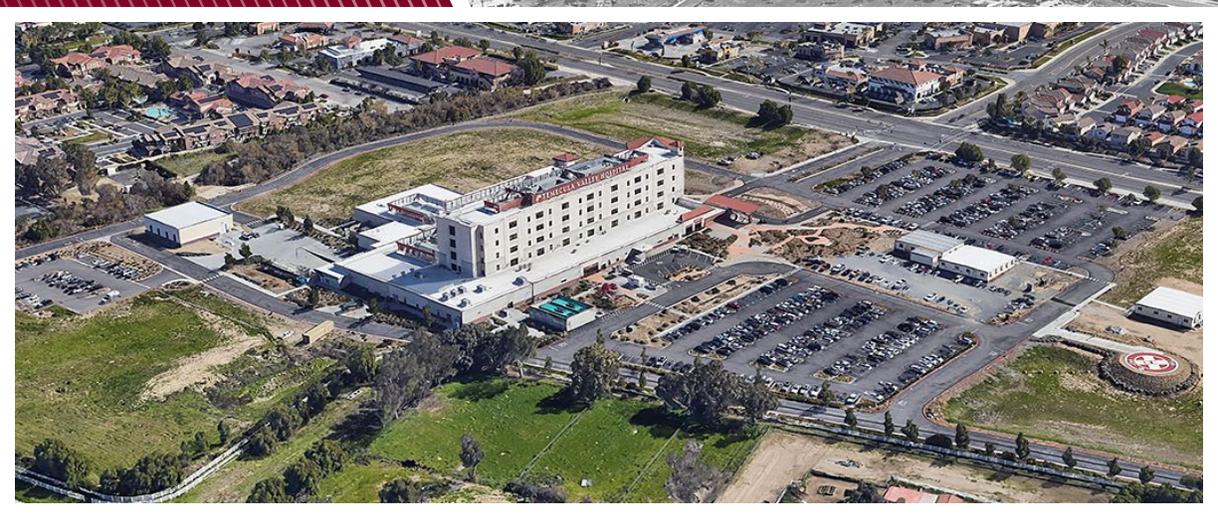


Draft Subsequent Environmental Impact Report for the

# Temecula Valley Hospital Master Plan Update and Planned Development Overlay Amendment

State Clearinghouse No. 2005031017



Prepared for:



November 3, 2022

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State Clearinghouse No. 2005031017

Prepared for:

**City of Temecula**  
41000 Main Street  
Temecula, CA 92590

Contact:

**Scott Cooper**  
Senior Planner  
scott.cooper@temeculaca.gov

Prepared by:

**Ascent Environmental, Inc.**  
1230 Columbia Street, Suite 440  
San Diego, CA 92101

Contact:

**Eric Ruby**  
Principal  
eric.ruby@ascentenvironmental.com

November 3, 2022

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## LIST OF ABBREVIATIONS

2022 Scoping Plan Update	2022 Draft Scoping Plan Update
AB	Assembly Bill
AC	Advisory Circular
Act	Urban Water Management Planning Act
afy	acre feet per year
ALUC	Airport Land Use Commission
AMSL	above mean sea level
APN	Assessor's Parcel Number
AQMP	air quality management plan
AST	above-ground storage tank
Basin	South Coast Air Basin
BGS	below ground surface
BMP	best management plan
CA SDWA	California Safe Drinking Water Act
CAA	federal Clean Air Act
CAAQS	California ambient air quality standards
CAFE	Corporate Average Fuel Economy
Cal/OSHA	California Occupational Safety and Health Administration
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
California Energy Code	Title 24, Part 6, Building Energy Efficiency Standards
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
CCAA	California Clean Air Act
CCR	California Code of Regulations
CDPH	California Department of Public Health
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CFC	California Fire Code

CFR	Code of Federal Regulations
CHRIS	California Historical Resources Information System
City	City of Temecula
CIWMB	California Integrated Waste Management Board
CNEL	Community Noise Equivalent Level
CO	carbon monoxide
CO <sub>2</sub>	carbon dioxide
CO <sub>2</sub> e	carbon dioxide-equivalent
Connect SoCal	2020-2045 Regional Transportation Plan/Sustainable Communities Strategy: Connect SoCal
Cortese List	California Government Code Section 65962.5
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
CUP	Conditional Use Permit
CUPAs	Certified Unified Program Agencies
CWA	Clean Water Act
dB	decibels
dBA	A-weighted decibels
diesel PM	particulate matter exhaust from diesel engines
DOF	Department of Finance
DOT	U.S. Department of Transportation
Draft SEIR	Draft Subsequent Environmental Impact Report
DTSC	California Department of Toxic Substances Control
DWR	California Department of Water Resources
EAP	Energy Action Plan
EGU	electric generating unit
EIFS	Exterior Insulation Finishing System
EIR	Environmental Impact Report
EMWD	Eastern Municipal Water District
EO	Executive Order
EOP	emergency operations plan
EPA	U.S. Environmental Protection Agency
EPAct	Energy Policy Act of 1992
EPCRA	Emergency Planning and Community Right-to-Know Act of 1986
EVMWD	Elsinore Valley Municipal Water District

FAA	Federal Aviation Administration
FATO	final approach and takeoff area
FDD	Facilities Development Division
Federal Aviation Administration	FAA
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FICAN	Federal Interagency Committee on Aviation Noise
FICON	Federal Interagency Committee on Noise
FIRM	Flood Insurance Rate Maps
FR	Federal Register
FTA	Federal Transit Administration
FTIP	Federal Transportation Improvement Program
GHG	greenhouse gas
GIS	Geographical Information System
HAP	hazardous air pollutant
HC	hydrocarbons
HCAI	Department of Health Care Access and Information
Hz	hertz
I-15	Interstate-15
in/sec	inches/second
IOU	investor-owned utility
JRMP	Jurisdictional Runoff Management Program
LCFS	Low Carbon Fuel Standard
$L_{dn}$	Day-Night Level
$L_{eq}$	Equivalent Continuous Sound Level
LHMP	Local Hazard Mitigation Plan
LLG	Linscott, Law & Greenspan, Engineers
$L_{max}$	Maximum Sound Level
LOS	level of service
LST	localized significance threshold

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MBtu	million BTU
MCL	maximum contaminant level
MG	million gallons
mgd	million gallons per day
MLD	most likely descendant
MMBtu	million British thermal units
MMT	million metric tons
MND	Mitigated Negative Declaration
mPa	micro-Pascals
MPO	Metropolitan Planning Organization
MS4	Municipal Separate Storm Sewer System
MSL	mean sea level
MT CO <sub>2</sub> e/year	metric tons of carbon dioxide equivalent per year
MTBE	methyl tertiary butyl ether
NAAQS and CAAQS	National and California Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NEHRP	National Earthquake Hazards Reduction Program
NFIP	National Flood Insurance Program
NO	nitric oxide
NO <sub>2</sub>	nitrogen dioxide
NOP	Notice of Preparation
NO <sub>x</sub>	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
O <sub>3</sub>	ozone
OPR	Governor's Office of Planning and Research
OSHA	Occupational Safety and Health Administration
OSHPD	Office of Statewide Health Planning and Development
PDO	Planned Development Overlay
PM	particulate matter
PM <sub>10</sub>	respirable particulate matter with aerodynamic diameter of 10 micrometers or less
PM <sub>2.5</sub>	fine particulate matter with aerodynamic diameter of 2.5 micrometers or less
PO	professional office
Porter-Cologne Act	Porter-Cologne Water Quality Control Act of 1970

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ppb	parts per billion
ppm	parts per million
PPV	Peak Particle Velocity
PRC	Public Resources Code
proposed project	Temecula Valley Hospital Master Plan Update Project
PUC	Public Utilities Code
PV	photovoltaic
RCFD	Riverside County Fire Department
RCRA	Resource Conservation and Recovery Act
RCWD	Rancho California Water District
RHB	Radiological Health Branch
RMS	root-mean-square
ROG	reactive organic gases
RPS	renewable portfolio standard
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
RWQCB	regional water quality control board
SAF Plan	State Alternative Fuels Plan
SARA Title III	Superfund Amendments and Reauthorization Act of 1986
SB	Senate Bill
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SEL	Sound Exposure Level
SEMS	Standardized Emergency Management System
sf	square feet
SGMA	Sustainable Groundwater Management Act
SGMA	Sustainable Groundwater Management Act of 2014
SLF	Sacred Lands File
SO <sub>2</sub>	sulfur dioxide
SoCalGas	Southern California Gas Company
SPCC	Spill Prevention, Control, and Countermeasure
SRRE	Source Reduction and Recycling Element
SRRRA	Santa Rosa Regional Resources Authority
SSMP	Sewer System Management Plan
SSO	sanitary sewer overflow

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SWP	State Water Project
SWPPP	stormwater pollution prevention plan
SWRCB	State Water Resources Control Board
SWRCB-DDW	State Water Resources Control Board Division of Drinking Water
SWRCC	Southwest Regional Council of Carpenters
TAC	toxic air contaminant
TISG	Transportation Impact Study Guide
TLOF	touchdown and liftoff area
TMDL	total maximum daily load
TPD	Temecula Police Department
TS/MRF	Transfer Station/Materials Recovery Facility
UBC	Uniform Building Code
UHS	United Health Services, Inc.
USC	U.S. Code
UST	underground storage tanks
UWMP	Urban Water Management Plan
VdB	Vibration Decibels
VMT Analysis	Vehicle Miles Traveled Analysis for the Temecula Valley Hospital Master Plan Project
VMT	vehicle miles traveled
VOC	organic compound
WMWD	Western Municipal Water District
WQIP	Water Quality Improvement Plan
WQMP	water quality management plan
WQO	Water Quality Objective
WRCOG	Western Riverside Council of Governments
WRF	Water Reclamation Facility
WSA	water supply assessment
WSPT	Western Stemmed Point Tradition

# EXECUTIVE SUMMARY

## ES.1 Introduction

This summary is provided in accordance with California Environmental Quality Act Guidelines (State CEQA Guidelines) Section 15123. As stated in Section 15123(a), “an EIR [environmental impact report] shall contain a brief summary of the proposed action and its consequences. The language of the summary should be as clear and simple as reasonably practical.” As required by the guidelines, this chapter includes (1) a summary description of the proposed project, (2) a synopsis of environmental impacts and recommended mitigation measures (Table ES-1), (3) identification of the alternatives evaluated in detail and the environmentally superior alternative, and (4) a discussion of the areas of controversy associated with the project.

## ES.2 BACKGROUND

The City of Temecula (City) approved development of the Temecula Regional Hospital and certified the Temecula Regional Hospital Environmental Impact Report (EIR) in 2006 and a Supplemental EIR in 2008 (2008 Supplemental EIR) (SCH# 2005031017). A General Plan Amendment, Zone Change (Planned Development Overlay), Development Plan, Conditional Use Permit, and Tentative Parcel Map were required to allow the development of the Temecula Regional Hospital on a 35.31-acre site in the City of Temecula, California.

The 2006 EIR and 2008 Supplemental EIR evaluated development of the Temecula Regional Hospital over five phases, including 565,260 square feet of building area, with a hospital complex, medical office buildings, a cancer center, and a fitness rehabilitation center. Other onsite features of the master plan included a helipad, internal roadways, landscaping, drainage infrastructure, stormwater quality basins, surface parking lots, a service yard, and loading areas. A 2011 Major Modification and Addendum was prepared to address changes from the 2006 EIR and 2008 Supplemental EIR, which included reducing the number of beds in the proposed Phase I hospital, modifying the building facades of the proposed hospital towers, relocating the truck loading bays and service yard, and relocating mechanical equipment.

Construction of Phase I began in June 2011, which included mass grading of the project site, development of the hospital building, interim helipad, onsite roadways, drainage infrastructure, stormwater quality basins, and surface parking lots. The hospital began operations in October 2013. Another Supplemental EIR was certified in February 2016 to revise the location of the proposed helipad and develop a new building for storage of non-hazardous hospital supplies. The Temecula Regional Hospital, as described in the 2006 EIR, 2008 Supplemental EIR, 2011 Addendum, and 2016 Supplemental EIR, is referred to herein as the “approved master plan.”

## ES.3 PROJECT OBJECTIVES

The basic objectives of the proposed project are to:

- ▶ Increase the size of the originally proposed hospital and emergency department to accommodate a growing regional population and number of patients;
- ▶ Provide a mix of medical facilities to meet the demand for a variety of inpatient and outpatient medical services, including behavioral health services;
- ▶ Support development of biomedical, research, and office facilities to diversify Temecula’s employment base;
- ▶ Provide medical office space adjacent to the hospital facility to meet the needs of doctors and patients who need ready access to the hospital for medical procedures; and
- ▶ Relocate the existing helipad to a central location and change the helicopter flight approach/departure path to minimize helicopter noise impacts on surrounding sensitive land uses.

## ES.4 PROJECT DESCRIPTION

The project applicant, Universal Health Services, Inc. (UHS), is proposing the Temecula Valley Hospital Master Plan Update Temecula Valley Hospital Master Plan Update and Planned Development Overlay Amendment (proposed project), which is the subject of this Subsequent EIR. The proposed project would consist of revisions to the currently approved project, which would require a Major Modification and Planned Development Overlay (PDO) Amendment. The amendment revises the purpose and intent of the PDO; establishes an administrative approval process for buildings and structures that conform to the architectural standards of the PDO; clarifies the allowable mix of structures and uses in the PDO; sets forth design guidelines for buildings and structures, and parking standards. Specifically, the proposed project would revise the approved master plan to allow for development of the following structures: an approximately 102,000-square-foot, four-story Behavioral Health Building; an approximately 20,000-square-foot expansion to the existing hospital building emergency department; a 125,000-square-foot, five-story second hospital tower; two four-story, 80,000-square-foot medical office buildings, and a 14,000-square-foot utility plant; an approximately 125,000-square-foot, five-story third hospital tower; an 80,000-square-foot, and a four-story parking structure. In addition, the proposed project includes relocating the existing helipad from its interim location to the roof of the proposed parking structure and changing the arrival/departure path for emergency helicopter flights to a more east-west alignment. The design and architectural style of new buildings would be consistent with the Spanish-Mediterranean or Mission styles of existing development on the project site and nearby development. Several structures that were originally proposed in the currently approved project would no longer be constructed, which include the cancer center and fitness rehabilitation center.

The proposed project would be implemented through three phases of development: Phase II (behavioral health building); Phase III (emergency department expansion; second hospital tower; 4-story medical office building; central utility plant); and Phase IV: (third hospital tower; a second 4-story medical office building; relocation of helipad to roof of proposed 4-story parking structure; new east-west helicopter arrival/departure path). Specific timing for the development of Phases II to IV would be dependent upon regional demand for the proposed uses and is not precisely known at this time. However, for purposes of this Draft SEIR, estimates of the timing of the phases have been developed, and range from start of construction for Phase II in 2023 and completion of Phase IV construction in 2037.

The existing hospital building and 5,180-square-foot storage building that were constructed during Phase I of the currently approved project would be maintained in place. The project site was also mass graded as part of Phase I. The existing onsite backbone circulation system and access driveways to Temecula Parkway and De Portola Road would remain unchanged. The existing onsite parking lots would be reconfigured and relocated as the individual phases are developed. The proposed project would not involve major changes to the site's topography.

The proposed pervious features onsite include various existing and proposed water quality basins and detention basins, trees included in parking islands and open spaces with drought tolerant vegetation. All impervious areas, except for the northern horse trail, the eastern independent channel and existing pervious areas will be replaced with new landscaping such as trees. All flows from buildings and parking lots will be routed to the project's biofiltration basins; non-structural improvements such as rain barrels and tree wells would also be installed as needed to comply with applicable pollutant control and hydromodification requirements. Water quality improvements installed on the east side, where the existing hospital building and storage building are located, during Phase I will remain; new water quality improvements would be focused on the existing, undeveloped west side of the project site, and where new development and reconfigurations are proposed on the east side.

The existing backbone circulation system would be maintained. During Phase II, the on-site circulation system would be extended in the western portion of the project site, with new access roads that connect to Dona Lynora.

Approximately 438 shade and accent trees would be planted throughout the project site. Other landscaping would consist of ornamental and bioswale shrubs and grasses. Approximately 122 existing trees that were planted during Phase I would be maintained in place. Landscaping would be irrigated with an automatically controlled, water-efficient irrigation system using low gallonage spray heads. Irrigation systems would comply with the State of California's Water Efficient Landscape Ordinance and the City of Temecula's Landscape Manual.

Existing onsite stormwater infrastructure would be modified or expanded to accommodate the proposed development. In the southeast portion of the project site, the existing open-air infiltration pond/basin would be converted into underground infiltration chambers and additional modular wetland systems would be installed. Several existing in-ground systems at the northwesterly-draining subbasin would be removed and reinstalled to accommodate the newly proposed layout. Additional vegetative strips, sand filters, modular wetland systems, and bioretention/rain garden systems would be installed throughout the project site to treat stormwater as intended under the Water Quality Management Plan approvals for the currently approved project.

Compared to existing conditions, the proposed project would increase the total building footprint on the project site by 544,600 square feet to a total building area of 756,121 square feet. The total building area would be 184,961 square feet greater than what was proposed in the approved master plan. The project would accommodate 564 beds across four buildings, which is 424 more beds than currently exists onsite and 244 more beds than proposed in the approved master plan. On average, approximately 750 employees are working at the existing hospital during a 24-hour period. With buildout of the proposed project, the average number of employees on-site during a 24-hour period would increase by approximately 675, resulting in a total of 1,425 employees at the project site, on average, during a 24-hour period. Upon buildout of the proposed project, the project site would provide 1,748 parking spaces, which is 1,314 more spaces than currently exists onsite and 470 more spaces than proposed in the approved master plan. The proposed project would provide parking in six surface lots and a four-story, 227,200 square foot parking structure.

## ES.4.1 Project Location

The proposed project is located at 31700 Temecula Parkway in the City of Temecula in Riverside County, California (project site). The project site encompasses 35.31 acres on Assessor's Parcel Number (APN) 959-080-026. The project site is approximately 720 feet west of Margarita Road, 420 feet south of De Portola Road, and is bordered to the south by Temecula Parkway (also named Highway 79) and by Dona Lynora, a private road, to the west. Regional access to the project site is provided by Interstate-15 (I-15), which is two miles west of the project site, and Temecula Parkway (see Figure 2-1, "Regional Location," and Figure 2-2, "Project Location").

## ES.5 ISSUES RAISED DURING NOTICE OF PREPARATION PROCESS

In accordance with Section 15082 of the State CEQA Guidelines, the City published a NOP of the Draft SEIR, and circulated it to the State Clearinghouse, resources agencies, and interested parties. The NOP was filed with the State Clearinghouse on March 11, 2022, and with the Riverside County Clerk on March 14, 2022. The NOP requested comments on the scope of the Draft SEIR, and asked that those agencies with regulatory authority over any aspect of the proposed project describe that authority. The City requested comments no later than 30 days from receipt of the NOP. The NOP provided a general description and location of the proposed project and a preliminary list of probable environmental effects.

On March 23, 2022, in accordance with CEQA Section 21083.91, the City held a public scoping meeting to obtain public comments and suggestions from interested parties on the scope of the Draft SEIR. The public scoping meeting was held at the Ronald H. Roberts Temecula Public Library, 30600 Paula Road, Temecula, CA 92592. At the public scoping meeting, a brief presentation and overview of the proposed project was provided. After the presentation, oral comments on the scope of the environmental issues to be addressed in the Draft SEIR were accepted. The NOP and responses to the NOP are included in Appendix A of this Draft EIR. Key concerns and issues that were expressed during the scoping process and are addressed in the Draft SEIR include the following:

- ▶ Avoiding inadvertent discoveries of Native American human remains and protecting tribal cultural resources;
- ▶ Avoiding potential conflicts with bicycle circulation in the project area;
- ▶ The length of construction worker vehicle trips;
- ▶ Helicopter noise impacts on nearby residences;

- ▶ Noise impacts on residences from proposed project generated increases in vehicle trips along roadways in the project area;
- ▶ Noise impacts on residences from vehicles using the proposed project's 4-story parking garage; and
- ▶ Noise impacts on residences from operation of the proposed project's central utility plant.

## ES.6 SIGNIFICANT AND UNAVOIDABLE ENVIRONMENTAL IMPACTS

Implementation of the proposed project would result in the following significant and unavoidable environmental impacts:

### Air Quality

- ▶ Impact 3.2-2: Generate construction emissions in exceedance of SCAQMD's regional mass emission thresholds

### Greenhouse Gas Emissions

- ▶ Impact 3.6-1: Generate Greenhouse Gas Emissions, Either Directly or Indirectly, That May Have a Significant Impact on the Environment or Conflict with State GHG Reduction Goals

### Noise

- ▶ Impact 3.10-1: Exposure of Existing Sensitive Receptors to Short-Term Construction Noise
- ▶ Impact 3.10-3: Exposure of Existing Sensitive Receptors to Operational Helicopter Noise

### Transportation

- ▶ Impact 3.13-2: Conflict or be Inconsistent with CEQA Guidelines Section 15064.3(b)

## ES.7 ALTERNATIVES TO THE PROPOSED PROJECT

The following alternatives are evaluated in detail in this Draft SEIR.

