop to signal

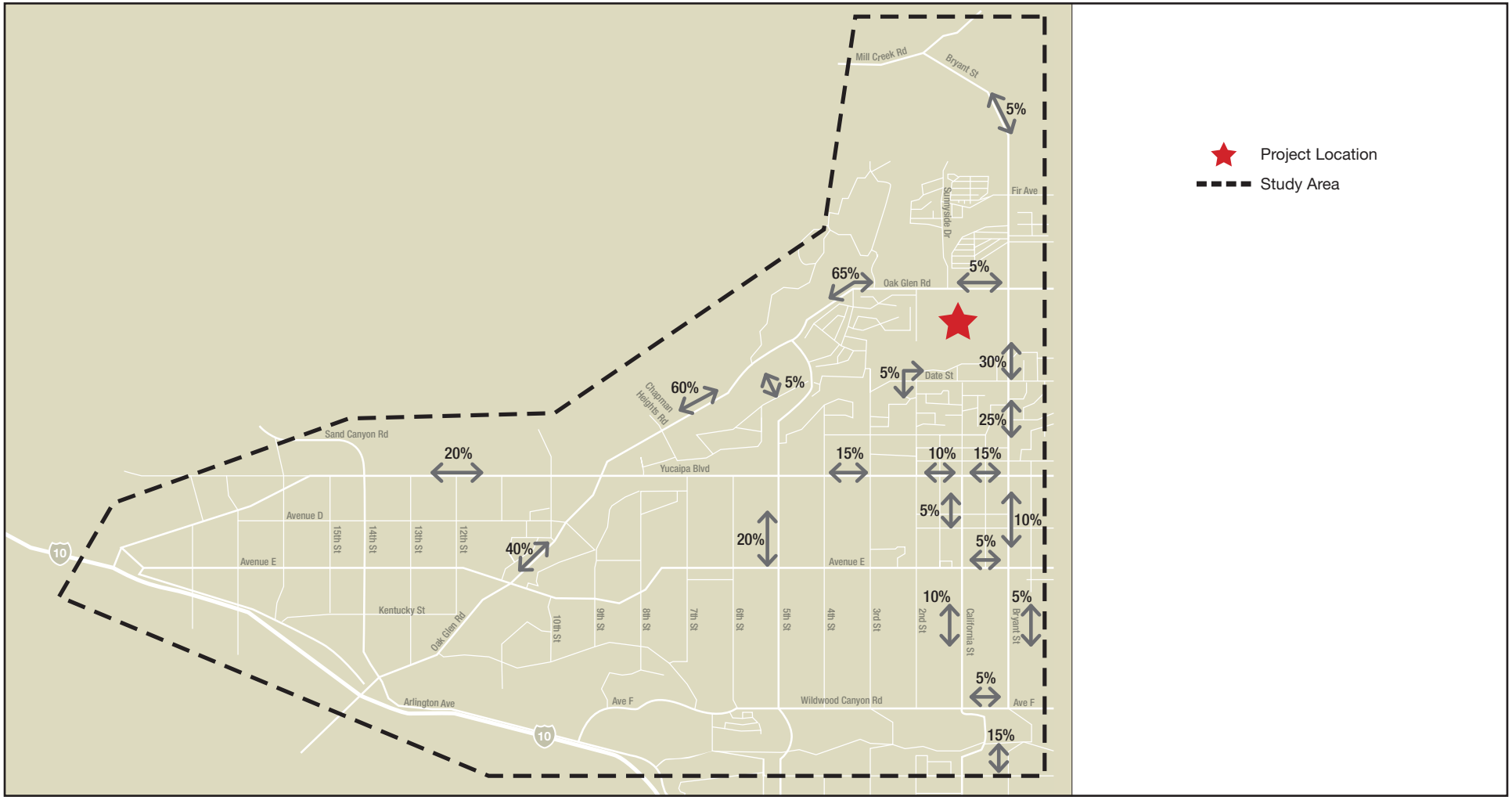
Vehicle Miles Traveled

VMT is derived from travel patterns extracted from a select link analysis conducted for the traffic analysis zone (TAZ) that contains the development. This analysis was completed using the SANBAG travel demand model. The average daily trip length for the TAZ containing the project was multiplied by the number of daily trips generated by the TAZ to obtain the without-project VMT. Project VMT was determined using the same methodology and adding the daily project trip generation to the daily trips generated by the TAZ. The average length of the trips to and from the TAZ that contains the project site is 15.12 miles. In the without-project scenario, the TAZ generates 5,131 daily trips, resulting in approximately 77,581 VMT. The 2,102 daily trips generated by the project are expected to add approximately 31,782 VMT for a total of 109,363 daily VMT.

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

Figure 5.14-3 Project Trip Distribution

5. Environmental Analysis



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Base Map Source: IBI Group, 2016

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Impact 5.14-1: Project-related trip generation would impact levels of service for the existing area roadway system. [Threshold T-1]

Impact Analysis: The Oak Glen Creek Specific Plan is a long-term guide for development of the approximately 116-acre project site to accommodate up to 200 residential units; 20,000 square feet of institutional, office, and medical land uses; and 57.6 acres of open space.

The project would modify the existing network, with four access points along Oak Glen Road and Bryant Street. 2nd Street would be extended south beyond Amber Leaf Way but would not connect to Persimmon Avenue. Sunnyside Drive would continue and extend south beyond Oak Glen Road. A driveway along Oak Glen Road immediately east of the Oak Glen Creek would provide access to a portion of the Innovation District. A driveway along Bryant Street at the prolongation of Eucalyptus Avenue would provide access for a portion of the Innovation District. Each of the four access points (two streets and two driveways) would have a single outbound lane serving left, thru, and right lanes.

Existing with Project

The existing with project scenario is provided to disclose the project-level impacts of the project compared to existing environmental conditions rather than a future baseline. The intersection level of service analysis for the existing conditions without and with the Specific Plan is summarized below in Table 5.14-5, *Existing With- and Without-Project Intersection LOS Analysis*. Figures 4-4 and 4-5 of the TIA (see Appendix J of this DEIR) include the existing with project traffic volumes for study area intersections. The table shows a comparison between the existing condition without and with the project and identifies potential impacts. Significant traffic impacts are identified at the following intersection for the existing with project conditions:

- Intersection #5: 2nd Street & Oak Glen Road

This intersection would operate at LOS F during the AM and PM peak hours with the project, which is below City standards. Without mitigation, this would be a significant impact. All other intersections are anticipated to operate at LOS C or better during both peak periods.

Project Opening Year 2018

The project opening year 2018 scenario is provided to disclose the project-level impacts of the project compared to the environmental conditions when the project would be operational rather than the existing baseline. Yucaipa's roadway system considered for the analysis of the year 2018 configuration is presented in Figure 5.14-4, *2018 Roadway Configuration and Intersection Control*. The intersection level of service analysis for the project opening year without and with the Oak Glen Creek Specific Plan is summarized in Table 5.14-7, *Year 2018 With and Without Project Intersection LOS Analysis*. Figures 5-2, 5-3, 5-4, and 5-5 of the TIA (Appendix J) include the 2018 traffic volumes for study area intersections without and with project. The table shows a comparison between the project opening year without and with the project and identifies potential impacts. Significant traffic impacts are identified at the following intersection for the Opening Year (2018) with project scenario:

- Intersection #5: 2nd Street & Oak Glen Road

This intersection would operate at LOS F in the AM and PM peak hours with the project, which is below City standards. Without mitigation, this would be a significant impact. All other intersections are anticipated to operate at acceptable LOS during both peak periods.

General Plan Horizon Year 2040

Trips generated by cumulative projects have been incorporated into the without project and with project analysis scenarios. Yucaipa's roadway system for the analysis of the year 2040 configuration is presented in Figure 5.14-5, *2040 Roadway Configuration and Intersection Control*. Figures 6-2, 6-3, 6-4, and 6-5 of the TIA include the 2040 traffic volumes for study area intersections without and with project.

The intersection level of service analysis for the general plan horizon year of 2040 is summarized below in Table 5.14-8, *General Plan Horizon Year 2040 With- and Without-Project Intersection LOS Analysis*, to evaluate cumulative impacts without and with the Oak Glen Creek Specific Plan. The table shows a comparison between the without and with project and identifies potential impacts. Significant traffic impacts are identified at the following intersections:

- Intersection #5: 2nd Street & Oak Glen Road
- Intersection #13: Bryant Street & Date Street

Summary

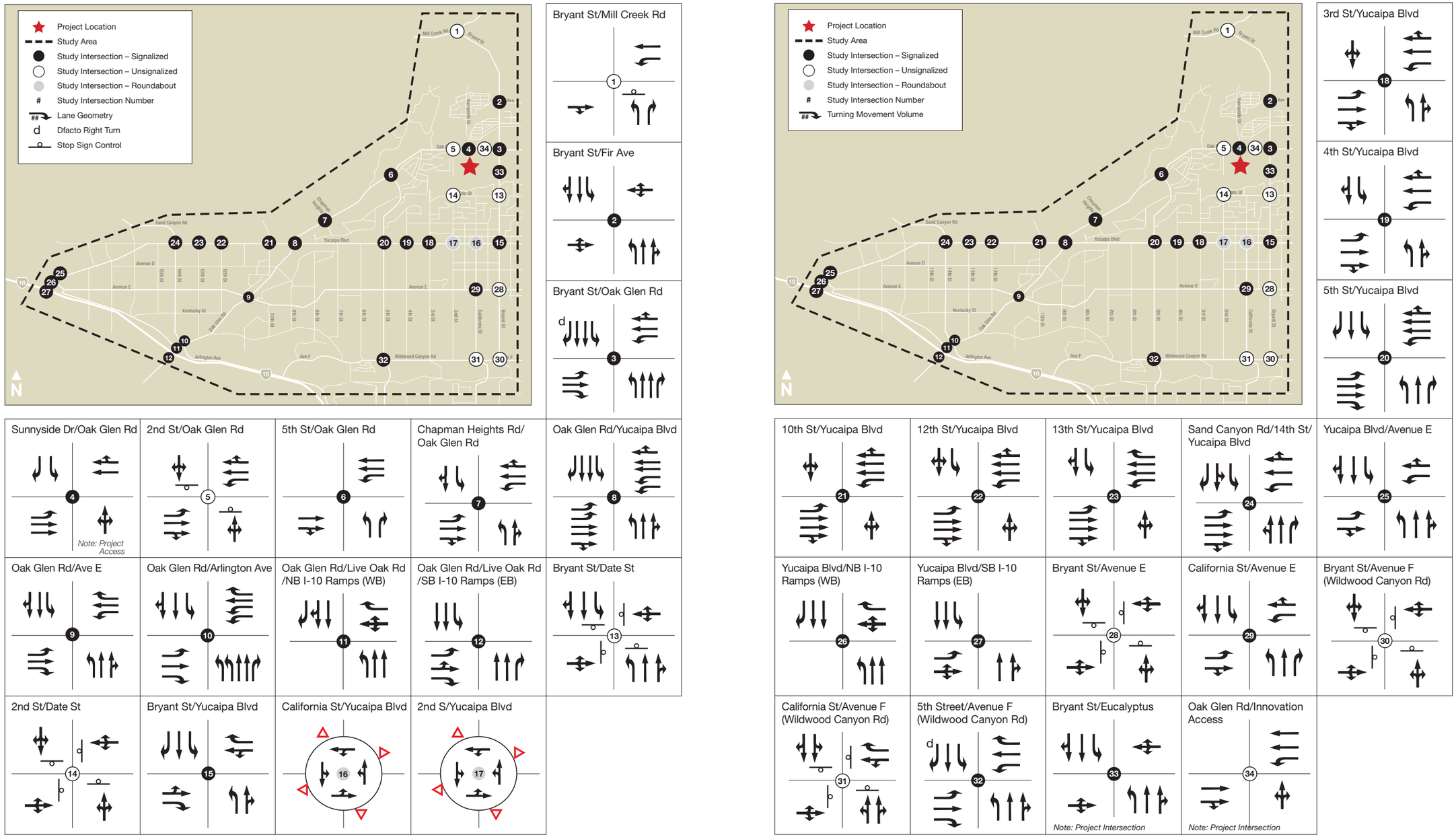
The impact analysis for existing, 2018, and 2040 conditions identified significant traffic impacts with the project at the following intersections:

- Intersection #5: 2nd Street & Oak Glen Road (Existing Plus Project, Opening Year 2018, and General Plan Horizon Year 2040)

- Intersection #13: Bryant Street & Date Street (General Plan Horizon Year 2040 only)

Without mitigation there would be a significant impact.

Figure 5.14-4 2018 Roadway Configuration and Intersection Control



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Base Map Source: IBI Group, 2016

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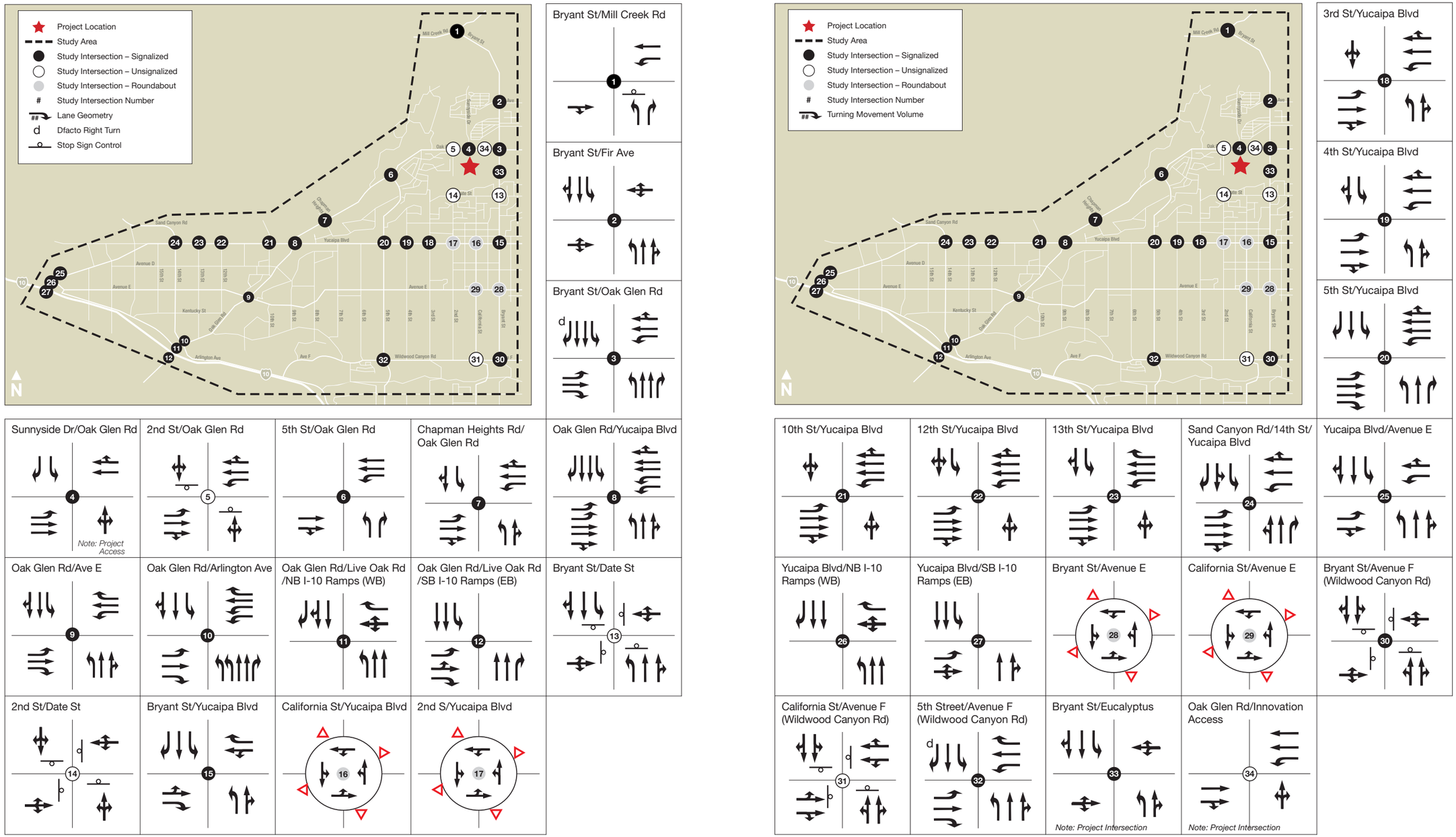
Figure 5.14-5 2040 Roadway Configuration and Intersection Control



Base Map Source: IBI Group, 2016

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Table 5.14-5 Existing With- and Without-Project Intersection LOS Analysis

Intersection		Control	Peak Hour	Without Project			With Project			Change in Delay (s)	Potential Impact
				LOS	Delay (s)	V/C	LOS	Delay (s)	V/C		
1	Bryant Street & Mill Creek Road	TWSC	AM	C	17.9	0.609	C	18.1	0.617	0.2	No
			PM	B	13.7	0.298	B	13.8	0.307	0.1	No
2	Bryant Street & Fir Avenue	Signal	AM	B	17.2	0.337	B	17.1	0.338	-0.1	No
			PM	A	4.4	0.172	A	4.4	0.174	0.0	No
3	Bryant Street & Oak Glen Road	Signal	AM	C	29.6	0.656	C	30.5	0.678	0.9	No
			PM	C	27.0	0.426	C	27.6	0.459	0.6	No
4	Sunnyside Drive & Oak Glen Road	Signal	AM	C	30.1	0.798	C	33.0	0.824	2.9	No
			PM	B	12.9	0.315	B	14.9	0.348	2.0	No
5	2nd Street & Oak Glen Road	TWSC	AM	C	22.4	0.064	F	109.5	0.760	87.1	**Yes**
			PM	C	19.9	0.146	F	62.7	0.493	42.8	**Yes**
6	5th Street & Oak Glen Road	Signal	AM	B	15.0	0.487	B	14.6	0.508	-0.4	No
			PM	A	8.0	0.368	A	7.8	0.395	-0.2	No
7	Chapman Heights Road & Oak Glen Road	Signal	AM	C	20.9	0.525	C	20.8	0.525	-0.1	No
			PM	B	15.3	0.361	B	14.6	0.384	-0.7	No
8	Oak Glen Road & Yucaipa Boulevard	Signal	AM	C	29.7	0.639	C	29.7	0.656	0.0	No
			PM	C	30.0	0.575	C	30.0	0.590	0.0	No
9	Oak Glen Road & Avenue E	Signal	AM	B	17.4	0.468	B	17.4	0.482	0.0	No
			PM	B	13.4	0.486	B	13.0	0.501	-0.4	No
10	Oak Glen Road & Arlington Avenue	Signal	AM	C	26.2	0.702	C	26.1	0.716	-0.1	No
			PM	B	17.8	0.533	B	17.5	0.548	-0.3	No
11	Oak Glen Road & NB I-10 Ramps (WB)	Signal	AM	A	9.3	0.543	A	9.4	0.555	0.1	No
			PM	B	19.0	0.580	B	19.5	0.582	0.5	No
12	Oak Glen Road & SB I-10 Ramps (EB)	Signal	AM	B	17.4	0.294	B	17.4	0.298	0.0	No
			PM	C	20.5	0.634	C	20.6	0.637	0.1	No
13	Bryant Street & Date Street	AWSC	AM	C	16.1	0.572	C	16.9	0.608	0.8	No
			PM	B	11.4	0.413	B	11.8	0.442	0.4	No
14	2nd Street & Date Street	AWSC	AM	A	7.5	0.125	A	7.5	0.132	0.0	No
			PM	A	7.4	0.112	A	7.4	0.118	0.0	No

5. Environmental Analysis
TRANSPORTATION AND TRAFFIC

Table 5.14-5 Existing With- and Without-Project Intersection LOS Analysis

Intersection		Control	Peak Hour	Without Project			With Project			Change in Delay (s)	Potential Impact
				LOS	Delay (s)	V/C	LOS	Delay (s)	V/C		
15	Bryant Street & Yucaipa Boulevard	Signal	AM	C	23.2	0.375	C	23.1	0.387	-0.1	No
			PM	C	24.0	0.386	C	24.0	0.404	0.0	No
16	California Street & Yucaipa Blvd	RBT	AM	A	7.6	0.42*	A	7.8	0.44*	0.2	No
			PM	A	9.8	0.59*	B	10.1	0.60*	0.3	No
17	2nd Street & Yucaipa Boulevard	RBT	AM	A	9.4	0.55*	A	9.6	0.56*	0.2	No
			PM	B	13.6	0.74*	B	14.3	0.76*	0.7	No
18	3rd Street & Yucaipa Boulevard	Signal	AM	B	12.3	0.270	B	12.1	0.276	-0.2	No
			PM	B	12.6	0.356	B	12.4	0.362	-0.2	No
19	4th Street & Yucaipa Boulevard	Signal	AM	B	10.3	0.306	B	10.2	0.311	-0.1	No
			PM	B	12.9	0.379	B	12.8	0.385	-0.1	No
20	5th Street & Yucaipa Boulevard	Signal	AM	C	21.2	0.429	C	21.7	0.429	0.5	No
			PM	C	21.6	0.381	C	22.2	0.400	0.6	No
21	10th Street & Yucaipa Boulevard	Signal	AM	B	13.9	0.467	B	13.8	0.471	-0.1	No
			PM	B	14.6	0.347	B	14.4	0.352	-0.2	No
22	12th Street & Yucaipa Boulevard	Signal	AM	C	29.9	0.629	C	29.8	0.634	-0.1	No
			PM	B	13.6	0.387	B	13.4	0.392	-0.2	No
23	13th Street & Yucaipa Boulevard	Signal	AM	B	17.9	0.392	B	17.7	0.399	-0.2	No
			PM	A	5.4	0.311	A	5.3	0.316	-0.1	No
24	Sand Canyon Road & Yucaipa Boulevard	Signal	AM	C	26.8	0.468	C	26.6	0.474	-0.2	No
			PM	C	22.5	0.462	C	22.3	0.468	-0.2	No
25	Yucaipa Boulevard & Avenue E	Signal	AM	B	19.5	0.507	B	19.3	0.513	-0.2	No
			PM	B	12.7	0.505	B	12.6	0.513	-0.1	No
26	Yucaipa Boulevard & NB I-10 Ramps (WB)	Signal	AM	A	9.7	0.242	B	10.1	0.243	0.4	No
			PM	A	7.8	0.399	A	8.3	0.401	0.5	No
27	Yucaipa Boulevard & SB I-10 Ramps (EB)	Signal	AM	B	15.0	0.372	B	15.2	0.376	0.2	No
			PM	B	11.8	0.608	B	12.0	0.612	0.2	No
28	Bryant Street & Avenue E	AWSC	AM	B	11.7	0.513	B	11.9	0.528	0.2	No
			PM	B	10.6	0.427	B	10.8	0.441	0.2	No

Table 5.14-5 Existing With- and Without-Project Intersection LOS Analysis

Intersection		Control	Peak Hour	Without Project			With Project			Change in Delay (s)	Potential Impact
				LOS	Delay (s)	V/C	LOS	Delay (s)	V/C		
29	California Street & Avenue E	Signal	AM	B	20.0	0.291	C	20.0	0.293	0.0	No
			PM	B	19.8	0.259	B	20.0	0.266	0.2	No
30	Bryant Street & Wildwood Canyon Road	AWSC	AM	C	20.4	0.809	C	20.3	0.808	-0.1	No
			PM	B	12.9	0.535	B	13.0	0.545	0.1	No
31	California Street & Wildwood Canyon Road	AWSC	AM	C	18.7	0.787	C	19.3	0.803	0.6	No
			PM	C	18.6	0.788	C	19.0	0.799	0.4	No
32	5th Street & Wildwood Canyon Road	Signal	AM	C	22.7	0.461	C	23.0	0.474	0.3	No
			PM	C	25.1	0.490	C	25.1	0.502	0.0	No
33	Bryant Street & Eucalyptus Avenue	Signal	AM	--	--	--	C	18.4	0.006	--	No
			PM	--	--	--	C	15.3	0.022	--	No
34	Oak Glen Road & Innovation Access	OWSC	AM	--	--	--	C	18.0	0.007	--	No
			PM	--	--	--	C	20.2	0.054	--	No

Source: IBI 2016
Notes: **Bold** indicates that intersection performs below the minimum acceptable LOS of "D".
TWSC – Two-way stop control
AWSC – All-way stop control
RBT – Roundabout
OWSC- One-Way Stop Control
OVF- Overflow, not possible to calculate delay in seconds.
* Critical movement V/C ratio (Upper bound/Lower bound)

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Table 5.14-6 Year 2018 With and Without Project Intersection LOS Analysis

Intersection		Control	Peak Hour	Without Project			With Project			Change in Delay (s)	Potential Impact
				LOS	Delay (s)	V/C	LOS	Delay (s)	V/C		
1	Bryant Street & Mill Creek Road	TWSC	AM	C	21	0.685	C	21.3	0.693	0.3	No
			PM	B	14.8	0.348	B	14.9	0.357	0.1	No
2	Bryant Street & Fir Avenue	Signal	AM	B	17.3	0.341	B	17.2	0.342	-0.1	No
			PM	A	4.4	0.176	A	4.3	0.178	-0.1	No
3	Bryant Street & Oak Glen Road	Signal	AM	C	29.3	0.655	C	30.3	0.678	1.0	No
			PM	C	27.1	0.421	C	27.7	0.455	0.6	No
4	Sunnyside Drive & Oak Glen Road	Signal	AM	C	30.1	0.798	C	33.0	0.825	2.9	No
			PM	B	12.9	0.316	B	14.8	0.344	1.9	No
5	2nd Street & Oak Glen Road	TWSC	AM	D	28.4	0.086	F	110.4	0.762	82.0	**Yes**
			PM	C	20.4	0.159	F	60.7	0.482	40.3	**Yes**
6	5th Street & Oak Glen Road	Signal	AM	B	15	0.488	B	14.6	0.508	-0.4	No
			PM	A	8.1	0.368	A	7.9	0.394	-0.2	No
7	Chapman Heights Road & Oak Glen Road	Signal	AM	C	20.9	0.546	C	20.8	0.546	-0.1	No
			PM	B	15.3	0.359	B	14.6	0.381	-0.7	No
8	Oak Glen Road & Yucaipa Boulevard	Signal	AM	C	29.7	0.641	C	29.7	0.659	0.0	No
			PM	C	30	0.576	C	30.1	0.591	0.1	No
9	Oak Glen Road & Avenue E	Signal	AM	B	17.4	0.469	B	17.4	0.483	0.0	No
			PM	B	13.5	0.492	B	13.2	0.508	-0.3	No
10	Oak Glen Road & Arlington Avenue	Signal	AM	C	26.2	0.702	C	26.2	0.716	0.0	No
			PM	B	17.9	0.535	B	17.6	0.55	-0.3	No
11	Oak Glen Road & NB I-10 Ramps (WB)	Signal	AM	A	9.3	0.544	A	9.4	0.556	0.1	No
			PM	B	19.3	0.589	B	19.7	0.591	0.4	No
12	Oak Glen Road & SB I-10 Ramps (EB)	Signal	AM	B	17.1	0.294	B	17.1	0.298	0.0	No
			PM	C	20.8	0.641	C	20.9	0.644	0.1	No
13	Bryant Street & Date Street	AWSC	AM	C	16.7	0.587	C	17.5	0.624	0.8	No
			PM	B	11.7	0.441	B	12.2	0.47	0.5	No
14	2nd Street & Date Street	AWSC	AM	A	7.5	0.124	A	7.5	0.131	0.0	No
			PM	A	7.4	0.112	A	7.4	0.118	0.0	No