- ▶ **Alternative 1: No Project–No Future Development** assumes that the proposed project would not be approved and that no new development would occur on the project site in the future; the existing physical conditions of the project site would not change.
- ▶ **Alternative 2: No Project–Approved Master Plan Buildout** assumes that the proposed project would not be approved and that the project site would be developed in accordance with the approved master plan.
- ▶ **Alternative 3: No Medical Office Development** assumes that the project site would be developed the same as the proposed project, except that no medical office buildings would be provided. This alternative would not provide the 160,000 SF of medical office space (two four-story, 80,000 SF buildings) that is included in the proposed project.

### ES.7.1 Environmentally Superior Alternative

Because the No Project–No Development Alternative would avoid all significant impacts resulting from construction and operation of the proposed project (except for helicopter noise impacts, which are greater under this alternative), it is the environmentally superior alternative. However, the No Project–No Development Alternative would not meet the objectives the proposed project as presented above in Section ES.3.

When the environmentally superior alternative is the No Project Alternative, the State CEQA Guidelines (Section 15126[d][2]) require selection of an environmentally superior alternative from among the other action alternatives evaluated. As demonstrated by the comparative analysis of alternatives presented in Table 4-3, Alternative 3: No Medical Office Development, would be the environmentally superior action alternative because although it would not completely avoid any significant impacts of the proposed project, it would decrease the amount of adverse physical

environmental change for seven (7) significant impacts of the proposed project, and it would not increase the amount of adverse physical change for any of the proposed project's significant impacts. Alternative 3: No Medical Office Development would meet many but not all of the basic objectives of the proposed project.

## **ES.8 SUMMARY OF ENVIRONMENTAL IMPACTS**

### **ES.8.1 Project-Specific Impacts**

This SEIR has been prepared pursuant to the CEQA (Public Resources Code [PRC] Section 21000 et seq.) and the State CEQA Guidelines (California Code of Regulations, Title 14, Chapter 3, Section 1500, et seq.) to evaluate the physical environmental effects of the proposed project. The City of Temecula is the lead agency for the project. It has the principal responsibility for approving and carrying out the project and for ensuring that the requirements of CEQA have been met. After the Final SEIR is prepared and the EIR public-review process is complete, the City Council is responsible for certifying that the SEIR adequately evaluates the impacts of the proposed project.

Table ES-1 provides a summary of the environmental impacts of the proposed project. The table provides the level of significance of the impact before mitigation, recommended mitigation measures for significant impacts, and the level of significance of the impact after implementation of the mitigation measures.

**Table ES-1 Summary of Impacts and Mitigation Measures**

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
<b>Aesthetics</b>			
<p><b>Impact 3.1-1: Conflict with Applicable Zoning or Other Regulations Governing Scenic Quality</b></p> <p>Implementation of the development included in the proposed project would require a Major Modification and Planned Development Overlay (PDO) Amendment. The project site and surrounding area consist of urban land uses, and buildout of the project site would not conflict with applicable zoning or other regulations governing scenic quality. This impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
<p><b>Impact 3.1-2: Create a New Source of Substantial Light or Glare which would Adversely Affect Day or Nighttime Views in the Area</b></p> <p>The proposed project would be required to comply with the City of Temecula Design Guidelines, Municipal Code, and Ordinance 655, which ensure that the proposed project would not create new sources of substantial light or glare which would adversely affect day or nighttime views in the area. This impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
<b>Air Quality</b>			
<p><b>Impact 3.2-1: Conflict With or Obstruct Implementation of the Air Quality Management Plan</b></p> <p>The proposed project would be consistent with the assumptions in the AQMP because the project would be consistent with the land use designations in the City's General Plan. Therefore, the proposed project would not conflict with or obstruct implementation of the AQMP. This impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
<p><b>Impact 3.2-2: Generate Construction and Operational Emissions in Exceedance of SCAQMD's Regional Mass Emission Thresholds</b></p> <p>Proposed project construction activities would generate maximum daily project-related criteria pollutant emissions that would exceed SCAQMD regional construction-period thresholds for VOC and NO<sub>x</sub>, while the increase in maximum daily project-related criteria pollutant emissions over existing conditions resulting from proposed project operations would not exceed SCAQMD operations-period thresholds for any pollutant. Therefore, the impact of proposed project</p>	PS	<p><b>Mitigation Measure 3.2-1: Construction Low VOC Coatings</b></p> <p>To reduce VOC emissions during construction activities involving application of coatings, the City shall require that construction contractors use low-VOC coatings that have a VOC content of 10 g/L or less during all phases of construction.</p> <p><b>Mitigation Measure 3.2-2: Construction Equipment Reduction Measures</b></p> <p>To reduce VOC and NO<sub>x</sub> emissions during construction, the City shall require that construction contractors implement the following:</p> <ul style="list-style-type: none"> <li>▶ Ensure that all off-road diesel-powered equipment over 25 horsepower used</li> </ul>	SU

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
<p>construction, but not operations, would be potentially significant.</p>		<p>during construction will be equipped with an EPA Tier 4 Final engine, except for specialized construction equipment in which an EPA Tier 4 Final engine is not commercially available within 50 miles of the project site. The contractor or project proponent shall submit written evidence to the City prior to commencement of construction activities that Tier 4 or cleaner equipment shall be used, or that Tier 4 or cleaner equipment is not commercially available for use during the entire duration of that project’s construction period.</p> <ul style="list-style-type: none"> <li>▶ Use renewable diesel fuel in all heavy-duty off-road diesel-fueled equipment. Renewable diesel must meet the most recent ASTM D975 specification for Ultra Low Sulfur Diesel and have a carbon intensity no greater than 50 percent of diesel with the lowest carbon intensity among petroleum diesel fuels sold in California.</li> <li>▶ Use zero or near-zero emissions equipment in lieu of diesel- or gasoline-powered equipment where such zero or near-zero equipment is commercially available within 50 miles of the project site.</li> <li>▶ Use diesel particulate filters (or the equivalent) if permitted under manufacturer’s guidelines for on-road and off-road diesel equipment.</li> <li>▶ Contractors shall limit all construction equipment, haul truck, and delivery truck idling times by shutting down equipment when not in use and adhering to a maximum idling time of less than 5 consecutive minutes.</li> </ul> <p><b>Mitigation Measure 3.2-3: Clean Construction Truck Fleet</b></p> <p>To reduce VOC and NO<sub>x</sub> emissions during construction, the City shall require trucks used by construction contractors to meet the following requirements. Trucks with a Gross Vehicle Weight Rating (GVWR) of 19,500 pounds or greater, including haul trucks and earth movers, shall be zero-emissions (ZE), or near-zero emission (NZE) on-road haul trucks that meet the CARB’s adopted optional NO<sub>x</sub> emissions standard at 0.02 grams per brake horsepower-hour (g/bhp-hr), if and when feasible. At a minimum, all trucks shall use 2010 model year or newer engines that meet CARB’s 2010 engine emissions standards at 0.01 g/bhp-hr of particulate matter (PM) and 0.20 g/bhp-hr of NO<sub>x</sub> emissions.</p>	

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<p><b>3.2-3: Expose Sensitive Receptors to Substantial Pollutant Concentrations</b></p> <p>Construction-related emissions of TACs associated with proposed project would be spread over the project area, not affecting any one receptor for extended periods of time, and therefore, would not result in exposure of existing receptors to substantial TAC concentrations during construction. The proposed project also would not result in exposure of sensitive receptors to substantial TAC concentration from operational emissions. This impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
<p><b>Impact 3.2-4: Exposure of Sensitive Receptors to Other Emissions (Including Odors)</b></p> <p>The proposed project would introduce new odor sources into the area (e.g., temporary diesel exhaust emissions during construction as well utility plant and delivery trucks associated with project operations). However, these odor sources would be temporary, intermittent, and dissipate rapidly from the source. Further, the project would not locate land uses near any existing odor sources. Operation of the project would not result in odor sources. Thus, this impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
<b>Cultural and Tribal Cultural Resources</b>			
<p><b>Impact 3.3-1: Cause a Substantial Adverse Change in the Significance of Unique Archaeological Resources</b></p> <p>Construction activities for the proposed project, including any grading, grubbing, trenching, excavation, or earth-moving activities in previously undisturbed areas, or any ground disturbance that extends deeper than the mass grading previously completed in 2011 or has potential to encounter native soil, could encounter and/or damage previously undiscovered archaeological resources that qualify as unique archaeological resources under CEQA. This impact would be potentially significant.</p>	PS	<p><b>Mitigation Measure 3.3-1a: Retain a Qualified Archaeologist</b></p> <p>Prior to the issuance of each grading permit and before to the start of any ground-disturbing activity, the project applicant shall retain a qualified professional archaeologist, defined as an archaeologist meeting the Secretary of the Interior’s Professional Qualification Standards for archeology (U.S. Department of Interior 2012) and as approved by the City of Temecula, to provide expertise in carrying out all mitigation measures related to archeological resources (Mitigation Measures 3.3-1a through 3.3-1c).</p> <p><b>Mitigation Measure 3.3-1ba: Develop and Implement a Worker Environmental Awareness Program</b></p> <p>The qualified professional archaeologist, retained by the project applicant, shall prepare a worker environmental awareness program. The program shall be provided to all construction personnel and supervisors who will have the potential to encounter and alter heritage and cultural resources. A copy of the worker environmental awareness program shall be provided to the City Development Services Department before construction activities begin. The topics to be</p>	LTS

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		<p>addressed in the worker environmental awareness program will include, at a minimum:</p> <ul style="list-style-type: none"> <li>▶ types of cultural resources expected on the project site;</li> <li>▶ types of evidence that indicates cultural resources might be present (e.g., ceramic shards, lithic scatters, soil changes);</li> <li>▶ what to do if a worker encounters a possible resource;</li> <li>▶ what to do if a worker encounters bones or possible bones; and</li> <li>▶ penalties for removing or intentionally disturbing heritage and cultural resources, such as those identified in the Archaeological Resources Protection Act.</li> </ul> <p><b>Mitigation Measure 3.3-1c: Implement Procedures to Address Discovery of Subsurface Archaeological Features and Tribal Cultural Resources</b></p> <p>Where proposed project construction includes any grading, grubbing, trenching, excavation, or earth-moving activities in previously undisturbed areas, or any ground disturbance that extends deeper than the mass grading completed in 2011 or has potential to encounter native soil, the qualified archaeologist shall conduct monitoring of these activities. If any prehistoric or historic-period subsurface archaeological features or deposits, including locally darkened soil (“midden”), that could conceal cultural deposits are discovered during construction, all ground-disturbing activity within 100 feet of the resources shall be halted and the qualified professional archaeologist shall assess the significance of the find and determine the appropriate next steps in consultation with the City of Temecula. If the qualified archaeologist determines the archaeological material to be Native American in nature, the City of Temecula shall contact the Pechanga Tribe for their input on the preferred treatment of the find. If the find is determined to be significant by the archaeologist or the tribal representative (i.e., because it is determined to constitute a unique archaeological resource or a Tribal Cultural Resource, as appropriate), the archaeologist and tribal representative, as appropriate, shall develop, and the project applicant shall implement, appropriate procedures to protect the integrity of the resource and ensure that no additional resources are affected. Procedures could include, but would not necessarily be limited to, preservation in place (which shall be the preferred manner of mitigating impacts to archaeological sites), archival research, subsurface testing, or contiguous block unit excavation and data recovery (when it is the only feasible mitigation, and pursuant to a data recovery plan). No work at the discovery location shall resume until all necessary investigation and evaluation of the resource has been satisfied. The landowner shall</p>	

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		<p>relinquish ownership of all cultural resources, including sacred items, burial goods, and all archaeological artifacts that are recovered as a result of proposed project implementation to the Pechanga Tribe for proper treatment and disposition.</p> <p>If, during the course of monitoring the qualified archaeologist can demonstrate, based on observations of subsurface conditions that the level of monitoring should be reduced, increased, or discontinued, the qualified archaeologist, in consultation with the project applicant and the City of Temecula, may adjust the level of monitoring, as warranted.</p>	
<p><b>Impact 3.3-2: Cause a Substantial Adverse Change in the Significance of a Tribal Cultural Resource</b></p> <p>Prior development at the project site and surrounding area have resulted in the discovery of artifacts. Additionally, tribal consultation resulted in the identification that the project site is within a Traditional Cultural Property and therefore likely contains additional tribal cultural resources. Therefore, excavation activities associated with proposed project construction may disturb or destroy previously undiscovered significant subsurface tribal cultural resources. This impact would be potentially significant.</p>	<p>PS</p>	<p>Implement Mitigation Measure 3.3-1a: Retain a Qualified Archaeologist</p> <p>Implement Mitigation Measure 3.3-1b: Develop and Implement a Worker Environmental Awareness Program</p> <p>Implement Mitigation Measure 3.3-1c: Implement Procedures to Address Discovery of Subsurface Archaeological Features and Tribal Cultural Resources</p> <p><b>Mitigation Measure 3.3-2a: Retain a Native American Monitor</b></p> <p>At the time a development application is submitted to the City for future individual building/projects associated with the Temecula Valley Hospital Master Plan, as revised by the proposed project, the City shall route each development application to the Pechanga Band of Luiseño Indians for review and to request the inclusion of any conditions of approval related to the avoidance of substantial adverse changes to the significance of Tribal Cultural Resources.</p> <p>Prior to the issuance of each grading permit and before the start of any ground-disturbing activity, the project applicant shall retain and compensate for the services of a Tribal monitor/consultant who is approved by the Pechanga Band. The project applicant shall contact the Tribal representatives a minimum of seven days before beginning earthwork or other ground disturbing activities in previously undisturbed areas, or any ground disturbance that extends deeper than the mass grading previously completed in 2011 or has potential to encounter native soil; construction activities will proceed if no response is received 48 hours before ground disturbing activities. The Tribal monitor shall only be present onsite during the construction phases that involve ground disturbing activities in previously undisturbed areas, including but not limited to tree removals, boring, excavation, drilling, and trenching, within the project site, or any ground disturbance that extends deeper than the mass grading previously completed in 2011 or has potential to encounter native soil. Monitoring is not required for any ground-</p>	<p>LTS</p>

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		<p>disturbing activities that do not meet these criteria. The Tribal monitor shall complete daily monitoring logs that describe each day's activities, including construction activities, locations, soil, and any cultural materials identified. The onsite monitoring shall end when the site grading and excavation activities are completed, or when the Tribal representatives and monitor have indicated that the site has a low potential for impacting Tribal Cultural Resources.</p> <p><b>Mitigation Measure 3.3-2b: Cultural Resources Treatment Agreement.</b></p> <p>The developer is required to enter into a Cultural Resources Treatment Agreement with the Pechanga Tribe. The agreement shall be in place prior to issuance of a grading permit. To accomplish this, the applicant should contact the Pechanga Tribe no less than 30 days and no more than 60 days prior to issuance of a grading permit. This Agreement will address the treatment and disposition of cultural resources, the designation, responsibilities, and participation of professional Pechanga Tribal monitors during grading, excavation and ground disturbing activities; project grading and development scheduling; terms of compensation for the monitors; and treatment and final disposition of any cultural resources, sacred sites, and human remains discovered onsite. The Pechanga monitor's authority to stop and redirect grading will be exercised in consultation with the project archaeologist in order to evaluate the significance of any potential resources discovered on the property. Pechanga and archaeological monitors shall be allowed to monitor all grading, excavation and groundbreaking activities, and shall also have the limited authority to stop and redirect grading activities should an inadvertent cultural resource be identified.</p>	
<p><b>Impact 3.3-3: Disturb Human Remains</b></p> <p>Based on documentary research, no evidence suggests that any prehistoric or historic-period marked or un-marked human interments are present within or in the immediate vicinity of the project site. The project site was also mass graded in 2011 as part of construction of Phase I of the approved master plan. However, ground-disturbing construction activities could uncover previously unknown human remains. Compliance with California Health and Safety Code Section 7050.5 and California Public Resources Code Section 5097 would avoid disturbance to human remains. This impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS

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<b>Energy</b>			
<p><b>Impact 3.4-1: Wasteful, Inefficient, or Unnecessary Consumption of Energy, During Project Construction or Operation</b></p> <p>Implementation of the project would increase fuel (gasoline and diesel) and electricity consumption. Construction-related energy consumption would be temporary and would not require additional capacity or increased peak or base period demands for electricity or other forms of energy. Operational energy consumption would become more efficient due to the effects of State laws and regulations on the proposed project’s uses of energy. Thus, energy consumption associated with construction and operation of the proposed project would not result in wasteful, inefficient, or unnecessary consumption of energy. This impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
<p><b>Impact 3.4-2: Conflict with or Obstruct a State or Local Plan for Renewable Energy or Energy Efficiency</b></p> <p>On-site renewable energy generation from the implementation of project, would result in an increase in renewable energy use, which would directly support the goals and strategies in the state’s Energy Efficiency Action Plan and the City of Temecula General Plan. Construction and operation of proposed project buildings in compliance with the California Energy Code would implement State plans for energy efficiency. Therefore, construction and operation of the project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. This impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
<b>Geology and Soils</b>			
<p><b>Impact 3.5-1: Directly or Indirectly Cause Potential Substantial Adverse Effects, including the Risk of Loss, Injury, or Death Involving Seismic Ground Shaking or Seismic-Related Ground Failure</b></p> <p>The project site is located in a seismically active region that includes several active earthquake faults of local and regional significance, and there are several active faults nearby, with the closest fault being the Wildomar Fault of the Elsinore Fault Zone located approximately 0.4-mile to the west-southwest. However, all future structures that would be developed as part of the proposed project would be required to comply with all state and local standards to ensure that all new buildings would be capable of withstanding anticipated levels of ground shaking.</p>	LTS	No mitigation is required for this impact.	LTS

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<p>Additionally, there are no aspects of the proposed project that would have the potential to create new seismic events or exacerbate existing seismic hazards during construction or operation. Therefore, potential impact related to ground shaking and seismic-related ground failure would be less than significant.</p>			
<p><b>Impact 3.5-2: Result in Substantial Soil Erosion and Loss of Topsoil</b>                      Ground disturbance from the proposed remedial grading activities and other construction activities could loosen on-site soils and increase the potential for soil erosion. However, development of the future phases of the proposed project would be required to comply with the requirements of the NPDES General Construction Permit issued by the San Diego RWQCB and CBC, which require the implementation of erosion and sediment control BMPs during construction. This impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
<p><b>Impact 3.5-3: Be Located on Unstable Geologic Units or Soils, Resulting in On-Site or Off-Site Lateral Spreading, Subsidence, Liquefaction, or Collapse</b>                      Although conditions related to liquefaction and lateral spreading are present at the project site, future structures that would be developed as part of the proposed project would be required to comply with the current requirements of the CBC. Additionally, the ancillary facilities associated with the proposed project (e.g., parking lots, lighting, etc.) would be required to comply with Chapter 15.04 and Chapter 18.06 of the City’s Municipal Code. Compliance with these state and local requirements would ensure that conditions related to liquefaction and lateral spreading are addressed during project design through the incorporation of recommendations provided in the geotechnical evaluations. Therefore, this impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
<p><b>Impact 3.5-4: Directly or Indirectly Destroy a Unique Paleontological Resource or Site or Unique Geologic Feature</b>                      Construction activities for the proposed project, including any ground disturbance that extends deeper than the mass grading previously completed in 2011 or greater than 10 feet below the ground surface, whichever is less, or ground disturbance within any previously ungraded areas, could encounter and/or damage previously undiscovered paleontological resources. This impact would be potentially significant.</p>	PS	<p><b>Mitigation Measure 3.5-4: Paleontological Resources Monitoring and Protection</b>                      The project applicant shall retain a qualified paleontologist to conduct an on-site training that will alert all construction personnel and supervisors involved in equipment training about the possibility of encountering fossils. The qualified paleontologist shall describe the appearance and types of fossils likely that could be seen during construction. Construction personnel shall be trained about the proper notification procedures should fossils be encountered.                       The qualified paleontologist shall also monitor all ground disturbing activities that extend deeper than the mass grading previously completed in 2011 or greater than 10 feet below the ground surface, whichever is less, or ground disturbance within</p>	LTS

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		<p>any previously ungraded areas.</p> <p>If paleontological resources are discovered during earthmoving activities, the qualified paleontologist shall immediately halt operations within 100 feet of the find and notify the City of Temecula. The qualified paleontologist shall identify and salvage fossils so that construction delays can be minimized. If large specimens are discovered, the qualified paleontologist shall have the authority to halt or divert grading and construction equipment while the finds are removed. The qualified paleontologist shall be responsible for implementing all tasks summarized below.</p> <ul style="list-style-type: none"> <li>▶ In the event of discovery, salvage of unearthed fossil remains, typically involving simple excavation of the exposed specimen but possibly also plaster-jacketing of large and/or fragile specimens, or more elaborate quarry excavations of richly fossiliferous deposits.</li> <li>▶ Recovery of stratigraphic and geologic data to provide a context for the recovered fossil remains, typically including description of lithologies of fossil-bearing strata, measurement and description of the overall stratigraphic section, and photographic documentation of the geologic setting.</li> <li>▶ Laboratory preparation (cleaning and repair) of collected fossil remains to a point of curation, generally involving removal of enclosing rock material, stabilization of fragile specimens (using glues and other hardeners), and repair of broken specimens.</li> <li>▶ Cataloging and identification of prepared fossil remains, typically involving scientific identification of specimens, inventory of specimens, assignment of catalog numbers, and entry of data into an inventory database.</li> <li>▶ Preparation of a final report summarizing the field and laboratory methods used, the stratigraphic units inspected, the types of fossils recovered, and the significance of the curated collection.</li> </ul>	