Table 5.14-6 Year 2018 With and Without Project Intersection LOS Analysis

Intersection		Control	Peak Hour	Without Project			With Project			Change in Delay (s)	Potential Impact
				LOS	Delay (s)	V/C	LOS	Delay (s)	V/C		
15	Bryant Street & Yucaipa Boulevard	Signal	AM	C	23	0.382	C	23	0.395	0.0	No
			PM	C	23.9	0.401	C	23.8	0.419	-0.1	No
16	California Street & Yucaipa Blvd	RBT	AM	A	7.7	0.43*	A	7.93	0.45*	0.2	No
			PM	A	9.95	0.59*	B	10.3	0.61*	0.4	No
17	2nd Street & Yucaipa Boulevard	RBT	AM	A	9.37	0.55*	A	9.6	0.56*	0.2	No
			PM	B	13.56	0.74*	B	14.3	0.76*	0.7	No
18	3rd Street & Yucaipa Boulevard	Signal	AM	B	12.2	0.271	B	12	0.276	-0.2	No
			PM	B	12.5	0.357	B	12.3	0.363	-0.2	No
19	4th Street & Yucaipa Boulevard	Signal	AM	B	10.3	0.306	B	10.2	0.311	-0.1	No
			PM	B	13	0.379	B	12.8	0.385	-0.2	No
20	5th Street & Yucaipa Boulevard	Signal	AM	C	21.2	0.435	C	21.8	0.435	0.6	No
			PM	C	21.3	0.378	C	22	0.399	0.7	No
21	10th Street & Yucaipa Boulevard	Signal	AM	B	13.9	0.466	B	13.8	0.471	-0.1	No
			PM	B	16	0.365	B	15.7	0.371	-0.3	No
22	12th Street & Yucaipa Boulevard	Signal	AM	C	29.9	0.63	C	29.8	0.635	-0.1	No
			PM	B	13.6	0.388	B	13.4	0.393	-0.2	No
23	13th Street & Yucaipa Boulevard	Signal	AM	B	17.8	0.389	B	17.6	0.396	-0.2	No
			PM	A	5.3	0.312	A	5.2	0.317	-0.1	No
24	Sand Canyon Road & Yucaipa Boulevard	Signal	AM	C	26.8	0.476	C	26.6	0.483	-0.2	No
			PM	C	23	0.475	C	22.8	0.48	-0.2	No
25	Yucaipa Boulevard & Avenue E	Signal	AM	B	19.4	0.506	B	19.3	0.513	-0.1	No
			PM	B	12.7	0.506	B	12.6	0.514	-0.1	No
26	Yucaipa Boulevard & NB I-10 Ramps (WB)	Signal	AM	A	9.6	0.242	A	10	0.242	0.4	No
			PM	A	7.8	0.401	A	8.3	0.403	0.5	No
27	Yucaipa Boulevard & SB I-10 Ramps (EB)	Signal	AM	B	15.2	0.371	B	15.4	0.375	0.2	No
			PM	B	11.8	0.610	B	11.9	0.613	0.1	No
28	Bryant Street & Avenue E	AWSC	AM	B	12.3	0.539	B	12.4	0.554	0.1	No
			PM	B	11.1	0.468	B	11.2	0.484	0.1	No

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Table 5.14-6 Year 2018 With and Without Project Intersection LOS Analysis

Intersection		Control	Peak Hour	Without Project			With Project			Change in Delay (s)	Potential Impact
				LOS	Delay (s)	V/C	LOS	Delay (s)	V/C		
29	California Street & Avenue E	Signal	AM	B	19.1	0.242	C	20.3	0.281	1.2	No
			PM	B	18.4	0.198	C	21	0.248	2.6	No
30	Bryant Street & Wildwood Canyon Road	AWSC	AM	C	23.8	0.856	C	23.7	0.854	-0.1	No
			PM	B	14.3	0.585	B	14.4	0.595	0.1	No
31	California Street & Wildwood Canyon Road	AWSC	AM	C	20.4	0.827	C	21.2	0.843	0.8	No
			PM	C	21.3	0.845	C	21.9	0.857	0.6	No
32	5th Street & Wildwood Canyon Road	Signal	AM	C	22.3	0.461	C	22.7	0.468	0.4	No
			PM	C	25.4	0.468	C	25.5	0.475	0.1	No
33	Bryant Street & Eucalyptus Avenue	Signal	AM	--	--	--	C	18.5	0.006	--	No
			PM	--	--	--	C	15.4	0.022	--	No
34	Oak Glen Road & Innovation Access	OWSC	AM	--	--	--	C	18.1	0.007	--	No
			PM	--	--	--	C	20.4	0.054	--	No

Source: IBI 2016.
Notes: Bold indicates that intersection performs below the minimum acceptable LOS.
TWSC – Two-way stop control
AWSC – All-way stop control
RBT – Roundabout
OWSC- One-Way Stop Control
OVF- Overflow, not possible to calculate delay in seconds.
* Critical movement V/C ratio (Upper bound/Lower bound)
Intersection 33, Bryant Street & Eucalyptus Avenue, and 34, Oak Glen Road & Innovation Access, would be only implemented with the project.

Table 5.14-7 General Plan Horizon Year 2040 With- and Without-Project Intersection LOS Analysis

Intersection		Control	Peak Hour	Without Project			With Project			Change in Delay (s)	Potential Impact
				LOS	Delay (s)	V/C	LOS	Delay (s)	V/C		
1	Bryant Street & Mill Creek Road	Signal	AM	B	19.7	0.623	B	19.8	0.628	0.1	No
			PM	C	26	0.866	C	26.5	0.872	0.5	No
2	Bryant Street & Fir Avenue	Signal	AM	B	18.3	0.363	B	18.2	0.364	-0.1	No
			PM	A	4	0.207	A	4	0.209	0.0	No
3	Bryant Street & Oak Glen Road	Signal	AM	C	26	0.611	C	26.8	0.645	0.8	No
			PM	C	25.5	0.477	C	26.4	0.512	0.9	No
4	Sunnyside Drive & Oak Glen Road	Signal	AM	C	28.2	0.765	C	30.5	0.790	2.3	No
			PM	B	12.3	0.313	B	14.2	0.339	1.9	No
5	2nd Street & Oak Glen Road	TWSC	AM	F	96.8	0.439	F	126.3	0.733	29.5	**Yes**
			PM	D	33.7	0.315	E	47.9	0.409	14.2	**Yes**
6	5th Street & Oak Glen Road	Signal	AM	B	14.9	0.467	B	14.6	0.487	-0.3	No
			PM	A	8.6	0.342	A	8.2	0.364	-0.4	No
7	Chapman Heights Road & Oak Glen Road	Signal	AM	C	21.2	0.742	C	21	0.742	-0.2	No
			PM	B	15.6	0.314	B	14.8	0.335	-0.8	No
8	Oak Glen Road & Yucaipa Boulevard	Signal	AM	C	29	0.633	C	29	0.65	0.0	No
			PM	C	30	0.563	C	30	0.578	0.0	No
9	Oak Glen Road & Avenue E	Signal	AM	B	16.9	0.452	B	17	0.465	0.1	No
			PM	B	15.6	0.566	B	15.4	0.58	-0.2	No
10	Oak Glen Road & Arlington Avenue	Signal	AM	C	26.6	0.691	C	26.6	0.704	0.0	No
			PM	C	21	0.629	C	20.8	0.643	-0.2	No
11	Oak Glen Road & NB I-10 Ramps (WB)	Signal	AM	A	9.2	0.523	A	9.3	0.53	0.1	No
			PM	C	21.9	0.652	C	22.3	0.653	0.4	No
12	Oak Glen Road & SB I-10 Ramps (EB)	Signal	AM	B	13.3	0.28	B	13.3	0.283	0.0	No
			PM	C	22.9	0.687	C	23	0.69	0.1	No
13	Bryant Street & Date Street	AWSC	AM	D	30.3	0.826	D	33.4	0.851	3.1	**Yes**
			PM	C	20.4	0.776	C	22.7	0.815	2.3	No
14	2nd Street & Date Street	AWSC	AM	A	7.6	0.114	A	7.6	0.122	0.0	No
			PM	A	7.8	0.161	A	7.8	0.162	0.0	No

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Table 5.14-7 General Plan Horizon Year 2040 With- and Without-Project Intersection LOS Analysis

Intersection		Control	Peak Hour	Without Project			With Project			Change in Delay (s)	Potential Impact
				LOS	Delay (s)	V/C	LOS	Delay (s)	V/C		
15	Bryant Street & Yucaipa Boulevard	Signal	AM	C	21.8	0.472	C	21.9	0.481	0.1	No
			PM	C	22.7	0.544	C	23	0.56	0.3	No
16	California Street & Yucaipa Blvd	RBT	AM	A	8.76	0.50*	A	9.1	0.52*	0.3	No
			PM	B	12.77	0.53*	B	13.4	0.70*	0.6	No
17	2nd Street & Yucaipa Boulevard	RBT	AM	A	9.08	0.55*	A	9.4	0.56*	0.3	No
			PM	B	13.23	0.71*	B	13.9	0.60*	0.7	No
18	3rd Street & Yucaipa Boulevard	Signal	AM	B	11.4	0.262	B	11.2	0.267	-0.2	No
			PM	B	11.8	0.353	B	11.6	0.358	-0.2	No
19	4th Street & Yucaipa Boulevard	Signal	AM	B	10.2	0.289	B	10.1	0.294	-0.1	No
			PM	B	12.6	0.358	B	12.5	0.363	-0.1	No
20	5th Street & Yucaipa Boulevard	Signal	AM	C	21.1	0.502	C	21.3	0.502	0.2	No
			PM	B	19.2	0.345	C	20	0.366	0.8	No
21	10th Street & Yucaipa Boulevard	Signal	AM	B	13.7	0.445	B	13.6	0.449	-0.1	No
			PM	C	25	0.568	C	24.9	0.573	-0.1	No
22	12th Street & Yucaipa Boulevard	Signal	AM	C	29.9	0.607	C	29.8	0.612	-0.1	No
			PM	B	13.5	0.375	B	13.3	0.38	-0.2	No
23	13th Street & Yucaipa Boulevard	Signal	AM	B	16.1	0.339	B	15.9	0.345	-0.2	No
			PM	A	5.4	0.303	A	5.3	0.308	-0.1	No
24	Sand Canyon Road & Yucaipa Boulevard	Signal	AM	C	26.6	0.538	C	26.4	0.545	-0.2	No
			PM	C	26.8	0.579	C	26.7	0.585	-0.1	No
25	Yucaipa Boulevard & Avenue E	Signal	AM	B	18.7	0.464	B	18.5	0.47	-0.2	No
			PM	B	12.6	0.492	B	12.5	0.499	-0.1	No
26	Yucaipa Boulevard & NB I-10 Ramps (WB)	Signal	AM	A	8.5	0.222	A	8.9	0.223	0.4	No
			PM	A	7.7	0.403	A	8.2	0.405	0.5	No
27	Yucaipa Boulevard & SB I-10 Ramps (EB)	Signal	AM	B	16.8	0.335	B	17	0.338	0.2	No
			PM	B	10.4	0.591	B	10.6	0.594	0.2	No
28	Bryant Street & Avenue E	RBT	AM	A	7.3	0.31*	A	7.4	0.31*	0.1	No
			PM	A	7.51	0.34*	A	7.7	0.34*	0.2	No

Table 5.14-7 General Plan Horizon Year 2040 With- and Without-Project Intersection LOS Analysis

Intersection		Control	Peak Hour	Without Project			With Project			Change in Delay (s)	Potential Impact
				LOS	Delay (s)	V/C	LOS	Delay (s)	V/C		
29	California Street & Avenue E	RBT	AM	A	9.41	0.54*	A	9.6	0.55*	0.2	No
			PM	A	9.2	0.48*	A	9.4	0.49*	0.2	No
30	Bryant Street & Wildwood Canyon Road	Signal	AM	C	34	0.702	C	34.2	0.703	0.2	No
			PM	C	34.3	0.643	C	34.4	0.644	0.1	No
31	California Street & Wildwood Canyon Road	AWSC	AM	C	18.7	0.692	C	19.3	0.706	0.6	No
			PM	C	21.1	0.792	C	21.9	0.806	0.8	No
32	5th Street & Wildwood Canyon Road	Signal	AM	C	25.2	0.831	C	26	0.837	0.8	No
			PM	C	25.9	0.738	C	26.4	0.745	0.5	No
33	Bryant Street & Eucalyptus Avenue	Signal	AM	--	--	--	C	19.8	0.007	19.8	No
			PM	--	--	--	C	16.8	0.025	16.8	No
34	Oak Glen Road & Innovation Access	OWSC	AM	--	--	--	C	19.5	0.007		No
			PM	--	--	--	C	22.6	0.062		No

Source: IBI 2016
Notes: **Bold** indicates that intersection performs below the minimum acceptable LOS.
TWSC – Two-way stop control
AWSC – All-way stop control
RBT – Roundabout
OWSC- One-Way Stop Control
OVF- Overflow, not possible to calculate delay in seconds.
* Critical movement V/C ratio (Upper bound/Lower bound)
Intersection 33, Bryant Street & Eucalyptus Avenue, and 34, Oak Glen Road & Innovation Access, would be only implemented with the project.

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Impact 5.14-2: Project-related trip generation, in combination with existing and proposed cumulative development, would not result in designated road and/or highways exceeding the County Congestion Management Agency service standards. [Threshold T-1]

Impact Analysis: The CMP defines a network of state highways and arterials, level of service standards, and related procedures and provides technical justification for the approach. The CMP for San Bernardino County was originally adopted in 1992 and updated most recently in 2016. For consistency with the CMP, CMP-designated roadways in the City should operate at "the middle of LOS D or better." Additionally, during the CMP monitoring process, if any CMP facility is identified as operating at a deficient level, a deficiency plan would be required to restore operations to an acceptable level.

The CMP roadway system consists of state highways and "principal arterials." Principal arterials are roadways that are multi-jurisdictional or of regional significance. The CMP defines LOS criteria for arterial roadways and signalized intersections. Study area CMP facilities include I-10, Yucaipa Boulevard, 14th Street, Oak Glen Road, and Bryant Street. As identified in Impact 5.14-1, the project would result in impacts to the intersection of 2nd Street at Oak Glen Road, which is a CMP facility. However, the impact occurs at the minor approach at 2nd Street and would not affect east-west traffic and regional travel on Oak Glen Road. Therefore, the project would not result in significant impacts to the CMP system, and no mitigation would be required.

Impact 5.14-3: The project would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. [Threshold T 6]

Impact Analysis: Class II bike lanes and pedestrian sidewalks already exist along Oak Glen Road and Bryant Street. The project would have an internal circulation plan with pedestrian and multiuse paths that would also provide access to Oak Glen Road, 2nd Street, and Bryant Street. Walkways between buildings would create a pedestrian-oriented environment by breaking up large blocks, providing more convenient connectivity throughout the project site, and shortening the walking distance to nearby destinations.

The project site is served by transit via Omnitrans, which is the public transit agency servicing the San Bernardino Valley. The nearest bus stops are at the corners of 2nd Street at Oak Glen Road, and Bryant Street at Oak Glen Road. Omnitrans local bus route 310 currently provides weekday service at these stops every 30 minutes during the daytime (approximately 6 AM to 8 PM).

Because the proposed project would create a multipurpose trail system along Wilson Creek and Oak Glen Creek, is in an area served by transit, and integrates sidewalks and bike lanes in the circulation system to facilitate the use of alternative modes of transportation, no conflict with policies, plans, and programs for alternative transportation would occur with implementation of the Specific Plan.

5.14.4 Cumulative Impacts

Cumulative traffic impacts are created when the proposed project combined with other future developments contributes to the overall traffic impacts, requiring additional improvements to maintain acceptable level of service operations. A significant cumulative impact is identified when a facility is projected to operate below

the level of service standards due to cumulative future traffic and project-related traffic increases. Cumulative traffic impacts were identified above in Impact 5.14-1. Traffic volumes for Horizon Year 2040 conditions were calculated by applying to existing volumes an ambient growth rate and traffic from cumulative projects, as approved by the City of Yucaipa. As discussed in Impact 5.14-1, under cumulative Horizon Year 2040 conditions, the project would result in considerable impacts at the intersections of:

- Intersection #5: 2nd Street & Oak Glen Road
- Intersection #13: Bryant Street & Date Street

5.14.5 Existing Regulations and Standard Conditions

City of Yucaipa

- City of Yucaipa Municipal Code, Title 10, Vehicles and Traffic.
- City of Yucaipa Development Code, Division 11, Chapter 2, Circulation Facilities Financing
- City of Yucaipa Development Code, Division 7, Chapter 6, Parking Regulations

5.14.6 Level of Significance Before Mitigation

Upon implementation of the existing regulations and standard conditions, the following impacts would be less than significant: 5.14-2 and 5.14-3.

Without mitigation, the following impact would be **potentially significant**:

- **Impact 5.14-1:** Project-related trip generation would impact levels of service at the intersections of 2nd Street & Oak Glen Road, and Bryant Street & Date Street.

5.14.7 Mitigation Measures

Impact 5.14-1

14-1 **2nd Street and Oak Glen Road**. Prior to the issuance of the first building permit for the residential portion of the Specific Plan, the project applicant shall install a traffic signal at the intersection of 2nd Street and Oak Glen Road. The project would be responsible for its fair share contribution of 77 percent toward this improvement; therefore, the first project applicant shall be entitled to reimbursement for any portion of the improvement exceeding their fair share responsibility.[1] This improvement shall be implemented prior to first home occupancy.

14-2 **Bryant Street and Date Street**. Prior to issuance of any building permit, the project applicant shall provide fair share funding for the installation of a traffic signal at Bryant Street & Date Street. The project would have an indirect impact on the intersection and

[1] Fair share contributions are based on existing volumes, project volumes, and total traffic volumes at the intersections. The fair share calculation is based on the percentage of project traffic at the intersection calculated by IBI Group.

would be responsible for its fair share contribution of 11 percent toward this improvement. The timing of implementation of the improvements shall be determined by the City and be completed in the timeframe necessary to avoid the identified significant cumulative impacts, which would occur between 2018 and 2040.

5.14.8 Level of Significance After Mitigation

Impact 5.14-1

Mitigation Measure 14-1 and 14-2, identified above, would reduce potential project-level (existing with project and opening year 2018 scenarios) and cumulative (general plan horizon year 2040 scenario) impacts associated with the intersection of 2nd Street and Oak Glen Road and the intersection of Bryant Street and Date Street to a level that is less than significant. Table 5.12-8, *Intersection LOS with Mitigation*, shows the intersection delays and LOS without and with mitigation. With mitigation, both intersections would operate at acceptable LOS. Therefore, no significant unavoidable adverse impacts relating to traffic remain.

Table 5.14-8 Intersection LOS with Mitigation

Scenario	Peak Hour	Without Mitigation			With Mitigation			Description
		LOS	Delay (s)	V/C	LOS	Delay (s)	V/C	
#5 – 2nd Street at Oak Glen Road								
Existing	AM	F	109.5	0.760	A	6.2	0.412	Convert TWSC to Signal
	PM	F	62.7	0.493	B	11.0	0.380	
Opening Year	AM	F	110.4	0.762	A	6.2	0.412	
	PM	F	60.7	0.482	B	10.9	0.380	
2040	AM	F	126.3	0.733	A	5.9	0.388	
	PM	E	47.9	0.409	A	9.9	0.355	
#13 – Bryant Street and Date Street								
2040	AM	D	33.4	0.851	C	24.7	0.529	Convert AWSC to Signal
	PM	C	22.7	0.815	B	18.5	0.408	

Source: IBI 2016.
TWSC – Two-way stop control
AWSC – All-way stop control

5.14.9 References

IBI Group. 2016, July 18. Traffic Impact Analysis for the Oak Glen Creek Specific Plan.

San Bernardino Associated Governments (SANBAG). 2007, December. Congestion Management Program (CMP). http://www.sanbag.ca.gov/planning2/congestion-mgmt.html.

———. 2016, June 14. San Bernardino County Congestion Management Program 2016 Update. http://www.sanbag.ca.gov/planning2/congestion-mgmt.html.

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5.15 TRIBAL CULTURAL RESOURCES

Tribal cultural resources include landscapes, sacred places, or objects with cultural value to a California Native American tribe. This section of the Draft Environmental Impact Report (DEIR) evaluates the potential for implementation of the Oak Glen Creek Specific Plan (proposed project) to impact tribal cultural resources in the City of Yucaipa. Other potential impacts to cultural resources (i.e., prehistoric, historic, paleontological, and disturbance of human remains) are evaluated in Section 5.4, *Cultural Resources*.

The analysis in this section is based, in part, upon the following information:

- *Cultural Resources Assessment for the Wilson Creek Business Park Project, City of Yucaipa, San Bernardino County, California*, Cogstone, August 2011.
- *Cultural Resources Assessment Wilson III Project Additional Drainage Area, Yucaipa, San Bernardino County, California,* BCR Consulting LLC, November 7, 2014.
- *Cultural Resources Assessment Wilson III Project, Yucaipa, San Bernardino County, California.* BCR Consulting LLC, January 31, 2015.

Complete copies of these studies are included in the Technical Appendices to this Draft EIR (Volume II, Appendices D1 through D3). Additionally, a compilation of Senate Bill 18 (SB 18)/Assembly Bill 52 (AB 52) tribal consultation letter correspondences received by the City from Native American tribes is provided in Appendix D4.

5.15.1 Environmental Setting

5.15.1.1 REGULATORY BACKGROUND

Federal

Archaeological Resources Protection Act

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

Native American Graves Protection and Repatriation Act

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

State

California Public Resources Code

Archaeological resources are protected pursuant to a wide variety of state policies and regulations enumerated under the California Public Resources Code. In addition, cultural resources are recognized as a nonrenewable resource and therefore receive protection under the California Public Resources Code and CEQA.

- **California Public Resources Code 5097.9–5097.991** provides protection to Native American historical and cultural resources, and sacred sites and identifies the powers and duties of the Native American Heritage Commission (NAHC). It also requires notification of discoveries of Native American human remains, descendants and provides for treatment and disposition of human remains and associated grave goods.

California Health and Safety Code

The discovery of human remains is regulated by California Health and Safety Code Section 7050.5, which states that:

> In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation…until the coroner…has determined…that the remains are not subject to…provisions of law concerning investigation of the circumstances, manner and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible…. The coroner shall make his or her determination within two working days from the time the person responsible for the excavation, or his or her authorized representative, notifies the coroner of the discovery or recognition of the human remains. If the coroner determines that the remains are not subject to his or her authority and…has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission.

California Senate Bill 18

Existing law provides limited protection for Native American prehistoric, archaeological, cultural, spiritual, and ceremonial places. These places may include sanctified cemeteries, religious, ceremonial sites, shrines, burial grounds, prehistoric ruins, archaeological or historic sites, Native American rock art inscriptions, or features of Native American historic, cultural, and sacred sites.

Senate Bill 18 was signed into law in September 2004 and went into effect on March 1, 2005. It places new requirements upon local governments for developments within or near "traditional tribal cultural places" (TTCP). Per SB 18, the law requires local jurisdictions to provide opportunities for involvement of California Native Americans tribes in the land planning process for the purpose of preserving traditional tribal cultural places. The Final Tribal Guidelines recommends that the NAHC provide written information as soon as possible but no later than 30 days to inform the lead agency if the proposed project is determined to be in

proximity to a TTCP and another 90 days for tribes to respond to a local government if they want to consult to determine whether the project would have an adverse impact on the TTCP. There is no statutory limit on the consultation duration. Forty-five days before the action is publicly considered by the local government council, the local government refers action to agencies, following the CEQA public review time frame. The CEQA public distribution list may include tribes listed by the NAHC who have requested consultation or it may not. If the NAHC, the tribe, and interested parties agree upon the mitigation measures necessary for the proposed project, they would be included in the project's EIR. If both the City of Yucaipa and the tribe agree that adequate mitigation or preservation measures cannot be taken, neither party is obligated to take action.

Per SB 18, a city or county is required to consult with the NAHC and any appropriate Native American tribe prior to the adoption, revision, amendment, or update of a city's or county's general plan. Although SB 18 does not specifically mention consultation or notice requirements for adoption or amendment of specific plans, the Final Tribal Guidelines advises that SB 18 requirements extend to specific plans as well, because state planning law requires local governments to use the same process for amendment or adoption of specific plans as general plans (defined in Government Code § 65453). In addition, SB 18 provides a new definition of TTCP requiring a traditional association of the site with Native American traditional beliefs, cultural practices, or ceremonies or the site must be shown to actually have been used for activities related to traditional beliefs, cultural practices, or ceremonies. (Previously, the site was defined to require only an association with traditional beliefs, practices, lifeways, and ceremonial activities.) In addition, SB 18 law also amended Civil Code Section 815.3 and adds California Native American tribes to the list of entities that can acquire and hold conservation easements for the purpose of protecting their cultural places.

Assembly Bill 52

AB 52 took effect July 1, 2015, and requires inclusion of a new section in CEQA documents titled Tribal Cultural Resources (TCR), which includes heritage sites. Under AB 52, a tribal cultural resource is defined in a similar way to tribal cultural places under SB 18—sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either included or eligible for inclusion in the California Register of Historic Resources or included in a local register of historical resources. Or the lead agency, supported by substantial evidence, chooses at its discretion to treat the resource as a tribal cultural resource.

Similar to SB 18, AB 52 requires consultation with tribes at an early stage to determine whether the project would have an adverse impact on the TCR and mitigation to protect them. Per AB 52, within 14 days of deciding to undertake a project or determining that a project application is complete, the lead agency must provide formal written notification to all tribes who have requested it. The tribe then has 30 days of receiving the notification to respond if it wishes to engage in consultation. The lead agency must initiate consultation within 30 days of receiving the request from the tribe. Consultation concluded when both parties have agreed on measures to mitigate, or avoid a significant effect to a tribal cultural resource, or a party, after a reasonable effort tin good faith, decides that mutual agreement cannot be reached. Regardless of the outcome of consultation, the CEQA document must disclose significant impacts on tribal cultural resources and discuss feasible alternatives or mitigation that avoid or lessen the impact.

5.15.1.2 EXISTING CONDITIONS

Study Methodology

The 115.6-acre project site was analyzed in three separate cultural resources assessments prepared by Cogstone in August 2011, and BCR Consulting LLC in November 2014 and January 2015. The three cultural studies in combination analyze the complete project site. The study methodology for each of the three cultural resources assessments are detailed below.

Cogstone (2011)

The cultural resources assessment prepared by Cogstone in August 2011 analyzed cultural resources and project impacts on approximately 84 acres of the 115.6-acre project site. A search for paleontological records was completed at the San Bernardino County Museum, the Los Angeles County Museum Department of Invertebrate Paleontology, PaleoBiological Database, University of California Museum of Paleontology, and in published materials.

In addition, a records search for archeological and historic records was completed at the San Bernardino Archaeological Information Center (SBAIC) in the San Bernardino County Museum on April 6, 2011. The Historic Significance Bridge Inventory and Bureau of Land Management General Land Office Records were also consulted. Historic aerials of the project site were inspected as well.

A Sacred Lands File search was requested from the NAHC on March 31, 2011. The NAHC responded on April 5, 2011, that there were no known sacred lands within a one-mile radius of the proposed project area (see Appendix C of Cogstone's report). Based on recommendations made by NAHC, Cogstone subsequently sent letters and maps on April 8, 2011, to six Native American contacts requesting any information related to cultural resources heritage sites within or immediately adjacent to the project area. No responses were received.

In addition to record searches, Cogstone conducted a field survey of the proposed project area on April 13, 2011. The pedestrian survey consisted of archaeologists walking in transects spaced at approximately 15- to 30-meter intervals over the project parcel while closely inspecting the ground surface. The creek channels were surveyed first from east to west, and transects were walked in the southern and northern portions of the project area with greater visibility. The ground visibility in the project area was poor due to heavy vegetation and water running through Oak Glen and Wilson Creeks, which converge in the approximate center of the project area. Much of the western portion to the north and south of Wilson Creek is densely covered with thick vegetation, such as oak, yucca, bushes, grasses, and cacti. Some areas had zero visibility and were impassable. Areas that were accessible ranged from 5 to 30 percent visibility. The average percent of ground visibility was 15 percent.

BCR Consulting (2014 and 2015)

BCR Consulting prepared a cultural resources assessment of an approximately 11-acre drainage area west of 2nd Street in November 2014 and another cultural resources assessment of an approximately 20.7-acre area, including the City's maintenance yard, in January 2015. An archaeological records search was conducted at the

San Bernardino Archaeological Information Center (SBAIC) on November 4, 2014, prior to fieldwork. This included a review of all recorded historic and prehistoric cultural resources, known cultural resources, and survey and excavation reports generated from projects within one mile of the area of potential effect. In addition, a review was conducted of the National Register of Historic Places; the California Register of Historical Resources; and documents and inventories from the California Office of Historic Preservation including the lists of California Historical Landmarks, California Points of Historical Interest, Listing of National Register Properties, and the Inventory of Historic Structures.

Archaeological pedestrian field surveys of the two areas were conducted on November 4 and 5, 2014. The surveys were conducted by walking parallel transects spaced approximately 15 meters apart across 100 percent of the accessible area of potential effect. Soil exposures, including natural and artificial clearings, were carefully inspected for evidence of cultural resources.

Natural Setting

The project area is located at approximately 2,600 feet above mean sea level in the Yucaipa Valley in the southern foothills and alluvial deposits of the San Bernardino Mountains, within the Transverse Ranges Geomorphic Province. The Transverse Range Province is an east-west trending series of steep mountain ranges and valleys, oblique to the normal northwest trend of coastal California. The site occupies alluvial deposits of the San Bernardino Mountains, which are over 11,000 feet above mean sea level and are composed of Jurassic and Cretaceous granitic rocks, which have intruded and metamorphosed older rocks. Sediments observed within the project site include coarse to fine silty sand, granitic and quartz cobbles, and poorly sorted gravels.

This region is one of the most tectonically active in North America. To the northwest of the project site, the San Andreas Fault travels up Cajon Pass and is the boundary between the Pacific Plate and the North American Plate. The Transverse Ranges Geomorphic Province is the result of these two plates grinding past each other and catching along the bend in the San Andreas. Intense north-south compression is squeezing the Transverse Ranges, and as a result this is one of the most rapidly rising regions of the earth.

Cultural Setting

Prehistoric Setting

The project area is defined for having traits of time phases of the Greven Knoll pattern of the Encinitas Tradition. This pattern was later replaced in the project area by the Peninsular pattern of the Palomar Tradition.

Greven Knoll sites tend to be in valleys such as the project area. The Greven Knoll toolkit is dominated by manos and metates throughout its 7,500-year extent. In Phase I, typical characteristics were pinto dart points for atlatls or spears, charmstones, cogged stones, absence of shell artifacts, and flexed-position burials. In Phase II, Elko dart points for atlatls or spears and core tools are observed along with increased indications of gathering. In Phase III, stone tools, including scraper planes, choppers, and hammerstones, are added to the

tool kit; yucca and seeds are staple foods; animals bones are heavily processed (broken and crushed to extract marrow); and burials have cairns above.

Early Peninsular sites tend to be near sources of fresh water in valleys, some of which are now deserts. The former Lake Cahuilla played a major role in the prehistory of the Colorado Desert. This lake formed periodically when the Colorado River broke its channel and flowed into the Salton Basin (Coachella and Imperial valleys), forming a large, deep body of freshwater water. The filling of Lake Cahuilla around 1,070 ago created a rich fresh-water resource that likely attracted people from a number of areas.

Ethnographic Setting

Ethnographically, the project area appears to have been inhabited by the Mountain Serrano, even though it is within the boundaries of traditional Cahuilla territory. Archaeological research in the area indicates that natives identified Yucaipa as being occupied by the Mountain Serrano. Cahuilla territory lies within the geographic center of Southern California and the Cocopa-Maricopa Trail, a major prehistoric trade route that linked the Colorado Desert with the Pacific Coast. Given the territory's close proximity to the Cocopa-Maricopa Trail, interactions with surrounding tribes were extensive.

Despite early contact with European and Spanish explorers, the Cahuilla culture and population remained relatively intact until 1891, when the federal government took an active role in supervising the reservations that were established in 1877. The Cahuilla maintained their autonomy to such a relatively late period due largely to the neighboring tribes blocking land routes to explorers as early as 1774. In addition, once the settlers did infiltrate Cahuilla territory, they used the land primarily for cattle grazing, a practice that was relatively noninvasive compared to the establishment of missions.

Records Search Results

The records search results determined that 40 previous cultural resource studies have been completed within a one-mile radius of the project area; however, there were no previously recorded resources within the project boundaries. Twenty-three resources are known within a one-mile radius of the project area, including one California Point of Historical Interest (see Section 5.4, *Cultural Resources*, Table 5.4-1, *Archaeological and Historical Records within One Mile of Project Site*). The nearest cultural resource was a prehistoric pottery scatter reported (though not recorded by archaeologists) approximately 100 meters to the south of the project's southern portion.

Field Survey Results

Based on the field survey conducted by Cogstone, no prehistoric resources were observed during the cultural resources survey, and no resources were collected.

5.15.2 Thresholds of Significance

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

TCR-1 Cause a substantial adverse change in the significance of a Tribal cultural resource, defined in Public Resources Code 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), or
- 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 Resource Code Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

5.15.3 Environmental Impacts

The following impact analysis addresses thresholds of significance that may be potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

Impact 5.15-1: The project could impact tribal cultural resources within the project area. [Threshold TCR-1]

Impact Analysis: Conducting consultation early in the CEQA process allows tribal governments, public lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process.

In accordance with AB 52 and SB 18 requirements, the City sent invitation letters to representatives of the Native American contacts provided by the NAHC on July 8, 2016, formally inviting tribes to consult with the City on the Oak Glen Creek Specific Plan. The intent of the consultations is to provide an opportunity for interested Native American contacts to work together with the City during the project planning process to identify and protect tribal cultural resources. Response letters were received from the Colorado River Indian Tribes, Soboba Band of Luiseño Indians, Morongo Band of Mission Indians, and Twenty-Nine Palms Band of Mission Indians (see Appendix D4).

The Colorado River Indian Tribes sent a response letter to the City on August 1, 2016. The tribes are concerned about the removal of artifacts from the project area and corresponding destruction of the tribes' footprint on this landscape. The Colorado River Indian Tribes request that all prehistoric cultural resources, both known and undiscovered sites, be avoided if feasible. If infeasible, the tribes request that the resources be left in situ or reburied in a nearby area after consultation. Additionally, the tribes request to be contacted within 48 hours if any human remains or objects subject to the provisions of the Native American Graves Protection and Repatriation Act, or cultural resources (e.g., sites, trails, artifacts) are identified during ground disturbance. The Colorado River Indian Tribes conclude that they do not have any specific comments on the proposed project and instead defer to the comments of other affiliated tribes.

The Soboba Band of Luiseño Indians sent two response letters to the City on August 8, 2016. One letter confirmed receipt of the City's project notification per AB 52 and requested to initiate formal consultation. The other letter was in response to the City's SB 18 consultation opportunity in which the letter concluded that although the project site is outside the existing Soboba reservation, the project does fall within the bounds of Soboba's tribal traditional use areas and is considered to be culturally sensitive. The Soboba Band of Luiseño Indians requested formal consultation and to continue being a consulting tribal entity for the project; to provide Native American monitoring during any ground disturbing activities, including surveys and archaeological testing; and that proper procedures related to cultural artifacts and human remains be taken. As requested, the City of Yucaipa consulted with the Soboba Band of Luiseño Indians on August 30, 2016. The consultation concluded with the tribe requesting mitigation related to archaeological monitoring, treatment and disposition of cultural resources, and discovery of human remains that has been included in Section 5.15.7, *Mitigation*, below.

The Morongo Band of Mission Indians sent a response letter to the City on August 16, 2016. The tribe stated that the project site is outside of their current reservation boundaries but within an area considered to be a traditional use area or one in which the tribe has cultural ties (i.e., Cahuilla or Serrano territory). The tribe requested imposing standard development conditions related to cultural and archaeological resources and buried cultural materials on the proposed project. The Morongo Band of Mission Indians also requested a thorough records search at one of the California Historical Resources Information System Archaeological Information Centers, that a copy of the search results be provided to the tribe, and that a comprehensive archaeological survey be conducted on the project site and any areas of potential effect within the site with a tribal monitor present during the initial pedestrian survey. The tribe requested copies of the completed record search and archaeological survey, which the City provided via email on August 17, 2016. A follow-up email was sent to the tribe on August 31, 2016, asking if the materials requested met the tribe's needs for consultation. On October 26, 2016, the tribe requested archaeological monitoring by a Morongo tribal monitor as a project condition, and the City provided a draft condition for the tribe to review and approve. This concluded consultation with the Morongo Band of Mission Indians.

The Twenty-Nine Palms Band of Mission Indians sent a response letter to the City on September 22, 2016. The tribe stated that they currently have no interest in the project as there are no cultural resources that pertain to the Twenty-Nine Palms Band of Mission Indians.

A Sacred Lands File search was requested from NAHC as a part of the Cultural Resources Assessment prepared by Cogstone. The NAHC responded that there were no known sacred lands within a one-mile radius of the proposed project area (see Appendix C of Cogstone's report). Based on recommendations made by NAHC, Cogstone subsequently sent letters and maps to six Native American contacts requesting any information related to cultural resources heritage sites within or immediately adjacent to the project area as part of the previous Wilson Creek Business Park Specific Plan project. No responses were received.

While the NAHC did not identify known sacred lands within a half mile of the City, during the General Plan Update a representative from the Morongo Band of Mission Indians and the San Manuel Band of Mission Indians had identified that there are tribal cultural resources in the City of Yucaipa (Yucaipa 2016).

During site reconnaissance and records search, no prehistoric sites were found within the vicinity of the project site. However, given the presence of two ephemeral water sources (Oak Glen Creek and Wilson Creek) and the prehistory of the area, there is a possibility that the project area may contain significant subsurface archaeological resources.

Therefore, there remains a possibility that the development of the project site through grading and excavation activities could impact previously undisturbed archaeological resources. Thus, impacts to tribal cultural resources are potentially significant.

5.15.4 Cumulative Impacts

Cumulative impacts to cultural resources would occur when the impacts of the proposed project, in conjunction with other projects and development in the region, results in multiple and/or cumulative impacts to tribal cultural resources in the area.

Each future project considered for approval by the City of Yucaipa would be required to have that project's impacts to site-specific tribal cultural resources evaluated as part of CEQA review for the project. Where significant impacts to tribal cultural resources are identified, projects would be required to either avoid impacts or implement feasible mitigation measures to reduce impacts. Projects that would involve substantial amounts of ground disturbance could also damage tribal cultural resources that may be buried in soils. Mitigation measures for reducing tribal cultural resources impacts of such projects would include monitoring by qualified archaeologists and/or Native American tribes and recovery, identification, and curation of any potentially significant resources discovered. Consequently, impacts to tribal cultural resources would not be cumulatively considerable.

5.15.5 Existing Regulations

Federal

- Archaeological Resources Protection Act
- Native American Graves Protection and Repatriation Act

State

- California Public Resources Code Sections 5079–5079.65
- California Senate Bill 18
- Assembly Bill 52

5.15.6 Level of Significance Before Mitigation

Without mitigation, the following impacts would be **potentially significant**:

- **Impact 5.15-1** Tribal cultural resources could be adversely impacted by grading activities associated with the proposed project.

5.15.7 Mitigation Measures

Impact 5.15-1

Mitigation Measure 4-1 for cultural resources would also be applicable to Impact 5.15-1 and is reproduced below.

4-1 Prior to the issuance of grading permits, and for any subsequent permit involving excavation to increased depth, the future developer of the project site shall provide letters to the City of Yucaipa from a qualified archaeologist and paleontologist who meet the Secretary of the Interior's Professional Qualifications Standards. The letters shall state that the developer has retained these individuals, and that the consultant(s) will be on call during all grading and other significant ground-disturbing activities. In the event archaeological or paleontological resources are discovered during ground-disturbing activities, a professional archeological or paleontological monitor shall have the authority to halt any activities adversely impacting potentially significant cultural resources until they can be formally evaluated. Suspension of ground disturbances in the vicinity of the discoveries shall not be lifted until the archaeological or paleontological monitor has evaluated discoveries to assess whether they are classified as significant cultural resources, pursuant to the California Environmental Quality Act (CEQA). If archaeological or paleontological resources are recovered, they shall be offered to a repository with a retrievable collection system and an educational and research interest in the materials, such as the San Bernardino County Museum (SBCM), or any other local museum or repository willing to and capable of accepting and housing the resource. If no museum or repository willing to accept the resource is found, the resource shall be considered the property of the City, and may be stored, disposed of, transferred, exchanged, or otherwise handled by the City at its discretion.

If significant Native American cultural resources are discovered, for which a Treatment Plan must be prepared, the developer or the archaeologist on call shall contact the Morongo Band of Mission Indians. If requested by the Morongo Band of Mission Indians, the developer or archaeologist on call shall, in good faith, consult on the discovery and its disposition (e.g., avoidance, preservation, return of artifacts to tribe, etc.).

The following mitigations would also apply to Impact 5.15-1.

15-1 Prior to grading permit issuance, if there are any changes to project site design and/or proposed grades, the future developer shall contact interested tribes to provide an electronic copy of the revised plans for review. Additional consultation shall occur between the City, developer and interested tribes to discuss the proposed changes and to review any new impacts and/or potential avoidance/preservation of the cultural resources on the project. The developer shall make all attempts to avoid and/or preserve in place as many as possible of the cultural resources located on the project site. In specific circumstances where existing and/or new resources are determined to be unavoidable and/or unable to be preserved in

place despite all feasible alternatives, the developer shall make every effort to relocate the resource to a nearby open space or designated location on the property that is not subject to future development, erosion or flooding.

15-2 **Archaeological Monitoring.** At least 30-days prior to application for a grading permit and before any grading, excavation and/or ground disturbing activities on the site take place, the future developer shall retain a Secretary of Interior Standards qualified archaeological monitor to monitor all ground-disturbing activities in an effort to identify any unknown archaeological resources.

1. The project archaeologist, in consultation with interested tribes, the developer and the City of Yucaipa, shall develop an Archaeological Monitoring Plan (AMP) to address the details, timing and responsibility of all archaeological and cultural activities that will occur on the project site. Details in the AMP shall include:

    a. Project grading and development scheduling;

    b. The development of a rotating or simultaneous schedule in coordination with the developer and the project archeologist for designated Native American Tribal Monitors from the consulting tribes during grading, excavation and ground disturbing activities on the site: including the scheduling, safety requirements, duties, scope of work, and Native American Tribal Monitors' authority to stop and redirect grading activities in coordination with all project archaeologists;

    c. The protocols and stipulations that the developer, City, Tribes and project archaeologist will follow in the event of inadvertent cultural resources discoveries, including any newly discovered cultural resource deposits that shall be subject to a cultural resources evaluation

Pursuant to the AMP, a tribal monitor from the consulting tribe (e.g., Morongo Band of Mission Indians and/or Soboba Band of Luiseño Indians) shall be present during the initial grading activities. If tribal resources are found during grubbing activities, the tribal monitoring shall be present during site grading activities.

15-3 **Treatment and Disposition of Cultural Resources.** In the event that Native American cultural resources are inadvertently discovered during the course of grading for the proposed project, the following procedures will be carried out for treatment and disposition of the discoveries:

1. Temporary Curation and Storage: During the course of construction, all discovered resources shall be temporarily curated in a secure location onsite or at the offices of the project archaeologist. The removal of any artifacts from the project site will need to be thoroughly inventoried with tribal monitor oversite of the process; and

2. Treatment and Final Disposition: The landowner(s) shall relinquish ownership of all cultural resources, including sacred items, burial goods, and all archaeological artifacts and non-human remains as part of the required mitigation for impacts to cultural resources. The applicant shall relinquish the artifacts through one or more of the following methods and provide the City of Yucaipa with evidence of same:

    a. Accommodate the process for onsite reburial of the discovered items with the consulting Native American tribes or bands. This shall include measures and provisions to protect the future reburial area from any future impacts. Reburial shall not occur until all cataloguing and basic recordation have been completed;

    b. A curation agreement with an appropriate qualified repository within San Bernardino County that meets federal standards per 36 CFR Part 79 and therefore would be professionally curated and made available to other archaeologists/researchers for further study. The collections and associated records shall be transferred, including title, to an appropriate curation facility within San Bernardino County, to be accompanied by payment of the fees necessary for permanent curation:

    c. For purposes of conflict resolution, if more than one Native American tribe or band is involved with the project and cannot come to an agreement as to the disposition of cultural materials, they shall be curated at the San Bernardino County Museum by default;

    d. At the completion of grading, excavation and ground disturbing activities on the site, a Phase IV Monitoring Report shall be submitted to the City documenting monitoring activities conducted by the project archaeologist and Native Tribal Monitors within 60 days of completion of grading. This report shall document the impacts to the known resources on the property; describe how each mitigation measure was fulfilled; document the type of cultural resources recovered and the disposition of such resources; provide evidence of the required cultural sensitivity training for the construction staff held during the required pre-grade meeting; and, in a confidential appendix, include the daily/weekly monitoring notes from the archaeologist. All reports produced will be submitted to the City, County Museum, and consulting tribes.

15-4 **Discovery of Human Remains.** In the event that human remains (or remains that may be human) are discovered at the project site during grading or earthmoving, the construction contractors, project archaeologist, and/or designated Native American Monitor shall immediately stop all activities within 100 feet of the find. The project proponent shall then inform the San Bernardino County Coroner and the City of Yucaipa Community Development Department immediately, and the coroner shall be permitted to examine the remains as required by California Health and Safety Code Section 7050.5(b). Section 7050.5

requires that excavation be stopped in the vicinity of discovered human remains until the coroner can determine whether the remains are those of a Native American. If human remains are determined as those of Native American origin, the applicant shall comply with the state relating to the disposition of Native American burials that fall within the jurisdiction of the Native American Heritage Commission (NAHC) (PRC Section 5097). The coroner shall contact the NAHC to determine the most likely descendant(s)(MLD). The MLD shall complete his or her inspection and make recommendations or preferences for treatment within 48 hours of being granted access to the site. The disposition of the remains shall be overseen by the MLD to determine the most appropriate means of treating the human remains and any associated grave artifacts.

The specific locations of Native American burials and reburials will be proprietary and not disclosed to the general public. The locations will be documented by the consulting archaeologist in conjunction with the various stakeholders and a report of findings will be filed with the San Bernardino County Museum.

According to California Health and Safety Code, six or more human burials at one location constitute a cemetery (Section 8100), and disturbance of Native American cemeteries is a felony (Section 7052) determined in consultation between the project proponent and the MLD. In the event that the project proponent and the MLD are in disagreement regarding the disposition of the remains, State law will apply and the median and decision process will occur with the NAHC (see Public Resources Code Section 5097.98(e) and 5097.94(k)).

5.15.8 Level of Significance After Mitigation

Impact 5.15-1

Mitigation Measures 4-1 and 15-1 to 15-4 would reduce potential impacts associated with tribal cultural resources to a level that is less than significant. Therefore, no significant unavoidable adverse impacts relating to tribal cultural resources have been identified.

5.15.9 References

BCR Consulting LLC. 2014, November 7. Cultural Resources Assessment Wilson III Project Additional Drainage Area, Yucaipa, San Bernardino County.

———. 2015, January 31, Cultural Resources Assessment Wilson III Project, Yucaipa, San Bernardino County, California.

Cogstone. 2011, August. Cultural Resources Assessment for the Wilson Creek Business Park Project, City of Yucaipa, San Bernardino County, California.

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5.16 UTILITIES AND SERVICE SYSTEMS

This section of the Draft Environmental Impact Report (DEIR) addresses the potential for implementation of the Oak Glen Creek Specific Plan to impact utility and service systems in the City of Yucaipa. Utilities and services systems include water supply and distribution systems; wastewater (sewage) conveyance and treatment; storm drainage systems; solid waste collection and disposal services; and other public utilities. Cumulative impacts related to water supply and distribution systems would be within the Yucaipa Valley Water District; wastewater conveyance and treatment would be within the Yucaipa Valley Water District service area; storm drainage systems would be within the Yucaipa Creek Watershed and the San Bernardino County Flood Control District service area; solid waste collection and disposal services would be within the County of San Bernardino Solid Waste Management Division service area; natural gas services would be within the Southern California Gas Company service area; and electricity services would be within the Southern California Edison service area. Impacts to hydrology (e.g., flooding) and water quality can be found in Section 5.8, *Hydrology and Water Quality*. Impacts to solid waste disposal are addressed in Chapter 8, *Impacts Found Not to Be Significan*t. The analysis in this section is based on responses to service provider questionnaires, included as Appendix I to this DEIR.

The analysis in this section is also based, in part, on the following technical study:

- *Oak Glen Creek Specific Plan EIR Hydrology and Water Quality Technical Study*, Michael Baker International, May 2016.

A complete copy of this study is included as Appendix G to this Draft EIR.

5.16.1 Wastewater Treatment and Collection

5.16.1.1 ENVIRONMENTAL SETTING

Regulatory Background

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

Clean Water Act and National Pollution Elimination Discharge System

The Clean Water Act (US Code, Title 33, §§ 1251 et seq.) establishes regulations to control the discharge of pollutants into the waters of the United States and regulates water quality standards for surface waters. Requirements for waste discharges from publicly owned treatment works to navigable waters are addressed in National Pollution Elimination Discharge System (NPDES) regulations. Under the NPDES program, permits are required for all new developments that generate discharges that go directly into Waters of the United States. The federal Clean Water Act requires wastewater treatment of all effluent before it is discharged into surface waters. NPDES permits for such discharges in the project region are issued by the Santa Ana Regional Water Quality Control Board.

Existing Conditions

Wastewater Collection

The Yucaipa Valley Water District (YVWD) is responsible for the collection and treatment of wastewater, water, and recycled water in the City of Yucaipa, including the project site. The City is divided into service zones with a network of interceptors or trunk lines that connect the entire sewer network together. YVWD currently has a 10-inch sewer line in Oak Glen Road, an 8-inch line that stubs out into 2nd Street north of Oak Glen Creek, and an 8-inch line extending south in 2nd Street from Oak Glen Creek. There are currently no developed sewer lines onsite.

Wastewater Treatment

The wastewater from the sewer system is collected and sent to the Henry N. Wochholz Regional Water Recycling Facility (WRWRF), also owned and operated by YVWD, where it is treated by a three-phase system capable of handling 8 million gallons per day (mgd). The YVWD has identified expansion of the YVWD to achieve a capacity of 11 mgd. Wastewater flow through the facility in 2015 was about 4 mgd (SBVMWD et al. 2016).

Wastewater is treated in three phases:

- Primary Treatment: Removal of solids using settling tanks,
- Secondary Treatment: Reduction of organic matter using bacteria and oxygen, followed by further removal of solids,
- Tertiary Treatment: Filtration of wastewater to remove any solids remaining after the first two phases of treatment.

The WRWRF is a tertiary treatment facility equipped with microfiltration and ultraviolet light for disinfection to treat sewer water into high quality recycled water. The microfiltration system removes particles larger than 1.0 micrometer, or about 0.00004 inch. The water is then treated using reverse osmosis to remove salt, so that recycled water after treatment has a purity close to rainwater. Salt removed during wastewater treatment is piped via the Yucaipa Valley Brineline, which extends 15 miles before discharging into the Inland Empire Brine Line near the City of Colton; the Inland Empire Brine Line in turn extends 73 miles to the Orange County Sanitation District Wastewater Treatment Plant No. 2 in the City of Huntington Beach, where the brine is discharged into the ocean (YVWD 2016).

5.16.1.2 THRESHOLDS OF SIGNIFICANCE

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

U-1 Would exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.