**Greenhouse Gas Emissions and Climate Change**

<p><b>Impact 3.6-1: Generate Greenhouse Gas Emissions, Either Directly or Indirectly, That May Have a Significant Impact on the Environment or Conflict with State GHG Reduction Goals</b></p> <p>The proposed project would generate annual GHG emissions levels from activities and sources that would conflict with the statewide plans and goals for reducing GHG emissions, including the fuels used to meet hospital energy demand, the</p>	<p>PS</p>	<p><b>Mitigation Measure 3.6-1: Mitigation Measures for Reducing GHG Emissions from Construction Activities</b></p> <p>The applicant (or its contractors) shall implement the following diesel emission-reduction measures during project construction:</p> <ul style="list-style-type: none"> <li>▶ All equipment and delivery truck idling times will be limited by shutting down equipment when not in use and reducing the maximum idling time to less</li> </ul>	<p>SU</p>
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<p>rate of VMT per employee, and the level of solid waste generation. Because proposed project annual emissions levels would be inconsistent with statewide GHG reduction goals, the would result in a significant impact on the environment. This impact would be potentially significant.</p>		<p>than 3 minutes. Clear signage will be installed at all delivery driveways and loading areas regarding the limitation on idling time.</p> <ul style="list-style-type: none"> <li>▶ All construction equipment will be maintained and properly tuned in accordance with manufacturers’ specifications. Prior to the commencement of construction activities using diesel-powered vehicles or equipment, the County’s construction contractors will verify that all vehicles and equipment have been checked by a certified mechanic and determined to be running in proper condition prior to admittance into the project site. A report by the certified mechanic of the condition of the construction and operations vehicles and equipment will be submitted to the County prior to their use.</li> <li>▶ Alternative-fuel (e.g., biodiesel, electric) construction vehicles/equipment (comprising at least 15 percent of the fleet) with lower tailpipe GHG emissions than gasoline or diesel equivalents will be used when commercially available.</li> <li>▶ Renewable diesel fuel will be used for all diesel-powered heavy construction equipment and on-road vehicles to the extent that it is commercially available from a local supplier in the Southern California region.</li> <li>▶ Local building materials (at least 10 percent) and recycled products, including cement and concrete made with recycled products, will be used, to the extent feasible. A construction waste management plan will be implemented to divert landfilled waste by requiring the recycling of a minimum of 65 percent of all non-hazardous construction waste.</li> </ul> <p><b>Mitigation Measure 3.6-2: Mitigation Measures for Reducing GHG Emissions from Operational Activities</b></p> <p>The applicant shall implement the following GHG reduction measures for all new development under the master plan:</p> <ul style="list-style-type: none"> <li>▶ The applicant (or its contractors) will implement the following water conservation measures, which are in addition to those required by codes and ordinances:                             <ul style="list-style-type: none"> <li>▪ Install public bathroom faucet aerators (non-residential &amp; residential over 6 stories) with a flow rate of 0.4 gallons per minute (gpm),</li> <li>▪ Install cooling tower conductivity controllers or cooling tower pH conductivity controllers,</li> <li>▪ Install rotating sprinkler nozzles for landscape irrigation 0.5 to 1.0 gpm,</li> <li>▪ Install drip/subsurface irrigation (i.e., micro-irrigation),</li> </ul> </li> </ul>	

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		<ul style="list-style-type: none"> <li>▪ Implement proper hydro-zoning (i.e., groups plants with similar water requirements together),</li> <li>▪ Install zoned irrigation,</li> <li>▪ Contour landscaping to minimize precipitation runoff,</li> <li>▪ Install drought tolerant plants in 50 percent of total new landscaping,</li> <li>▪ Install water conserving turf in 100 percent of new turf added to landscaping, and</li> <li>▪ Use recycled water for stationary equipment that requires water cooling, to the extent feasible.</li> </ul> <ul style="list-style-type: none"> <li>▶ Prepare a plan demonstrating, based on substantial evidence and to the satisfaction of the City, demonstrating that a minimum 85 percent of organic waste produced by the development would not be disposed of in a landfill. Measures to achieve this standard include, but are not limited to, the following:                             <ul style="list-style-type: none"> <li>▪ Operating a program to reduce the generation of food waste and divert food waste from going to a landfill (e.g., sort out food waste separate from other waste for collection or composting),</li> <li>▪ Operating a program to safely recover edible food and divert it to a local food bank,</li> <li>▪ Operating a program to divert green waste (e.g., plant debris from landscaping) from going to a landfill (e.g., sort out food waste separate from other waste for collection or composting).</li> </ul> </li> <li>▶ Install Energy Star-rated appliances.</li> <li>▶ Dedicate five percent of new parking spaces for plug-in vehicles and equip those spaces with installed electric vehicle charging equipment.</li> <li>▶ Install a high-efficiency lighting system that takes advantage of natural daylighting.</li> <li>▶ Maximize the installation of on-site solar systems, or other systems that provide on-site power from renewable or zero carbon sources.</li> <li>▶ Install, high-performance glazing with a low solar heat gain coefficient value that reduces the amount of solar heat allowed into the building, without compromising natural illumination.</li> <li>▶ Install cool roofs with an R value (i.e., the measurement of the effectiveness of</li> </ul>	

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City of Temecula

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		<p>thermal insulating materials) of 30 or better on proposed new buildings.</p> <ul style="list-style-type: none"> <li>▶ Increase urban tree canopy cover to provide shade to a minimum of 40 percent of the length of internal roadways on the project site.</li> <li>▶ Use electric powered landscaping equipment, rather than fossil-fuel powered landscaping equipment.</li> <li>▶ Use native plants and trees to provide new, water-wise landscaping that blends the facility with the ecology of the surrounding natural environment.</li> </ul> <p>In addition to the above, the applicant shall also implement the following GHG reduction measures for new development under the master plan, except for the proposed hospital uses (i.e., emergency department expansion, new hospital towers):</p> <ul style="list-style-type: none"> <li>▶ Achieve net zero carbon buildings, in which building operational energy consumption is met through on- or off-site renewable or zero carbon energy sources</li> <li>▶ Heating and cooling systems and other appliances and building end uses powered by natural gas will not be installed where electric-powered equivalents capable of meeting the building's operational requirements are commercially available in the project area.</li> </ul> <p><b>Mitigation Measure 3.13-1: Implement a Voluntary Commute Trip Reduction Program (see Section 3.13, Transportation)</b></p> <p><b>Mitigation Measure 3.13-2: Implement No-Cost Transit Pass Program for Employees (see Section 3.13, Transportation)</b></p> <p><b>Mitigation Measure 3.13-3: Provide End-of-Trip Bicycle Facilities (see Section 3.13, Transportation)</b></p>	
<b>Hazards and Hazardous Materials</b>			
<p><b>Impact 3.7-1: Create a Significant Hazard to the Public or the Environment through the Routine Transport, Use, or Disposal of Hazardous Materials</b></p> <p>Project construction and operation would require the routine use of hazardous materials. Federal, State, and local regulations in place provide protection to the public and the environment from hazardous materials. Compliance with these regulations will assure that the proposed project will not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. This impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS

NI = No impact                      LTS = Less than significant                      PS = Potentially significant                      S = Significant                      SU = Significant and unavoidable

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
<p><b>Impact 3.7-2: Create a Significant Hazard to the Public or the Environment through Reasonably Foreseeable Upset and/or Accident Conditions Involving the Release of Hazardous Materials into the Environment</b></p> <p>The proposed project could create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment and result in a potentially significant impact. The project site was reviewed for impact relating to Methyl Tertiary Butyl Ether (MTBE) from nearby gas station underground fuel storage tanks in the 2008 SEIR, and no detectable concentrations of MTBE or Volatile Organic Compounds (VOCs) were found at the project site. However, although unlikely, it is possible that contaminated soil could be at further distances below ground surface. Encountering contaminated soil, surface water, and groundwater without taking proper precautions during ground-disturbing project construction activities could result in the exposure of construction workers and consequently result in associated potentially significant adverse human health and environmental impacts. This impact would be potentially significant.</p>	<p>PS</p>	<p><b>Mitigation Measure 3.7-1: Monitoring and Disposal of Any Contaminated Soils</b></p> <p>Where proposed project construction includes any grading, grubbing, trenching, excavation, or earth-moving activities in previously undisturbed areas, or any ground disturbance that extends deeper than the mass grading completed in 2011 or has potential to encounter native soil, construction personnel shall conduct monitoring of these activities for the potential presence of MTBE or VOCs (e.g., where stained or odiferous soils are encountered). Soils determined to have detectable levels of MTBE or VOCs, if any, shall be segregated, stockpiled on-site in accordance with applicable regulations, and sampled prior to disposal at an appropriate facility, in accordance with the requirements of the respective disposal facility. All contaminated soils shall be disposed of off-site in accordance with applicable local, State, and federal laws regulating the transport and disposal of hazardous and non-hazardous materials. These materials shall be transported to a permitted disposal facility by a licensed waste hauler. Any soils with detectable levels of MTBE- or other VOC-impacted soil shall be removed, handled, and properly disposed of by appropriately licensed and qualified individuals in accordance with applicable regulations.</p> <p>Prior to the issuance of any encroachment permit, the project applicant shall provide documentation (for example, all required waste manifests) to the City of Temecula showing that abatement of any soils with detectable levels of MTBE- or other VOCs- has been completed in full compliance with all applicable regulations and approved by the appropriate regulatory agencies (40 CFR, Subchapter R, TSCA, Parts 790, 792, 797, 798, and 799 and CCR Title 8, Article 2.6).</p>	<p>LTS</p>
<p><b>Impact 3.7-3: Be Located on a Site Which is Included on a List of Hazardous Materials Sites Compiled Pursuant to Government Code Section 65962.5 and, as a Result, would it Create a Significant Hazard to the Public or the Environment</b></p> <p>The project is not located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, thus, would not create a significant hazard to the public or the environment. This impact would be less than significant.</p>	<p>LTS</p>	<p>No mitigation is required for this impact.</p>	<p>LTS</p>

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City of Temecula

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
<p><b>Impact 3.7-4: Impair Implementation of or Physically Interfere with an Adopted Emergency Response Plan or Emergency Evacuation Plan</b></p> <p>The proposed project would not impair the implementation of adopted emergency response or evacuation plans, and it would not physically interfere with evacuation routes as identified in the General Plan. Furthermore, there would be no temporary road closures during construction that would physically interfere with an adopted emergency response or evacuation plan. This impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
<b>Hydrology and Water Quality</b>			
<p><b>Impact 3.8-1: Violate Any Water Quality Standards or Waste Discharge Requirements or Otherwise Substantially Degrade Surface or Ground Water Quality</b></p> <p>The proposed project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. Buildout of the site under the proposed project would contribute to an increase in impervious surfaces. Project modifications and development would be required to comply with the requirements of the NPDES General Construction Permit (2009-0009-DWQ, as amended by 2010-0014-DWQ and 2012-0006-DWQ) from the San Diego RWQCB as applicable and would be required to implement a SWPPP during construction that includes BMPs to reduce pollutants in stormwater runoff from the project site. No grading shall be permitted until an NPDES Notice of Intent has been filed or the project is shown to be exempt. By complying with the NPDES requirements the project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade water quality. This impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
<p><b>Impact 3.8-2: Substantially Decrease Groundwater Supplies or Interfere Substantially with Groundwater Recharge Such that the Project May Impede Sustainable Groundwater Management of the Basin</b></p> <p>The proposed project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the Temecula Valley Groundwater Basin. Natural recharge of the Basin is from direct precipitation and percolation in the Warm Springs, Tocalota, Santa Gertrudis, Murrieta, and Pechanga Creeks and the Temecula River. The project is not anticipated to have a</p>	LTS	No mitigation is required for this impact.	LTS

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
<p>significant effect on the quantity and quality of groundwater, either through direct additions or withdrawals. The proposed project is required to comply with local development standards, including lot coverage and landscaping requirements, which would allow percolation and groundwater recharge. Implementation of the proposed project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. This impact would be less-than-significant impact.</p>			
<p><b>Impact 3.8-3: Substantially Alter the Existing Drainage Pattern of the Site or Area, Including Through the Alteration of the Course of a Stream or River</b></p> <p>The proposed project would not substantially alter the existing drainage pattern of the site or area, including the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site. The project includes an on-site drainage plan, and the proposed modifications would not alter off-site drainage patterns or alter the course of a stream or river, and would not result in substantial erosion or siltation on-or off-site. The project is also required to comply with Best Management Practices (BMP's), Regional Water Quality Control Board (RWQCB) regulations as well as National Pollution Discharge Elimination System (NPDES) standards, which addresses drainage, siltation and erosion. Therefore, the proposed project would not substantially alter the existing drainage pattern of the site or area, including the alteration of the course of a stream or river. This impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
<p><b>Impact 3.8-4: Conflict with or Obstruct Implementation of a Water Quality Control Plan or Sustainable Groundwater Management Plan</b></p> <p>The project site is within the Temecula Valley Groundwater Basin, which is adjudicated and therefore exempt from SGMA. The proposed project is not located in an area subject to a Sustainable Ground Water Management Plan. Furthermore, by complying with the NPDES Construction General Permit (2009-0009-DWQ, as amended by 2010-0014-DWQ and 2012-0006-DWQ) requirements, conflicts with or obstructing of implementation of a water quality control plan would not occur. This impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
<b>Land Use and Planning</b>			
<p><b>Impact 3.9-1: Physically Divide an Established Community</b></p> <p>Implementing the proposed project involves revising the remaining phases of Temecula Valley Hospital development. The existing hospital is an established part of the city, and expansion of the hospital facilities, which would be confined to the hospital project site, would not create any barriers between communities. Therefore, implementation of the proposed project would not physically divide an established community. No impact would occur.</p>	NI	No mitigation is required for this impact.	LTS
<p><b>Impact 3.9-2: Cause a Significant Environmental Impact Due to a Conflict with Any Land Use Plan, Policy, or Regulation Adopted for the Purpose of Avoiding or Mitigating an Environmental Effect</b></p> <p>Land uses under the proposed project would be consistent with the general plan land use designation for the project site. Development associated with revisions to the existing master plan, however, would be inconsistent with the PDO-9 zoning for the project site. For this reason, implementation of the proposed project would require City approval of a PDO amendment for the updated master plan. Because the project is consistent with the general plan land use designation for the project site and the City would approve a PDO amendment for the updated master plan that would address the revisions to the existing master plan, the project would not conflict with any land use plan, policy, or regulation, including a plan adopted for the purpose of avoiding or mitigating an environmental effect; therefore, this impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
<b>Noise</b>			
<p><b>Impact 3.10-1: Exposure of Existing Sensitive Receptors to Short-Term Construction Noise</b></p> <p>Construction of the proposed project would occur in three phases, with construction activities anticipated to begin as early as January 2023. While construction intensity, duration, and equipment location are not precisely known at this time, reference noise levels for typical construction activities associated with land development were used to assess peak construction noise generated by the proposed project. Based on those reference levels, construction noise could reach levels of up to 89.5 dB <math>L_{eq}</math> and 93.5 dB <math>L_{max}</math> at 50 feet. In addition, to assess increases in ambient noise levels, 24-hour CNEL levels were also calculated and</p>	PS	<p><b>Mitigation Measure 3.10-1: Implement construction-noise reduction measures for daytime construction</b></p> <p>To reduce noise from construction activities, the City shall require construction contractors to comply with following measures:</p> <p><b>Equipment Restrictions</b></p> <ul style="list-style-type: none"> <li>▶ Locate all stationary equipment (e.g., generators, welders, dehumidifiers) on the construction site as far away from adjacent residential land uses and other noise-sensitive sites as possible and no less than 50 feet from residential uses.</li> <li>▶ Position onsite stationary equipment such that existing noise sources (e.g., roadways) or structures (e.g., existing buildings) block the line of sight</li> </ul>	SU

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
<p>estimated to be as high as 79 dBA CNEL. Thus, construction activities could result in a substantial temporary and periodic increase in noise during daytime hours at existing and future sensitive land uses. This impact would be potentially significant.</p>		<p>between the onsite equipment and offsite sensitive land uses</p> <ul style="list-style-type: none"> <li>▶ All construction equipment shall be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with manufacturers' recommendations. Equipment engine shrouds shall be closed during equipment operation.</li> <li>▶ All construction equipment with back-up alarms shall be equipped with either audible self-adjusting backup alarms or alarms that only sound when an object is detected. The self-adjusting backup alarms shall automatically adjust to 5 dBA over the surrounding background levels. All non-self-adjusting backup alarms shall be set to the lowest setting required to be audible above the surrounding noise levels. In addition to the use of backup alarms, the construction contractor shall implement the use of observers and scheduling of construction activities such that alarm noise is minimized.</li> </ul> <p><b>Quieter Alternative Methods and Equipment</b></p> <ul style="list-style-type: none"> <li>▶ Each construction contractor shall use noise reducing operations measures, techniques, and equipment. This requirement shall be enforced through its inclusion on all construction bid specifications for all potential construction contractors hired within the project site. The bid specifications shall require that construction contractors provide an equipment inventory list for all equipment within the fleet with greater than 50 horsepower engines, that includes (at a minimum), make, model, and horsepower of equipment; operating noise levels at 50 feet, available noise control device that are installed on each piece of equipment; and associated noise reduction from the installed technology. Control devices shall include, but are not limited to, high-efficiency mufflers, acoustic dampening and protected internal noise absorption layers to vibrating panels, enclosures, and electric motors. In addition, the contractor shall specify how proposed alternative construction procedures will be employed to reduce noise at sensitive receptors compared to other more traditional methods. Examples include, but are not limited to, welding instead of riveting, mixing concrete off-site instead of on-site, and the use of thermal lance instead of drive motors and bits. In all cases, the requirement is that the best commercially available noise-reducing technology and noise-reducing alternative construction method shall be used, provided that there are no safety concerns, engineering limits, or environmental constraints preventing it from being used. If a unique circumstance does exist</li> </ul>	

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		<p>that prevents an alternative quieter construction method to be used, the contractor shall provide evidence to support their proposal. The noise reduction elements of construction bid submittals shall be approved by the City of Temecula, in coordination with a qualified acoustical professional.</p> <ul style="list-style-type: none"> <li>▶ Combine noisy operations (e.g., riveting, cutting, hammering) to occur in the same time period (e.g., day or construction phase), such that the overall duration of these activities is reduced to the extent practical. By performing the noisiest operations together within the same time period, the overall duration that excessive noise would occur is reduced, minimizing the disturbing effects of exposure to prolonged increased noise levels. Where construction activities at any one location on the project site occur for an extended duration of more than 30 days affecting the same offsite receptor, install temporary noise curtains that meet the following parameters:                     <ul style="list-style-type: none"> <li>▪ Install temporary noise curtains as close as possible to the boundary of the construction site within the direct line of sight path of the nearby sensitive receptor(s).</li> <li>▪ Temporary noise curtains shall consist of durable, flexible composite material featuring a noise barrier layer bounded to sound-absorptive material on one side. The noise barrier layer shall consist of rugged, impervious, material with a surface weight of at least one pound per square foot.</li> </ul> </li> </ul>	
<p><b>Impact 3.10-2: Exposure of Sensitive Receivers to Construction Vibration</b>                      Operation of construction equipment, possibly including a vibratory roller, would generate vibration during project construction. However, the resultant vibration level would not have the potential to cause structural damage to nearby structures or human annoyance at nearby residences. This impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
<p><b>Impact 3.10-3: Exposure of Existing Sensitive Receptors to Operational Helicopter Noise</b>                      The project proposes to relocate the existing helipad from its existing at-grade location onto the top of a proposed four story parking lot structure during Phase III. Additionally, a new flight path alignment is included in the proposed project as shown on Figure 3.10-2. The frequency or time of helicopter arrivals and departures on the project site would not change as a result of the proposed</p>	PS	No feasible mitigation measures for this impact.	SU

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<p>project. To evaluate changes in noise levels associated with the proposed change in helipad location and flight path alignment, noise measurements of helicopter test flights at the existing helipad and flight path alignment were conducted and compared to noise modeling of the proposed project. The modeling shows that project-generated helicopter noise levels would not exceed applicable City exterior noise standards for residential uses of 65 dBA CNEL and no helicopter activity would push existing noise levels to above the City's standards of 65 dB CNEL at low to medium residential areas and 70 dB CNEL at multi-family housing areas. In addition, project-generated helicopter noise increases would be below the FICON-recommended 5.0 dB threshold for ambient noise of less than 60 dBA CNEL, 3.0 dB threshold for ambient noise of 60–65 dBA CNEL, and the 1.5 dB threshold for ambient noise greater than 65 dBA CNEL. Finally, residential development or other sensitive receptors would not be exposed to operation noise level increases exceeding the FAA adopted threshold of 65 dB CNEL. However, helicopter overflights that could occur during the nighttime hours, could result in exceedances of the FICAN 65 dBA SEL standard at sensitive receptors along the proposed flight path alignment, which could result in sleep disturbance. Because the change in the helicopter flight path alignment could expose sensitive receptors to noise levels with potential to cause sleep disturbance, this impact would be potentially significant.</p>			
<p><b>Impact 3.10-4: Exposure of Sensitive Receivers to Operational Parking Structure Activity</b></p> <p>The project would construction one four-story parking structure and six additional surface parking lots, ranging in capacity. Parking lot noise was modeled for a peak hour and assumed to occur for 24-hours per day. Based on modeling conducted, maximum exterior levels of 65 dBA CNEL were not exceeded and increases in noise would not be considered substantial, using FICON increase noise standards. Noise associated with other surface lots would be lower than modeled noise levels due to the smaller size of these lots. In all cases, parking lot noise would not result in substantial permanent increases in noise above ambient levels or that exceed the allowable levels of 65 dBA CNEL for residential uses. This impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS

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<p><b>Impact 3.10-5: Generate Substantial Increase in Long-Term Traffic Noise Levels</b></p> <p>Existing and future vehicle traffic noise levels on roadways in the project area exceed standards for maximum allowable noise levels without accounting for vehicle traffic from the proposed project. While the operation of the buildings and facilities developed as part of the proposed project would increase vehicle traffic volumes on project area roadways, the increases in traffic noise levels attributable to the proposed project would not be substantial or even perceptible. This impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
<p><b>Impact 3.10-6: Generate Substantial Long-term Stationary Noise Level Increases</b></p> <p>The proposed project includes a central utility plant, which would include new stationary sources (i.e., boilers, air chillers, cooling towers). Based on the modeling conducted, 24-hour CNEL noise levels at all nearby receptors would exceed applicable City exterior noise standards (i.e., 65 dBA CNEL for single-family homes, 70 dBA CNEL for multi-family homes), and would result in substantial increases (i.e., more than 5 dBA increase where existing noise levels are less than 60 dBA and a more than 3 dBA increase where existing noise levels are between 60 and 65 dBA) in noise. In addition, new HVAC units would be installed on the roofs of new project buildings. However, HVAC units are typical noise sources in urban areas and already exist in the project area. Further, existing noise sources (i.e., Temecula Parkway) would continue to dominate the ambient noise environment as HVAC units are intermittent noise sources that would not result in a substantial increase in noise. Nonetheless, the proposed central utility plant would result in a substantial increase in noise and in noise levels that exceed applicable City exterior noise standards. This impact would be potentially significant.</p>	PS	<p><b>Mitigation Measure 3.10-2: Reduce Operational Noise from the Central Utility Plant</b></p> <p>Prior to approval of final plans for the proposed central utility plant, the applicant shall hire a qualified acoustical specialist to prepare a noise minimization plan for the central utility plant. This plan shall identify design strategies and noise attenuation features that the project will implement to ensure that operation of the central utility plant does not result in exterior noise levels that exceed the following standards:</p> <ul style="list-style-type: none"> <li>▶ 65 dBA CNEL for low-density residential, (single-family residences along De Portola Road);</li> <li>▶ 70 dBA CNEL for medium-density residential (residential uses along Margarita Road);</li> <li>▶ an increase of 5 dB or higher where existing levels are less than 60 dBA CNEL;</li> <li>▶ an increase of 3 dBA or higher where existing levels are between 60 and 65 dBA CNEL; or</li> <li>▶ an increase of 1.5 dB or higher where existing levels are higher than 65 dBA CNEL.</li> </ul> <p>The noise minimization plan shall include noise measurements characterizing existing noise levels at the time preparing of the plan is commenced, and/or modeling of noise levels generated by the central utility plant, as-needed, to demonstrate compliance with the above standards. This plan also shall demonstrate how one or more of the following measures (or other measures demonstrated to be equally effective) shall be implemented to achieve the required standards.</p> <ul style="list-style-type: none"> <li>▶ Design the central utility plant such that the structure itself is between the onsite noise sources (e.g., chillers, cooling towers) and the offsite receptors, serving as a noise barrier protecting off-site receptors from noise generated by on-site operational equipment. If the structure can completely block the line-of-sight from the source to the receiver, noise levels could potentially be inaudible at offsite locations.</li> </ul>	LTS

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		<ul style="list-style-type: none"> <li>▶ Enclose the area and individual sources where operational equipment would operate with noise barriers / walls, such that the noise barrier completely blocks the line-of-sight between the source and offsite receptors. Generally, a barrier that breaks the line of sight between a source and a receiver will result in at least 5 dB but can readily achieve a 10 dB reduction and taller barriers provide increased noise reduction.</li> <li>▶ Install equipment with pre-installed acoustical reduction technology (e.g., louvers, baffles) to reduce individual equipment noise to the extent technologically feasible.</li> <li>▶ Prior to final building inspection and operation of the new central utility plant, a noise test shall be conducted by a qualified acoustical professional, to demonstrate compliance with the City of Temecula’s residential noise standards (i.e., 65 dBA CNEL for low density residential and 70 dBA CNEL for medium and high density residential) at all nearby and affected residential land uses. If noise standards are not met, the City shall not grant rights to operate the facility until it can be demonstrated that noise standards would be in compliance.</li> </ul> <p>Measures identified in the noise minimization plan shall be incorporated into the project design as-needed to achieve the noise standards set forth in this measure. Prior to approval of future development plans implementing the proposed project, the City’s Community Development Director is responsible for verifying that the noise minimization plan has been prepared in compliance with this measure and measures needed to achieve compliance with the noise standards set forth in this measure are included in the site plan.</p>	
<b>Population and Housing</b>			
<p><b>Impact 3.11-1: Directly or Indirectly Induce Substantial Unplanned Population Growth</b></p> <p>The proposed project would increase the number of jobs on the project site relative to the existing operating hospital, which could increase demand for housing in the project area and the surrounding region. However, job growth from the adopted master plan is accounted for in the most recent population, housing, and employment projections for the city and surrounding areas, and in regional and local plans to accommodate such growth, including the City of Temecula General Plan and the SCAG Connect SoCal plan. In addition, existing infrastructure systems are adequate to serve the proposed project, and it would</p>	LTS	No mitigation is required for this impact.	LTS

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<p>not include any expansions or upgrades to existing infrastructure systems with excess capacities that could support new development beyond currently planned levels. For these reasons, the proposed project would not directly or indirectly induce population growth beyond the levels accounted for in local and regional growth projections. This impact would be less than significant.</p>			
<b>Public Services</b>			
<p><b>Impact 3.12-1: Result in Adverse Physical Impacts from New or Physically Altered Fire Protection or Law Enforcement Facilities</b></p> <p>The proposed project would nominally increase the amount of development and number of employees present within the city, which could in turn nominally increase the number and type of service calls and other incidents requiring responses from law enforcement or fire protection. It would not increase the residential population of the city, and would be located within the existing service areas of the City's existing law enforcement and fire protection stations. The proposed project's demand for additional services from TPD and TFD, such as additional personnel or equipment, would be met through the mandatory payment of public facilities development impact fees. The proposed project would not increase demand for law enforcement or fire protection facilities such a new or expanded fire station or police station would need to be constructed to maintain adequate service levels in the city. This impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
<b>Transportation</b>			
<p><b>Impact 3.13-1: Conflict with a Program, Plan, Ordinance or Policy Addressing the Circulation System, Including Transit, Roadway, Bicycle and Pedestrian Facilities</b></p> <p>The proposed project would not alter or conflict with any existing or planned bicycle, pedestrian, or transit facilities. Additionally, there are no existing, planned, or programmed bicycle, pedestrian, or transit facilities located in the immediate vicinity of the proposed project site. The project would include internal pathways and circulation for pedestrians navigating the proposed project site. Additionally, the proposed project would construct transit stop improvements on Temecula Parkway where Bus Route 24 currently stops. For these reasons, the proposed project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, and the impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS

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<p><b>Impact 3.13-2: Conflict or be Inconsistent with CEQA Guidelines Section 15064.3(b)</b></p> <p>The proposed project would result in a higher rate of vehicle miles traveled (VMT) than the threshold amount of VMT set forth in the City’s Traffic Impact Analysis Guidelines; the proposed project’s VMT rate of 38.4 miles per employee (i.e., service population) would be approximately 31 percent higher than the threshold VMT amount of 29.4 miles per employee. This impact would be potentially significant.</p>	<p>PS</p>	<p><b>Mitigation 3.13-1: Implement a Voluntary Commute Trip Reduction Program</b></p> <p>Prior to the issuance of building permits, the project applicant shall develop a voluntary commute trip reduction program for employees (program), subject to approval by the City’s Director of Public Works. Commute trip reduction programs discourage single-occupancy vehicle trips and encourage alternative modes of transportation such as carpooling, taking transit, walking, and biking, thereby reducing VMT and greenhouse gas emissions. This program shall provide substantial evidence demonstrating a minimum 4 percent reduction in the proposed project’s rate of VMT (i.e., VMT per service population), as compared to the proposed VMT rate evaluated in the SEIR. The program shall evaluate how the minimum VMT reduction standard will be achieved through implementation of the following measures, or equally effective measures: employer-provided services, infrastructure, and incentives for alternative modes such as ridesharing, discounted transit, bicycling, vanpool, and guaranteed ride home and information, coordination, and marketing for said services, infrastructure, and incentives.</p> <p><b>Mitigation 3.13-2: Implement No-Cost Transit Pass Program for Employees</b></p> <p>Prior to the approval of future development applications, the project applicant shall develop a program to provide transit passes at no-cost to employees on an ongoing basis. The transit passes shall be made available at no-cost to all employees of the project during its operational phase. Reducing the out-of-pocket cost for transit improves the competitiveness of transit versus single-occupancy vehicles; thus, increasing the total number of transit trips and decreasing vehicle trips. This decrease in vehicle trips results in reduced VMT and lower GHG emissions (CAPCOA 2021: 95). Given that 100 percent of employees would be eligible for such a program, the VMT reduction depends on the percentage of subsidy provided by the employer (LLG 2022). The transit pass program for all employees would provide a VMT reduction of up to 0.24 percent for the proposed project.</p> <p><b>Mitigation 3.13-3: Provide End-of-Trip Bicycle Facilities</b></p> <p>In addition to the bicycle parking required by the City of Temecula Municipal Code, the project shall provide end-of-trip bicycle facilities, including installation and maintenance, for employee use. End-of-trip facilities include bike parking, bike lockers, showers, personal lockers, onsite bicycle repair station, signage on or near secure parking and personal lockers with information about how to reserve or obtain access to these amenities. The location and type of these facilities shall be</p>	<p>SU</p>

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SU = Significant and unavoidable

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		identified in future development applications prior to their approval by the City. The provision and maintenance of secure bike parking and related facilities encourage commuting by bicycle, thereby reducing VMT and GHG emissions. End-of-trip facilities should be installed at a size proportional to the number of commuting bicyclists and regularly maintained. Providing end-of-trip bicycle facilities would provide a VMT reduction of up to 0.3 percent for the proposed project.	
<p><b>Impact 3.13-3: Substantially Increase Hazards Because of a Geometric Design Feature or Incompatible Uses</b></p> <p>The proposed project would be required to comply with City safety standards during construction activities. Additionally, the proposed project is subject to review by City staff to ensure appropriate traffic handling during construction, and that design standards are met to minimize any potential hazards related to the transportation circulation network. Proposed project construction activities and permanent improvements would occur within the existing boundaries of the project site. For these reasons, the proposed project would not substantially increase hazards due to a design feature or incompatible uses, and the impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
<p><b>Impact 3.13-4: Result in Inadequate Emergency Access</b></p> <p>The proposed project would be required to meet the City's design standards and comply with the California Fire Code which include width requirements to allow for emergency vehicles to access and navigate the surrounding transportation network. The project is subject to City staff and applicable emergency service agency review to ensure all relevant standards are met during construction and operation. Additionally, provisions set forth in the California Fire Code, as adopted by the City, must be followed which include allowing for continuous emergency access during construction and requiring that particular design standards are followed to guarantee the project would remain in compliance in case of an event where emergency personnel would need to respond. For these reasons, the project would not result in inadequate emergency access, and the impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
<b>Utilities and Service Systems</b>			
<p><b>Impact 3.14-1: Water Supply Availability</b></p> <p>Implementation of the proposed project would result in a net increase in water demand at the project site. However, Rancho California Water District has available water supplies to accommodate the increased demand without the need for new or expanded entitlements. This impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
<p><b>Impact 3.14-2: Require or Result in the Need for New Utility Infrastructure, Including Additional Wastewater Treatment Capacity</b></p> <p>The proposed project would not require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. This impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
<p><b>Impact 3.14-3: Impacts to Solid Waste Facilities and Compliance with Regulations Related to Solid Waste</b></p> <p>Implementation of the proposed project generate additional solid waste that would be hauled via private permitted contractor to a permitted landfill for disposal. There is substantial remaining capacity in the landfills serving local solid waste haulers. Therefore, because the project would not generate solid waste in excess of State or local standards or in excess of the capacity of the local infrastructure, negatively impact the provisions of solid waste services, or impact the attainment of solid waste reduction goals, this impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS

NI = No impact

LTS = Less than significant

PS = Potentially significant

S = Significant

SU = Significant and unavoidable

City of Temecula

# 1 INTRODUCTION

This chapter provides an introduction and describes the background of the proposed Temecula Valley Hospital Master Plan Update and Planned Development Overlay Amendment (proposed project), previous environmental reviews for the Temecula Valley Hospital, the purpose and legal authority for this Draft Subsequent Environmental Impact Report (Draft SEIR), and the California Environmental Quality Act (CEQA) process that will be followed for the proposed project.

## 1.1 PROJECT BACKGROUND

An EIR was prepared for the Temecula Valley Hospital project and was certified by the City of Temecula (City) in January 2006. In February 2006, a legal challenge to the hospital project was filed on the grounds that the EIR was inadequate, which resulted in a ruling that found that the EIR did not adequately address several areas, and that the City failed to make valid findings that the City had adopted all feasible mitigation measures before adopting a Statement of Overriding Considerations. In response, the City prepared an SEIR pursuant to the court's direction that was certified in 2008. In 2011, the project applicant, United Health Services, Inc. (UHS) filed a planning application to change the phasing of the project to reduce the number of beds from 170 to 140 in Phase I, modify the building facades, relocate the truck loading bays and service yards, and relocate mechanical equipment. An Addendum to the 2008 Final SEIR was prepared and adopted by the City in February 2011. Additionally, in July 2012, a conservation easement was approved to satisfy the off-site mitigation requirements for impacts caused by development of the hospital. Phase I of the hospital began operations on Monday, October 14, 2013.

In February 2016, the City certified a Supplemental SEIR for a Major Modification to relocate the previously City-approved helistop to two new locations, an interim location for use during preliminary project phases and a permanent location on the roof of a future hospital tower constructed during a later phase, and to develop the location of the previously City-approved helistop location with a single-story, 5,000-square-foot storage building.

## 1.2 ENVIRONMENTAL REVIEW

The following provides a history and timeline of the environmental documentation that has been prepared for the Temecula Valley Hospital.

### 1.2.1 January 2006 Environmental Impact Report

UHS filed planning applications in 2004 and 2005 for a General Plan Amendment (PA04-0462); Conditional Use Permit (CUP) and Development Plan (PA04-0463); a Tentative Parcel Map (PA04-0571); and a Zone Change to PDO-9 (Planned Development Overlay-9) (PA05-0302) to develop and operate the regional hospital facility. This included the following:

- ▶ A General Plan Amendment to remove the Z2 overlay from the General Plan Land Use Map, which limited the height of buildings along Temecula Parkway to 2 stories, and the Professional Office General Plan land use designation from the site.
- ▶ A Zone Change from Professional Office and De Portola Road Planned Development Overlay (PDO-8) to Temecula Hospital Planned Development Overlay (PDO-9). PDO-9 allows a maximum building height of 115 feet for 30 percent of the roof area of the hospital.
- ▶ A CUP to construct a 320-bed hospital facility and helistop (City zoning regulations require CUPs for such uses).
- ▶ A Development Plan application for the construction of a 408,160-square-foot hospital, a helistop, two medical offices totaling approximately 140,000 square feet, a 10,000-square-foot cancer center, and an 8,000-square-foot fitness rehabilitation center. Total building area would involve approximately 566,160 square feet on the 35.31-acre site.

- ▶ A Tentative Parcel Map (Map 32468) to consolidate eight lots into a single parcel.

The City circulated an Initial Study from March 8, 2005 to April 6, 2005 (State Clearinghouse #2005031017) with the intent of preparing a Mitigated Negative Declaration (MND). At the Planning Commission hearing held on April 20, 2005, the City received public input and testimony and determined that a Focused EIR should be prepared for the project to analyze potential aesthetics, air quality, hydrology and groundwater, land use and planning, noise, and transportation impacts. The City prepared a Draft EIR that was circulated for public review from September 28, 2005 to October 28, 2005. The Final EIR was prepared and City Planning Commission hearings were held on November 16, 2005, and January 5, 2006, and the City Council adopted a resolution certifying the EIR on January 24, 2006. The Final EIR identified significant and unavoidable impacts related to short-term, long-term, and cumulative air quality; noise from emergency helicopter flights; and cumulative traffic and circulation impacts. It concluded that potentially significant impacts related to the following would be less than significant with implementation of mitigation measures: aesthetics (light and glare); operational noise impacts; project transportation impacts. All other impacts were found to be less than significant or result in no impact.

On February 24, 2006, a legal challenge to the project on the grounds that the EIR was inadequate in several respects was filed by two separate groups (California Nurses Association and Citizens Against Noise and Traffic) and resulted in a court ruling that rejected many of the challenges, but found that the EIR did not adequately address the following areas:

- ▶ Construction noise impacts;
- ▶ Siren noise impacts;
- ▶ Mitigation measures for traffic impacts; and
- ▶ Potential impacts from underground methyl tertiary butyl ether (MTBE) plumes generated by three gas stations in the vicinity that might have the potential to migrate under the site, contaminate the soil on the site, and generate unhealthful gas vapors.

## 1.2.2 January 2008 Supplemental Environmental Impact Report

On May 3, 2007, the Riverside County Superior Court issued a Judgment and Peremptory Writ of Mandate and directed the City to vacate the project approvals and not to reconsider the project unless it first circulated, reviewed, and considered a Supplemental EIR that addressed noise impacts, traffic mitigation, and the potential impact of MTBE plumes, as previously described. Other environmental impacts addressed in the prior EIR were considered to be adequate under CEQA and were not revisited in the Supplemental EIR.

New planning applications for the project were submitted [PA07-0198 (General Plan Amendment), PA07-0199 (Zone Change), PA07-0200 (Development Plan), PA07-0201 (Tentative Parcel Map), and PA07-0202 (Conditional Use Permit)], and on July 12, 2007, a scoping session was held in accordance with the Riverside County Superior Court direction. The Supplemental EIR was circulated for public review from November 5, 2007 to December 5, 2007, and on January 9, 2008, the Planning Commission considered the new planning applications and recommended that the City Council certify the Supplemental EIR. The Supplemental EIR identified significant and unavoidable impacts related to noise from emergency vehicle sirens; noise generated during construction; and direct project-related and cumulative traffic impacts. It concluded that impacts related to MTBE plumes would be less than significant.

On January 22, 2008, the City Council rescinded and invalidated its previous approvals of PA04-0462 (General Plan Amendment), PA04-0463 (Conditional Use Permit and Development Plan), PA04-0571 (Tentative Parcel Map), and PA05-0302 (Zone Change to PDO-9); approved planning applications for PA07-0198 (General Plan Amendment), PA07-0199 (Zone Change), PA07-0200 (Development Plan), PA07-0201 (Tentative Parcel Map), and PA07-0202 (Conditional Use Permit); and adopted Resolution No. 08-10 certifying the SEIR for the project. No legal challenges were brought forward on the Supplemental EIR or other project approvals.

### 1.2.3 February 2011 Major Modification and Addendum

On June 18, 2010, UHS filed planning application PA10-0194 for a Major Modification to a Development Plan to change the phasing of the project by reducing the number of beds from 170 to 140 in Phase I, to modify the building facades of the hospital towers, to relocate the truck loading bays and service yards, and to relocate mechanical equipment from an outdoor area at the service yard to an expanded indoor area at the northern portion of the hospital building. An Addendum was prepared to the Final SEIR to assess the potential environmental effects of the approval of the Major Modification application. On December 15, 2010, the City Planning Commission recommended approval of the Addendum and Findings that the Major Modification does not involve significant new effects, does not change the baseline environmental conditions, and does not represent new information of substantial importance that shows that the Major Modification would have one or more significant effects not previously discussed in the Final SEIR. On February 8, 2011, the City Council adopted a resolution to approve the Addendum for the project. No legal challenge was brought forward, and UHS began construction on the project. Construction of Phase I began in June 2011, and Phase I began operating on October 14, 2013.

### 1.2.4 July 2012 Conservation Easement

In July 2012, a conservation easement of 1.9 acres was approved at the Wilson Creek mitigation site through an agreement with UHS and Wilson Creek Farms, LLC. The easement is provided to satisfy the off-site mitigation requirements for impacts caused by the development of the hospital as set forth by the requirements of the California Regional Water Quality Control Board, San Diego Region Amendment to Clean Water Act Section 401 and water quality condition 11c-031 from the Section 401 Permit, dated September 26, 2011.

### 1.2.5 February 2016 Helistop Project Supplemental EIR

In February 2016, the City certified a Supplemental SEIR for a Major Modification to relocate the previously City-approved helistop to two new locations, an interim location for use during preliminary project phases and a permanent location on the roof of a future hospital tower constructed during a later phase, and to develop the location of the previously City-approved helistop location with a single-story, 5,000-square-foot storage building. The SEIR was limited to analysis of aesthetics, hazards, and noise. It concluded that the new helistop locations would result in significant and unavoidable impacts due to helicopter noise. Aesthetics and hazards impacts were found to be less than significant.

## 1.3 INTENDED USES OF THIS DRAFT SEIR

This Draft SEIR is intended to inform the City, public agencies, and the public in general of the proposed project's environmental effects, to identify and implement feasible methods of avoiding or substantially lessening significant environmental impacts should the proposed project be approved, and to consider alternatives to the proposed project as proposed. CEQA provides that public agencies should not approve projects until all feasible means available have been employed to avoid or substantially lessen significant environmental effects.

## 1.4 CEQA ENVIRONMENTAL REVIEW PROCESS

This Draft SEIR addresses the anticipated environmental effects of the proposed project in conformance with the provisions of CEQA and CEQA Guidelines, as amended. City staff have determined that additional review beyond the previously certified EIRs for the Temecula Hospital Project is necessary to address the impacts of the proposed project. Because the proposed project would result in new significant environmental impacts that were not previously addressed in the certified EIRs, a Subsequent EIR, in accordance with CEQA Guidelines Section 15162, has been prepared to evaluate to the project-specific changes.

CEQA Guidelines Section 15150(a) states that an EIR:

may incorporate by reference all or portions of another document which is a matter of public record or is generally available to the public. Where all or part of another document is incorporated by reference, the incorporated language shall be considered to be set forth in full as part of the text of the EIR.

In light of the previous environmental review contained in the previously certified EIRs, this Draft SEIR incorporates by reference the relevant analysis of environmental topics considered in the previously certified EIRs, which are available for public review at the City of Temecula Community Development Department and online on the City's website: <http://laserfiche.temeculaca.gov/WebLink/Browse.aspx?id=197433&dbid=2&repo=Temecula>.

The level of specificity of an EIR is determined by the nature of the project and the rule of reason. The City, as lead agency, has determined the key environmental issues that could have significant impacts associated with the proposed project, and that will be the focus of this Draft SEIR analysis, include aesthetics; air quality; cultural and tribal cultural resources; energy; geology and soils; greenhouse gas emissions; hazards and hazardous materials; hydrology and water quality; land use and planning; noise; population and housing; public services (fire protection and law enforcement); transportation; and utilities and service systems.

Based on previous environmental analysis, existing conditions of the project site, and details of the proposed project, the following environmental effects were determined not to be significant and are therefore not discussed in detail in this Draft SEIR: agriculture and forestry resources; biological resources; mineral resources; public services (schools, parks); recreational facilities; and wildfire.

## 1.5 CEQA SEIR PROCESS

This section summarizes the CEQA process that will be followed for the proposed project, including the Notice of Preparation (NOP) and Public Scoping Meeting, the Draft SEIR, and Final SEIR.

### 1.5.1 Notice of Preparation and Public Scoping

In accordance with Section 15082 of the State CEQA Guidelines, the City published a NOP of the Draft SEIR, and circulated it to the State Clearinghouse, resources agencies, and interested parties. The NOP was filed with the State Clearinghouse on March 11, 2022, and with the Riverside County Clerk on March 14, 2022. The NOP requested comments on the scope of the Draft SEIR, and asked that those agencies with regulatory authority over any aspect of the proposed project describe that authority. The City requested comments no later than 30 days from receipt of the NOP. The NOP provided a general description and location of the proposed project and a preliminary list of probable environmental effects.

On March 23, 2022, in accordance with CEQA Section 21083.91, the City held a public scoping meeting to obtain public comments and suggestions from interested parties on the scope of the Draft SEIR. The public scoping meeting was held at the Ronald H. Roberts Temecula Public Library, 30600 Paula Road, Temecula, CA 92592. At the public scoping meeting, a brief presentation and overview of the proposed project was provided. After the presentation, oral comments on the scope of the environmental issues to be addressed in the Draft SEIR were accepted.

Appendix A, of this Draft SEIR, includes a copy of the NOP and comments submitted on the NOP. Table 1-1 presents a summary of comments relevant to the Draft SEIR environmental analyses, including written comments submitted in response to the NOP and oral comments provided at the Public Scoping meeting.

**Table 1-1 Summary of NOP and Public Scoping Comments**

Commenter (Date)	Environmental Issues Raised	Applicable Draft SEIR Section(s)
Native American Heritage Commission (March 15, 2022)	The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of the proposed project as early as possible to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources.	Section 3.3, Cultural and Tribal Cultural Resources
CARECA (Californians Allied for a Responsible Economy) (April 6, 2022)	None.	None
Inland Empire Biking Alliance (April 10, 2022)	<ul style="list-style-type: none"> <li>▶ Potential conflicts with bicycle circulation.</li> <li>▶ Bike parking (including for e-bikes) to reduce vehicle miles traveled (VMT).</li> </ul>	Section 3.13, Transportation
Mitchell M. Tsai, Attorneys for Southwest Regional Council of Carpenters (SWRCC) (March 21, 2022)	Local hire provisions requiring that a certain percentage of construction workers reside within 10 miles or less of the proposed project Site can reduce the length of vendor trips and mitigate greenhouse gas emissions impacts, air quality impacts, and transportation impacts.	Section 3.2, Air Quality Section 3.6, Greenhouse Gas Emissions Section 3.13, Transportation
Oral Comments at Scoping Meeting (March 23, 2022)	<ul style="list-style-type: none"> <li>▶ Vehicle traffic noise and helicopter noise.</li> <li>▶ Noise impacts of proposed parking garage on residential area north of De Portola Road.</li> <li>▶ Noise impacts of proposed central utility plant</li> </ul>	Section 3.10, Noise

## 1.5.2 Draft SEIR

As discussed above, the purpose of this Draft SEIR is to conduct an environmental review of the proposed modifications to the Temecula Valley Hospital Master Plan to determine whether the modifications would introduce new significant environmental effects or increase the severity of existing effects evaluated in the prior certified EIRs. New significant environmental effects or substantial increases in the severity of previously identified significant effects are the focus of this Draft SEIR.

This Draft SEIR provides a description of the proposed project, environmental setting, analysis of the proposed project's environmental impacts, and mitigation measures for impacts found to be significant, as well as an analysis of alternatives to the proposed project. Significance criteria have been developed for each environmental topic analyzed in this Draft SEIR, and are defined for each impact analysis section. The Draft SEIR provides one of the following conclusions for each environmental impact analysis provided:

- ▶ Significant and unavoidable;
- ▶ Less than significant with mitigation;
- ▶ Less than significant (mitigation is not required); or
- ▶ No impact.

CEQA requires that the Draft SEIR evaluate ways of avoiding or minimizing identified environmental effects where feasible through the application of feasible mitigation measures or potentially feasible alternatives to the proposed project.

### 1.5.3 Public Review

In accordance with CEQA Guidelines Section 15105, this Draft SEIR is being circulated and made available to local, State, and federal agencies, and to interested organizations and individuals who may wish to review and comment on the Draft SEIR during the 45-day review period. All written comments should be directed to:

Scott Cooper, Senior Planner  
City of Temecula, Planning Department  
41000 Main Street  
Temecula, CA 92590

Comments on the Draft SEIR must be received by close of business on the last day of the 45-day review period. Written responses to comments raising environmental issues will be included in the Final SEIR.

### 1.5.4 Final SEIR

Written comments raising environmental issues received in response to the Draft SEIR will be addressed in a Response to Comments document which, together with the Draft SEIR and any revisions to the Draft SEIR, will constitute the Final SEIR. The City will then consider SEIR certification (CEQA Guidelines Section 15090). If the SEIR is certified, the City may consider whether to approve the proposed project. Before approving the proposed project, the City must make written findings with respect to any significant environmental effects identified in the SEIR in accordance with CEQA Guidelines Section 15091.

## 2 PROJECT DESCRIPTION

### 2.1 PROJECT BACKGROUND AND NEED

The City of Temecula (City) approved development of the Temecula Regional Hospital and certified the Temecula Regional Hospital Environmental Impact Report (EIR) in 2006 and a Supplemental EIR in 2008 (2008 EIR) (SCH# 2005031017). A General Plan Amendment, Zone Change (Planned Development Overlay), Development Plan, Conditional Use Permit, and Tentative Parcel Map were required to allow the development of the Temecula Regional Hospital on a 35.31-acre site in the City of Temecula, California.

The 2006 EIR and 2008 Supplemental EIR evaluated development of the Temecula Regional Hospital over five phases, including 565,260 square feet of building area, with a hospital complex, medical office buildings, a cancer center, and a fitness rehabilitation center. Other onsite features of the master plan included a helipad, internal roadways, landscaping, drainage infrastructure, stormwater quality basins, surface parking lots, a service yard, and loading areas. A 2011 Major Modification and Addendum was prepared to address changes from the 2006 EIR and 2008 Supplemental EIR, which included reducing the number of beds in the proposed Phase I hospital, modifying the building facades of the proposed hospital towers, relocating the truck loading bays and service yard, and relocating mechanical equipment.

Construction of Phase I began in June 2011, which included mass grading of the project site, development of the hospital building, interim helipad, onsite roadways, drainage infrastructure, stormwater quality basins, and surface parking lots. The hospital began operations in October 2013. Another Supplemental EIR was certified in February 2016 to revise the location of the proposed helipad and develop a new building for storage of non-hazardous hospital supplies (increasing the total allowable building square footage in the master plan to 571,160 square feet). The Temecula Regional Hospital, as described in the 2006 EIR, 2008 Supplemental EIR, 2011 Addendum, and 2016 Supplemental EIR, is referred to herein as the "approved master plan."

The project applicant, Universal Health Services, Inc. (UHS), is proposing the Temecula Valley Hospital Master Plan Update and Planned Development Overlay Amendment (proposed project), which is the subject of this Subsequent EIR. The proposed project would consist of revisions to the currently approved project, which would require a Major Modification and Planned Development Overlay (PDO) Amendment. The amendment revises the purpose and intent of the PDO; establishes an administrative approval process for buildings and structures that conform to the architectural standards of the PDO; clarifies the allowable mix of structures and uses in the PDO; and sets forth design guidelines for buildings and structures. Specifically, the proposed project would revise the approved master plan to allow for development of the following structures: an approximately 102,000-square-foot, four-story Behavioral Health Building; an approximately 20,000-square-foot expansion to the existing hospital building emergency department; a 125,000-square-foot, five-story second hospital tower; two four-story, 80,000-square-foot medical office buildings, a 14,000-square-foot utility plant; an approximately 125,000-square-foot, five-story third hospital tower a four-story parking structure; and six surface parking lots. In addition, the proposed project includes relocating the existing helipad from its interim location to the roof of the proposed parking structure. The proposed project would be implemented through three phases of development. The existing hospital building and associated infrastructure that were constructed during Phase I of the currently approved project would be maintained in place.

## 2.2 PROJECT OBJECTIVES

### 2.2.1 City's Objectives - 2006 EIR for the Approved Project

The City's objectives for the currently approved project, as listed in the 2006 EIR, are to:

- ▶ Provide for superior, easily accessible emergency medical services within the City of Temecula;
- ▶ Provide for a regional hospital campus including a hospital facility, medical offices, cancer center and fitness rehabilitation center designed to be an operationally efficient state-of-the-art facility;
- ▶ Encourage future development of a regional hospital and related services;
- ▶ Support development of biomedical, research, and office facilities to diversify Temecula's employment base;
- ▶ Ensure the compatibility of development on the subject site with surrounding uses in terms of the size and configuration of buildings, use of materials and landscaping, the location of access routes, noise impacts, traffic impacts, and other environmental conditions; and
- ▶ Incorporate buffers that minimize the impacts of noise, light, visibility of activity, and vehicular traffic on surrounding residential uses.

### 2.2.2 Applicant Objectives - 2006 EIR for the Approved Project

The objectives of UHS for the currently approved project, as listed in the 2006 EIR, are to:

- ▶ Provide high-quality health services to the residents of Temecula and surrounding communities;
- ▶ Provide a regional hospital facility that includes standard hospital services, with outpatient care, rehabilitation, and medical offices;
- ▶ Provide a regional hospital facility designed to be an operationally efficient, state-of-the-art facility that meets the needs of the region and hospital doctors; and
- ▶ Provide medical offices, a cancer center and fitness rehabilitation center adjacent to the hospital facility to meet the needs of doctors and patients who need ready access to the hospital for medical procedures.

### 2.2.3 Proposed Project Objectives

The proposed project is consistent with and furthers the objectives of the currently approved project, as listed above. Specifically, the proposed project would:

- ▶ Increase the size of the originally proposed hospital and emergency department to accommodate a growing regional population and number of patients;
- ▶ Provide a mix of medical facilities to meet the demand for a variety of inpatient and outpatient medical services, including behavioral health services;
- ▶ Support development of biomedical, research, and office facilities to diversify Temecula's employment base;
- ▶ Provide medical office space adjacent to the hospital facility to meet the needs of doctors and patients who need ready access to the hospital for medical procedures; and
- ▶ Relocate the existing helipad to a central location and change the helicopter flight approach/departure path to minimize helicopter noise impacts on surrounding sensitive land uses.

## 2.3 PROJECT LOCATION

The proposed project is located at 31700 Temecula Parkway in the City of Temecula in Riverside County, California (project site). The project site encompasses 35.31 acres on Assessor's Parcel Number (APN) 959-080-026. The project site is approximately 720 feet west of Margarita Road, 420 feet south of De Portola Road, and is bordered to the south by Temecula Parkway (also named Highway 79) and by Dona Lynora, a private road, to the west. Regional access to the project site is provided by Interstate-15 (I-15), which is two miles west of the project site, and Temecula Parkway (see Figure 2-1, "Regional Location," and Figure 2-2, "Project Location").

## 2.4 EXISTING SETTING

As described in Section 2.1, "Project Background and Need," the entire project site was mass graded in 2011 during construction of Phase I of the approved master plan. The existing project site is developed with a hospital building, modular offices and storage facilities, at-grade helipad, onsite access roads, drainage infrastructure, and stormwater quality basins. Approximately 86,000 square feet (SF) of the project site is comprised of building footprint (6 percent), 33,500 SF of the project site is comprised of surface parking area footprint (21 percent), and 1,103,000 SF of the project site is comprised of landscaped area (71 percent). These existing facilities and improvements are referred to as Phase I. Approximately 750 employees are present on the existing project site during an average 24-hour period. An existing site plan is shown on Figure 2-3, "Existing Conditions on the Project Site," and the existing helicopter flight path is shown on Figure 2-4, "Existing Helicopter Flight Path."

The existing hospital complex, located in the central portion of the project site, consists of a 5-story hospital building (75 feet tall) and a 1-story outpatient building (18 feet tall). The existing hospital complex has a total building area of 237,305 square feet and capacity for 140 beds. The existing storage building, located northeast of the hospital, is a 1-story building (22 feet tall) with a total building area of 5,180 square feet. There are currently two visitor parking lots with a total of 434 parking spaces, located west and southwest of the hospital.

The western, northern, and eastern portions of the project site are predominately vacant, except for the helipad and modular office/storage structures located west of the hospital parking lots. An existing horse trail is located along a portion of the project site's northern boundary adjacent to De Portola Road. The vacant areas that are reserved for future development were graded in 2011 and are currently covered with hydroseeded landscaping for erosion control. A backbone circulation system and access driveways were previously developed on the project site. Primary site access is provided from Temecula Parkway, at the intersection of County Glen Way. There is a secondary site access from the north via De Portola Road.

The existing project site has two drainage areas that divide the onsite drainage into east and west subareas. On the eastern side runoff is contained onsite where various curb inlets and grates collect water at low points; water then flows via pipes to an existing interim detention/sedimentation basin that flows southeast into an existing concrete drainage channel on Temecula Parkway. Water from offsite does not flow onto the site but drains directly to the channel. The west side drains northwest to a connection at Dona Lynora, north of Rancho Pueblo Road. The developed portion of the western side flows overland via curb cuts to sand filters and pipes while the undeveloped portion flows overland to a pipe. Existing onsite drainage infrastructure includes vegetative strips, sand filters, biofiltration swales, bioretention/rain gardens, modular wetland systems, detention basins/settling basins, and infiltration basins to treat stormwater.

The project site is zoned Temecula Hospital Planned Development Overlay (PDO-9). The General Plan designation for the project site is Professional Office. Surrounding land uses include commercial and single-family residences to the south (across Temecula Parkway); single-family residences to the north (across De Portola Road); professional office, commercial, and educational uses to the west; and multi-family residential uses, offices, and commercial uses to the east. Land use and zoning designations for the project site and adjacent properties are shown on Figure 2-5, "General Plan Land Use and Zoning Designations."



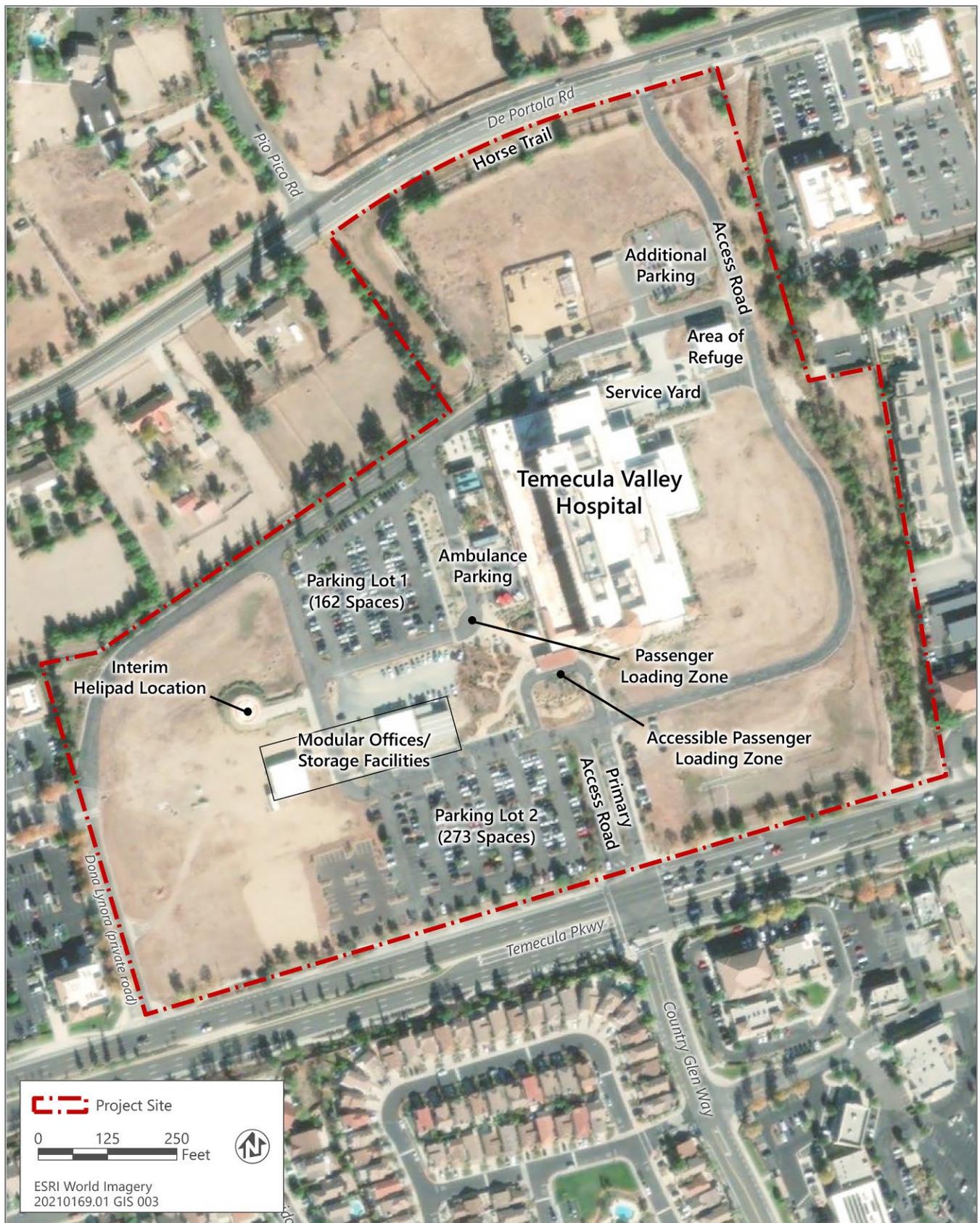
Source: adapted by Ascent Environmental in 2022