U-2 Would require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

U-5 Would result in a determination by the wastewater treatment provider which serves or may serve the project that is has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

Chapter 8, *Impacts Found Not to Be Significant*, substantiates that impacts associated with the following threshold would be less than significant:

- Threshold U-1

This impact will not be addressed in the following analysis.

5.16.1.3 ENVIRONMENTAL IMPACTS

The following impact analysis addresses thresholds of significance that may be potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

Impact 5.16-1: Project-generated wastewater would be adequately treated by YVWD's wastewater collection and treatment facilities. [Thresholds U-2 (part), and U-5]

Impact Analysis: The Oak Glen Creek Specific Plan would permit development of up to 200 single-family residential units in a 47.7-acre Residential District and up to 20,000 square feet of government facilities, institutional, office, and medical uses in 6.7 acres of Innovation District. Specific Plan buildout would be anticipated by 2019. The proposed project would generate an increase in wastewater generation in the City. In addition, the new development would require creation of an onsite sewer collection system that would connect the Residential Districts and the northernmost Innovation District to the YVWD existing sewer lines in Oak Glen Road and 2nd Street. Construction of the Innovation District on the eastern side of the project site on Bryant Street would require extension of the existing sewer line in Bryant Street.

Wastewater Collection

Buildout of the proposed project would increase wastewater generation compared to existing conditions. The proposed project would generate approximately 27,134 gallons of wastewater per day, as shown in Table 5.16-1, *Oak Glen Creek Specific Plan Projected Wastewater Generation*.

Table 5.16-1 Oak Glen Creek Specific Plan Projected Wastewater Generation

Land Use	Quantity	Wastewater Generation, gallons per day (gpd)	
		Per unit[1, 2]	Total
Single-Family Residential	200 units	127.45 gallons/unit/day	25,490
Government Facilities, Institutional, Office, and Medical uses	20.000 TSF	82.19 gallons/TSF/day	1,644
Total	Not applicable	Not applicable	**27,134**

Notes: Assumes wastewater is 100 percent of indoor water use; TSF = thousand square feet
[1] Residential indoor water demand is based on the California Green Building Standards Code requirements for plumbing efficiency (Consol 2015).
[2] Innovation District water demand is based on office use water demand from "Commercial and Institutional End Uses of Water" (DeOreo et al. 2000).

As identified above, the Specific Plan would include an onsite sewer system to collect the project-generated wastewater and would require extension of the existing sewer line in Bryant Street to connect the eastern Innovation District site to the YVWD sewer system. YVWD projects that an 8-inch sewer line in the public street and extending through the project site would connect with the existing line in 2nd Street and would adequately serve the Residential District's needs. Future projects in accordance with the proposed Specific Plan would be required to implement onsite sewer infrastructure improvements to connect to the YVWD sewer lines. Sewer systems are funded by impact fees, grants, fair share cost arrangements, and service fees. Individual projects within the Oak Glen Creek Specific Plan would be required to pay development impact fees and ensure sufficient sewer capacity prior to connecting to the YVWD sewer lines. If sewer capacity is not available to serve an individual project, the developer would be required to fund expansion or construction of new infrastructure. Therefore, existing wastewater collection facilities would not be adversely impacted by the proposed project.

Wastewater Treatment

YVWD has adequate capacity to accommodate both existing wastewater demands and the City's planned projects, including the proposed Specific Plan (Nelson 2014). Wastewater collected onsite would be sent to the WRWRF. As detailed in Table 5.16-1, the project would generate an estimated average of 27,134 gpd of wastewater. WRWRF has a wastewater treatment capacity of 8 mgd, with an ultimate capacity of 11 mgd. Current wastewater flow through WRWRF is approximately 4 mgd (SBVMWD et al. 2016); therefore, the WRWRF has adequate capacity to treat the estimated average of 27,134 gpd generated by the proposed project. The connection fees identified above also fund additional conveyance, treatment, and disposal facilities (capital facilities). Impacts to existing wastewater treatment facilities would be less than significant.

5.16.1.4 CUMULATIVE IMPACTS

Wastewater treatment impacts are analyzed across YVWD's service area, which encompasses approximately 40 square miles—27 of which are in the City of Yucaipa—and serves the cities of Calimesa, Yucaipa, and portions of Riverside and San Bernardino counties (YVWD 2016). Current capacity at WRWRF is 8 mgd, and facility expansion is expected to increase capacity to 11 mgd (SBVMWD et al. 2016). YVWD is expected to have adequate wastewater treatment capacity for wastewater generation by cumulative developments in its

service area. No significant cumulative impact is anticipated, and buildout of the proposed Specific Plan would not contribute to a significant cumulative impact.

Implementation of individual projects would require project-specific analyses during final design to evaluate sewer capacities. For regional impacts to YVWD wastewater facilities, individual projects would be required to pay fees for connecting to YVWD's sewer lines; these fees would reduce cumulative impacts to sewers. Onsite improvements would be implemented as part of the proposed project. Thus, no cumulatively considerable impact to wastewater facilities would occur, and buildout of the proposed project would not contribute to a cumulative impact.

5.16.1.5 EXISTING REGULATIONS

State and Federal

- Clean Water Act

5.16.1.6 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant: 5.16-1.

5.16.1.7 MITIGATION MEASURES

Impacts are less than significant and mitigation measures are not required.

5.16.1.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

No mitigation measures are required and impacts would remain less than significant.

5.16.2 Water Supply and Distribution Systems

5.16.2.1 ENVIRONMENTAL SETTING

Regulatory Background

State Regulations

20x2020 Water Conservation Plan

The 20x2020 Water Conservation Plan, issued by the California Department of Water Resources (DWR) in 2010 pursuant to the Water Conservation Act of 2009 (SBX7-7), mandated urban water conservation and authorized the DWR to prepare a plan implementing urban water conservation requirements. SBX7-7 required urban water providers to adopt a water conservation target of 20 percent reduction in water use by 2020 compared to the 2005 baseline use.

Governor's Statewide Mandatory Water Restrictions

California is currently in its fifth year of severe drought. On January 17, 2014, California Governor Edmund Brown Jr. declared a drought state of emergency and asked Californians to reduce water by 20 percent. On April 1, 2015, the governor issued Executive Order B-29-15, which imposes the first statewide mandatory water restrictions. The executive order directed the State Water Resources Control Board to implement mandatory water reductions in cities and towns across California to reduce water usage by 25 percent through February 29, 2016.

On May 5, 2015, the State Water Resources Control Board adopted emergency regulations to achieve a statewide reduction in potable urban water use for individual water suppliers. These restrictions require water suppliers to California's cities and towns to reduce usage to 2013 amounts. The restrictions consider the relative per capita water usage of each water supplier's service area and require that areas with high per capita use achieve proportionally greater reductions than those with low use. The water use reduction target for the City of Yucaipa was 36 percent below water usage in 2013. The penalty for failure to meet this reduction is a fine of up to $10,000 per day. The approved regulations took effect on June 1, 2015, and continued through February 2016. The regulations included prohibitions on:

- Using potable water to wash sidewalks and driveways
- Runoff when irrigating with potable water
- Using hoses with no shut-off nozzles to wash cars
- Using potable water in decorative water features that do not recirculate the water
- Using outdoor irrigation during and 48 hours following rain storms

The saving amounts to approximately 1.5 million acre-feet of water statewide between June 1, 2015 and February 2016. The executive order also encouraged replacement of 50 million square feet of lawns throughout the state with drought-tolerant landscaping in partnership with local governments; direct the creation of a temporary, statewide consumer rebate program to replace old appliances with more water- and energy-efficient models; require campuses, golf courses, cemeteries, and other large landscapes to make significant cuts in water use; prohibit new homes and developments from irrigating with potable water unless water-efficient drip irrigation systems are used; and ban watering of ornamental grass on public street medians. In addition to water-saving actions, the executive order increased enforcement, streamlined government response, and invested in new technologies to help make California more prepared for drought.

On May 9, 2016, Governor Brown issued Executive Order B-37-16, which made some temporary statewide emergency water restrictions identified above permanent. Executive Order B-37-16 included the following mandates:

- **Use Water More Wisely**: Monthly reporting by urban water suppliers will be permanent. Emergency water conservation regulations in place through the end of January 2017 will be adjusted in recognition of the differing water supply conditions across the state. Proposed emergency water restrictions for 2017 will be developed if the drought persists.

- **Eliminate Water Waste**: Wasteful practices such as hosing off sidewalks, driveways, and other hardscapes; washing automobiles with hoses not equipped with a shut-off nozzle; and watering lawns in a manner that causes runoff will be permanently prohibited. Additionally, water system leaks across the state that continue to waste large amounts of water will be minimized.

- **Strengthen Local Drought Resilience**: Standards for local water shortage contingency plans, which are part of the urban water management plans (UWMP) that water districts must submit every five years, are required to be strengthened. Under new strengthened standards, districts must plan for droughts lasting at least five years as well as for more frequent and severe periods of drought. These plans must be actionable so that districts can turn to them to guide their drought response.

- **Improve Agricultural Water Use Efficiency and Drought Planning**: Existing requirements for agricultural water management plans are required to be updated so that irrigation districts quantify their customers' water use efficiency and plan for water supply shortages. The executive order also increases the number of irrigation districts who must file water management plans by lowering the threshold to irrigation districts serving 10,000 acres or more.

Senate Bills 610 and 221

To assist water suppliers, cities, and counties in integrating water and land use planning, the state passed Senate Bill (SB) 610 (Chapter 643, Statutes of 2001) and SB 221 (Chapter 642, Statutes of 2001), effective January 1, 2002. SB 610 and SB 221 improve the link between information of water supply availability and certain land use decisions made by cities and counties. SB 610 and SB 221 are companion measures that promote more collaborative planning between local water suppliers, cities, and counties. Both require detailed information regarding water availability to be provided to city and county decision makers prior to approval of specified large development projects.[1] This detailed information must be included in the administrative record as the evidentiary basis for an approval action by the city or county on such projects. The statutes recognize local control and decision making regarding the availability of water for projects and the approval of projects.

For projects that require a water supply assessment, it must be included in the environmental document for the project. The water purveyor is required to make a determination on whether the projected water supplies would be sufficient to satisfy the demands of the project in addition to existing and planned future uses. The proposed project is not considered a large project that requires a water supply evaluation under SB 610 or a water supply verification under SB 221.

Additionally, SB 610 requires new information to be included as part of a UWMP if groundwater is an available source to the supplier. This information must include a description of all water supply projects and programs that may be undertaken to meet total projected water use. SB 610 prohibits eligibility for funds from specified bond acts until the plan is submitted to the state.

[1] Under Water Code § 10912(a)(7), SB 610 applies to a CEQA project that "would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project." A water supply assessment was not required for the proposed project.

Urban Water Management Planning Act

The Urban Water Management Planning Act of 1983, California Water Code Sections 10610 et seq., requires water suppliers to prepare plans that:

- Plan for water supply and assess reliability of each source of water over a 20-year period, in 5-year increments.
- Identify and quantify adequate water supplies, including recycled water, for existing and future demands in normal, single-dry, and multiple-dry years.
- Implement conservation and the efficient use of urban water supplies. Significant new requirements for quantified demand reductions were added by the Water Conservation Act of 2009 (SBX7-7), which amended the 1983 act and added new water conservation provisions to the Water Code.

The Urban Water Management Planning Act states that every urban water supplier that provides water to 3,000 or more customers or provides over 3,000 acre-feet of water per year (afy) should make every effort to ensure the appropriate level of reliability in its water service to meet the needs of its various categories of customers during normal, dry, and multiple-dry years. Both SB 610 and SB 221 identify the UWMP as a planning document that can be used by a water supplier to meet the standards in the statutes (DWR 2014a).

2014 Sustainable Groundwater Management Act

In 1992, the State Legislature provided an opportunity for local groundwater management with the passage of Assembly Bill (AB) 3030, the Groundwater Management Act (Water Code §10750 et seq. Part 2.75). Groundwater management plans (known as GWMPs) were developed in many basins to provide planned and coordinated monitoring, operation, and administration of groundwater basins with the goal of long-term groundwater resource sustainability. In 2014, Governor Jerry Brown signed into law a three bill legislative package, composed of Assembly Bill 1739 (Dickinson), Senate Bill 1168 (Pavley), and Senate Bill 1319 (Pavley), collectively known as the Sustainable Groundwater Management Act (SGMA). SGMA provides local agencies with a framework for managing groundwater basins in a sustainable manner. Recognizing that groundwater is most effectively managed at the local level, SGMA empowers local agencies to achieve sustainability within 20 years. Under SGMA, DWR's role in groundwater management includes developing regulations for revising groundwater basin boundaries, developing basin boundary prioritization, developing regulations for groundwater sustainability plans (GSPs) and alternative plans, evaluating and assessing of GSPs, and providing technical assistance. SGMA went into effect on January 1, 2015 and brought about changes to the California Water Code that, among other things, requires the formation of groundwater sustainability agencies (GSAs) overlying groundwater basins and the development of GSPs in medium- and high-priority basins. The GSAs, represented by local agencies are required to provide a copy of their GSPs to DWR and for DWR to review and approve those plans.

Local Regulations

2015 San Bernardino Valley Regional Urban Water Management Plan

The YVWD is required under Water Code Section 10610 through 10656 of the Urban Water Management Planning Act to prepare, adopt, and file a UWMP with the DWR every five years. A UWMP outlines current water demands, sources, and reliability of supply to the City by forecasting water use based on climate, demographics, and land use changes in the City. The UWMP also provides demand management measures to increase water use efficiency for various land use types and details a water supplies contingency plan in case of emergency shortages.

For the 2015 update to the UWMP, the YVWD participated in a regional water supply planning effort with the San Bernardino Valley Municipal Water District (SBVMWD) and eight other municipal water providers to prepare a more regional approach to water supply planning. SBVMWD is a contractor with the State Water Project (SWP)—which imports water from northern California—and wholesales imported water to nine local water providers in its service area, including YVWD. SBVMWD's service area extends from YVWD on the east to the City of Rialto and West Valley Water District's service areas on the west. Most of SBVWMD's service area is in San Bernardino County, except for parts of the service areas of two of the nine water retailers it serves—YVWD and the Riverside Highland Water Company—that extend into Riverside County (SBVMWD et al. 2016). YVWD's 2015 UWMP is Chapter 12 of the 2015 San Bernardino Valley Regional Urban Water Management Plan, which was adopted by the SBVMWD Board of Directors on June 21, 2016.

YVWD Parcel Development Process

Since July 1, 2009, the YVWD required that project applicants fund the purchase of 7 af of imported supplemental water prior to issuance of grading or building permits in order to demonstrate a 20-year supply of water is available for the development to occur. The cost of imported supplemental water will be linked directly to the availability and anticipated cost for water delivered by either the SBVMWD or the San Gorgonio Pass Water Agency as established by the YVWD.

City of Yucaipa Municipal Code

The City of Yucaipa Municipal Code, Division 10, Chapter 4, Water Conservation, establishes water conservation measures to promote proper landscaping practices that integrate the conservation and efficient use of water. This chapter includes details regarding landscape, irrigation, and grading design plans, recycled water, stormwater managements, and water waste prevention.

Existing Conditions

Water Supply and Demand

Potable water in the City of Yucaipa is provided by YVWD, Western Heights Water Company, South Mesa Water Company, and Redlands Municipal Utilities & Engineering Department. However, the project site itself is served by YVWD. YVWD relies on four types of water resources to meet annual water demands: groundwater, local surface water, imported water, and recycled water. Groundwater is the primary source of YVWD's water supply, drawn from 25 wells throughout the YVWD service area. These wells provide

approximately 50 percent of the total drinking water supply, surface provides approximately 3 percent, and imported water provides the remaining 47 percent (SBVMWD et al. 2016). The Yucaipa Valley Regional Water Filtration Plant, which treats raw imported water, has a 12 mgd capacity, with a planned ultimate capacity of 30 mgd. Surface water is filtered at the Oak Glen Surface Water Filtration Facility, which has a 1 mgd capacity (YVWD 2016). Table 5.16-2, *YVWD 2015 Actual Water Supplies*, identifies the quantity of water supplied by the YVWD to its customers.

Table 5.16-2 YVWD 2015 Actual Water Supplies

Water Supply	Source of the Water Supply	2015 Actual Volume (af)
Groundwater	Groundwater Supplies	4,904
Surface Water	Oak Glen Surface Water Filtration Facility	233
Purchased Import	Yucaipa Valley Regional Water Filtration Facility	4,587
	Total	**9,724**

Source: Table 12-14, SBVMWD et al. 2016.
Note: af = acre-feet

- **Purchased or Imported Water:** YVWD purchases water imported from northern California via the SWP from two agencies: the SBVMWD and the San Gorgonio Pass Water Agency. SBVMWD encompasses much of YVWD's service area and holds an entitlement from the SWP for 102,600 afy of water. The San Gorgonio Pass Water Agency serves the remainder of YVWD's service area in Riverside County through its SWP entitlement of 17,300 afy (SBVMWD et al. 2016). Imported water is received untreated; much of it is treated at YVWD's Yucaipa Valley Regional Filtration Facility for direct delivery to Yucaipa, Calimesa, and unincorporated areas of San Bernardino and Riverside counties. The remainder is used for groundwater recharge and landscape irrigation. YVWD plans to use SWP surface water when available in average or wet years in gradually increasing amounts as capacity of the Yucaipa Valley Regional Water Filtration Plant is increased from its initial capacity of 12 mgd (13,400 af) to 30 mgd (33,500 af) (Nelson 2014).

- **Groundwater:** YVWD traditionally met the bulk of water demand needs from groundwater in the Yucaipa Groundwater Basin, the San Timoteo Groundwater Basin, and Beaumont Water Basin. However, the reliance on overdrafted local groundwater supplies has shifted YVWD to other water resources in recent years. For example, in 2010, over 75 percent of the groundwater used by YVWD was extracted from the Wilson Creek Basin and the Calimesa Basin (both within the Yucaipa Groundwater Basin). The remaining groundwater production was from the Beaumont Basin and several subbasins of the Yucaipa Groundwater Basin—Chicken Hill Basin, Triple Falls Creek Basin, Oak Glen Basin, and the Wildwood Basin (SBVMWD et al. 2016). The Beaumont Groundwater Basin is an adjudicated basin, meaning that groundwater rights are managed by the Beaumont Basin Watermaster. The water rights for the Yucaipa Groundwater Basin and the San Timoteo Groundwater Basin are not adjudicated and groundwater is managed collectively by the agencies. The Yucaipa Groundwater Basin was identified as in overdraft in 2003 by the DWR. However, as of 2016, water levels are at or near historic highs. YVWD has decreased

groundwater pumping by 50 percent since 2007 through use of imported water and recycled water. These two basins (Yucaipa and San Timoteo) are considered to have controlled overdraft conditions. The Beaumont Groundwater Basin is considered to be in overdraft, while the San Timoteo Groundwater Basin is not considered in overdraft. The YVWD is currently involved with development of a groundwater management plan pursuant to Assembly Bill 3030 to proscribe collective management of the Yucaipa Groundwater Basin. In the Yucaipa Groundwater Basin, water storage is enhanced through the recharge basins by spreading surface water (i.e., groundwater recharge) (SBVMWD et al. 2016).

- **Surface Water:** YVWD collects surface water from several sources in the Oak Glen area, including Oak Glen Creek and its tributaries, and subsurface flows. The flows are highly seasonal and depend on the amount of rainfall and snow melt in the area. Surface water is filtered at the Oak Glen Surface Water Filtration Facility, which has 1 mgd capacity (YVWD 2016). YVWD is also able to receive surface waters from Mill Creek through the Santa Ana-Mill Creek Cooperative Water Project Agreement, which allows YVWD to exchange up to 32 cubic feet per second of water from the SWP for Mill Creek water when available. In exchange for Mill Creek water supply, YVWD delivers water to the City of Redlands' Hinckley or Tate water treatment plants. Depending on local hydrology, flows in the creek can range from 10,000 to 120,000 afy (SBVMWD et al. 2016; YVWD 2016).

- **Stormwater:** The YVWD is participating in regional planning efforts to capture additional stormwater for the purpose of groundwater recharge in the City of Yucaipa and the City of Calimesa (SBVMWD et al. 2016). The proposed Specific Plan is one of these planning efforts.

- **Recycled Water:** Recycled water, produced at YVWD's WRWRF and used mostly for irrigation, comprised approximately 11 percent of YVWD's overall water supplies in 2015. Recycled water supplies are expected to grow to about 6,718 acre-feet by 2040, or about 21 percent of overall water demands (SBVMWD et al. 2016).

Water Demand Forecast

Water supplies forecast by YVWD over the 2020 to 2040 period are shown in Table 5.16-3. The projected water supplies anticipate the purchase of additional water rights by the San Gorgonio Pass Water Agency and/or the approval of an allocation plan for an even distribution of imported water from that state water contractor. Without these actions taken by the regional water provider, YVWD would implement necessary restrictions to reduce demand in future years, if needed (SBVMWD et al. 2016). Additionally, a significant portion of YVWD projected future demand will be met by using recycled water for golf courses, parks, landscape areas, and front-/rear-yards of residential units. In Yucaipa, new homes are required to be dual plumbed and use recycled water for irrigation (SBVMWD et al. 2016)

Table 5.16-3 YVWD Forecast Water Supplies, 2020–2040

Source	Acre-Feet per Year (afy)				
	2020	2025	2030	2035	2040
Groundwater	9,000	9,000	9,000	9,000	9,000
Surface Water, Oak Glen Surface Water Filtration Facility	500	500	500	500	500
Imported Water, Yucaipa Valley Regional Water Filtration Facility	14,900	15,875	16,500	17,700	16,390
Recycled Water, Wochholz Regional Water Recycling Facility	4,479	5,038	5,598	6,158	6,718
Total	**28,879**	**30,413**	**31,598**	**33,358**	**32,608**

Source: SBVMWD et al. 2016.

Water Supply Reliability

The YVWD has a water shortage contingency plan for regional water supply sources (imported water and groundwater). During statewide drought conditions, the availability of SWP water may be reduced. These conditions are normally foreseeable, providing YVWD with the opportunity to plan for the reduced supply. During a drought, it is a priority to make direct deliveries to the water treatment plants operated by the City of Redlands, West Valley Water District, and YVWD and to maintain lake levels at Big Bear Lake (Big Bear Lake water also feeds the water treatment plants of Redlands and YVWD). In the case of a shortage, YVWD would use additional groundwater from the Bunker Hill Conjunctive Use Project and groundwater stored in the Yucaipa Groundwater Basin. In multiple dry years, the SBVMWD expects between 44,858 af and 45,910 af of water to be available, meaning Valley District could fulfill normal direct deliveries to water treatment plants in multiple dry years, including the YVWD treatment plant. YVWD groundwater wells have not been impacted by water quality issues, which could reduce available water supply. YVWD continues to monitor for any indication of groundwater contamination (SBVMWD et al. 2016).

Water Supplies and Demands Comparisons

YVWD forecasts that it will have adequate water supplies to meet water demands in its service area over the 2020 to 2040 period in normal, single-dry, and multiple-dry years, as shown in Table 5.16-4.

Table 5.16-4 YVWD Water Supplies and Demand Forecast, 2020–2040

Totals	Acre-Feet per Year (afy)				
	2020	2025	2030	2035	2040
Normal Year					
Supply Totals	28,879	30,413	31,598	33,358	32,608
Demand Totals	12,891	13,751	14,730	15,815	17,007
Difference	15,988	16,662	16,868	17,543	15,601
Single Dry Year					
Supply Totals	22,379	23,913	25,098	26,858	26,108
Demand Totals	11,992	12,825	13,775	14,829	15,991
Difference	10,387	11,088	11,323	12,029	10,117
Multiple Dry Years					
First Year					
Supply Totals	24,617	26,304	27,608	29,544	28,719
Demand Totals	12,441	13,288	14,252	15,322	16,500
Difference	12,176	13,016	13,356	14,222	12,219
Second Year					
Supply Totals	24,617	26,304	27,608	29,544	28,719
Demand Totals	12,441	13,288	14,252	15,322	16,500
Difference	12,176	13,016	13,356	14,222	12,219
Third Year					
Supply Totals	24,617	26,304	27,608	29,544	28,719
Demand Totals	12,441	13,288	14,252	15,322	16,500
Difference	12,176	13,016	13,356	14,222	12,219

Source: SBVMWD et al. 2016.

SBX7-7 Baseline and Targets

The Water Conservation Bill of 2009 (SBX7-7) provides the regulatory framework to support the statewide reduction in urban per capita water use described in the 20X2020 Water Conservation Plan. Consistent with SBX7-7, an urban water supplier must determine its existing baseline water consumption and set a 2020 water use target and an interim 2015 target in gallons per capita per day. There are four methods used to calculate the 2020 water use target, and the interim target is set halfway between the 2020 target and the existing baseline water use. The YVWD uses method 1, which set a 2020 target based on 80 percent of the water supply baseline per capita water use; the resulting target is shown in Table 5.16-5, *YVWD SBX7-7 Baseline and Water Targets Summary*.

Table 5.16-5 YVWD SBX7-7 Baseline and Water Targets Summary

Gallons per Capita per Day (gpcd)		
10-year Average Baseline	2015 Interim Target	Confirmed 2020 Target
276	248	220

Source: SBVMWD et al. 2016.
Note: The gpcd includes residential and nonresidential customers.

Water Conveyance

The YVWD has an extensive dual water distribution system. The dual water system has a drinking water conveyance system and a separate, recycled water distribution system (SBVMWD et al. 2016). A number of potable and recycled water supply lines currently surround the project site, varying from 12 to 30 inches in diameter:

- 30-inch and 12-inch lines in Oak Glen Road
- 16-inch and 8-inch lines in 2nd Street
- 16-inch line in Bryant Street and near the northeast corner of the project site near the existing water reservoir
- 8-inch line in a portion of Oak Glen Creek, along the 2nd Street alignment
- 16-inch recycled water line in Oak Glen Road and 2nd Street

5.16.2.2 THRESHOLDS OF SIGNIFICANCE

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

U-2 Would require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

U-4 Would not have sufficient water supplies available to serve the project from existing entitlements and resources, and new and/or expanded entitlements would be needed.

5.16.2.3 ENVIRONMENTAL IMPACTS

The following impact analysis addresses thresholds of significance that may be potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

Impact 5.16-2: Adequate water supply is available for the projected water demands under the Oak Glen Creek Specific Plan, and water delivery infrastructure would be constructed to meet project needs. [Thresholds U-2 (part) and U-4]

Impact Analysis: The proposed project would result in an increase in demand for potable and nonpotable water use in the YVWD. This additional water would need to be treated at the Yucaipa Valley Regional Water Filtration Facility and the Oak Glen Surface Water Filtration Facility before being transported to the site via YVWD's water distribution system. The proposed project would also require connection to the existing potable water and recycled water systems.