Figure 2-1 Regional Location



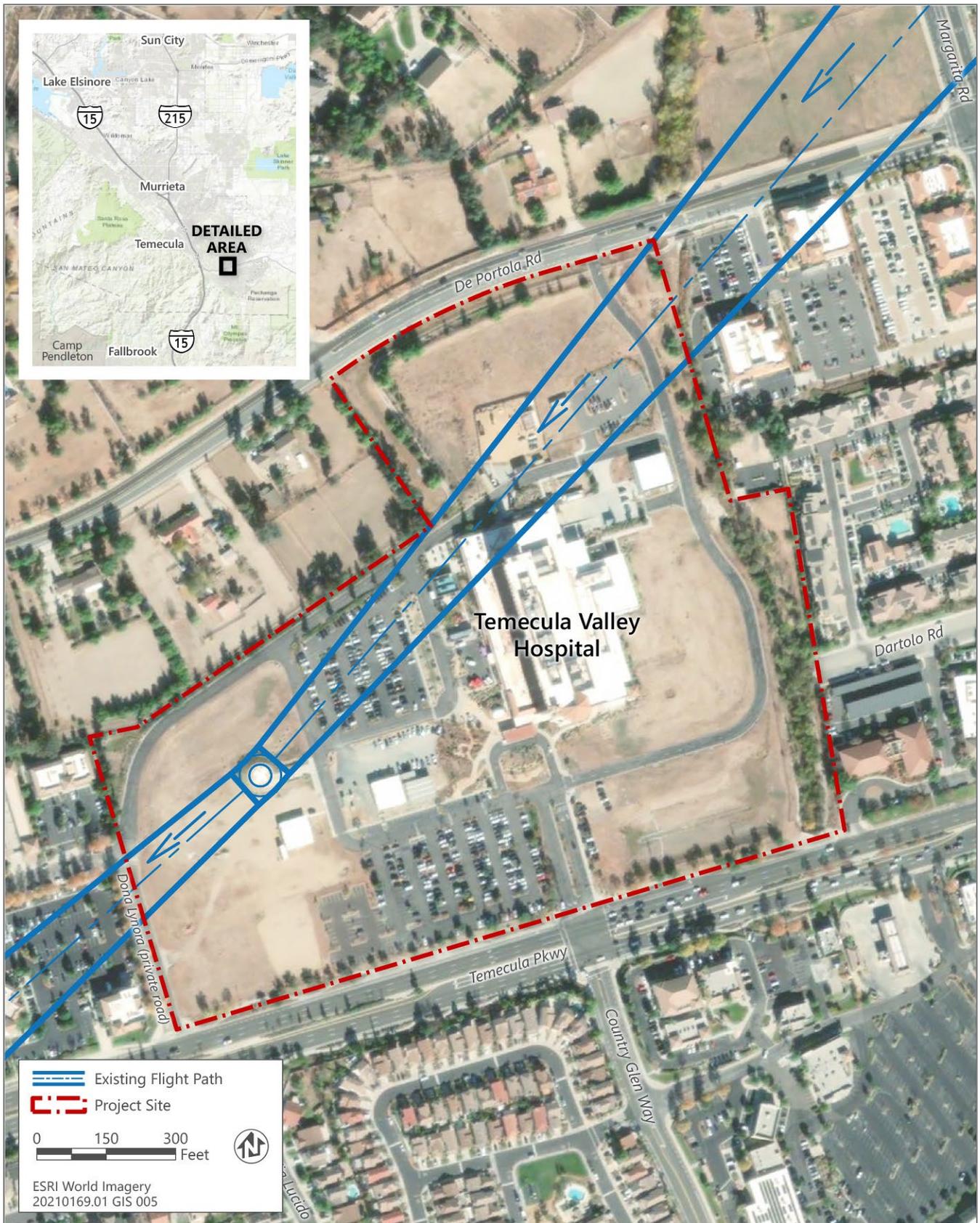
Source: adapted by Ascent Environmental in 2022

Figure 2-2 Project Location



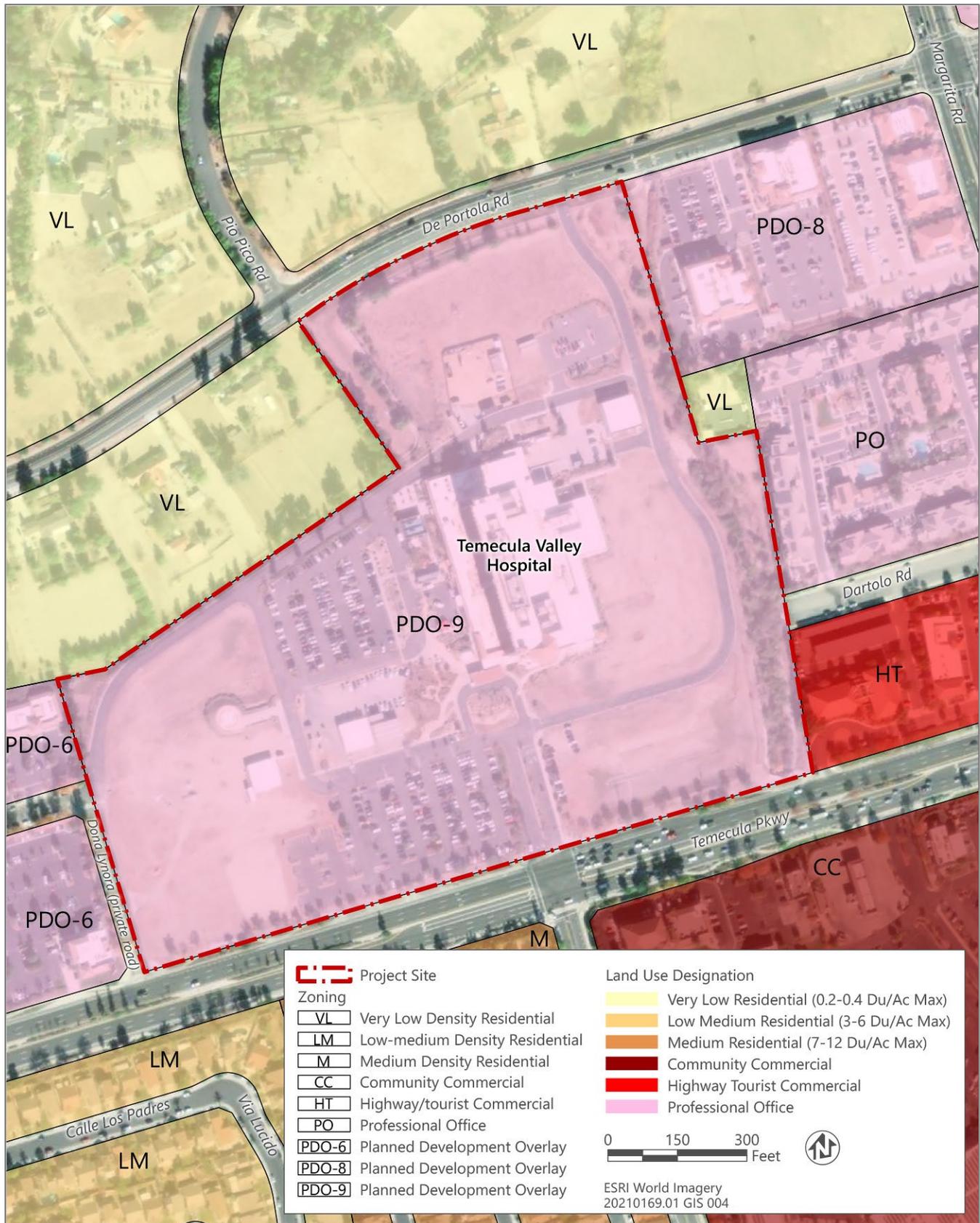
Source: adapted by Ascent Environmental in 2022

Figure 2-3 Existing Conditions on the Project Site



Source: adapted by Ascent Environmental in 2022

Figure 2-4 Existing Helicopter Flight Path



Source: adapted by Ascent Environmental in 2022

Figure 2-5 General Plan Land Use and Zoning Designation

## 2.5 PROPOSED PROJECT SUMMARY

Upon buildout of the proposed project, the lot coverage of the project site would include approximately 254,500 square feet of building footprint (16 percent), 652,862 square feet of parking area footprint (42 percent), 547,864 square feet of landscaped area (35 percent), and 106,400 square feet of hardscaping (7 percent).

Table 2-1 compares the development included in the proposed project against (1) the existing development and conditions of the project site in March 2022 and (2) the development that is allowed under the approved master plan. Table 2-2 summarizes how development under the proposed project would be different than what is allowed under the approved master plan.

Compared to existing conditions, the proposed project would increase the total building footprint on the project site by 544,600 square feet to a total building area of 756,121 square feet, (not including the proposed 227,200 square foot parking structure). The total building area would be 184,961 square feet greater than what was proposed in the approved master plan. The project would accommodate 564 beds across four buildings, which is 424 more beds than currently exists onsite and 244 more beds than proposed in the approved master plan. On average, approximately 750 employees are working at the existing hospital during a 24-hour period. With buildout of the proposed project, the average number of employees on-site during a 24-hour period would increase by approximately 675, resulting in a total of 1,425 employees at the project site, on average, during a 24-hour period. Upon buildout of the proposed project, the project site would provide 1,748 parking spaces, which is 1,314 more spaces than currently exists onsite and 470 more spaces than proposed in the approved master plan. The proposed project would provide parking in six surface lots and a four-story, 227,200 square foot parking structure.

**Table 2-1 Comparison of Project Characteristics**

Project Feature	Approved Master Plan	Existing Conditions	Proposed Project
Hospital Complex	408,160-SF hospital complex, including one 6-story and one 5-story hospital towers	237,305-SF, 5-story hospital tower	Maintain existing 237,305 -SF, 5-story hospital tower; Construct 20,000-SF expansion to existing emergency department; Construct 250,000-SF of new hospital towers, including two 125,000-SF, 5-story towers
Medical Office Buildings	140,000-SF of office space, including one 80,000-SF, 4-story building and one 60,000-SF, 3-story building	Not constructed	160,000-SF (two 80,000-SF, 4-story buildings)
Cancer Center	10,000-SF, 1-story building	Not constructed	No longer proposed
Fitness Rehabilitation Center	8,000-SF, 1-story building	Not constructed	No longer proposed
Behavioral Health Building	Not included	Not constructed	Construct new 102,000-SF, four-story building
Helipad Location and Helicopter Flight Path Alignment	Permanent helipad would be provided atop the 6-story hospital tower (second tower) located in the southeast portion of the project site; northeast-southwest helicopter arrival/departure alignment	Helipad at interim location in the northwest portion of the project site; northeast-southwest helicopter arrival/departure alignment	Relocate helipad to roof of proposed parking structure (680 spaces); east-west helicopter arrival/departure alignment
Truck Loading Area and Facilities Plant	Along eastern edge of hospital, south of helipad. Provides hospital-support infrastructure, including loading dock, cooling tower, generators, transformers, fuel tank, and bulk oxygen storage area	Truck loading area operating	Construct new 14,000-SF utility plant
Parking Structure	Not included	Not constructed	4-story, 227,200-SF parking structure
Storage Building	5,000-SF, single-story building for storage of non-hazardous hospital supplies	5,180-SF storage building	Maintain existing 5,180-SF storage building

Source: Compiled by Ascent Environmental, 2022.

**Table 2-2 Summary of Changes from Approved Master Plan to Proposed Project**

Project Feature	Approved Master Plan	Existing Conditions	Proposed Project	Net Change from Approved Master Plan to Proposed Project
Total Building Area	571,160 SF (originally proposed)	211,521 SF (currently onsite)	756,121 SF (upon completion)	+ 184,961 SF
Floor Area Ratio	0.37	0.16	0.49	+0.12
Total Beds	320 beds	140 beds	564 beds	+244 beds
Total Vehicle Parking Spaces	1,278 vehicle spaces	434 spaces	1,748 spaces	+470 spaces

Source: Compiled by Ascent Environmental, 2022.

## 2.6 PROPOSED PROJECT CHARACTERISTICS

The proposed project would result in full buildout of the master plan on the project site. The existing 237,305-square-foot hospital building and 5,180-square-foot storage building, which were constructed as part of Phase I, would be maintained onsite. In addition, the existing onsite backbone circulation system and access driveways to Temecula Parkway and De Portola Road would remain unchanged. The remaining undeveloped areas, which were previously graded as part of Phase I, would be developed in three phases (II - IV) under the proposed project. Specific timing for the development of Phases II to IV would be dependent upon regional demand for the proposed uses and is not precisely known at this time. However, for purposes of this Draft SEIR, estimates of the timing of the phases have been developed and are provided in Section 2.6, Construction. The existing onsite parking lots would be reconfigured and relocated as the individual phases are developed. The proposed project would not involve major changes to the site's topography. The proposed facilities and phasing are described in the following sections.

Several structures that were originally proposed in the currently approved project would no longer be constructed, which include the cancer center and fitness rehabilitation center. The currently approved master plan is shown on Figure 2-6, "Approved Site Plan." The proposed site plan is shown on Figure 2-7, "Proposed Site Plan."

All proposed buildings would be designed to meet UHS Temecula Exterior Design Standards. The design and architectural style of new buildings would be consistent with the Spanish-Mediterranean or Mission styles of existing development on the project site and nearby development.

Large mass elements would be articulated to reduce the overall scale. This includes vertically offsetting portions of the ground level to relate to a more pedestrian scale. The exterior finish would be primarily stucco or Exterior Insulation Finishing System (EIFS) with an elastomeric topcoat. Use of accent tile or stone would be incorporated into key elevations and building design elements. Colors would be light natural tones to be consistent with existing, nearby development and would match or complement the existing plaster/EIFS colors used on the project site.

Glazing would be predominately storefront on lower public-facing areas of the proposed buildings, with punched windows elsewhere. Curtainwall window systems may be used at key architectural elements and main entries. Rooftop equipment would be screened from view. Mechanical screens would be either tile-covered mansard roofs or vertical wall panels clad with EIFS or metal panels. Canopies, porte-cochere, or other overhanging elements can be designed to match the main building or designed with complementary painted or pre-finished metal components.

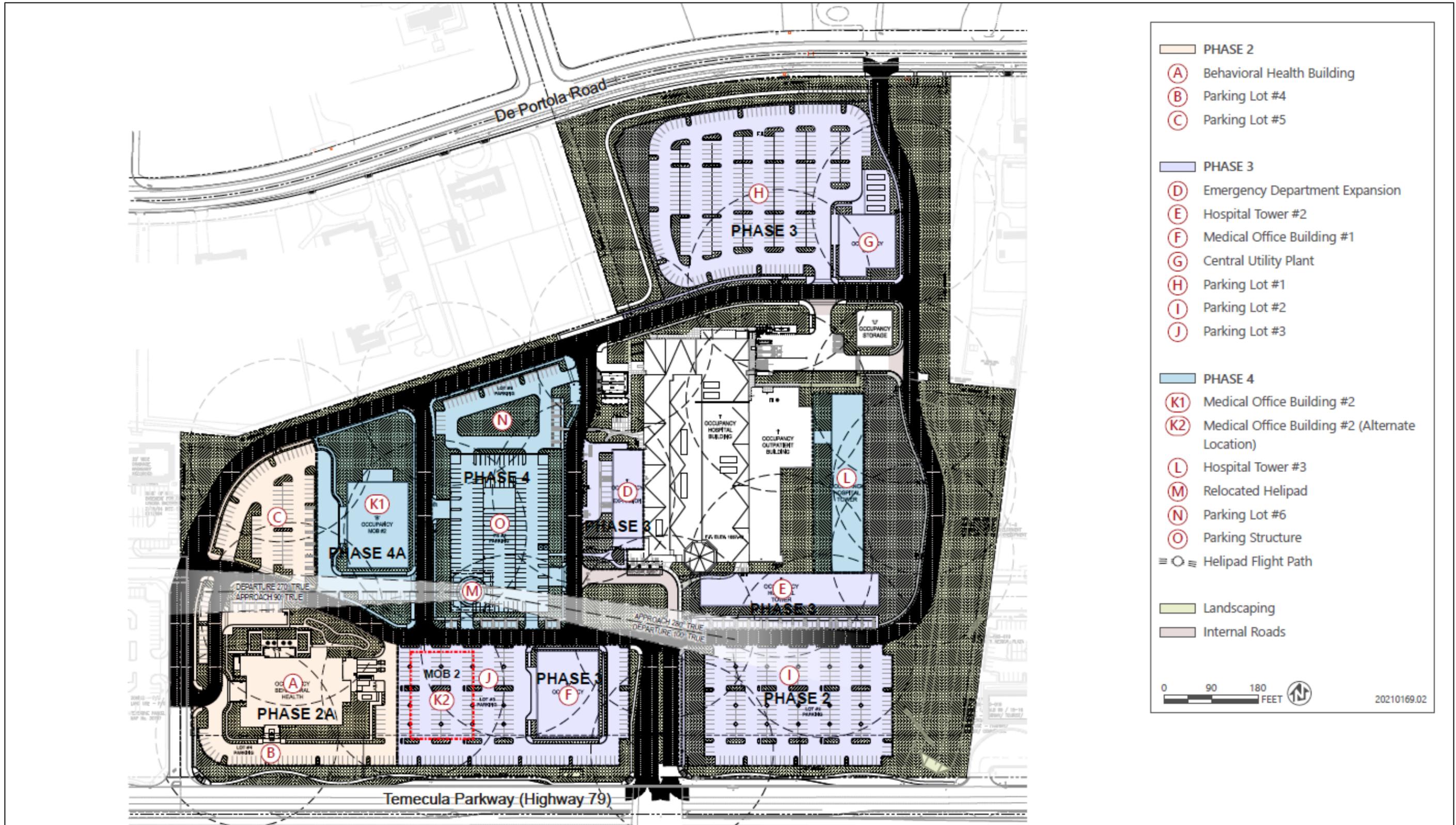
The proposed pervious features onsite include various existing and proposed water quality basins and detention basins, trees included in parking islands and open spaces with drought tolerant vegetation. All impervious areas, except for the northern horse trail, the eastern independent channel and existing pervious areas will be replaced with new landscaping such as trees. All flows from buildings and parking lots will be routed to the project's biofiltration basins; non-structural improvements such as rain barrels and tree wells would also be installed as needed to comply with applicable pollutant control and hydromodification requirements. Water quality improvements installed on the east side, where the existing hospital building and storage building are located, during Phase I will remain; new water quality improvements would be focused on the existing, undeveloped west side of the project site, and where new development and reconfigurations are proposed on the east side.



Source: Figure by HMC Architects in 2010; adapted by Ascent Environmental in 2022

Figure 2-6 Approved Site Plan





Source: Figure by HMC Architects in 2021; adapted by Ascent Environmental in 2022

Figure 2-7 Proposed Site Plan



## 2.6.1 Phase II

Phase II includes development of a Behavioral Health Building in the undeveloped western portion of the project site. The proposed 4-story building would have an area of approximately 102,000 square feet and a height of approximately 62 feet. The building would provide 144 beds. Security features for the building would include key card access and video monitoring.

The existing parking lot along Temecula Parkway would be expanded to the west. In addition, two new visitor surface parking lots would be constructed in the western portion of the project site along Dona Lynora, and another surface parking lot would be constructed in the southeast corner of the project site. Upon completion of Phase II, there would be a total of 937 parking spaces, which is an increase of 494 parking spaces from the 443 parking spaces onsite in the existing condition.

## 2.6.2 Phase III

Phase III includes development of an approximately 20,000-square-foot expansion to the existing hospital's emergency department, which would be located along the western side of the existing hospital building. The expansion would be two stories with a height of 45 feet. This area is currently developed with an ambulance patient drop-off and parking area, which would be shifted west and reduced in size to accommodate the building expansion.

A second hospital tower with an area of 125,000 square feet would also be developed during Phase III. The hospital tower would be five stories with a height of 75 feet and would provide 140 beds. The hospital tower would be located southeast of the existing hospital building in an area that is currently undeveloped.

An 80,000-square-foot medical office building would be developed at the southern boundary of the project site along Temecula Parkway and west of the main entrance driveway. The four-story medical office building would have a maximum height of 73 feet.

A 14,000-square-foot central utility plant would be developed in the northeast portion of the project site south of De Portola Road. This area is predominately undeveloped except for a small 46-stall parking lot. The existing horse trail around the perimeter of this area would be protected in place. The single-story central utility plant would have a maximum height of 43 feet and would house equipment serving the energy needs (i.e., heat, steam) of the hospital; it would not serve the medical office buildings or the behavioral health center. The hospital's steam and heat-related energy needs are anticipated to be approximately 128 million British thermal units (MMBtu) per day and 46,915 MMBtu per year. Electricity would be provided to development under the proposed project from the electric grid. The central utility plant would operate 24 hours per day, year-round. Equipment provided within and next to the central plant is anticipated to include:

- ▶ Four natural gas-fueled boilers (3,000 MBH),
- ▶ Four electric chillers (390 kW), and
- ▶ Four cooling towers (600 tons).

Chillers, boilers, and pumps would be enclosed within the central plant; cooling towers would be located next to the central plant and not enclosed. In addition to the boilers, chillers, and cooling towers, the proposed project would also include air handling units. These will not be included within the central utility plant but provided on building roofs (and not enclosed).

The existing parking lot west of the hospital would be expanded at its southern end. In addition, two new visitor surface parking lots would be constructed to the north and east of the existing hospital. Upon completion of Phase III, there would be a total of 1,166 parking spaces, which would increase the number of parking spaces from Phase II by 508 spaces.