Water Demand

The proposed Residential District and Innovation District would result in an increase in water demand. The proposed Open Space uses would include a system of multiuse trails with native landscaping. The majority of water demand for the project would be met through nonpotable (i.e., recycled) water because the YVWD imposes specific conditions on new development through the Parcel Development Process. The YVWD currently utilizes recycled water to meet 10 to 15 percent of overall water demand (SBVMWD et al. 2016). All outdoor water use would be met using recycled water. As shown in Table 5.16-6, *Oak Glen Creek Specific Plan Projected Water Generation*, the proposed project would generate a demand for 161.81 afy, the vast majority of which would be met through recycled water.

Table 5.16-6 Oak Glen Creek Specific Plan Projected Water Generation

Water Type	Water Demand, Acre-Feet per Year (afy)		
	Indoor Water[1, 2]	Outdoor Water[3]	Total Water Demand
Residential District	28.55	96.00	102.66
Innovation District	1.84	0	1.84
Open Space	0	35.42	34.42
Total	30.39	131.42	161.81

1 Residential indoor water demand is based on the California Green Building Standards Code requirements for plumbing efficiency for new construction (Consol 2015).
2 Innovation District water demand is based on office use water demand from "Commercial and Institutional End Uses of Water" (DeOreo et al 2000). Assumes nominal outdoor water use. To be conservative, the water demand estimate for the Innovation District assumes 100 percent potable water use.
3 Outdoor water demand is based on the California Water Efficient Landscape Ordinance's Water Budget Calculator for New and Rehabilitated Residential Landscapes (DWR 2016).

The YVWD imposes specific conditions on new development through the Parcel Development Process. New developments that have access to recycled water are required to connect to recycled water infrastructure to irrigate all greenbelt areas, commercial landscape areas, roadway medians, front yards of individual homes, and rear yards of individual homes. The YVWD also requires new development to be dual plumbed regardless of current access to recycled water so that it is available when recycled water service is expanded. The proposed project has access to recycled water and would use recycled water for outdoor landscape needs. The YVWD also requires that the applicants for new development projects fund the purchase of 7 af of imported supplemental water per equivalent dwelling unit prior to issuance of grading or building permits. These Parcel Development Process requirements imposed by the YVWD would reduce and/or offset the increased demand for water for the proposed project.

Additionally, the YVWD enhances groundwater storage through the YVWD's groundwater recharge program. The Yucaipa Groundwater Basin is recharged by infiltration in the Yucaipa, Wilson, and Oak Glen Creeks (SBVMWD et al. 2016). The YVWD and the City enhance groundwater storage by "spreading" additional surface water to facilitate groundwater recharge. The proposed project would provide a more efficient trapezoidal channel design and retention basin at the confluence at Wilson Creek and Oak Glen Creek, thereby increasing stormwater retention and groundwater recharge. As a result, the proposed project, in addition to reducing flood hazards, would result in beneficial impacts as a result of replenishment of the groundwater basin. Impacts would be less than significant.

Water Treatment Facilities

The Yucaipa Valley Regional Water Filtration Plant, which treats raw imported water, has a 12 mgd capacity with a planned ultimate capacity of 30 mgd. Surface water is filtered at the Oak Glen Surface Water Filtration Facility, which has a 1 mgd capacity (YVWD 2016). Together, these two YWWD water treatment facilities have a total capacity of 13 mgd, sufficient to meet the project's potable water demands. Additionally, the proposed project would be provided recycled water from the WRWRF. The WRWRF produced 4,057 af of recycled water in 2015, of which 2,844 af were discharged to San Timoteo Creek and the remaining 1,213 af was used for landscape irrigation within YVWD's service area (SBVMWD et al. 2016; YVWD 2016). YVWD forecasts that by 2040 recycled water production at the WRWRF will amount to about 6,718 afy, or about 6.0 mgd (SBVMWD et al. 2016). The Specific Plan buildout would not require YVWD to build new or expanded water treatment facilities to accommodate the increased demand, and impacts would be less than significant.

Water Conveyance

Potable water and recycled water supply lines currently surround the project site, varying from 12 to 30 inches in diameter: YVWD has recommended a range of water lines—from 8 to 16 inches—within the public right-of-way to meet domestic and fire flow requirements. Specific water line sizes would be determined once more specific development details are known. Water lines would be installed in public roadways in soil already disturbed by construction of the roadways. Infrastructure, including water delivery systems, are funded by impact fees, grants, fair share cost arrangements, and service fees. Individual projects associated with the Specific Plan are required to pay development impact fees to fund water connections. Capital improvements are funded from connection fees by the YVWD. The connection fee is a capital facilities fee used to provide additional conveyance and treatment facilities required by new users of the water system. Future development projects are also required to coordinate with the YVWD to ensure sufficient sizing of the infrastructure for water availability and water pressure. Impacts would be less than significant.

5.16.2.4 CUMULATIVE IMPACTS

Similar to the proposed project, new development would be required to undergo the Parcel Development Process, which requires applicants of new development projects to fund the purchase of 7 af of imported supplemental water per equivalent dwelling unit prior to issuance of grading or building permits. It also requires dual plumbing and front-/backyard recycled water use. Although the proposed project and cumulative projects would increase demand for potable and nonpotable water use in the YVWD service area, the 2015 Regional UWMP identifies that the YVWD would be able to accommodate the proposed project along with demand associated with cumulative growth in the service area. Cumulative impacts to water supplies in the YVWD water service area would be less than significant. In addition, each cumulative project would be required to estimate its respective water demand and determine the pipe sizes needed to deliver that demand and the existing sizes of water mains serving that site. Each project would pay water connection fees to the YVWD to offset costs for installation of water mains. These charges would reduce cumulative impacts to water distribution and treatment capacity.

5.16.2.5 EXISTING REGULATIONS

State

- California Water Code Sections 10610 et seq.: Urban Water Management Planning Act
- California Water Code Sections 10800 et seq. and 10608 et seq.: Water Conservation Act of 2009
- Chapter 642, Statutes of 2001: Senate Bill 221: Land Use and Water Supplies
- Chapter 643, Statutes of 2001: Senate Bill 610: Water Supply Planning

City of Yucaipa

- City of Yucaipa Development Code, Division 11, Chapter 5, Public Facilities Financing.
- City of Yucaipa Municipal Code, Chapter 15.08, Development Impact Fees
- City of Yucaipa Municipal Code, Chapter 4: Water Conservation

YVWD

- Water Shortage Contingency Plan
- Design Manual and Construction Guidelines
- 2005 Water Master Plan
- Crystal Status Development Program
- Water Supply Reliability Strategy
- Water Requirements for New Development: Bundled water, sewer, and recycled water services

5.16.2.6 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant: 5.16-2.

5.16.2.7 MITIGATION MEASURES

No significant impacts were identified and no mitigation measures are necessary.

5.16.2.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

No mitigation measures are required and impacts would remain less than significant.

5.16.3 Storm Drainage Systems

5.16.3.1 ENVIRONMENTAL SETTING

Regulatory Background

State Regulations

National Pollutant Discharge Elimination System Program

The State Water Resources Control Board has adopted a statewide Construction General Permit (Order No. 2009-009-DWQ) for stormwater discharges associated with construction activity. These regulations prohibit the discharge of stormwater from construction projects that include one acre or more of soil disturbance. Construction activities subject to this permit include clearing, grading, and other disturbance to the ground such as stockpiling or excavation that results in soil disturbance of at least one acre of total land area. Because construction on project sites in the City could occur over an area greater than one acre, individual developers would be required to submit a Notice of Intent to the State Water Resources Control Board for coverage under the NPDES permit and would be obligated to comply with its requirements.

The NPDES Construction General Permit requires all dischargers to (1) develop and implement a Stormwater Pollution Prevention Plan, which specifies best management practices (BMP) to be used during construction of the project; (2) eliminate or reduce nonstorm water discharge to stormwater conveyance systems; and (3) develop and implement a monitoring program of all BMPs specified. The two major objectives of the Stormwater Pollution Prevention Plan are to (1) help identify the sources of sediment and other pollutants that affect the water quality of stormwater discharges and (2) to describe and ensure the implementation of BMPs to reduce or eliminate sediment and other pollutants in stormwater as well as non-stormwater discharges.

County of San Bernardino Municipal Stormwater Permit

In January 2010, the Regional Water Quality Control Board reissued the San Bernardino County MS4 Stormwater Permit as Waste Discharge Requirement Order R8-2010-0036, NPDES Permit No. CAS618036, to the County of San Bernardino, its 16 incorporated cities, and the San Bernardino County Flood Control District (SBCFCD). Pursuant to the MS4 Permit, the permittees were required to develop and implement programs and policies necessary to reduce the discharge of pollutants in urban runoff to Waters of the U.S. to the maximum extent practicable (MEP), and to implement BMPs to reduce, consistent with the MEP standard, the discharge of pollutants in urban stormwater from the MS4s. The City of Yucaipa, as a permittee under the General MS4 permit, has legal authority for enforcing the terms of the permit in its jurisdiction.

The General MS4 permit requires that new development or significant redevelopment projects use BMPs, including site design planning, source control, and treatment techniques, to ensure that the water quality of receiving waters is protected. These requirements are detailed in the San Bernardino County Model Water Quality Management Plan (WQMP) and supplemental Technical Guidance Document, revised May 2012, which the City of Yucaipa has incorporated into its project approval processes. Within the General Plan area,

any new development project (i.e., adding 10,000 or more square feet of impervious surface) or significant redevelopment project (i.e., adding 5,000 or more square feet of impervious surface) is required to prepare a WQMP that specifies the BMPs and low-impact-development measures that will be implemented to minimize the effects of the project on regional hydrology, runoff flow rates and/or velocities, and pollutant loads. An operations and maintenance plan must also be included as part of the WQMP and must designate terms, conditions, and requirements for maintaining the BMPs in perpetuity.

Local

City of Yucaipa Municipal Code

The City of Yucaipa Municipal Code requirements for drainage and stormwater quality protection are in Chapter 13.04, Storm Drain System. New development projects (i.e., adding 10,000 or more square feet of impervious surface) and significant redevelopment projects (i.e., adding 5,000 or more square feet of impervious surface) must prepare and implement WQMPs specifying BMPs and low-impact-development measures for minimizing stormwater pollution pursuant to the General MS4 permit. Additionally, Chapter 4, Section 810.0480, Stormwater Management, encourages developments to implement BMPs that minimize runoff and increase infiltration that recharges groundwater and improves water quality.

Chapter 15.08 requires payment of development impact fees to fund public facilities and services improvements, including those required for drainage facilities. The development impact fees are assessed on new residential and nonresidential developments to mitigate the impacts in the City. Fees are deposited into a separate fund and are due and payable on the date of final inspection or the date the certificate of occupancy is issued. The amount of each fee authorized pursuant to this chapter may be more specifically set and revised periodically by resolution of the City Council.

Measure I

Measure I was adopted by San Bernardino County voters in 1989 as a half-cent transportation sales tax. Revenue from Measure I is a major funding source for transportation improvements in the City of Yucaipa. The majority of the revenue goes toward freeway improvements, Metrolink trains, Omnitrans subsidies for elderly and disabled riders, major streets that serve as transportation arteries, ridesharing programs, landscaping, and traffic management (Yucaipa 2014c). However, a portion of Measure I funds also go toward the City's streets and drainage facilities.

Existing Conditions

Flood Hazards

As identified in Section 5.7, *Hydrology and Water Quality*, significant portions of the project site are within a 100-year flood plain due to Wilson Creek and Oak Glen Creek traversing the northern and southern portions of the property, respectively. Wilson Creek is a regional channel that provides major flood control protection for a large part of the City, and it is critical to the City's flood control plan. Wilson Creek and Oak Glen Creek are designated Floodplain Review Area 1, which corresponds with a 100-year flood hazard area.

Drainage Facilities

Oak Glen Creek passes east to west through the southern part of the site, and Wilson Creek enters the site along its northern boundary. Wilson Creek runs southwestward until it flows into Oak Glen Creek in the southwestern portion of the site. The two creek channels onsite are in their natural condition, although there are engineered improvements to Oak Glen Creek both upstream and downstream of the project site and to Wilson Creek upstream of the site. SBCFCD currently maintains ownership of the majority of the parcels surrounding Oak Glen Creek and Wilson Creek on the project site for regional flood control.

There are no developed storm drainage facilities onsite; drainage for the overall site is surface runoff flowing southwesterly from Oak Glen Road to 2nd Street, through Wilson Creek and Oak Glen Creek (see Figure 5.8-1, *Existing Condition Hydrology Map*). Culverts under Oak Glen Road and Bryant Street allow stormwater flows from these creeks to traverse the property and ultimately discharge into a downstream concrete trapezoidal channel running through the development to the southwest. The existing flows eventually discharge into Live Oak Creek and San Timoteo Creek west of the proposed project site (Michael Baker 2014).

Peak flow rates in 2-year, 10-year, and 100-year storms, summed for the entire project site in each of the three conditions, are listed in Table 5.8-1 in Section 5.8, *Hydrology and Water Quality*, of this DEIR. The flows for the 2-year storm are typically used to determine the water quality design capture volume; the 10-year storm flows are used to determine the local drain sizing; and the 100-year analysis is used for large master plan facilities and flood plan mapping.

Funding

The City's Street Maintenance Division is responsible for the maintenance of all local street and drainage facilities within public rights-of-way. The division is funded by gas tax receipts, solid waste franchise fees, and a portion of Measure I revenues. Development impact fees per Chapter 15.08 of the City's municipal code also provide funding through drainage facility fees charged to new developments. Table 5.16-7, *Development Impact Fee for Drainage Facilities*, details the current fees by land use type.

Table 5.16-7 Development Impact Fee for Drainage Facilities

Land Use Type	Impact Fee (per net acre)
Residential	$11,474.41
Commercial	$11,474.41
Industrial	$11,474.41

Source: Yucaipa 2015.

5.16.3.2 THRESHOLDS OF SIGNIFICANCE

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

U-3 Would require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

5.16.3.3 ENVIRONMENTAL IMPACTS

The following impact analysis addresses thresholds of significance that may be potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

Impact 5.16-3: Implementation of the proposed project would increase impervious surfaces and increase stormwater runoff; however, the proposed detention basin would assist in flood control and storm drainage in the project area and minimize adverse impacts. [Threshold U-3]

Impact Analysis: Yucaipa and the SBCFCD manage a network of local and regional flood control channels, detention basins, and other flood control facilities. The SBCFCD currently maintains ownership of the majority of the parcels surrounding Oak Glen Creek and Wilson Creek on the project site for regional flood control. The City of Yucaipa maintains the local storm drainage networks that connects to SBCFCD's facility.

One of the primary purposes of the Oak Glen Creek Specific Plan is to design appropriate flood control facilities to control regional storm water flows from Wilson and Oak Glen creeks and capture stormwater runoff in the detention basin. As a result of the basin improvements, portions of the site would be removed from the FEMA flood hazard zones, and the SBCFCD would no longer need to maintain additional acreage for flood control purposes. Implementation of these regional flood control improvements would allow for the transfer of ownership of the Residential District and Innovation District sites to City or private ownership and for the implementation of the proposed Residential District and Innovation District. An evaluation of the project's flow rates compared to existing conditions is shown in Table 5.8-6, Local Flow Rate Comparison, in Section 5.8, *Hydrology and Water Quality*, and Figure 5.8-3, *Proposed Condition Hydrology Map*, shows the proposed hydraulic conditions after implementation of the basin project.

Regional Drainage Facilities

The project site is at a major confluence of drainage courses that represent an important component of the City's drainage system. As identified above, the proposed project would be constructed in collaboration with the SBCFCD and YVWD to improve regional drainage and increase groundwater recharge.

The eastern portion of the Open Space District in Oak Glen Creek could include either a designed/improved low-flow stream channel for groundwater recharge as an aesthetic design feature or a natural trapezoidal channel to convey stormwater flows. The proposed basin improvements, which include realignment of Wilson Creek, would result in the channelization of the 100-year flows and would take the Residential and Open Space Districts out of the 100-year flood hazard zone. Once the basin improvements are implemented by the City, in conjunction with the SBCFCD and the YVWD, the City would be required to submit a Letter of Map Revision to FEMA in order to change the existing Flood Insurance Rate Map covering the project site to reflect changes to the 100-year flood zones.

Controlling regional drainage flows through the site would also reduce potential flooding in the downstream portions of the City. Drainage improvements have been constructed upstream of the property along Wilson Creek north of Oak Glen Road and along Oak Glen Creek east of Bryant Street. The ability to detain regional stormwater flows within the proposed basin would lessen downstream flooding in the Dunlap Acres portion of the City.

Local Drainage Improvements

Future homes and structures associated with the Residential, Innovation, and Open Space Districts would be developed upon approval of the letter of map revision. Due to the programmatic level of the site plan and available grading, there is not enough information to outline a preliminary storm drain system for the Residential and Innovation districts. However, as further developments are made in the Specific Plan area, a storm drain system would be required to convey all onsite flows to the project's detention basin. An onsite drainage system would help to prevent flooding and reduce the impacts of erosion.

The local drainage system in the Residential and Innovation districts would be required to accommodate runoff volumes associated with a 10-year storm, not exceed levels above the curb, and flow below the right-of-way. Appropriately sized storm drain and catch basin would be installed in the internal roadways and connect to the proposed detention basin. Surface runoff will flow through catch basins and storm drain lines to discharge at the proposed Wilson detention basin, which would prevent flooding. The detention basin would have capacity to detain the net increase in runoff resulting from development of the site. The City of Yucaipa, YVWD, and SBCFCD basin improvements associated with the proposed project would have an overall beneficial impact to the region's drainage system.

Funding for Drainage Improvement

Development in accordance with the Oak Glen Creek Specific Plan would be required to provide funding for the installation of the proposed drainage system to connect with the existing YVWD system. Funding for drainage facilities would come from the City's Street Maintenance Division funds and development impact fees collected under Chapter 15.08 of the City's municipal code. According to the current development impact fees, the proposed residential and commercial uses on the project site would be required to pay $11,474.41 per net acre. Developers are also required to submit a stormwater quality management plan that describes BMPs and site design measures that will be implemented to minimize site runoff. Impacts would be less than significant.

5.16.3.4 CUMULATIVE IMPACTS

Cumulative impacts are considered for the Santa Ana River Watershed, which spans about 2,800 square miles and contains portions of Los Angeles, Riverside, San Bernardino, and Orange counties. Other projects in the watershed may increase the amount of impervious surfaces in the watershed and thus may increase flow rates and volumes of runoff entering storm drains in the region. However, other projects in the watershed would be required by MS4 permits to be sized and designed to ensure onsite retention of the volume of runoff produced from a 24-hour, 85th percentile storm event, which is similar to a two-year storm. Other impacts to storm drainage would also be analyzed in separate CEQA processing for each cumulative project, and

mitigation measures would be required as appropriate to minimize significant impacts. Additionally, the proposed project would have a beneficial impact on regional drainage as a result of the basin improvements. Thus, cumulative impacts would be less than significant.

5.16.3.5 EXISTING REGULATIONS

- National Pollutant Discharge Elimination System Program
- City of Yucaipa Municipal Code
  - Chapter 13.04 (Storm Drain System)
  - Chapter 15.08 (Development Impact Fee)
  - Chapter 4, Section 810.0480 (Stormwater Management)

5.16.3.6 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant: 5.16-3.

5.16.3.7 MITIGATION MEASURES

Impacts are less than significant and mitigation measures are not required.

5.16.3.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

No mitigation measures are required and impacts would remain less than significant.

5.16.4 Other Utilities

5.16.4.1 ENVIRONMENTAL SETTING

Regulatory Background

California Energy Commission

The CEC was created as the state's principal energy planning organization in 1974 to meet the energy challenges facing the state in response to the 1973 oil embargo. The CEC is charged with six basic responsibilities when designing state energy policy:

- Forecasting statewide electricity needs
- Licensing power plants to meet those needs
- Promoting energy conservation and efficiency measures
- Developing renewable energy resources and alternative energy technologies
- Promoting research, development and demonstration
- Planning for and directing the state's response to energy emergencies

California Building Code: Building and Energy Efficiency Standards

Energy conservation standards for new residential and nonresidential buildings were adopted by the California Energy Resources Conservation and Development Commission (now the CEC) in June 1977, and the current version is the 2013 standards (Title 24, Part 6, of the California Code of Regulations [CCR]). Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow for consideration and possible incorporation of new energy efficiency technologies and methods. Buildings that are constructed in accordance with the 2013 Building and Energy Efficiency Standards are 25 percent (residential) to 30 percent (nonresidential) more energy efficient than the previous 2008 standards as a result of better windows, insulation, lighting, ventilation systems, and other features.

Most recently, the CEC adopted the 2016 Building and Energy Efficiency Standards, which will go into effect on January 1, 2017. The 2016 standards will continue to improve upon the current 2013 standards for new construction of and additions and alterations to residential and nonresidential buildings. Under the 2016 standards, residential buildings are 28 percent more energy efficient than the 2013 standards, and nonresidential buildings are 5 percent more energy efficient than the 2013 standards (CEC 2015a).

The 2016 standards will not achieve zero net energy. However, they do get very close to the state's goal and make important steps toward changing residential building practices in California. The 2019 standards will take the final step to achieve zero net energy for newly constructed residential buildings throughout California (CEC 2015b).

California Building Code: CALGreen

On July 17, 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (24 CCR, Part 11, known as "CALGreen") was adopted as part of the California Building Standards Code. CALGreen established planning and design standards for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants.[2] The mandatory provisions of the California Green Building Code Standards became effective January 1, 2011, and were last updated in 2013.

2006 Appliance Efficiency Regulations

The 2006 Appliance Efficiency Regulations (20 CCR §§ 1601–1608) were adopted by the CEC on October 11, 2006, and approved by the California Office of Administrative Law on December 14, 2006. The regulations include standards for both federally regulated appliances and non-federally regulated appliances. Though these regulations are now often viewed as "business as usual," they exceed the standards imposed by all other states, and they reduce GHG emissions by reducing energy demand.

[2] The green building standards became mandatory in the 2010 edition of the code.

Existing Conditions

Electricity

Southern California Edison (SCE) provides electricity to Yucaipa. Total electricity demands in SCE's service area are forecast to increase from 99,224 gigawatt-hours per year (Gwh/yr) in 2011 to 109,888 GWh/yr in 2020 (CEC 2012); one GWh is equivalent to one million kilowatt-hours. In 2013, 21.6 percent of SCE's electricity was generated by renewable sources (CPUC 2014). SCE's renewable inventory is primarily from geothermal and wind power. In 2014, SCE's energy portfolio included 24 percent from renewable energy (including biomass, geothermal, solar and wind), 3 percent from large hydroelectric, 27 percent from natural gas, 6 percent from nuclear, and 40 percent from unspecified sources (SCE 2014).

In 2014, the City and its sphere of influence area had a total energy demand of 221 Gwh/yr (Yucaipa 2016). Existing users of electricity onsite consist of the City maintenance yard, the one residence, and the YVWD well.

Natural Gas

The Southern California Gas Company (SoCalGas) provides natural gas services to the City of Yucaipa; the company's service territory encompasses approximately 20,000 square miles throughout central and southern California. It is considered the nation's largest natural gas distribution utility and serves 20.9 million consumers through 5.8 million meters in more than 500 communities (SoCalGas 2014). SoCalGas operations are regulated by the California Public Utilities Commission, who is the default provider of natural gas to Yucaipa. The state of California imports approximately 87 percent of its statewide natural gas supply. SoCalGas purchases natural gas from several bordering states and is continually expanding its network of gas pipelines to meet the needs of new commercial and residential developments in southern California—including San Bernardino County and the City of Yucaipa. SoCalGas provides natural gas as customers request the service. Current supplies are adequate to meet demands. Total natural gas supplies available to SoCalGas are estimated to remain stable at 3.875 billion cubic feet per day (bcfd) through the 2010 to 2030 period. Total natural gas consumption in SoCalGas's service area is forecast to be 2.681 bcfd in 2016 and 2.382 bcfd in 2035 (CGEU 2016).

In 2014, the City and its sphere of influence area had a total energy demand 10.2 million therms per year (Yucaipa 2016). Existing users of natural gas onsite consist of the City maintenance yard and the one residence.

Communications Facilities

Local and long-distance telephone service is offered in the City by Frontier. Time Warner Cable provides wireless, high speed, and dial-up internet service; digital cable service; digital video recorder; high definition television; and other digital cable services. Internet service providers serving Yucaipa include Frontier, Time Warner, and local ISPs.

5.16.4.2 THRESHOLDS OF SIGNIFICANCE

Although not specifically in Appendix G of the CEQA Guidelines, the following additional threshold is also addressed in the impact analysis. A project would normally have a significant effect on the environment if the project:

U-8 Would increase demand for other public services or utilities.

5.16.4.3 ENVIRONMENTAL IMPACTS

The following impact analysis addresses thresholds of significance that may be potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

Impact 5.16-4: Existing and/or proposed facilities would be able to accommodate project-generated electricity, natural gas, and communication facility demands. [Threshold U-8]

Impact Analysis: Development in accordance with the Oak Glen Creek Specific Plan would increase demand for energy use and communication services.

Energy

Table 5.16-8, *Projected Energy Demand*, details the projected natural gas and electricity demand of the proposed project. Total electricity consumption by the proposed Specific Plan at buildout would be approximately 1.64 million kilowatt hours per year. Total annual natural gas demand by buildout of the proposed Specific Plan would be approximately 7.06 million kBTU per year. Existing SCE and SoCalGas supplies are vastly greater than the forecast net increase in natural gas demands resulting from proposed project. Buildout of the Specific Plan would not require SCE or SoCalGas to obtain new or expanded electricity supplies.

Table 5.16-8 Projected Energy Demand

Land Use	Energy Demand	
	Electricity (kWh/yr)	Natural Gas (kBTU/yr)
Residential District	1,445,680	6,753,380
Innovation District	195,704	302,046
Total	**1,641,384**	**7,055,426**

Source: South Coast Air Quality Management District (SCAQMD). 2013. California Emissions Estimator Model (CalEEMod), Version 2013.2.2.
Notes: kWh/yr = thousand kilowatt hours per year; kBTU/yr = thousand British thermal units per year

Furthermore, new development would be required to adhere to the state's Building and Energy Efficiency Standards and the City's Climate Action Plan to increase energy efficiency. As a result of the cycle update to the California Building and Energy Efficiency Standards, new development would be more energy efficient and would result in lower energy use compared to existing development in the City. By 2020, new residential buildings are forecast to result in zero net energy building energy use. In conclusion, the proposed project would be designed to promote the wise and efficient use of energy. Impacts would be less than significant.