### 2.6.3 Phase IV

Phase IV would include development of a third hospital tower with an area of 125,000 square feet. Like the second hospital tower proposed under Phase III, this hospital tower would be five stories tall with a height of 75 feet and would provide 140 beds. The hospital tower would be located east of the existing hospital outpatient building in an area that is currently undeveloped.

Phase IV would also include construction of an 80,000-square-foot second medical office building, which would have four stories and a maximum height of 73 feet. This second medical office building would be constructed in the western portion of the project site, which is currently undeveloped except for the interim helipad and modular storage units. As a design option, the medical office building could instead be located along Temecula Parkway just west of the first medical office building proposed under Phase III.

Phase IV would also include reconfiguration of the parking lots constructed in Phase III and construction of an at-grade, four-story (height of 36 feet) 227,200-square-foot parking structure with 680 spaces. The parking structure would be located west of the existing hospital building, in an area that is developed in the existing condition with a surface parking lot and a paved area with modular offices. Upon completion of Phase IV, there would be a total of 1,748 parking spaces, which would increase the number of parking spaces from Phase III by 303 spaces.

Lastly, the existing helipad would be relocated to the roof (height of 51 feet) of the proposed parking structure during Phase IV. The frequency of helicopter operations would not change from existing conditions. The new helipad location on the roof of the proposed parking structure would utilize a new east-west arrival/departure path as compared to the existing at-grade helipad location to minimize noise impacts to surrounding land uses. The proposed project would not change the existing average number of helicopter trips per month (approximately 6 trips).

### 2.6.4 Other Onsite Improvements

The existing backbone circulation system would be maintained. During Phase II, the on-site circulation system would be extended in the western portion of the project site, with new access roads that connect to Dona Lynora.

Approximately 438 shade and accent trees would be planted throughout the project site. Other landscaping would consist of ornamental and bioswale shrubs and grasses. Approximately 122 existing trees that were planted during Phase I would be maintained in place. Landscaping would be irrigated with an automatically controlled, water-efficient irrigation system using low gallonage spray heads. Irrigation systems would comply with the State of California's Water Efficient Landscape Ordinance and the City of Temecula's Landscape Manual.

Existing onsite stormwater infrastructure would be modified or expanded to accommodate the proposed development. In the southeast portion of the project site, the existing open-air infiltration pond/basin would be converted into underground infiltration chambers and additional modular wetland systems would be installed. Several existing in-ground systems at the northwesterly-draining subbasin would be removed and reinstalled to accommodate the newly proposed layout. Additional vegetative strips, sand filters, modular wetland systems, and bioretention/rain garden systems would be installed throughout the project site to treat stormwater as intended under the Water Quality Management Plan approvals for the currently approved project.

## 2.7 CONSTRUCTION

Construction of the proposed project would occur in three phases (II – IV). For purposes of the Draft SEIR, construction activities are assumed to begin in January 2023. The approximate timing for construction of each phase for purposes of the Draft SEIR analysis is summarized in Table 2-3. A comparison of the construction phasing for the approved master plan and the proposed project is summarized in Table 2-4. Although the exact timing for implementation of each phase of the proposed project would be responsive to regional demand and is unknown at

this time, the following dates were selected for the purpose of evaluating the project’s environmental impacts, using reasonable assumptions based on the City’s best estimates at this time.

**Table 2-3 Proposed Project Construction Phasing**

Project Feature	Estimated Timeframe for Implementation	Duration
Behavioral Health Building	January 2023 to September 2024	21 months
Hospital Tower #2, Emergency Department Expansion	January 2024 to June 2027	42 months
Central Utility Plant	January 2025 to September 2026	21 months
Medical Office Building #1	January 2023 to March 2024	15 months
Medical Office Building #2	July 2029 to September 2030	15 months
Parking Structure	July 2029 to March 2030	9 months
Hospital Tower #3	January 2035 to December 2037	30 months

**Table 2-4 Comparison of Construction Phasing for Approved Master Plan and Proposed Project**

Phase	Approved Master Plan		Proposed Project	
	Project Features	Duration	Project Features (Duration)	Estimated Timeframe
Phase IA	Site Grading Medical Office Building 2 (MOB 2) MOB 2 Parking (approx. 300 spaces) Main Entry Drive	10 months	Phase I was completed in 2013.	
Phase IB	Hospital/6-Story Bed Tower Hospital Parking	14 months		
Phase II	Hospital 5-Story Bed Tower	12 months (Phases II – V concurrent)	Behavioral Health Building (21 months) 279-space surface parking lot (Lot #2) 58-space surface parking lot (Lot #4) 81-space surface parking lot (Lot #5)	January 2023 to October 2024
Phase III	Medical Office Building 1 (MOB 1) MOB/Hospital Connector		2 <sup>nd</sup> Hospital Tower and Emergency Department Expansion (42 months) Medical Office Building #1 (15 months) Central Utility Plant (21 months) 335-space surface parking lot (Lot #1) 229-space surface parking lot (Lot #3)	January 2023 to June 2027
Phase IV	Cancer Center Cancer Center Parking		3 <sup>rd</sup> Hospital Tower (30 months) Medical Office Building #2 (15 months) 60-space surface parking lot (Lot #6) 680-space Parking Structure and Helipad Relocation (9 months)	July 2029 to December 2037
Phase V	Fitness Center Jogging Trail		The proposed project does not include a Phase V.	Not Applicable

Source: Compiled by Ascent Environmental, 2022.

The grading estimates for the approved master plan were 13,000 cubic yards of cut and 109,000 cubic yards of fill, resulting in a net 94,000 cubic yards of fill. The project site has been previously mass graded and partially developed.

The proposed project would require approximately 36,000 cubic yards of remedial grading. Remedial grading may require the export of up to 18,000 cubic yards of soil offsite and the import of up to 50,000 cubic yards of soil from an off-site location. The proposed project would require the excavation and removal of an additional 10,000 cubic yards of soil. In addition, the proposed project would require the placement of 42,000 cubic yards of fill in the southeast,

west, and northwest portions of the project site, which are below grade on the existing project site, to allow for infiltration and detention/sediment settling.

In compliance with Section 9.20.060 of the City of Temecula Municipal Code, construction activities would be conducted between the hours of 7:00 am and 6:30 pm on Monday through Saturday and prohibited on Sundays and nationally recognized holidays. Staging of construction equipment, vehicles, and materials would occur on the project site.

## 2.8 OPERATIONS

The hospital would continue to operate 24 hours a day, 7 days a week. Existing hospital staffing is summarized in Table 2-5.

**Table 2-5 Hospital Staffing**

Shift	Existing Hospital Staff
7:00 am to 7:30 pm	500
7:00 pm to 7:30 am	200
3 pm to 11:30 pm	50

Source: Temecula Valley Hospital, 2022.

The proposed changes to the hospital master plan would increase the number of employees on the project site relative to the existing hospital. During an average 24-hour period, there would be an additional 675 employees on the project site relative to existing conditions.

Helicopter flights associated with the hospital would be intermittent and would take place on an emergency basis only going to or from the Temecula Valley Hospital to another hospital with more intensive care facilities. The proposed project would not change the number of helicopter trips, which is estimated to average approximately 6 trips per month. However, the actual frequency of trips would vary depending on the number of medical emergencies and need for critical care. Under existing conditions, helicopters approach the interim helistop from the northeast and depart toward the southwest. Under the proposed project, helicopters would use a new helistop location on the roof of the proposed four-story parking structure, and a new east-west arrival/departure paths as compared to the existing at-grade helipad location to minimize noise impacts to surrounding land uses. The new arrival/departure paths for emergency helicopter flights are shown on Figure 2-7.

## 2.9 POTENTIAL PERMITS AND APPROVALS REQUIRED

The proposed project would require the permits and approvals listed in Table 2-6.

**Table 2-6 Project Characteristics**

Agency	Permit or Approval
City of Temecula	<ul style="list-style-type: none"> <li>▶ Development Plan Major Modification including design and site review</li> <li>▶ Approval of the Planned Development Overlay (PDO) Amendment for the master plan.</li> <li>▶ City Council approval of proposed project and certification of Subsequent EIR</li> <li>▶ Approval of Mitigation Monitoring and Reporting Program</li> <li>▶ Medical Office Building occupancy permits</li> <li>▶ Development plan approvals for each individual building.</li> </ul>
City of Temecula Public Works	<ul style="list-style-type: none"> <li>▶ Approval of street improvement plans, sewer plans, grading plan, and water and drainage system plans</li> <li>▶ Approval of Water Quality Management Plan</li> </ul>
City of Temecula Departments and Divisions overseeing construction-related development	<ul style="list-style-type: none"> <li>▶ Review and approval of building, electrical, plumbing, mechanical, and sign plans and permits</li> <li>▶ Review and approval of encroachment permits</li> <li>▶ Review and approval of street trees</li> </ul>
City of Temecula Fire Department	<ul style="list-style-type: none"> <li>▶ Review and approval of fire flow, fire lanes, and fire suppression systems</li> </ul>
City of Temecula Police Department	<ul style="list-style-type: none"> <li>▶ Review of security plans and systems</li> </ul>
California Department of Health Care Access and Information (HCAI)	<ul style="list-style-type: none"> <li>▶ Hospital building and occupancy permits</li> <li>▶ Review and issuance of construction permits for windcone lighting, 3-color helistop beacon, and red obstruction lights for the interim helistop location have occurred. Full HCAI review and approval for the future hospital tower and permanent helistop location would be required.</li> </ul>
Federal Aviation Administration (FAA)	<ul style="list-style-type: none"> <li>▶ Review of airspace study and issuance of an airspace determination letter, consistent with Part 157 of the Federal Aviation Regulations, was issued for the interim helistop onsite in 2013. The permanent helistop would undergo design review during the hospital tower design phase.</li> </ul>
California Department of Transportation (Caltrans) Division of Aeronautics	<ul style="list-style-type: none"> <li>▶ Review and approval of proposed helistop and issuance of Helistop Site Approval Permit, which represents agreement with the design concept and authorizes helistop construction. The Helistop Permit follows a post-construction inspection and authorizes start-up of flight operations. The existing onsite helistop received approval in 2013 and the permanent location would undergo design review during the hospital tower design phase. Additionally, Caltrans Division of Aeronautics makes annual onsite inspections of hospital helistops throughout the State to ensure continued compliance with its design requirements.</li> </ul>
Riverside County Airport Land Use Commission	<ul style="list-style-type: none"> <li>▶ Review of helipad</li> </ul>
Pechanga Band of Luiseño Indians	<ul style="list-style-type: none"> <li>▶ Cultural report consultation, and approval of the pre-excavation agreement</li> </ul>
Regional Water Quality Control Board	<ul style="list-style-type: none"> <li>▶ Possible review and approval of stormwater permits</li> </ul>
Rancho California Water District	<ul style="list-style-type: none"> <li>▶ Possible review and approval of applications for water service</li> </ul>
Riverside County Flood Control	<ul style="list-style-type: none"> <li>▶ Possible review and approval of permits</li> </ul>
Riverside County Health Department	<ul style="list-style-type: none"> <li>▶ Review and license any kitchen/food service, hospital towers, and behavioral health facility.</li> </ul>

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# 3 ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION MEASURES

## INTRODUCTION TO THE ENVIRONMENTAL ANALYSIS

This draft subsequent environmental impact report (Draft SEIR) evaluates and discloses the environmental impacts associated with the Temecula Valley Hospital Master Plan Update and Planned Development Overlay Amendment (proposed project), in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000, et seq.) and the State CEQA Guidelines (California Code of Regulation, Title 14, Chapter 3, Section 1500, et seq.). Sections 3.1 through 3.14 of this Draft EIR present a discussion of regulatory background, existing conditions, environmental impacts associated with construction and operation of the project, mitigation measures to reduce the level of impact, and residual level of significance (i.e., after application of mitigation, including impacts that would remain significant and unavoidable after application of all feasible mitigation measures).

This Draft SEIR addresses the following environmental topics referenced in the Notice of Preparation (NOP) prepared for the project (see Appendix A of this Draft SEIR): aesthetics; air quality; cultural and tribal cultural resources; energy; geology and soils; greenhouse gas emissions; hazards and hazardous materials; hydrology and water quality; land use and planning; noise; population and housing; public services (fire protection and law enforcement); transportation; utilities and service systems. The proposed project does not have the potential to result in physical effects to the following environmental topics, so they are not addressed further in this Draft SEIR: biological resources; wildfire; agriculture and forestry resources; mineral resources; recreation; schools and libraries.

The environmental analysis evaluates the potential impacts associated with the proposed project on the existing baseline environmental conditions currently on the site as of the date of the NOP. The environmental impacts of the proposed project are not evaluated against the previously approved master plan (2006) as baseline environmental conditions have substantially changed. A comparison of the approved master plan against the proposed project is included for informational purposes.

Chapter 4, "Alternatives," presents a reasonable range of alternatives and evaluates the environmental effects of those alternatives relative to the proposed project, as required by Section 15126.6 of the State CEQA Guidelines. Chapter 5 of this Draft SEIR, "Cumulative Impacts," presents an analysis of the project's impacts considered together with other past, present, and probable future projects producing related impacts, as required by Section 15130 of the State CEQA Guidelines. Chapter 6, "Other CEQA Sections," includes an analysis of the project's growth inducing impacts, as required by Section 21100(b)(5) of CEQA.

Sections 3.1 through 3.14 of this Draft SEIR each include the following components.

**Environmental Setting:** This subsection presents the existing physical environmental conditions on the project site and in the surrounding area as appropriate, in accordance with State CEQA Guidelines Section 15125. The discussions of the environmental setting focus on information relevant to the issue under evaluation. The extent of the environmental setting area evaluated (the project study area) differs among resources, depending on the locations where impacts would be expected.

**Regulatory Setting:** This subsection presents information on the laws, regulations, plans, and policies that relate to the issue area being discussed. This section addresses the federal, State, regional, and local government regulatory setting, as appropriate to the issue being discussed.

**Environmental Impacts and Mitigation Measures:** This subsection presents thresholds of significance and discusses potentially significant effects of the proposed project on the existing environment, including the environment beyond the project boundaries, in accordance with State CEQA Guidelines Section 15126.2. The methodology for impact analysis is described, including technical studies upon which the analyses rely. The thresholds of significance are defined and thresholds for which the project would have no impact are disclosed and dismissed from further evaluation.

Project impacts and mitigation measures are numbered sequentially in each subsection (Impact 3.2-1, Impact 3.2-2, Impact 3.2-3, etc.). A summary impact statement precedes a more detailed discussion of the environmental impact. The discussion includes the analysis, rationale, and substantial evidence upon which conclusions are drawn. The determination of level of significance of the impact is defined in bold text. A “less-than-significant” impact is one that would not result in a substantial adverse change in the physical environment. A “potentially significant” impact or “significant” impact is one that would result in a substantial adverse change in the physical environment; both are treated the same under CEQA in terms of procedural requirements and the need to identify feasible mitigation. Mitigation measures are identified, as feasible, to avoid, minimize, rectify, reduce, or compensate for significant or potentially significant impacts, in accordance with the State CEQA Guidelines Section 15126.4. Unless otherwise noted, the mitigation measures presented are recommended in the EIR for consideration by the City to adopt as conditions of approval.

Where an existing law, regulation, or permit specifies mandatory and prescriptive actions about how to fulfill the regulatory requirement as part of the project definition, leaving little discretion in its implementation, and would avoid an impact or maintain it at a less-than-significant level, the environmental protection afforded by the regulation is considered before determining impact significance. Where existing laws or regulations specify a mandatory permit process for future projects, performance standards without prescriptive actions to accomplish them, or other requirements that allow substantial discretion in how they are accomplished, or have a substantial compensatory component, the level of significance is determined before applying the influence of the regulatory requirements. In this circumstance, the impact would be potentially significant or significant, and the regulatory requirements would be included as a mitigation measure.

This subsection also describes whether mitigation measures would reduce project impacts to less- than-significant levels. Significant-and-unavoidable impacts are identified as appropriate in accordance with State CEQA Guidelines Section 15126.2(b). Significant-and-unavoidable impacts are also summarized in Chapter 6, “Other CEQA Considerations.”

**References:** The full references associated with the parenthetical references found throughout Sections 3.1 through 3.14 can be found in Chapter 7, “References,” organized by section number.

## 3.1 AESTHETICS

This section provides a description of existing visual conditions, meaning the physical features that make up the existing visible landscape of the project site and its surroundings and an assessment of changes to those conditions that would occur from proposed project implementation. The physical effects of the project on the visual environment are generally defined in terms of the proposed project's physical characteristics and visibility, the extent to which the proposed project's presence would change the perceived visual character and quality of the environment, and the expected level of sensitivity that the viewing public may have where the proposed project would alter existing views. The "Analysis Methodology" discussion below provides further detail on the approach used in this evaluation. No comments related to aesthetics were submitted in response to the notice of preparation.

### 3.1.1 Regulatory Setting

#### FEDERAL

##### Federal Aviation Administration

The Federal Aviation Administration (FAA) is the federal agency that establishes standards for the design of the proposed project's helipad, and the rules for pilot and helicopter operations. Lighting for hospital heliports is regulated under the FAA's Advisory Circular (AC) 150/5390-2C (Heliport Design), Chapter 4 (Hospital Heliports), Section 415 (Heliport Lighting), which provides standards for perimeter lighting, taxiways, and beacons. These standards address the use of green-colored lighting to identify the touchdown and liftoff area (TLOF), final approach and takeoff area (FATO), and flight path alignments. The standards require that beacons for heliports use a white, green, or yellow light that flashes 30 to 45 times per minute.

FAA AC 150/5390/2C, "Heliport Design" provides the standards used to design heliports in the United States. This includes defining acceptable approach, landing, takeoff, and safety areas that must be maintained clear of obstructions. The FAA also provides standards for the placement of lighting, windcones, beacons, and other heliport markings. Chapter 4 of the AC provides recommendations for hospital heliports and describes essential features of ground-level and rooftop hospital helipads, safety areas, and minimum dimensions (Figures 4-1, 4-2, and 4-5; Pages 110-111, and 117 of the AC). In addition, the AC describes the appropriate approach and departure transitional surfaces, flight path dimensions, and heliport protection zones. Section 417 of the AC includes the following security and safety considerations for the design of a helipad:

- ▶ Provide a means to keep the operational areas of a hospital heliport clear of people, animals, and vehicles. Use a method to control access depending upon the helicopter location and types of potential intruders.
- ▶ At ground-level hospital heliports, erect a safety barrier around the helicopter operational areas in the form of a fence or a wall. Construct the barrier no closer to the operation areas than the outer perimeter of the safety area. Make sure the barrier does not penetrate any approach/departure (primary or transitional) surface. If necessary, in the vicinity of the approach/departure paths, install the barrier well outside the outer perimeter of the safety area.
- ▶ Barrier should be high enough to present a deterrent to persons inadvertently entering an operational area and yet low enough to be non-hazardous to helicopter operations.
- ▶ Display a cautionary sign on gates and doors. As an option at hospital heliport, secure operational areas via the use of security guards and a mixture of fixed and movable barriers.

## STATE

### Caltrans Division of Aeronautics

The Division of Aeronautics within Caltrans is the State permitting agency for helipads and reviews all the documentation and approvals submitted from the local government agencies and the FAA to make the final determination as to the safety and appropriateness of the location for a helipad and the adequacy of the helipad design. Caltrans has adopted many of the design standards set forth in the FAA AC 150/5390-2C and has developed some additional criteria of its own (Title 21, Sec. 3525 through 3560, California Code of Regulations [CCR]).

### California Code of Regulations, Title 21

CCR Sections 3525 through 3560 provides rules, regulations, and permit requirements related to the proposed helipad that incorporate most of the FAA regulations, including: design standards, lighting standards, visual standards, obstruction standards. All of the standards and regulations contained within CCR, Title 21, Sections 3525 through 3560 related to the adequacy of helipad design, including marking, lighting, and visual aids, must be met to receive a helipad operating permit from Caltrans Division of Aeronautics.

## LOCAL

### City of Temecula General Plan - Community Design Element

Temecula's natural setting offers a variety of scenic vistas and viewsheds. The City of Temecula General Plan Community Design Element identifies the following topographical features that should be protected from insensitive development and activities: the western escarpment and southern ridgelines, hillsides in the northern area, natural drainage courses, and environmental resources of the Santa Margarita River (City of Temecula 2005a). Public views to these areas should be maintained to the extent possible (City of Temecula 2005a).

The City of Temecula General Plan contains the following policies and actions related to aesthetics that apply to the proposed project. These policies are contained in "Community Design Element" (City of Temecula 2005a).

- ▶ **Policy 1.6:** Promote continuity throughout the community through design elements that maintain rustic and historic characteristics, and emphasize the agricultural significance of Temecula.
- ▶ **Policy 2.1:** Establish and consistently apply design standards and guidelines for both residential and non-residential development.
- ▶ **Policy 2.3:** Provide development standards ensuring higher quality building and site design that is well integrated with the infrastructure and circulation systems.
- ▶ **Policy 2.5:** Limit light and glare pollution through design standards for outdoor lighting, the use of low intensity lights, and lighting that supports the continued use of the Mt. Palomar Observatory.
- ▶ **Policy 4.6:** Encourage the use of drought tolerant landscape materials that are easy to maintain and are recommended in the Landscape Standards of the Development Code.
- ▶ **Policy 5.6:** Promote and implement underground utilities (cable, power, etc.) where feasible.