Transportation Fuels

The proposed project would consume transportation energy during operations from the use of motor vehicles. Because the efficiency of the motor vehicles in use, such as the average miles per gallon for motor vehicles involved with the proposed project are unknown, estimates of transportation energy use is assessed based on the overall vehicle miles traveled (VMT) and related transportation energy use. As described in Section 5.14, *Transportation and Traffic*, the proposed project would result in a net increase in 31,782 daily VMT. The transportation energy demand is estimated at 1,306 gallons per day[3] of gasoline and diesel fuel with an average fuel economy of 24.3 miles per gallon. The City of Yucaipa and its surrounding area are urbanized and the City has existing gasoline fuel facilities and infrastructure. Consequently, the proposed project would not result in a substantial demand for energy that would require expanded supplies or the construction of other infrastructure or expansion of existing facilities.

Communications Facilities

Residential and nonresidential tenants onsite would increase the demand for communications facilities such as cable, internet, and telephone service. Additional facilities would be necessary to accommodate the buildings, such as new cabling, node locations, and power supplies. To serve these developments, enhancement and/or extensions of existing facilities into the project site would be required. These facilities are regulated by the California Public Utilities Commission and can be upgraded without any significant impact on the environment. Impacts would be less than significant.

5.16.4.4 CUMULATIVE IMPACTS

The analyses of electricity and natural gas supplies and impacts above consider electricity demands and natural gas supplies over the entire service areas of the respective providers—the electricity demand forecast extends to 2022 and the natural gas forecast to 2030. SCE and SoCalGas sell electricity and natural gas, respectively, in response to demands, and would obtain increased supplies as needed. Therefore, no significant cumulative impact would occur, and Specific Plan buildout would not contribute to a significant cumulative impact on electricity, natural gas supplies, and communications facilities.

5.16.4.5 EXISTING REGULATIONS

- California Building Code
- California Code of Regulations Title 20: Appliance Efficiency Regulations
- California Code of Regulations, Title 24: Building Energy Efficiency Standards

5.16.4.6 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant: 5.16-4.

[3] Based on CARB's EMFAC 2014 fleet efficiency for year 2018 based on the fleet mix included in the air quality section, as modeled in CalEEMod.

5.16.4.7 MITIGATION MEASURES

Impacts are less than significant and mitigation measures are not required.

5.16.4.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

No mitigation measures are required and impacts would be less than significant.

5.16.5 References

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6. Significant Unavoidable Adverse Impacts

Chapter 1, *Executive Summary*, contains Table ES-2, which summarizes the impacts, mitigation measures, and levels of significance before and after mitigation. As identified in this Draft EIR, mitigation measures would reduce the level of impacts to less than significant levels and no significant and unavoidable impacts would remain.

6. Significant Unavoidable Adverse Impacts

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7. Alternatives to the Proposed Project

7.1 INTRODUCTION

7.1.1 Purpose and Scope

The California Environmental Quality Act (CEQA) requires that an Environmental Impact Report (EIR) include a discussion of reasonable project alternatives that would "feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any significant effects of the project, and evaluate the comparative merits of the alternatives" (CEQA Guidelines Section 15126.6). This chapter identifies potential alternatives to the proposed project and evaluates them, as required by CEQA.

Key provisions of the CEQA Guidelines on alternatives (Sections 15126.6[a] through [f]) are summarized below to explain the foundation and legal requirements for the alternatives analysis in the EIR.

- "The discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly" (15126.6[b]).

- "The specific alternative of 'no project' shall also be evaluated along with its impact" (15126.6[e][1]).

- "The no project analysis shall discuss the existing conditions at the time the Notice of Preparation (NOP) is published, and at the time the environmental analysis is commenced, as well as what would reasonably be expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services. If the environmentally superior alternative is the 'no project' alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives" (15126.6[e][2]).

- "The range of alternatives required in an EIR is governed by a 'rule of reason' that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project" (15126.6[f]).

- "Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent)" (15126.6[f][1]).

- "For alternative locations, "only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR" (15126.6[f][2][A]).
- "An EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative" (15126.6[f][3]).

For each development alternative, this analysis:

- Describes the alterative,
- Analyzes the impact of the alternative as compared to the proposed project,
- Identifies the impacts of the project that would be avoided or lessened by the alternative,
- Assesses whether the alternative would meet most of the basic project objectives,
- Evaluates the comparative merits of the alternative and the project.

Per the CEQA Guidelines Section 15126.6(d), additional significant effects of the alternatives are discussed in less detail than the significant effects of the project as proposed.

7.1.2 Project Objectives

As described in Section 3.2, the following objectives have been established for the proposed project and will aid decision makers in their review of the project, the project alternatives, and associated environmental impacts:

Goals

- Provide drainage and recreation improvements along Oak Glen and Wilson Creek.
- Ensure future development of the site would properly integrate into adjoining land use and infrastructure systems.
- Provide development designs that would be visually attractive.

Objectives

1. Provide for future development opportunities through the construction and installation of street, utility, and storm drain improvements.
2. Capitalize on the project location to provide an opportunity for the development of residential, institutional, office, and medical uses, including public and private educational facilities.
3. Provide additional opportunities for local employment that reduce the need to travel out-of-town for jobs.

4. Develop flood control improvements and a retention basin that include the realignment of Wilson Creek and the improvement of Oak Glen Creek.
5. Develop portions of the area affected by Wilson Creek and Oak Glen Creek for combined drainage facilities and recreational features.
6. Design a safe and efficient circulation system that adequately supports the anticipated level of vehicular, pedestrian, and bicycle traffic in and around the project site and is compatible with existing neighborhoods.
7. Provide infrastructure systems that extend and connect to existing streets and trails.
8. Provide for the transition of ownership from public agencies and private owners to private business entities and institutional users.
9. Contribute significant property tax revenue to the City of Yucaipa.

7.2 SIGNIFICANT IMPACTS OF THE PROJECT

As identified in Chapter 5, *Environmental Analysis*, implementation of existing regulations and mitigation measures would reduce all impacts to less than significant levels. No significant and unavoidable impacts would remain. However, without implementation of mitigation measures, the following impacts would be potentially significant:

Air Quality

- **Impact 5.2-2:** Construction activities associated with the proposed project would generate short-term emissions of NO_X in exceedance of SCAQMD'S NO_X threshold criteria.
- **Impact 5.2-4:** Construction activities related to buildout of the Residential and Innovation districts in the Oak Glen Creek Specific Plan could expose sensitive receptors to substantial pollutant concentrations.

Biological Resources

- **Impact 5.3-1:** Development in accordance with the Specific Plan would involve substantial habitat modification that would adversely impact various sensitive and special-status species including the Parry's spineflower, burrowing owl, and migratory nesting birds.
- **Impact 5.3-2:** Buildout in accordance with the Oak Glen Creek Specific Plan would impact approximately 90 acres of sensitive vegetation communities, including alluvial fan sage scrub, sycamore riparian woodland, and southern cottonwood riparian woodland.
- **Impact 5.3-3:** The proposed project would impact 8.84 acres of jurisdictional waters, including 1.86 acres of waters of the U.S. and 6.98 acres of waters of the State.

- **Impact 5.3-4:** Development in accordance with the Specific Plan would affect wildlife movement and potentially impede the use of wildlife corridors for migratory species.

Cultural Resources

- **Impact 5.4-1:** Development of the project site could impact undisturbed historical resources.
- **Impact 5.4-2:** Development of the project site could impact archaeological resources.

Greenhouse Gas Emissions

- **Impact 5.6-1:** Development of the Residential District and Innovation District in the Oak Glen Creek Specific Plan would exceed the screening criteria of the Yucaipa Climate Action Plan and require implementation of 100 points of GHG reduction measures.

Hazards and Hazardous Materials

- **Impact 5.7-1:** Construction and operation of the proposed project, particularly in the City Yard, could involve the transport, use, and/or disposal of hazardous materials.

Noise

- **Impact 5.10-1:** Construction activities would result in temporary noise increases in the vicinity of the proposed project.
- **Impact 5.10-2:** Buildout of the individual land uses and projects for implementation of the Oak Glen Creek Specific Plan would expose sensitive uses to strong levels of groundborne vibration.

Transportation and Traffic

- **Impact 5.14-1:** Project-related trip generation would impact levels of service for the existing area roadway system.

Tribal Cultural Resources

- **Impact 5.15-1:** The project could impact tribal cultural resources within the project area.

7.3 ALTERNATIVES CONSIDERED AND REJECTED DURING THE SCOPING/PROJECT PLANNING PROCESS

Alternatives to the proposed project were evaluated based on their ability to reduce potentially significant impacts of the proposed project and their potential to attain most of the project's basic objectives. The following is a discussion of land use alternatives considered during the scoping and planning process and the reasons why they were not selected for detailed analysis in this Draft EIR (DEIR).

7.3.1 Alternative Development Areas

CEQA requires that the discussion of alternatives focus on alternatives to the project or its location that are capable of avoiding or substantially lessening any significant effects of the project. The key question and first step in the 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 be considered for inclusion in the EIR (Guidelines §15126[5][B][1]). In general, any development of the size and type proposed by the project would have substantially the same impacts on air quality, land use and planning, noise, public services, transportation and traffic, and utilities and service systems. Without a site-specific analysis, impacts on aesthetics, biological resources, cultural resources, geology and soils, hazards and hazardous materials, and hydrology and water quality cannot be evaluated. These impacts were found to be less than significant or less than significant with mitigation incorporated. Therefore, another location would not avoid or substantially lessen the effects of the project.

Moreover, the location of the project is a critical component of the proposed project since the Oak Glen Creek Specific Plan includes implementation of regional flood control improvements at the confluence of Oak Glen Creek and Wilson Creek. Wilson Creek is one of two regional drainage systems that convey stormwater runoff from the San Bernardino Mountains through the City to Live Oak Creek west of Interstate 10 on the west side of the City. Oak Glen Creek is a significant tributary to Wilson Creek and forms a confluence with Wilson Creek within the Specific Plan area.

The City of Yucaipa is highly dependent on Wilson Creek and Oak Glen Creek to provide drainage and flood control protection for a large part of the community, much of which lies in the 100-year flood plain as identified by the Federal Emergency Management Agency. However, at this time, Wilson Creek and its tributaries have limited capacity in some areas, creating a need for additional flood control improvements to reduce and/or eliminate potential flood risk. Therefore, a major purpose of the proposed project is to develop flood control improvements and a retention basin onsite to control flooding and protect downstream areas of the City.

The San Bernardino County Flood Control District (SBCFCD) operates flood control facilities in Yucaipa that intercept and convey flood flows through and away from developed areas of the City. The SBCFCD and the City of Yucaipa have collaborated on past flood control projects, including a series of retention/desilting basins and levees recently constructed on Oak Glen Creek directly east of the project site across Bryant Street. However, flooding during peak storm flows continues to be an issue downstream of the project site, and additional drainage improvements are needed to control stormwater flows.

The Oak Glen Creek Specific Plan includes the realignment of Wilson Creek and Oak Glen Creek and the construction of a retention/settlement basin within the onsite drainage course. This major improvement would capture and detain flood flows to greatly reduce or eliminate downstream flooding and channel erosion. Moreover, the improvement is anticipated to facilitate groundwater recharge as well as preserve downstream natural habitat. Additionally, the flood control improvements would remove the balance of the property from the floodplain to allow development.

Therefore, while it is possible to develop the proposed Residential District and Innovation District components of the Specific Plan elsewhere in the City of Yucaipa, the flood control basin is necessary at this specific location where Wilson Creek and Oak Glen Creek converge. Therefore, no other sites were considered for further alternatives analysis.

7.3.2 No Basin Improvements Alternative

As depicted on Figure 4-1, *Parcel Map and Land Ownership*, the vast majority of land is under the ownership of the SBCFCD. As described above, a critical component of the proposed project is the realignment of Wilson Creek and Oak Glen Creek and creation of the retention/settlement basin within the onsite drainage course to capture and detain flood flows. Without implementation of these regional flood-control improvements, the parcels would not be removed from the floodplain and these parcels would continue to remain under SBCFCD's ownership. Additionally, this alternative would not create an interconnected system of trails identified in the General Plan. Without the regional flood control improvements, only the City yard and the parcel under private ownership (see Figure 4-1) are outside the confluence of the Oak Glen Creek and Wilson Creek drainages. The City yard would continue to operate in the same location in this alternative. As identified in Figure 5.8-2, *Flood Hazard Map*, the other privately owned parcel is within the 100-year flood plain, which would also limit development on this site. This parcel is approximately 3.95 acres and consists of a single-family dwelling. Assuming 7,000-square-foot lots, this parcel could accommodate a maximum of 24 residential units. However, because this alternative does not implement the critical goals and objectives related to flood control and basin recharge, an alternative that reduced the size or eliminated the basin was considered and rejected.

7.3.3 Alternative Basin Designs

Since the start of the proposed project in 2012, the retention basin has gone through a number of designs and evaluated based on their ability to meet project objectives, hydraulic performance, groundwater recharge, multi-functionality, operation and maintenance, and to reduce environmental impacts. The following design parameters were considered in designing the alternative basin designs: flow rates, bulking factor, Wilson Creek channel improvement requirements, basin inlet sizing, maintenance road widths, and 2nd Street extension requirements. In total, six alternative basin designs were evaluated by the City in order to weigh the project objectives, including potential impacts to jurisdictional waters. The designs have subtle differences in basin footprint, depth of the recharge pond, and basin side slopes and all six alternatives would impact greater than 1/2-acre of non-tidal waters of the United States and/or more than 300 linear feet of stream bed requiring an Individual Permit under Section 404 d from the Corps. The alternatives analysis evaluated opportunities to limit environmental impacts to jurisdictional waters/lands in order to identify the environmentally friendly alternative. As identified in the alternatives analysis, the basin alternatives would impact between 1.05-acres and 1.30-acres of Corps jurisdictional waters. The difference in environmental impacts of these six different basin designs would be nominal (Yucaipa 2013). Additionally, the ultimate basin concept was based on Alternative 6, which had the least environmental impacts. Thus, an alternative basin design was considered and rejected from further analysis.

7.3.4 Alternative Land Use Mixes

Based on the preliminary environmental review and public comments received on the original Notice of Preparation for the previously analyzed Wilson Creek Business Park Specific Plan in 2012, the City evaluated the potential market demand for alternative land uses mixes and the relative environmental impacts of land use options. Thus, an alternatives feasibility study was prepared for the project site in December 2012 and analyzed the environmental impacts of the following four alternative land use mixes in comparison to the Wilson Creek Business Park Specific Plan (Yucaipa 2012a).

- **Alternative 1, High-Tech Manufacturing, Office/Medical and Schools:** Encompasses up to 490,000 square feet of light industrial and office park uses and includes a K–6 school (3.5 acres) and a K–12 school/satellite campus (10 acres). Both schools in this alternative are north of Oak Glen Creek.

- **Alternative 2, Single Family Residential:** The entire site exclusive of the retention basin would be developed as single-family homes at a density comparable to surrounding residential uses (approximately 200 homes).

- **Alternative 3, Light Industrial/Manufacturing and Schools:** Includes up to 445,000 square feet of manufacturing/light industrial building space and a K–6 school (3.5 acres) and a K–12 school/satellite campus (10 acres). In comparison to Alternative 1, the K–12 school would be sited on the south side of Oak Glen Creek and accessed from Bryant Street.

- **Alternative 4, Light Industrial/Manufacturing, School & Open Space:** Same as Alternative 3 except that it eliminates the 10-acre, K–12 school/satellite campus south of Oak Glen Creek and maintains this portion of the site as open space.

These four alternatives were analyzed for economic feasibility based on market demands during 2012. The economic analysis report found that the vacancy rate for industrial uses in the region was somewhat high, but not alarmingly so. It also found that the vacancy rate for office uses in the region was very high. Absorption-rate potential was estimated to be highest for light industrial uses and lowest for office park uses. All four of these findings were interpreted to indicate that light industrial uses were a more economically viable use of the project site than office uses.

The economic analysis report also determined that an office-only development scenario would generate the most jobs in the long run (820 to 1,147 jobs), but that the scenario would take the longest to build out (27 to 39 years). The scenario that would build out fastest (5 to 8 years) consisted of a mix of office, light industrial, and manufacturing uses where flexibility would be allowed in the final proportion of each allowed use. That scenario had the second highest number of projected jobs at buildout (494 jobs). A scenario with only manufacturing and light industrial uses had a similar absorption rate, but was estimated to generate fewer jobs (416 jobs). In summary, a mix of land uses on the project site was preferable. In the short term and midterm, the project would benefit from a higher amount of light industrial/manufacturing jobs as part of that land use mix (Yucaipa 2012b).

As previously stated, these alternative land use mixes were chosen based on economic feasibility and market demands at the time the alternative feasibility study was prepared in 2012. The land use mixes were mainly driven by institutions and companies (i.e., private charter schools and manufacturing companies) that were interested in developing in Yucaipa. Since then, economic development opportunities in Yucaipa have transitioned toward residential development. A modified version of Alternative 2 was selected as the proposed project. Therefore, Alternatives 1, 3, and 4 were not selected for further analysis given that they were not as economically viable.

7.4 ALTERNATIVES SELECTED FOR FURTHER ANALYSIS

The original Wilson Creek Business Park Specific Plan encompassed approximately 95 acres and consisted of two primary components: 1) flood control improvements to Wilson Creek and Oak Glen Creek and 2) up to 500,000 square feet of light manufacturing/office use in a business park setting. The City is no longer considering the previous development plan for the project site; the EIR was not completed and the project did not go to City Council. However, this previous plan was incorporated into the City's land use plan during the recent General Plan Update. The proposed Oak Glen Creek Specific Plan has an expanded project boundary and includes a mix of residential and non-residential land uses. NOP comments received on the original project were considered when evaluating alternatives to the proposed project.

The primary objective for the project is flood attenuation and sediment reduction to realign and improve Wilson Creek and Oak Glen Creek. Improvements along these creek beds would also alleviate existing downstream flooding along Wilson Creek, thus providing protection for private properties, roadways, and other public infrastructure. The proposed realignment of Wilson Creek and channelization of Oak Glen Creek into a retention basin would increase stormwater retention capability, increase groundwater recharge, and improve downstream water quality. The City considered several design alternatives to minimize impacts to jurisdictional waters and sensitive habitat. These design alternatives were evaluated for their ability to reduce environmental impacts as potential alternatives to the proposed project.

Based on the criteria in Section 7.1.1, the following three alternatives were determined to represent a reasonable range of alternatives with the potential to feasibly attain most of the basic objectives of the project but avoid or substantially lessen any of the significant effects of the project. These alternatives are analyzed in detail in the following sections. Note, per Section 15126.6(e) of the CEQA Guidelines, analysis of a "No Project" alternative is mandated.

- No Project/No Development Alternative
- Existing General Plan Alternative
- Reduced Development Footprint Alternative

An EIR must identify an "environmentally superior" alternative, and where the No Project Alternative is identified as environmentally superior, the EIR is the required to identify as environmentally superior alternative from among the others evaluated. Each alternative's environmental impacts are compared to the proposed project and determined to be environmentally superior, neutral, or inferior. The DEIR did not identify any significant unavoidable impacts. Impacts that were identified as potentially significant impacts in

the absence of mitigation were used to make this determination. Potentially significant impacts of the project include Air Quality (construction), Biological Resources, Cultural Resources, Greenhouse Gas Emissions, Noise (construction), Transportation and Traffic, and Tribal Cultural Resources. Section 7.4 identifies the environmentally superior alternative.

7.4.1 Alternatives Comparison

Table 7-1, *Buildout Statistical Summary,* provides a statistical analysis of general buildout projections determined by the three land use alternatives and the proposed project. It is important to note that these are not growth projections. That is, they do not anticipate what is likely to occur by a certain time horizon, but provide a buildout scenario that would only occur if the project area were to develop to the maximum capacities yielded by the land use alternatives. The following statistics were developed as a tool to better understand the difference between the alternatives analyzed in the DEIR.

Table 7-1 Buildout Statistical Summary

Buildout	Proposed Project	No Project/No Development Alternative	Existing General Plan Alternative	Reduced Development Footprint Alternative
Open Space (Acres)[1]	57.6	115.6	53.8	75.1
Residential Units	200	0	65	157
Nonresidential Square Feet	20,000	0	500,000	20,000
Population[2]	570	0	185	447
Employment[3]	42	0	1,052	42

1 Acreage rounded to the nearest tenth.
2 Based on an average household size of 2.85 persons (DOF 2016).
3 The Yucaipa General Plan uses employment generation factors of 500 and 450 square feet per employee to calculate buildout of General Commercial and Commercial Service uses, respectively. An average of these—475 square feet per employee—was used to calculate the employment generation of the proposed non-residential.

Table 7-2, *Comparison of Traffic and Utility Impacts,* quantifies the proposed project and three alternative's impacts on traffic and utilities and service systems (i.e., wastewater, water supply, and solid waste).

Table 7-2 Comparison of Traffic and Utilities Impacts

Impact	Proposed Project	No Project/No Development Alternative	Existing General Plan Alternative	Reduced Development Footprint Alternative
Average Daily Trips	2,102	0	4,674	1,657
Wastewater Generation[1] (gallons per day)	27,134	0	49,379	21,653
Water Supply Demand[2] (gallons per day)	178,325	0	360,437	142,485
Solid Waste Generation[3] (tons per year)	308	0	623	246

1 Wastewater generation rates for single-family residential use is 127.45 gallons per unit per day and for institutional uses is 82.19 gallons per thousand square feet per day.
2 Water demand rate is 291.38 gallons per service population (residents and employees).
3 Solid waste generation rate is 0.504 tons per service population.

7.4.1.1 NO PROJECT / NO DEVELOPMENT ALTERNATIVE

The No Project/No Development Alternative assumes that the Oak Glen Creek Specific Plan would not be adopted and no development would occur onsite. The majority of the project site is in a 100-year flood hazard zone designated by the Federal Emergency Management Agency (see Figure 5.8-2, *Flood Hazard Map*). This alternative assumes that the City does not implement the regional flood control improvements onsite; thus, the site would stay within the flood hazard zone and remain vacant and undeveloped. As shown in Table 7-1, buildout of the No Project/No Development Alternative would maintain existing conditions onsite. There would be no residential or nonresidential development nor any associated residents and employees.

Aesthetics

The project site would remain vacant and undeveloped under this alternative. Therefore, existing scenic vistas near the project area and visual character of the site would be preserved, in their current state. Given that no development would occur, no new sources of light or glare would be generated either. Impacts would be reduced in comparison to the proposed project and would be less than significant.

Air Quality

Air quality impacts would be reduced under this alternative because no development would occur onsite. Without development, the site would not generate any vehicle trips and associated emissions nor any construction or operational emissions. Thus, the No Project/No Development Alternative would reduce air quality impacts during construction and operation. Impacts would be reduced in comparison to the proposed project and would be less than significant.

Biological Resources

Under this alternative, the project site would remain vacant and undeveloped, eliminating adverse impacts on the site's existing biological resources. The sensitive wildlife and plant species, jurisdictional waters, riparian habitat, and wildlife corridors along Oak Glen Creek and Wilson Creek would not be disturbed. Thus, impacts would be reduced compared to the proposed project and would be less than significant.

Cultural Resources

The project site would remain in its existing conditions under the No Project/No Development Alternative. Thus, no grading or construction activities would occur, and cultural resources onsite would not be affected. Impacts would be reduced in comparison to the proposed project and would be less than significant.

Geology and Soils

The site would remain undeveloped and vacant. Therefore, no people or structures would be exposed to potential adverse effects of seismic activity, landslides, or ground failure. In addition, no grading or construction activities would occur. Therefore, although soil erosion and instability may continue to occur along the creek beds due to heavy rains and flooding, erosion and instability associated with construction

activities would not occur. Thus, geology and soils impacts would be reduced and would be less than significant.

Greenhouse Gas Emissions

Under this alternative, the project site would remain in its existing condition. Therefore, no construction or operational activities would occur onsite, and no mobile or stationary sources of greenhouse gas (GHG) emissions would be present. The vacant project site would also not generate any vehicle miles traveled (VMT). Overall, no GHG would be generated. Impacts would be reduced and would be less than significant.

Hazards and Hazardous Materials

Unlike the proposed project, the project site would remain mostly vacant and undeveloped and no hazards or hazardous materials would be introduced to the project site under this alternative. However, operations at the City Yard would continue under this alternative, which requires some use of hazardous materials. Additionally, the site conditions related to the presence of residual petroleum hydrocarbons associated with the former underground storage tank may still be present onsite and would not be removed. Thus, impacts would be greater under this alternative.

Hydrology and Water Quality

Under this alternative, no development and no flood control improvements would be implemented onsite. This would preserve the existing drainage pattern of the site and would not result in substantial erosion or siltation on- or offsite. The site would also preserve its permeable surfaces to ensure groundwater supply and recharge would not be adversely impacted. However, because no flood control improvements would be implemented, the majority of the site would remain in a flood hazard zone. During heavy rains and storms, the Wilson Creek and Oak Glen Creek drainage areas would become flooded and could cause additional flood impacts to downstream areas. Additionally, this alternative would not increase groundwater recharge through creation of the basin. Therefore, hydrology and water quality impacts would be greater than the proposed project but would be less than significant because no new structures would be built onsite that would redirect existing flood flows in a manner that would cause additional flooding on or offsite.

Land Use and Planning

The project site is designated Institutional (IN), Rural Residential (RL-1), and Single Residential (RS-72C), and the proposed project would require a General Plan amendment to align the land use plan with the proposed residential districts. Under this alternative, the current land use designations would remain and no zone change or General Plan amendment would be required. Given that the land use plan was adopted with the current General Plan goals and policies, this alternative would also be consistent with the current 2004 General Plan. However, the No Project/No Development Alternative would not implement the regional flood-control improvements and multi-purpose trail linkages identified in the General Plan. Overall, land use and planning impacts would be similar to the proposed project and would be less than significant.

7. Alternatives to the Proposed Project

Noise

Under this alternative, no noise impacts would occur because no development would be permitted onsite. There would be no construction or operational noises and no vehicular trips to and from the project site since it would remain undeveloped and vacant. Thus, impacts would be reduced and would be less than significant.

Public Services

This alternative would eliminate the future residential and non-residential development that would occur onsite. Therefore, this alternative would not generate an increase in demand for fire, police, school, or library services and facilities. Impacts on public services would be reduced under this alternative and would be less than significant.

Transportation and Traffic

This alternative would not generate any vehicle trips because no development would occur onsite. In comparison, the proposed project would introduce 2,102 daily trips, of which 180 would occur in the AM peak hour and 228 would occur in the PM peak hour. Therefore, the No Project/No Development alternative would have less impact on transportation and traffic compared to the proposed project and would not require signalization of 2nd Street and Oak Glen Road. Impacts would be less than significant.

Tribal Cultural Resources

The project site would remain in its existing conditions under the No Project/No Development Alternative. Thus, no grading or construction activities would occur, and tribal cultural resources onsite would not be affected. Impacts would be reduced in comparison to the proposed project and would be less than significant.

Utilities and Service Systems

No development would occur on the project site under this alternative. Therefore, there would be no demand for potable water, recycled water, and energy (i.e., natural gas and electricity). In addition, no wastewater or solid waste would be generated onsite. However, because the No Project/No Development Alternative would not implement the basin, this alternative would not increase groundwater recharge opportunities for the Yucaipa Valley Water District. Overall, impacts would be reduced in comparison to the proposed project.

Conclusion

Under the No Project/No Development Alternative, impacts to aesthetics, air quality, biological resources, cultural resources, geology and soils, GHG emissions, noise, public services, transportation and traffic, utilities and service systems, and tribal cultural resources would be reduced in comparison to the proposed project. Land use and planning impacts would be similar to the proposed project under this alternative. However, this alternative would increase hazards and hazardous materials and hydrology and water quality impacts compared to the proposed project.

While this alternative would reduce impacts on almost all topical areas, the No Project/No Development Alternative would not meet any of the project goals or objectives. The project site would remain undeveloped and natural. As a result, this alternative would not develop flood control improvements (Objectives #1 and #3) or multi-purpose trails (Objectives #4, #5, and #7). This alternative would also not provide a development concept that attracts a variety of residential, institutional, office, and medical uses and provides job opportunities for City residents (Objectives #2, #3, and #8) and would not integrate the site with adjoining land use and infrastructure systems (Objectives #6 and #7). Lastly, this alternative would not generate significant property tax revenue for the City of Yucaipa (Objective #9).

7.4.1.2 EXISTING GENERAL PLAN ALTERNATIVE

As shown on Figure 4-2, *Current Land Use Designations*, the project site is designated Institutional (IN), Rural Residential (RL-1), and Single Residential (RS-72C) in the City of Yucaipa General Plan. The buildout assumptions for the project area in the General Plan were based, in part, on the previous plan for the Wilson Creek Business Park for the approximately 95-acre portion of the site. The previous project on the eastern 95 acres consisted of two primary components: 1) flood control improvements to Wilson Creek and Oak Glen Creek and 2) up to 500,000 square feet of institutional use in a campus business park setting. This plan for the business park was incorporated into the City's land use plan during the recent General Plan Update. Additionally, the proposed project, now titled Oak Glen Creek Specific Plan, has an expanded project boundary and includes additional area west of 2nd Street (approximately 20 acres), which was considered for residential uses.

Buildout of this alternative would include the flood control improvements along the southern portion of the site to provide proper drainage of Wilson Creek and Oak Glen Creek through the site. Implementation of these improvements would take the site out of public ownership to allow private development of residential and institutional uses, as designated in the City's General Plan. Overall, buildout would allow development of up to 65 single-family residential homes and 500,000 square feet of institutional use. This alternative would introduce approximately 185 residents and 1,052 employees.

Aesthetics

This alternative would introduce substantially more nonresidential development but less residential development compared to the proposed project. Under both scenarios, flood control improvements would be implemented along the southern portion of the site, and the area west of 2nd Street would be developed with single-family residential uses. However, this alternative would develop the remainder of the site (northern and eastern portions) with institutional uses. Although institutional uses (e.g., schools, churches, civic facilities, water storage/basins) are visually compatible with the project area, this alternative would allow for up to 500,000 square feet, which is substantially more than the proposed project (20,000 square feet). Additionally, the maximum building height for institutional uses under the existing general plan is 75 feet while the proposed Specific Plan would have a maximum building height of 45 feet. The Oak Glen Creek Specific Plan also proposes residences along Oak Glen Road, which would be more compatible with the neighboring residences west of 2nd Street in Chapman Heights, and also proposes more open space. Therefore, this alternative would impact the visual character of the project site by allowing larger and higher institutional

buildings to a greater degree than the proposed project. The increase in nonresidential development would also not be as compatible with the neighboring residential uses as the proposed project. Thus, impacts would be greater under this alternative.

Air Quality

Buildout of the Existing General Plan Alternative would allow an additional 480,000 square feet of institutional use but 135 fewer residences compared to the proposed project. This alternative would introduce 385 fewer residents but 1,010 more employees. The proposed project would generate 2,102 average daily trips while this alternative would generate 4,674 trips (see Table 7-2). The substantial increase in institutional development and employees would generate more emissions from a combination of vehicle trips during construction and operational activities. Thus, air quality impacts would be greater under this alternative.

Biological Resources

Impacts on biological resources, including sensitive vegetation communities, wildlife, plant species, and wildlife corridors, would be greater under this scenario. The Oak Glen Creek Specific Plan includes 57.6 acres of open space compared to 53.8 acres under the Existing General Plan Alternative. The approximately four acres of additional open space under the proposed project would remove development in areas with Parry's spineflower. Therefore, impacts to sensitive species would be greater under this alternative and require more on- and offsite mitigation.

Cultural Resources

Both the proposed project and the Existing General Plan Alternative would impact cultural resources to similar degrees. This alternative would allow substantially more institutional use and would have less open space, which increases the development footprint. Therefore, it would require additional grading that may adversely impact cultural resources. Impacts would be greater in comparison to the proposed project but would be reduced to less than significant after implementation of applicable mitigation measures.

Geology and Soils

This alternative would allow an additional 480,000 square feet of institutional use and 135 fewer residences. This equates to approximately 1,010 more employees and 385 fewer residents. Residents are exposed to seismic hazards 24 hours a day while employees are only exposed while working onsite. Therefore, although this alternative would expose more employees to potential seismic ground shaking, ground failure, and/or liquefaction hazards, it would reduce residential exposure by 385 residents. In general, impacts would be similar under this alternative and remain less than significant.

Greenhouse Gas Emissions

This alternative would substantially increase institutional development while decreasing residential development. Although 135 fewer homes would be developed, the 480,000 additional square feet of institutional use and 1,010 additional jobs would increase daily trips compared to the proposed project. As detailed in Table 7-2, the proposed project would generate 2,102 trips while this alternative would generate

approximately 4,674 average daily trips. Therefore, GHG emissions impacts would be greater, but with implementation of Mitigation Measure 6-1 would be less than significant.

Hazards and Hazardous Materials

The development footprint would be the same under this alternative. Therefore, under both scenarios, the site is not included on a list of hazardous materials, within an airport land use plan, or in the vicinity of a private airstrip. This alternative would also be exposed to similar fire hazards as the proposed project and required to implement fuel modifications and comply with other fire safety standards. Furthermore, although buildout potential of the Existing General Plan Alternative would be different than the proposed project, construction and operational activities that include the transport, use, disposal, and potential accidental release of hazardous materials onsite would be required to comply with the same local, state, and federal regulations. Thus, impacts to hazards and hazardous materials would be similar and would be less than significant.

Hydrology and Water Quality

Impacts to hydrology and water quality impacts would be similar to the proposed project. The flood control improvements would be implemented under both scenarios and improve the project area's stormwater drainage. Although there would be a change in buildout potential, it would not substantially increase stormwater runoff or impermeable surfaces. Overall, impacts would be similar and would be less than significant.

Land Use and Planning

Since this alternative would develop the site based on the current land use designations and is consistent with the underlying assumptions developed for the City's recently adopted General Plan Update, it would not require a general plan amendment. Development under this alternative would be consistent with the land use and zoning code. Thus, land use impacts would be reduced under this alternative and would be less than significant.

Noise

Development of this alternative would reduce residential development by 135 homes but would allow 480,000 additional square feet of institutional use and generate 1,010 additional jobs. Construction noise under both scenarios would likely be similar. However, noise associated with operational activities (e.g., building operations/maintenance and employee and visitor vehicle trips) would be greater than the proposed project's mostly residential development. Thus, construction noise impacts would be similar and operational noise impacts would be greater under this alternative. Noise impacts would be less than significant upon implementation of mitigation measures.

Public Services

While this alternative would introduce substantially more nonresidential development, impacts on public services, such as fire and police services, are typically greater from new residential development. Therefore,

since this alternative would introduce 385 fewer permanent residents onsite, demand for fire and police services (i.e., calls for response, security, etc.) would be reduced. Impacts on schools and library services, typically impacted by the number of permanent residents, would also be reduced.

Transportation and Traffic

Although the development footprint would be the same as the proposed project, this alternative would substantially increase nonresidential development and associated average daily trips. Using the same trip generate rates for institutional and residential uses, this alternative would generate approximately 4,674 average daily trips. In comparison, the proposed project would generate 2,102 trips (see Table 7-2). The increase in vehicle trips would have a greater impact on roadways and intersections in the project area compared to the proposed project.

Tribal Cultural Resources

The development footprint for both scenarios would be the same. Therefore, regardless of the change in buildout potential, impacts to tribal cultural resources would be the same.

Utilities and Service Systems

As shown in Table 7-2, the proposed project would generate approximately 27,134 gallons per day (gpd) of wastewater. Using the same wastewater generation rates for institutional and residential uses, this alternative would generate approximately 49,379 gpd of wastewater and would have a greater impact on wastewater services. Using a water demand rate of 291.38 gallons per service population per day, the proposed project would require approximately 178,325 gpd, and this alternative would require 360,437 gpd (Yucaipa 2015). And using a solid waste generation rate of 0.504 tons per service population per year, the proposed project would generate 308 tons, and this alternative would generate 623 tons of solid waste per year (Yucaipa 2015). Overall, impacts to utilities and service systems would be greater under this alternative.

Conclusion

The Existing General Plan Alternative would reduce impacts to cultural resources, geology and soils, land use and planning and public services. However, it would increase impacts to aesthetics, air quality, biological resources, GHG emissions, operational noise, transportation and traffic, and utilities and service systems. Impacts to hazards and hazardous materials, hydrology and water quality, construction noise, and tribal cultural resources would be similar to the proposed project.

While this alternative would generally increase impacts to the majority of topical areas, it would meet most of the project objectives. For example, it would provide the required infrastructure to attract a variety of residential and institutional uses (Objectives #1, 2, and 8), introduce substantial employment opportunities for City residents (Objective #3), and integrate the site with adjoining uses and infrastructure systems (Objectives #6 and 7). As stated above, this alternative would also implement the required flood control improvements to provide proper drainage through the site and introduce open space and passive recreational features in the drainage areas (Objectives #4 and 5). This alternative would generate similar or slightly more property tax revenue for the City of Yucaipa depending on the market demand (Objective #9).

7.4.1.3 REDUCED DEVELOPMENT FOOTPRINT ALTERNATIVE

As shown in Figure 7-1, *Reduced Development Footprint Alternative*, the Reduced Development Footprint Alternative would reduce the footprint of the Residential District along Oak Glen Street from approximately 35 acres to 17.5 acres. As shown on Figures 5.3-4, *Impacted Sensitive Plants*, and 5.3-5, *Impacted Vegetation Communities*, the northern Specific Plan area supports Parry's spineflower and the majority of alluvial fan sage scrub (AFSS) onsite. By reducing the development footprint in this district, impacts to these sensitive species would be greatly reduced. Under the Oak Glen Creek Specific Plan, this Residential District would allow up to 143 units. Avoiding the majority of AFSS and Parry's spineflower in this area would reduce residential development to approximately 100 units. Note that no changes would be made to the smaller Residential District west of 2nd Street.

Flood control improvements in the southern portion of the site would be developed similar to the proposed Oak Glen Creek Specific Plan, and the Open Space District would be expanded from 57.6 to 75.1 acres to incorporate the 17.5 acres of avoided Parry's spineflower and AFSS areas. As detailed in Table 7-1, buildout of this alternative would allow 157 residences and 20,000 square feet of nonresidential development, and introduce up to 447 residents and 42 jobs.

Aesthetics

The majority of project site would be built out similar to the proposed project. However, the development footprint of the larger Residential District would be reduced in acreage by approximately 17.5 acres, and the Open Space District would expand by the same amount. This would avoid development in the northern center of the site and would preserve much of the natural habitat near Wilson Creek as open space (i.e., natural open space with passive recreational use), including sensitive Parry's spineflower and alluvial fan sage scrub. Therefore, the visual character and quality of the site would be more similar to existing conditions. Additionally, the reduction in residences (43 fewer units) would reduce the number of new sources of light and glare in the project area. The remaining portions of the site, including the Residential District west of 2nd Street and the two Innovation District parcels, would be developed as proposed in the Oak Glen Creek Specific Plan. Overall, aesthetic impacts would be reduced and remain less than significant.

Air Quality

Compared to the proposed project, buildout of this alternative would have 43 fewer residences and 123 fewer residents. Therefore, vehicle trips associated with construction and operational activities would be reduced and generate fewer emissions. For example, using a trip generation rate of 9.52 trips per unit, the proposed project would generate 1,904 vehicle trips and this alternative would generate 1,495 trips (see Table 7-2). Thus, air quality impacts would be reduced and remain less than significant upon implementation of applicable mitigation measures.

Biological Resources

This alternative reduced the development footprint of the Residential District to avoid sensitive species, including Parry's spineflower and alluvial fan sage scrub habitat. As illustrated on Figures 5.3-4, *Impacted*

Sensitive Plants, and 5.3-5, *Impacted Vegetation Communities,* the proposed project would impact 0.70 acre of Parry's spineflower and 24.85 acres of alluvial fan sage scrub. In comparison, this alternative would eliminate impacts to the Parry's spineflower near Oak Glen Road and approximately 12.9 acres of alluvial fan sage scrub in the northern Residential District. While impacts to other sensitive vegetation, including the southern cottonwood riparian woodland and southern sycamore riparian woodland, would remain, overall impacts to sensitive species would be reduced under this alternative. Moreover, the preservation of an additional 17.5 acres in the Open Space District would better support wildlife movement through the site, particularly along the realigned Wilson Creek and into the proposed basin. Overall, impacts to biological resources would be notably reduced and be less than significant upon implementation of applicable mitigation measures.

Cultural Resources

This alternative would reduce buildout of the project by 43 fewer units, which equates to a 17.5-acre reduction in development footprint. Therefore, construction and grading activities would be reduced substantially, and potential to impact historic, archaeological and paleontological resources previously undiscovered in this 17.5-acre area would be eliminated. Overall, impacts to cultural resources would be reduced and remain less than significant after mitigation.

Geology and Soils

The Reduced Development Footprint would reduce the project's footprint by 17.5 acres and would develop 43 fewer residences. Therefore, fewer homes and residents would be exposed to potential hazards from seismic ground shaking, liquefaction, subsidence, or expansion from grading and construction activities. The Open Space District would also be expanded by 17.5 acres to incorporate the area eliminated from the northern Residential District. Thus, this area would not be developed and geologic conditions would remain as is. Impacts to geology and soils would be reduced under this alternative and impacts would be less than significant.

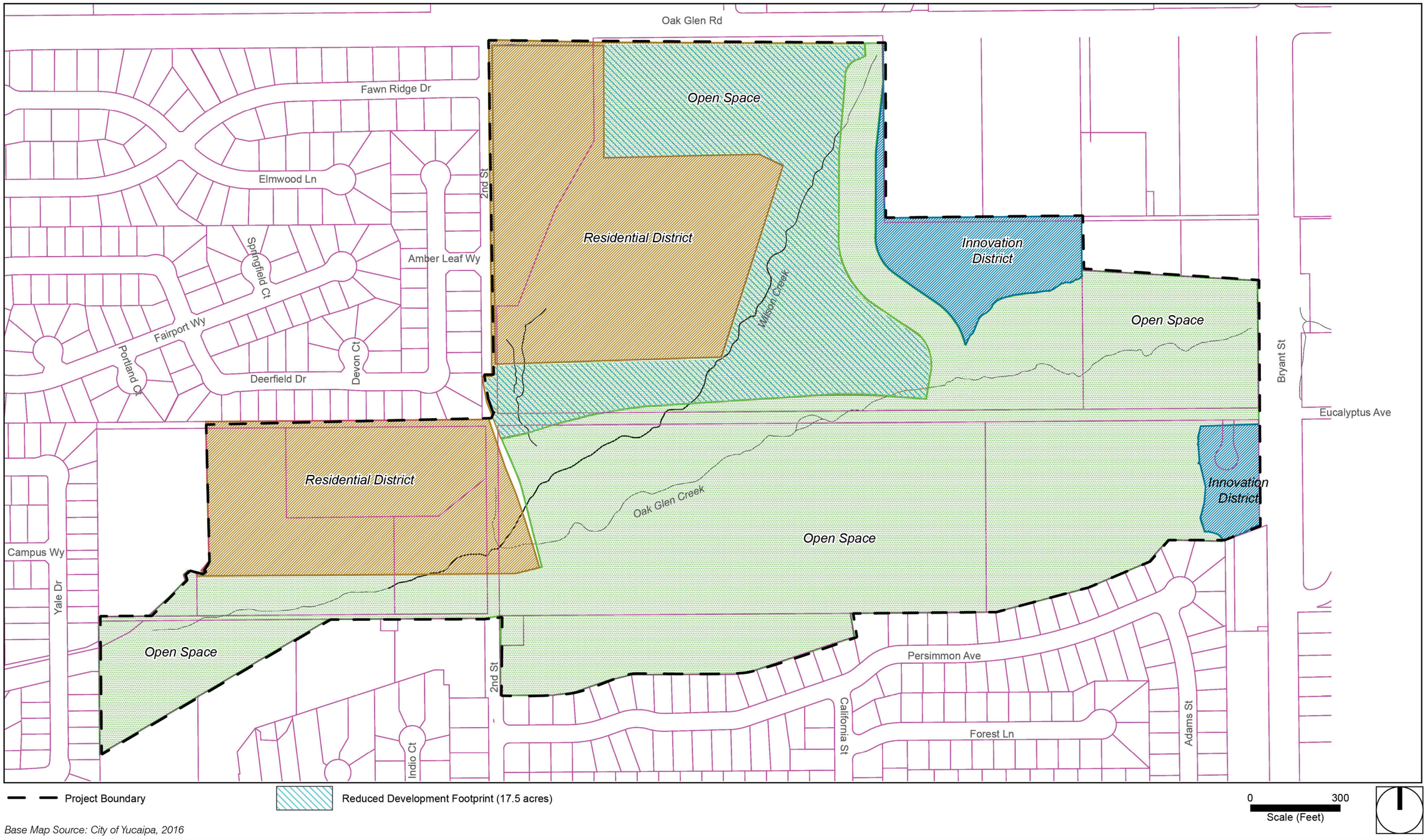
Greenhouse Gas Emissions

As described above, this alternative would develop 43 fewer single-family residences, which equates to 409 fewer operational vehicle trips. Construction trips would also be reduced since development of the Residential Districts would not take as long to build out. Overall, GHG emissions associated with construction and operational vehicle trips would be reduced and impacts would be less than significant.

Hazards and Hazardous Materials

Development of the project site in accordance with this alternative would result in fewer impacts related to hazards and hazardous materials. The development footprint would be reduced by 17.5 acres and buildout would be reduced by 43 residences. Therefore, fewer demolition, grading, and construction activities would occur onsite, which would generally reduce the transport, use, disposal, and potential accidental release of hazardous materials (paints, gasoline/diesel, solvents, etc.) onsite. Implementation of applicable mitigation would be required under both scenarios.

Figure 7-1 Reduced Development Footprint Alternative



Base Map Source: City of Yucaipa, 2016

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Hydrology and Water Quality

Under both scenarios, flood control improvements would be developed in the Open Space District to control flood hazards and improve stormwater runoff conditions along Wilson Creek and Oak Glen Creek. However, this alternative would reduce impervious surfaces and expand the Open Space District by 17.5 acres, thereby reducing stormwater runoff volume. Thus, stormwater runoff volumes would be reduced. Additionally, short-term construction-related and long-term water quality impacts would be reduced since fewer homes would be developed.

Land Use and Planning

This alternative would require a modified Specific Plan or a separate zone change and General Plan amendment. The site would be re-designated from Institutional, Rural Living, and Single Residential to Residential, Innovation, and Open Space districts. Similar to the proposed project, this alternative would not physically divide an established community given that the site is vacant and separated from other residential communities by existing roadways and physical barriers (i.e., heavy vegetation, unpaved dirt roads). Overall, land use and planning impacts would be similar to the proposed project.

Noise

The Reduced Development Footprint Alternative would reduce buildout potential by 43 units. Therefore, it can be assumed that construction activities would not take as long, reducing construction noise from equipment and vehicle trips. Additionally, the reduction in residences would reduce operational vehicle trips by approximately 409 trips compared to the proposed project. Thus, construction and operational noise impacts would be reduced.

Public Services

Since buildout of the project site would be reduced by 43 units and 123 residents, fewer calls for fire and police services would be expected under this alternative. Additionally, fewer students would attend schools in the Yucaipa-Calimesa Joint Unified School District, and there would be a reduced demand for Yucaipa Branch Library services. Overall, impacts would be reduced and remain less than significant.

Transportation and Traffic

As shown in Table 7-2, reducing residential development by 43 units would reduce project-generated vehicle trips by approximately 409 trips. It can also be assumed that construction trips would also be reduced due to a shorter construction schedule under this alternative. Therefore, project area roadways and intersections would be less impacted than under the proposed project.

Tribal Cultural Resources

Similar to cultural resources, impacts to tribal cultural resources would be reduced under this alternative. The reduced footprint would transfer 17.5 acres of Residential District to Open Space District and avoid any development in the area (see Figure 7-1, *Reduced Development Footprint Alternative*). Therefore, impacts to

potentially undiscovered tribal cultural resources would be reduced. Impacts would be reduced to less than significant levels upon implementation of applicable mitigation measures.

Utilities and Service Systems

As shown in Table 7-2, reducing overall buildout potential under this alternative would proportionally reduce impacts to utilities and service systems. The proposed project would generate approximately 27,134 gpd of wastewater. Using the same wastewater generation rates, this alternative would generate approximately 21,653 gpd of wastewater. Using a water demand rate of 291.38 gallons per service population per day, the proposed project would require approximately 178,325 gpd and this alternative would require 142,485 gpd (Yucaipa 2015). And using a solid waste generation rate of 0.504 tons per service population per year, the proposed project would generate 308 tons and this alternative would generate 246 tons of solid waste per year (Yucaipa 2015). Impacts to utilities and service systems would be reduced under this alternative and remain less than significant.

Conclusion

The Reduced Development Footprint Alternative would reduce impacts to all environmental topical areas with the exception of land use and planning, which would have a similar impact to the proposed project.

This alternative would be able to meet most of the project objectives. The alternative would provide future development and employment opportunities by required roadways and infrastructure systems to attract the development of residential, institutional, office, and medical uses (Objectives #1, 2, 3 and 8). Flood control improvements in the southern portion of the site would also be implemented, and open space would be preserved for drainage and passive recreational use (Objectives #4 and 5). And this alternative would integrate the site with adjoining uses and infrastructure systems (Objectives #6 and 7). However, this alternative would not generate as much property tax revenue for the City of Yucaipa due to the reduction in residential development (Objective #9).

7.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA requires a lead agency to identify the "environmentally superior alternative" and, in cases where the "No Project" Alternative is environmentally superior to the proposed project, a second environmentally superior development alternative must be identified.

The Reduced Development Footprint Alternative has been identified as the environmentally superior alternative. As shown in Table 7-3, *Summary of Impacts of Alternatives Compared to the Proposed Project,* this alternative would lessen impacts associated with all environmental topical areas with the exception of land use and planning, which would have similar impacts as the proposed project. However, this alternative would not eliminate any significant unavoidable impacts because the proposed project would not generate any unavoidable impacts.

Table 7-3 Summary of Impacts of Alternatives Compared to the Proposed Project

Topic	Proposed Project	No Project/No Development Alternative	Existing General Plan Alternative	Reduced Development Footprint Alternative
Aesthetics	LTS	<	>	<
Air Quality				
Construction	LTS/M	<	>	<
Operation	LTS	<	>	<
Biological Resources	LTS/M	<	>	<
Cultural Resources	LTS/M	<	<	<
Geology and Soils	LTS	<	=	<
Greenhouse Gas Emissions	LTS/M	<	=	<
Hazards and Hazardous Materials	LTS	>	=	<
Hydrology and Water Quality	LTS	>	=	<
Land Use and Planning	LTS	=	<	=
Noise				
Construction	LTS/M	<	=	<
Operation	LTS	<	>	<
Public Services	LTS	<	<	<
Transportation and Traffic	LTS/M	<	>	<
Tribal Cultural Resources	LTS/M	<	=	<
Utilities and Service Systems	LTS	<	>	<

Notes: LTS = Less than Significant; LTS/M = Less than Significant with Mitigation Incorporated
(<) The alternative would result in less of an impact than the proposed project.
(>) The alternative would result in greater impacts than the proposed project.
(=) The alternative would result in the same/similar impacts as the proposed project.

7.6 REFERENCES

City of Yucaipa (Yucaipa). 2012a, December. Wilson Creek Project Site Alternatives Feasibility Study. Prepared by PlaceWorks (formerly The Planning Center|DC&E).

———. 2012b, March 30. Economic Analysis Summary, Wilson Creek Business Park Specific Plan.

———. 2013, January. Wilson II Basins Project: Multi-Purpose Flood Control Basin Alternatives Analysis Technical Report, Prepared by Michael Baker International (formerly RBF Consulting).

———. 2015, December. Yucaipa General Plan Update Draft Environmental Impact Report, Volume I: Draft EIR.

California Department of Finance (DOF). 2016, May 1. Report E-5: Population and Housing Estimates for Cities, Counties, and the State, January 1, 2011-2016, with 2010 Benchmark. http://www.dof.ca.gov/research/demographic/reports/estimates/e-5/2011-20/view.php.

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8. Impacts Found Not to Be Significant

California Public Resources Code Section 21003 (f) states: "…it is the policy of the state that…[a]ll persons and public agencies involved in the environmental review process be responsible for carrying out the process in the most efficient, expeditious manner in order to conserve the available financial, governmental, physical, and social resources with the objective that those resources may be better applied toward the mitigation of actual significant effects on the environment." This policy is reflected in the California Environmental Quality Act (CEQA) Guidelines (Guidelines) Section 15126.2(a), which states that "[a]n EIR [environmental impact report] shall identify and focus on the significant environmental impacts of the proposed project" and Section 15143, which states that "[t]he EIR shall focus on the significant effects on the environment." Guidelines Section 15128 requires that an EIR contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the Draft EIR.

Impacts to agriculture and forestry resources and to mineral resources were determined to be less than significant during scoping for the EIR. Additionally, specific thresholds of significance for various environmental categories were also determined to be less than significant. The following sections provide the thresholds of significance and a brief analysis supporting the determination of no impact or less than significant impacts. Threshold letters correspond to the lettering in Appendix G of the CEQA Guidelines.

8.1 AGRICULTURE AND FORESTRY RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

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?

No Impact. According to the Division of Land Resource Protection's "San Bernardino County Important Farmland 2010, Sheet 2 or 2," the project site is designated as urban and built-up land (DLRP 2011). There is no prime farmland, farmland of statewide importance, or unique farmland onsite. Thus, no impact would occur.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. Williamson Act contracts restrict the use of privately owned land to agriculture and compatible open space uses under contract with local governments. In exchange, the land is taxed based on actual use rather than potential market value. No areas in the City of Yucaipa, including the project site, are under Williamson Act contracts (DLRP 2013). Therefore, future development in accordance with the proposed Specific Plan would have no impact, and further analysis is not required.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code § 12220(g)), timberland (as defined by Public Resources Code § 4526), or timberland zoned Timberland Production (as defined by Government Code § 51104(g))?

No Impact. The project site is currently zoned as Institutional, Rural Residential, and Single Residential. Therefore, the proposed project would not cause the rezoning of forest land or timberland or conflict with an existing zoning of forest land or timberland, as defined by Public Resources Code, Sections 12220(g) or 51104(g). No impact would occur.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. The project site does not encompass any forest land. Thus, development of the proposed Specific Plan would not impact any forest lands, and no impact would occur.

e) 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?

No Impact. As previously stated, the project site is not used for farmland, forest land, or other agricultural use. Therefore, no impact would occur.

8.2 AIR QUALITY

Would the project:

e) Create objectionable odors affecting a substantial number of people?

Less Than Significant Impact. Growth within the Oak Glen Creek Specific Plan area could generate new sources of odors and place sensitive receptors near existing sources of odors. Nuisance odors from land uses in the South Coast Air Basin are regulated under South Coast Air Quality Management District Rule 402, "Nuisance," which states:

> A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. The provisions of this rule shall

not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.

The type of facilities that are considered to have objectionable odors include wastewater treatments plants, compost facilities, landfills, solid waste transfer stations, fiberglass manufacturing facilities, paint/coating operations (e.g., auto body shops), dairy farms, petroleum refineries, asphalt batch plants, chemical manufacturing, and food manufacturing facilities. The proposed land uses in the Innovation District portion of plan area would consist of institutional, office, medical, and professional uses and would not result in the types of odors generated by the aforementioned land uses. Emissions from construction equipment, such as diesel exhaust, and volatile organic compounds from architectural coatings and paving activities, may generate odors. However, these odors would be low in concentration, temporary, and are not expected to affect a substantial number of people. Therefore, odor impacts are considered less than significant.

8.3 BIOLOGICAL RESOURCES

Would the project:

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

Less Than Significant Impact. Division 9, Plant Protection and Management, of the Yucaipa Municipal Code provides regulations and guidelines for the City's plant species. Under Division 9, a permit is required for the removal of any tree or plant in conjunction with a land use application or development permit. Additional guidelines and provisions related to mountain forest and valley trees, riparian plants, and oak trees are provided in Chapters 3 through 5 of Division 9.

The project site has a single coast live oak tree at the eastern project boundary near Bryant Street. The proposed land use plan shows that this area would be designated Open Space and would remain as is. If future development does require removal of the oak tree, a removal permit would be required per Division 9 of the City's municipal code. Therefore, impacts are less than significant.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. The City of Yucaipa is not a part of any habitat conservation plan (HCP) or natural community conservation plan (NCCP). The closest HCP or NCCP to Yucaipa is the Town of Apple Valley Multi-Species NCCP/HCP, 35 miles north of Yucaipa. Therefore, the proposed Specific Plan would have no impact on conservation plans.

8.4 GEOLOGY AND SOILS

Would the project:

e) 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?

No Impact. Future developments within the Specific Plan area would connect to sewer services and would not utilize septic tanks. Thus, no impacts would occur.

8.5 HAZARDS AND HAZARDOUS MATERIALS

Would the project:

e) 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?

No Impact. Exposure of people residing or working within the project area to aircraft hazards is not a CEQA impact. Pursuant to *California Building Industry Association v. The Bay Area Air Quality Management District* (2015), CEQA applies to a project's impacts on the environment, not the environment's impacts on the project unless the project would exacerbate an environmental hazard. Implementation of the project would not cause or worsen aircraft hazards; therefore, the project would not exacerbate the environmental hazard. The closest public airport to the project site is the Redlands Municipal Airport, which is approximately 6.8 miles to the northwest. According to the Redlands Municipal Airport Land Use Compatibility Plan, the project site is not within the Redlands Airport Influence Area (Redlands 2003). Therefore, development of the project would not cause a safety hazard for people residing or working in the project area, and no impact would occur.

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

No Impact. Implementation of the project would not cause or worsen aircraft hazards; therefore, the project would not exacerbate the environmental hazard. The closest private airstrip or heliport is the San Gorgonio Memorial Hospital Heliport in the City of Banning, approximately 9.5 miles south of the project site (AirNav 2016). Given the distance, development of the project would have no impact on any private airstrips or heliports.

g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact. The project site is adjacent to and would be accessed from Oak Glen Road, 2nd Street, and Bryant Street. The internal streets in the residential areas of the site would be two-lane roadways, designed consistent with the City's Local Street standard, which requires a 60-foot right-of-way. Private driveways and access aisles would be a minimum of 24 feet in width, consistent with the City of

Yucaipa Development Code. Overall, the internal roadway circulation would be designed to meet City standards and facilitate adequate emergency access. Impacts would be less than significant.

8.6 HYDROLOGY AND WATER QUALITY

Would the project:

i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

No Impact. The project site is outside the dam inundation areas of the Seven Oaks Dam, about 5.6 miles northwest of the project site on the Santa Ana River; and the Yucaipa No. 1, Yucaipa No. 2, and Yucaipa No. 3 Dams located to the northwest of the project site. The dam inundation areas for the aforementioned dams flow in a south and southwesterly direction. Because the Specific Plan area is located to the southeast of these dams, the project site would not be at risk of flooding associated with potential dam failure. Thus, no impact would occur.

j) Inundation by seiche, tsunami, or mudflow?

No Impact. A seiche is a surface wave created when a body of water is shaken, usually by earthquake activity. Seiches are of concern relative to water storage facilities because inundation from a seiche can occur if the wave overflows a containment wall, such as the wall of a reservoir, water storage tank, dam or other artificial body of water. There are four reservoirs in the City in and near Yucaipa Regional Park; however, the dam inundation zones would flow toward the southwest, away from the project site (Yucaipa 2016). Thus, no impact would occur.

Tsunamis are large ocean waves caused by underwater seismic activity. When tsunamis hit the coast, they can cause considerable damage to property and put the public at risk. The City of Yucaipa is over 60 miles from the Pacific Ocean and is well outside the tsunami hazard zone.

Mudflows are associated with landslides and heavy rainfall. The project site is mostly flat with mild slopes and is surrounded by urban development; therefore, no adjacent hillsides could cause mudflows or landslides onto the project site. No impact would occur.

8.7 LAND USE AND PLANNING

Would the project:

a) Physically divide an established community?

Less Than Significant Impact. The project site is undeveloped and adjacent to existing residential developments to the west and south, and institutional and commercial uses in the vicinity. The project site is also generally bounded and separated from other uses by Oak Glen Road to the north, Bryant Street to the east, and 2nd Street to the west. Due to the existing development pattern and street improvements, the proposed project would not physically divide an established community.

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

No Impact. As previously stated, the City of Yucaipa is not a part of any HCP or NCCP. Therefore, the proposed Specific Plan would have no impact on conservation plans.

8.8 MINERAL RESOURCES

Would the project:

a) Result in the loss of availability of a known mineral resource that would be a value to the region and the residents of the state?

No Impact. The California Geological Survey (CGS) classifies the regional significance of mineral resources in accordance with the California Surface Mining and Reclamation Act of 1975. CGS is responsible for classifying mineral resource zones (MRZ) to record the presence or absence of significant mineral resources. Lands designated MRZ-2 are of the greatest importance. Such areas are underlain by demonstrated mineral resources or are located where geologic data indicate that significant measured or indicated resources are present. MRZ-2 areas are "regionally significant."

The MRZ classification areas in Yucaipa are shown in the CGS mineral resources map, "Mineral Land Classification of a Part of Southwestern San Bernardino County: The San Bernardino Valley Area, California (East)" (CGS 1995). The City of Yucaipa, including the project site, falls within the MRZ-3 zone. MRZ-3 indicates areas of undetermined mineral resource significance. No areas are designated MRZ-2. Therefore, no impact to mineral resources would occur.

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?

No Impact. The project site is not a locally important mineral resource recovery site. It is predominantly vacant and undeveloped with the exception of one single-family residence and the City maintenance yard. Therefore, future development in accordance with the proposed Specific Plan would not result in the loss of availability of a locally important mineral resource, and no impact would occur.

8.9 NOISE

Would the project:

e) 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, expose people residing or working in the project area to excessive noise levels?

No Impact. Exposure of people residing or working in the project area to aircraft noise is not a CEQA impact. Pursuant to *California Building Industry Association v. the Bay Area Air Quality Management District* (2015), CEQA applies to a project's impacts on the environment, not the environment's impacts on the project unless the project would exacerbate an environmental hazard. Implementation of the project would not cause or

worsen aircraft noise levels; therefore, the project would not exacerbate an environmental hazard. Furthermore, there are no airports or heliports in or adjacent to the City of Yucaipa (Airnav 2016). The nearest airport is Redlands Municipal Airport, approximately 6.8 miles northwest of the project site. Although aircraft overflights are sporadically heard in the City of Yucaipa, they do not create a substantial contribution to community noise levels. According to the Redlands Municipal Airport Land Use Compatibility Plan, the project site is not within the Redlands Airport Influence Area (Redlands 2003). Therefore, no aircraft noise impacts would occur.

f) For a project within the vicinity of a private airstrip, expose people residing or working the project area to excessive noise levels?

No Impact. Implementation of the project would not cause or worsen aircraft noise levels; therefore, the project would not exacerbate an environmental hazard. Furthermore, as identified above, there are no airports or heliports located in or adjacent to the project site (Airnav 2016). Therefore, no aircraft noise impacts would occur.

8.10 POPULATION AND HOUSING

Would the project:

b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

Less Than Significant Impact. The project site is mostly vacant and undeveloped with the exception of one single-family residence at 11568 2nd Street and the City maintenance yard. Development of the proposed project would require demolition of the residence, which would not be a substantial displacement of homes or people. Additionally, the proposed Specific Plan would provide for development of up to 200 homes on the project site, thereby increasing the availability of housing in the City. Thus, impacts to existing housing and residents onsite are less than significant.

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

Less Than Significant Impact. See response to Section 8.10.b, above.

8.11 TRANSPORTATION AND TRAFFIC

Would the project:

b) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

No Impact. Exposure of people residing or working in the project area to air traffic is not a CEQA impact. Pursuant to *California Building Industry Association v. the Bay Area Air Quality Management District* (2015), CEQA applies to a project's impacts on the environment, not the environment's impacts on the project unless the

project would exacerbate an environmental hazard. Implementation of the project would not cause or worsen aircraft hazards; therefore, the project would not exacerbate an environmental hazard. The proposed project area is not within the Redlands Airport Influence Area (Redlands 2003). Additionally, there are no private airstrips in the vicinity of the proposed project area (Airnav 2016). Development consistent with the Specific Plan would not change air traffic patterns. Therefore, no impact would occur.

c) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)

Less Than Significant Impact. The project would not introduce incompatible uses to area roadways, including farm equipment. All intersections of proposed roadways and between proposed roadways and existing roadways would be perpendicular, including site access intersections (i.e., 2nd Street/Oak Glen Road and Bryant Street/Eucalyptus Avenue) and internal circulation roadways. The design of project roadways and intersections would not cause substantial hazards, such as sharp curves or dangerous intersections. The project's circulation plan would be designed consistent with City of Yucaipa Standard Design Guidelines to ensure that no hazardous circulation conditions are created as a result of implementation of the proposed project and that adequate access for emergency vehicles is provided. The Standard Design Guidelines include engineering specifications and standard drawings for street improvements; utilities; drainage; street lighting, traffic signals and traffic signs; landscaping and irrigation systems; and general facilities. Specifically, the Standard Design Guidelines includes cross section drawings for various roadways (e.g., major highway, collector, local, secondary), curb and gutter areas, and cul-de-sacs with required right-of-way and turn-radius distances. Overall, project development would not result in substantial hazards from design of proposed circulation features or from traffic conflicts such as traffic and pedestrian hazards. Impacts would be less than significant.

d) Result in inadequate emergency access?

Less Than Significant Impact. See response to Section 8.11.c, above.

8.12 UTILITIES AND SERVICE SYSTEMS

Would the project:

a) Exceed waste water treatment requirements of the applicable Regional Water Quality Control Board?

Less Than Significant Impact. To comply with federal regulations for point source and nonpoint source discharges to surface waters of the United States, the City of Yucaipa requires all new developments to obtain a National Pollutant Discharge Elimination System (NPDES) permit administered by the Santa Ana Regional Water Quality Control Board. The NPDES permit includes waste discharge requirements based on the California Water Code (Division 7, Water Quality, Article 4, Waste Discharge Requirements). These requirements regulate the discharge of wastes that do not go to surface waters but may impact the region's water quality by affecting underlying groundwater basins. Development of the proposed project would be required to comply with all applicable wastewater discharge requirements of the NPDES program. Therefore,

implementation of the project would not result in an exceedance of wastewater treatment requirements and would be less than significant.

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Less Than Significant Impact. Yucaipa Disposal collects solid waste in Yucaipa under contract with the City. In 2013, the latest year for which data are available, 27,887 tons of solid waste and 2,130 tons of alternative daily cover[1] from the City were landfilled (CalRecycle 2016a). Approximately 99 percent of the solid waste landfilled from the City of Yucaipa was disposed of at the Mid-Valley Sanitary Landfill in Rialto and the San Timoteo Sanitary Landfill in Redlands; both facilities are operated by County of San Bernardino Solid Waste Management Division. The two landfills are described in Table 8-1, *County of San Bernardino Solid Waste Management Division Landfill Capacities*.

Table 8-1 County of San Bernardino Solid Waste Management Division Landfill Capacities

Landfill	Location	Remaining Capacity (cubic yards)	Estimated Closure Date	Maximum Daily Permitted Tonnage	Actual Average Daily Disposal, tons[1]	Residual Disposal Capacity, tons per day
Mid-Valley	2390 North Alder Avenue Rialto, CA 92377	67,520,000[2]	2033	7,500	2,336	5,164
San Timoteo	San Timoteo Canyon Road Redlands, CA 92373	13,605,488[3]	2043	2,000	628	1,372
Total		**81,125,488**	**Not Applicable**	**7,700**	**2,964**	**6,536**

Sources: CalRecycle 2016b; CalRecycle 2016c; CalRecycle 2016d.
1 Average daily disposal is calculated from total annual disposal in 2013; each landfill is open six days per week (assumed to be 300 days per year after deducting holidays).
2 Remaining capacity as of September 1, 2009.
3 Remaining capacity as of December 11, 2012.

Both landfills are required to comply with existing landfill regulations from federal, state, and local regulatory agencies. They are subject to regular inspections by the California Department of Resources Recycling and Recovery (CalRecycle) and the local enforcement agency, the Santa Ana Regional Water Quality Control Board, and the South Coast Air Quality Management District.

Based on CalRecycle's estimated solid waste generation rate the proposed project would generate approximately 2,260 pounds of solid waste per day, or 412 tons per year (see Table 8-2, *Oak Glen Creek Specific Plan Solid Waste Disposal*). This is a nominal amount compared to the maximum permitted throughput of both Mid-Valley and San Timoteo landfills. The landfills also have substantial remaining capacity to support the project's solid waste disposal needs, and the project would not appreciably shorten the remaining useful life of either existing landfill. Thus, impacts would be less than significant.

[1] Alternative daily cover means cover material other than earthen material placed on the surface of the active face of a municipal solid waste landfill at the end of each operating day to control vectors, fires, odors, blowing litter, and scavenging.

Table 8-2 Oak Glen Creek Specific Plan Solid Waste Disposal

Land Use	Units	Solid Waste Disposal Rate Pounds/day/unit	Solid Waste Disposal Pounds/day	Solid Waste Disposal Tons/Year
Residential District	200 SFR	10	2,000	365
Innovation District	20,000 SF	0.013	260	47
Total	**—**	**—**	**2,260**	**412**

Sources: CalRecycle 2016e
Notes: SFR: single-family residential; SF: square feet

g) Comply with federal, state, and local statutes and regulations related to solid waste?

Less Than Significant Impact. The Resource Conservation and Recovery Act of 1976 (US Code Title 42 §§ 6901 et seq.) governs the creation, storage, transport, and disposal of hazardous wastes and operators of hazardous waste disposal sites. Assembly Bill 939 (AB 939), the Integrated Waste Management Act of 1989 (California Public Resources Code §§ 40000 et seq.) requires all local governments to develop source reduction, reuse, recycling, and composting programs to reduce tonnage of solid waste going to landfills. Cities must divert at least 50 percent of their solid waste generation into recycling. Compliance with AB 939 is measured for each jurisdiction, in part, as actual disposal amounts compared to target disposal amounts. Actual disposal amounts at or below target amounts comply with AB 939. Additionally, Assembly Bill 341 declared that by 2020 the state of California will source reduce, recycle, or compost no less than 75 percent of solid waste generated. Target solid waste disposal amounts for the City of Yucaipa are 4.5 pounds per person per day (ppd) for residences and 32.4 ppd for businesses. Actual disposal rates for Yucaipa in 2014, the latest year for which data are available, are 2.8 ppd for residences and 21.1 ppd for businesses, which are below target rates (CalRecycle 2016f).[2]

AB 1327, the California Solid Waste Reuse and Recycling Access Act of 1991 (California Public Resources Code Sections 42900 et seq.) required the California Integrated Waste Management Board to develop a model ordinance requiring adequate areas for the collection and loading of recyclable materials in development projects. Local agencies were required to adopt and enforce either the model ordinance or an ordinance of their own by September 1, 1993. The proposed project would be required to comply with laws and regulations governing solid waste disposal, and impacts would be less than significant.

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[2] Per capita disposal rates are the total disposal divided by either the City's population or the City's employment. Hence, the residential disposal rate accounts for non-residential disposal in the City and the non-residential rate accounts for residential disposal in the City.

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8. Impacts Found Not to Be Significant

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9. Significant Irreversible Changes Due to the Proposed Project

Section 15126.2(c) of the CEQA Guidelines requires that an environmental impact report (EIR) describe any significant irreversible environmental changes that would be caused by the proposed project should it be implemented. Specifically, the CEQA Guidelines state:

> Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highways improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

The following are the significant irreversible changes that would be caused by the proposed project, should it be implemented:

- Implementation of the proposed Oak Glen Creek Specific Plan would include construction activities that would entail the commitment of nonrenewable and/or slowly renewable energy resources, human resources, and natural resources such as lumber and other forest products, sand and gravel, asphalt, steel, copper, lead, other metals, water, and fossil fuels. Operation of the proposed project would require the use of natural gas and electricity, petroleum-based fuels, fossil fuels, and water. The commitment of resources required for the construction and operation of the proposed project would limit the availability of such resources for future generations or for other uses during the life of the project.

- An increased commitment of social services and public maintenance services (e.g., police, fire, schools, libraries, and sewer and water services) would also be required. The energy and social service commitments would be long-term obligations in view of the low likelihood of returning the land to its original condition once it has been developed.

- An increase in vehicle trips would accompany project-related population growth. Over the long term, emissions associated with such vehicle trips would continue to contribute to the South Coast Air Basin's nonattainment designation for ozone (O_3) and particulate matter ($PM_{2.5}$ and PM_{10})under the California and National Ambient Air Quality Standards (AAQS), and nonattainment for nitrogen dioxide (NO_2) under the California AAQS.

9. Significant Irreversible Changes Due to the Proposed Project

- The visual character of the primarily vacant and undeveloped project site would be substantially altered by the construction of the proposed Residential, Innovation, and Open Space Districts. Additional landscaping, grading, and construction of roadways, homes and buildings, and ancillary structures would also contribute to an altered visual character of the existing site. This would result in a permanent change in the character of the project site and on- and offsite views in the project's vicinity.

Given the low likelihood that the land at the project site would revert to lower intensity uses or to its original form, the proposed project would generally commit future generations to these environmental changes.

10. Growth-Inducing Impacts of the Proposed Project

Pursuant to Sections 15126(d) and 15126.2(d) of the CEQA Guidelines, this section is provided to examine ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Also required is an assessment of other projects that would foster other activities which could affect the environment, individually or cumulatively. To address this issue, potential growth-inducing effects will be examined through analysis of the following questions:

- Would this project remove obstacles to growth, e.g., through the construction or extension of major infrastructure facilities that do not presently exist in the project area, or through changes in existing regulations pertaining to land development?

- Would this project result in the need to expand one or more public services to maintain desired levels of service?

- Would this project encourage or facilitate economic effects that could result in other activities that could significantly affect the environment?

- Would approval of this project involve some precedent-setting action that could encourage and facilitate other activities that could significantly affect the environment?

Please note that growth-inducing effects are not to be construed as necessarily beneficial, detrimental, or of little significance to the environment. This issue is presented to provide additional information on ways in which this project could contribute to significant changes in the environment, beyond the direct consequences of developing the land use concept examined in the preceding sections of this EIR.

Would this project remove obstacles to growth, e.g., through the construction or extension of major infrastructure facilities that do not presently exist in the project area, or through changes in existing regulations pertaining to land development?

Construction/Extension of Major Infrastructure Facilities

The Oak Glen Creek Specific Plan would be built on a mostly vacant, undeveloped site in a developed and semirural area of the City. Only the City maintenance yard in the northwestern corner of the project site and a single-family residence at 11568 2nd Street have existing infrastructure, such as connections to water and wastewater pipelines and electricity and natural gas services. However, extensions of utility facilities from surrounding roadways (i.e., 2nd Street, Oak Glen Road, and Bryant Street) would provide a sufficient tie-in to

the existing utilities systems to accommodate the demands of the proposed project at full buildout. The expansion of onsite infrastructure would induce growth in the area because the site would be able to accommodate future uses.

Changes in Existing Regulations

The project site is designated by the City of Yucaipa General Plan land use plan as Institutional (IN), Rural Residential (RL-1), and Single Residential (RS-72C).

The IN land use designation allows for public and quasi-public land uses and facilities and compatible uses (i.e., schools, civic facilities, water storage, basins, and recharge facilities, and quasi-public facilities). RL-1 designations provide areas for rural development where single-family residential is the primary use, along with conservation of open space, watershed, and habitat areas. And the RS-72C designation provides areas for single-family homes on individual lots and accessory and nonresidential uses that complement neighborhoods.

The anticipated adoption of the Oak Glen Creek Specific Plan would allow development of a Residential District, Innovation District (i.e., institutional, office, medical, and professional uses), and Open Space District. Buildout of the proposed project would introduce up to 200 single-family homes, 20,000 square feet of nonresidential use, and a detention basin with passive recreational uses.

In conclusion, implementation of the proposed Specific Plan would involve expanding onsite infrastructure and increasing permitted land uses, which would induce overall growth in the area.

Would this project result in the need to expand one or more public services to maintain desired levels of service?

As described in Section 5.12, *Public Services*, the Oak Glen Creek Specific Plan would require varying degrees of police, fire, school, and library service expansions in order to maintain a desired level of service. Since the project site is mostly vacant, buildout of the proposed project would certainly increase police and fire service calls. The City of Yucaipa Fire Department/California Department of Forestry and Fire Protection would provide fire protection and paramedic services to the project area. The City of Yucaipa Police Department/San Bernardino County Sheriff's Department would provide police protection to the project area. Any expansion of police or fire services would be financed through the public facilities financing fees that are charged to project developers of all new developments, and no adverse impacts would occur to existing public services.

Development of the 200 single-family homes would introduce new residents to the project area, which would increase demand for school and library services as well. New students would likely attend schools within the Yucaipa-Calimesa Joint Unified School District, and potential library patrons would visit the Yucaipa Branch Library. As detailed in Section 5.12, *Public Services*, project impacts related to school and library services would not adversely impact existing school capacities or levels of service.

Overall, the proposed project would not result in the need to expand one or more public services. A full discussion of public service impacts is provided in Section 5.12, *Public Services*.

Would this project encourage or facilitate economic effects that could result in other activities that could significantly affect the environment?

During project construction, a number of design, engineering, and construction-related jobs would be created. This would be a temporary condition lasting until project construction is completed; however, it would be a direct, growth-inducing effect of the proposed project.

The proposed project would introduce up to 200 single-family homes and 20,000 square feet of institutional, office, medical, and professional related uses. The increase in residents and nonresidential development and associated jobs as a result of the proposed project would spur new economic investment in commercial uses serving the Specific Plan area. Future residents would also pay property and sales tax for living and buying within Yucaipa. This would represent an increased demand for economic goods and services and could, therefore, encourage the creation of new businesses and/or the expansion of existing businesses, particularly in the Innovation District of the Oak Glen Creek Specific Plan. Thus, the proposed project would facilitate economic growth in the project area and the City.

Would approval of this project involve some precedent-setting action that could encourage and facilitate other activities that could significantly affect the environment?

Approval of the Oak Glen Creek Specific Plan would require the approval of discretionary actions that would not set precedents for future projects with similar characteristics. The proposed project would require approval of a general plan amendment to change the land use designations onsite, and adoption of the Specific Plan. The general plan amendment would expand the allowed land uses onsite, which may encourage growth of a similar type in the areas surrounding the project area or other undeveloped areas near or in the City of Yucaipa.

If additional development were allowed in the vicinity of the project, it may cause additional environmental impacts. However, future projects would require environmental review and discretionary approval by the Yucaipa City Council. The proposed project would not change the existing protocol for project approval and would not provide precedents or make it more likely for other projects to gain approval of similar applications.

10. Growth-Inducing Impacts of the Proposed Project

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11. Organizations and Persons Consulted

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