### City of Temecula Municipal Code

The City of Temecula Municipal Code provides regulations imposed by the City on development and business activities in the City. Sections 17.22.200 through 17.22.206 are known as "PDO-9" (Temecula Hospital Planned Overlay District). (Ord. 08-01 § 4; Ord. 06-01 § 3). The City of Temecula Municipal Code does not contain any view protection regulations.

**17.22.202 Purpose and intent.**

The Temecula Hospital Planned Development Overlay District is intended to provide for design flexibility with regards to the building height of hospital projects. Other aspects of this PDO will be consistent with the land use designations that are described in the land use element of the Temecula General Plan. (Ord. 08-01 § 4; Ord. 06-01 § 3)

**17.22.204 Relationship with the development code and citywide design guidelines.**

Except as modified by the provisions of Section 17.22.206, the following rules and regulations shall apply to all planning applications in this area:

- A. The development standards in the development code that would apply to any development in a professional office zoning district that are in effect at the time an application is deemed complete;
- B. The citywide design guidelines that are in effect at the time an application is deemed complete;
- C. The approval requirements contained in the development code that are in effect at the time the application is deemed complete;
- D. Any other relevant rule, regulation or standard that is in effect at the time the application is deemed complete.

(Ord. 08-01 § 4; Ord. 06-01 § 3)

**17.22.206 Development standards.**

The development standards set forth in Chapter 17.08 apply to the PDO with the exception of the following modification to allowable building heights. The maximum allowable building heights, as defined in Chapter 17.34 for hospital buildings in the Temecula Hospital PDO district, shall be limited as follows: No more than thirty percent of the total roof area of the hospital building may exceed the seventy-five-foot building height limit. The maximum building height for those portions of the hospital building within the thirty percent area may not exceed one hundred fifteen feet. For the purposes of the PDO, roof area is defined as that portion of the roof above occupied conditioned spaces bound by the inside face of the parapet wall that defines the roof area. (Ord. 08-01 § 4; Ord. 06-01 § 3)

**17.40.130 General Requirements.**

Airports and helipads: All wireless telecommunication facilities and antennas located at or near any airport or helipad shall comply with the following measures:

- A. No telecommunication facility or antenna shall be installed within the safety zone of any airpad or any helipad unless the airport land use commission indicates that it will not adversely affect the operation of the airport or helipad.
- B. No telecommunication facility or antenna shall be installed at a location where special painting or lighting will be required by the FAA regulations unless technical evidence acceptable to the planning director or planning commission, as appropriate, is submitted showing that this is the only technically feasible location for this facility.
- C. Where tower lighting is required, it shall be shielded or directed to the greatest extent possible in such a manner as to minimize the amount of light that falls onto nearby properties, particularly residences.

(Ord. 2000-05 § 2; Ord. 2000-04 § 2)

**Professional Office**

The Professional Office (PO) General Plan Land Use designation includes primarily single-tenant or multi-tenant offices and may include supporting uses. The office developments are intended to include low-rise offices situated in a landscaped garden arrangement and may include mid-rise structures at appropriate locations. Typical uses include legal, design, engineering or medical offices, corporate and governmental offices, and community facilities. Limited supporting convenience retail and personal service (such as dry cleaners, barbers, shoe repair shop) commercial may be permitted to serve the needs of the on-site employees. A maximum of fifteen percent of the total square footage

of the floor area shall be devoted to retail or personal service uses. Residential uses may be allowed on those PO properties that are subject to the affordable housing overlay.

- ▶ Commercial Development Performance Standards
  - Site Planning and Design
    - Provide pedestrian plazas and sidewalks of sufficient width adjacent to buildings along with amenities such as special lighting, interesting paving materials, landscaping benches and other street furniture.

### **City of Temecula Outdoor Lighting Regulations - Ordinance 655**

The City of Temecula has adopted Riverside County's Outdoor Lighting Regulations (Ordinance 655), which restrict nighttime lighting for areas within a 15-mile radius and a 45-mile radius of the Palomar Observatory. The project site is located within the 45-mile radius (Zone B) of the Observatory. Within Zone B, the use of most types of outdoor lighting is prohibited after 11:00 p.m., and outdoor lighting must be shielded and focused on the object to be illuminated. Decorative lighting is allowed; however, decorative lighting is required to be shut off by 11:00 p.m. By shutting off decorative lighting at 11:00 p.m., the amount of light and/or glare is reduced during late evening hours, thus preserving the visibility of the night sky for scientific research at the Mount Palomar Observatory. The ordinance also establishes the type of lighting that may be used in Zone B, such as low-pressure sodium lighting. The ordinance provides exemptions for holiday decorative lights and nonconforming uses.

The following standards apply in Zone B:

- A. Preferred Source - Low-pressure sodium lamps are the preferred illuminating source.
- B. Shielding - All nonexempt outdoor light fixtures, shall be shielded as required in Section 6.
- C. Hours of Operation - All nonexempt outdoor light fixtures are subject to the provisions of Section 8 regarding hours of operation.
- D. Outdoor Advertising Display - Lighting fixtures used to illuminate an outdoor advertising display shall be mounted on the top of the outdoor advertising structure. All such fixtures shall comply with the lamp source and shielding requirements of Section 6, and the prohibitions of Section 8.

### **City of Temecula Design Guidelines**

The City of Temecula has adopted City-Wide Design Guidelines that provide a framework which, when adhered to, will ensure the City develops in a sensitive, orderly, and cohesive manner (City of Temecula 2005b). The following City-Wide Design Guidelines pertaining to lighting for commercial development utilitarian aspects are related to the proposed project:

- A. All lighting shall be shielded to minimize glare upon neighboring properties. The shield shall be painted to match the surface to which it is attached.
- B. Light fixtures shall be architecturally compatible with the building design.
- C. All building entrances shall be well-lit.
- D. Parking lots and access shall be illuminated with a minimum of 1 footcandle of lighting.
- E. Walkways and paseos shall be illuminated with a minimum of 1 footcandle to ensure safe nighttime conditions.
- F. Light fixtures shall be sited, directed, and/or shielded to prevent spot lighting, glare, or light spillage beyond property lines.
- G. Lighting fixtures shall be shown on the landscaping plans.
- H. The lighting of building elements and trees is an effective and attractive lighting technique that is encouraged; however, light sources for wall washing and tree lighting should be hidden.

The following City-Wide Design Guidelines pertaining to site planning for commercial development are related to the proposed project (City of Temecula 2005b):

- G. Building should be placed at front setback lines to define and enliven the street. Landscaping should be installed between the street and/or edge of the sidewalk and the building to soften the massing and provide a pedestrian scale to walkways. (Figures C-5, C-7, C-8)
- H. A minimum 20-foot setback shall be provided between a commercial use parcel and a single-family residential use parcel. (Figure C-6)

## 3.1.2 Environmental Setting

### VISUAL CHARACTER OF THE PROJECT SITE

The 35.31 acre project site is currently developed with Phase I of the adopted Master Plan. The project site fronts on Temecula Parkway (Highway 79 South) within a developed area of the City of Temecula. The site terrain is relatively flat due to prior mass grading of the entire property, with a gentle slope toward De Portola Road. The elevation at the center of the site is approximately 1,147 above mean sea level (AMSL), and the elevation at De Portola Road is approximately 1,065 feet MSL. North of De Portola Road, the terrain transitions to rolling hillsides, with the highest elevation above De Portola Road in the project vicinity rising to approximately 1,223 AMSL, which provides views of the site, south Temecula, and the Palomar Mountains in the background.

As described in Section 2.4 of the "Project Description," the existing hospital complex, which is located in the center of the project site, consists of a five-story hospital building (75 feet tall) and a one-story outpatient building (18 feet tall). The hospital complex has a total building area of 237,305 square feet and capacity for 140 beds. The existing storage building, located northeast of the hospital, is a one-story building (22 feet tall) with a total building area of 5,180 square feet. There are currently two visitor parking lots with a total of 434 parking spaces, located west and southwest of the hospital. A photograph of the existing hospital complex and surface parking area is provided in Figure 3.1-1.

The western, northern, and eastern portions of the project site are predominately vacant, except for the interim helipad and the modular office/storage structures located west of the existing hospital parking lots. The vacant areas were mass graded as part of the Phase I development and were hydroseeded following completion of grading for erosion control. In addition, there is an existing onsite backbone circulation system and access driveways to Temecula Parkway and De Portola Road. Primary site access is currently provided from Temecula Parkway, at the intersection of County Glen Way. The site can also be accessed from the north via De Portola Road.



Source: Image provided by Eric Ruby, 2014. Adapted by Ascent Environmental 2022.

**Figure 3.1-1 View of the Existing Five-Story Hospital Building at the Project Site**

## VISUAL CHARACTER OF THE SURROUNDING AREA

The project site is surrounded by urban development. Surrounding land uses include commercial and single-family residences to the south (across Temecula Parkway); single-family residences to the north (both across De Portola Road and south of De Portola Road); professional office, commercial, and educational uses to the west (across Dona Lynora); and multi-family residential uses, offices, and commercial uses to the east (across an existing drainage channel).

The project site is zoned Temecula Hospital Planned Development Overlay (PDO-9). The General Plan designation for the project site is Professional Office. The area surrounding the project site is designated Professional Office, Very Low Residential, Low Medium Residential, Medium Residential, Community Commercial, and Highway Tourist Commercial. There is no designated, publicly-accessible open space located near the project site which would contain public views. The nearest park to the project site is Paloma Del Sol Park, located approximately 1,550 feet northeast of the project site. The project site is not visible from this park. Land use and zoning designations for the project site and adjacent properties are shown on Figure 2-5, "General Plan Land Use and Zoning" in Section 2, "Project Description."

Neither Temecula Parkway (Highway 79 South) nor any other roadway in the project vicinity is designated a scenic highway in the Temecula General Plan or by any State agency. The I-15 from Corona south to the San Diego County line has been designated as an Eligible State Scenic Highway (Caltrans 2018). The Temecula General Plan does not identify any view corridors or areas of special visual significance in the project vicinity.

## VIEWS OF THE PROJECT SITE AND SURROUNDING AREA

As mentioned above, surrounding land uses include commercial and single-family residences to the south (across Temecula Parkway); single-family residences to the north (across De Portola Road); professional office, commercial, and educational uses to the west; and multi-family residential uses, offices, and commercial uses to the east.

The project site is visible from residential lots north of the project site; however, these views are from privately-owned lots, are not considered to be of public benefit, and therefore are not protected by any City regulation or policy. Furthermore, while the project site is visible from residential properties to the north, existing views of Palomar Mountain are not blocked by the existing hospital building or other existing development on the project site. Existing Temecula Valley Hospital is a prominent building that is visible from more distant higher elevation vantage points, including views from northbound Interstate 15.

## LIGHT AND GLARE CONDITIONS

Existing sources of light and glare are uniformly present on the project site and in the project vicinity. The existing hospital uses on the project site provide nighttime lighting from exterior building and parking lot lighting, lighting emanating from hospital windows and doors, and lighting associated with hospital signage. There is also light from vehicles on the project site, periodic light from ambulances bringing patients to the project site, and lighting from helicopters (in addition to lighting associated with the interim helipad location). The existing hospital utilizes low-pressure sodium outdoor lighting fixtures, which is consistent with Ordinance 655 and City of Temecula Design Guidelines and Municipal Code. The landscaping around the project site, such as the tall trees adjacent to the eastern boundary of the project site and on residential parcels to the north and northwest, reduces the potential for spillover of light onto adjacent properties.

The areas adjacent to the project site currently generate nighttime lighting and glare from exterior lighting on residences, office buildings, and retail commercial areas. In addition, parking lot security lighting, and lighting from cars traveling along Temecula Parkway, De Portola Road, Margarita Road, Dartolo Road, and Dona Lynora currently generate a moderate level of lighting and glare, which is typical for a developed area within the City.

The existing development on the project site (Phase I) was built in accordance with the mitigation measures adopted following certification of the 2006 Temecula Regional Hospital Environmental Impact Report (2006 EIR). All windows above the second floor were required to have glazing and/or tinting to reduce glare which reduced the illumination and/or glare from the existing development. The City also required the project applicant to locate all ground-mounted lighting as far away as possible from the nearby residences and required landscaping along the perimeter of the project site to provide visual screening.

## SHADOWS

The angle of the sun, and hence the character of shadows, varies depending on the time of year and the time of day; however, in the Northern Hemisphere, the sun always arcs across the southern portion of the sky. During the winter, the sun is lower in the southern sky, casting longer shadows compared to other times of year. During the summer months, the sun is higher in the southern sky, resulting in shorter shadows. During the summer, the sun can be almost directly overhead at midday, resulting in almost no shadow being cast. During all seasons, as the sun rises in the east in the morning, shadows are cast to the west; at mid-day, the sun is at its highest point and shadows are their shortest and cast to the north; and as the sun sets in the west in the afternoon/evening, shadows are cast to the east. Because of the climate in the region, midday and afternoon shade in summer can be beneficial. In the winter, however, access to sunlight can be beneficial.

### 3.1.3 Environmental Impacts and Mitigation Measures

#### METHODOLOGY

This aesthetics analysis is based on consideration of the following: (1) the extent of change related to the proposed project from publicly accessible vantage points; (2) the degree of contrast and compatibility between proposed project elements and the existing surroundings; and (3) proposed project conformance with policies and regulations governing scenic quality.

In addition, the nighttime lighting analysis is based on consideration of whether light substantially interferes with, or intrudes into, sensitive land uses (including residences), or substantially impacts public views in the area. Analysis of glare takes into consideration whether glare produced by the proposed project would result in daytime interferences with activities at sensitive land uses or public roadways where drivers can be temporarily blinded by glare, thus causing a safety concern.

## THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, an impact on aesthetics, light, and glare is considered significant if implementation of the proposed project would do any of the following:

- ▶ have a substantial adverse effect on a scenic vista;
- ▶ substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway;
- ▶ in nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings. (Public views are those that are experienced from publicly accessible vantage points). If the project is in an urbanized area, if the project conflicts with applicable zoning and other regulations governing scenic quality;
- ▶ create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

## ISSUES NOT DISCUSSED FURTHER

### Substantial Adverse Effect on a Scenic Vista

A scenic vista is usually a view of a valued resource, such as waterways, the ocean, hills, valleys, or mountains, from a publicly accessible vantage point. The City of Temecula identifies the following topographical features that should be protected from insensitive development and activities: the western escarpment and southern ridgelines, hillsides in the northern area, natural drainage courses, and environmental resources of the Santa Margarita River (City of Temecula 2005a). Public views to these areas should be maintained to the extent possible (City of Temecula 2005a).

The project site is located in a developed, urbanized setting that does not contain remarkable scenery, views of natural areas, or built features that would be considered part of a scenic vista. There are no designated scenic vistas in the surrounding area. The proposed project is not located in or near a topographical feature in need of protection as identified by the Temecula General Plan. Therefore, no impact to a scenic vista would occur as a result of the proposed project, and this topic is not addressed further in this Draft Subsequent EIR.

### Substantial Damage to Scenic Resources within a Scenic Highway

No scenic highways designated by the California Department of Transportation are located near the project site (Caltrans 2018). The I-15 from Corona south to the San Diego County line has been designated as an Eligible State Scenic Highway (Caltrans 2018). I-15 is located approximately 1.8 miles west of the project site, therefore future development on the project site would not damage scenic resources within this highway. Neither Temecula Parkway (Highway 79 South) nor any other roadway in the project vicinity is designated a scenic highway in the Temecula General Plan or by any State agency. The Temecula General Plan does not identify any view corridors or areas of special visual significance in the project vicinity. Therefore, the proposed project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway, and no impact would occur. This topic is not addressed further in this Draft Subsequent EIR.

### Substantially Degrade the Existing Visual Character or Quality of Public Views of the Site and its Surroundings in a Nonurbanized Area

The project site is located in an urbanized area. The project site is located in an area characterized by urban development and is bordered by roadways, residential, commercial, and office uses. There is no designated, publicly-

accessible open space located near the project site which would contain public views. The project site does not constitute a significant visual resource, nor would the proposed project alter viewing opportunities of a significant visual resource. Therefore, the proposed project would have no impact on the existing visual character or quality of public views of the site and its surroundings in a nonurbanized area. This topic is not addressed further in this Draft Subsequent EIR.

## ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

### Impact 3.1-1: Conflict with Applicable Zoning or Other Regulations Governing Scenic Quality

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Implementation of the development included in the proposed project would require a Major Modification and Planned Development Overlay (PDO) Amendment. The project site and surrounding area consist of urban land uses, and buildout of the project site would not conflict with applicable zoning or other regulations governing scenic quality. This impact would **be less than significant**.

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The project site is located in a developed, urbanized area, where there is a variety of residential, commercial, and office uses. Therefore, the following analysis determines whether the proposed project would conflict with applicable zoning and other regulations governing scenic quality, such as guidelines and regulations involving building massing and height, design character, and landscape elements.

The project site is zoned Temecula Hospital Planned Development Overlay (PDO-9). The Temecula Hospital Planned Development Overlay District provides for design flexibility regarding the building height of hospital projects. Implementation of the development included in the proposed Master Plan Update would require a Major Modification and Planned Development Overlay (PDO) Amendment. The amendment revises the purpose and intent of the PDO; establishes an administrative approval process for buildings and structures that conform to the architectural standards of the PDO; clarifies the allowable mix of structures and uses in the PDO; and sets forth design guidelines for buildings and structures. The proposed project's revisions to the approved master plan would not change the nature of the land uses already allowed and occurring on the project site. Because the land uses proposed under the proposed project are consistent with the Professional Office land use designation for the project site in the General Plan, a General Plan Amendment is not required. Implementation of the proposed project would, however, require a Development Plan Major Modification, including design and site review. Development resulting from the revisions to the existing master plan would be inconsistent with the PDO-9 zoning for the project site. For this reason, implementation of the proposed project would require City approval of a PDO amendment for the updated master plan. Because the proposed project is consistent with the General Plan land use designation for the project site and the City would approve a PDO amendment for the updated master plan as part of project approval, the proposed project would not conflict with applicable zoning or other regulations governing scenic quality.

The proposed project would result in buildout of the undeveloped areas of the project site, which were mass graded in 2011. The existing hospital building and associated infrastructure that were constructed during Phase I of the currently approved project would be maintained in place. The proposed project consists of development of the following structures: an approximately 102,000-square-foot, four-story Behavioral Health Building; an approximately 20,000-square-foot expansion to the emergency department; a 125,000-square-foot, five-story second hospital tower; an 80,000-square-foot medical office building; a 14,000-square-foot utility plant; an approximately 125,000-square-foot, five-story third hospital tower; an 80,000-square-foot, three-story medical office building; and a four-story parking structure. In addition, the proposed project includes relocating the existing helipad from its interim location to the roof of the proposed parking structure. The existing backbone circulation system would also be maintained. During Phase II, the circulation system would be extended in the western portion of the project site, with new on-site roadways that connect to Dona Lynora.

As described in Section 2.5, "Project Characteristics," the proposed development in the remaining phases of the proposed project would feature building massing and heights that would be consistent with the existing development on site. The tallest buildings proposed are the second five-story hospital building which would be constructed as part of Phase III, and the third five-story hospital building which would be constructed as part of Phase

IV. These two proposed five-story hospital buildings (both 75 feet in height) are consistent in height with the existing five-story hospital building currently developed on the project site as a part of Phase I. The proposed building heights are also consistent with the height regulations described in the Development Standards. Although the proposed height of the hospital buildings could obstruct views from nearby locations, the views are not considered to be of public benefit and are not protected by any City regulation or policy (As discussed in Section 3.1.2, "Environmental Setting"). Furthermore, the elevation of De Portola Road and adjacent residences to the north is greater than the elevation of the project site. Therefore, the building height will appear slightly lower than the actual height from the residences to the north.

Although the project site and surrounding area consist of urban land uses, buildout of the project site would introduce new buildings and parking, however, as described in Section 2.5, "Project Characteristics," all proposed buildings would be designed to meet UHS Temecula Exterior Design Standards. The design and architectural style of new buildings would be consistent with the Spanish-Mediterranean or Mission styles of existing development on the project site and nearby development. Large mass elements would be articulated to reduce the overall scale. This includes vertically offsetting portions of the ground level to relate to a more pedestrian scale. The exterior finish would be primarily stucco or Exterior Insulation Finishing System (EIFS) with an elastomeric topcoat. Use of accent tile or stone would be incorporated into key elevations and building design elements. Colors would be light natural tones to be consistent with existing, nearby development and would match or complement the existing plaster/EIFS colors used on the project site. Glazing would be predominately storefront on lower public-facing areas of the proposed buildings, with punched windows elsewhere. Curtainwall window systems may be used at key architectural elements and main entries. Rooftop equipment would be screened from view. Mechanical screens would be either tile-covered mansard roofs or vertical wall panels clad with EIFS or metal panels. Canopies, porte-cochere, or other overhanging elements can be designed to match the main building or designed with complementary painted or pre-finished metal components. Since the proposed development will be designed to blend with the colors and styles used on the buildings in the vicinity, the proposed project features will ensure compatibility with the surrounding uses and the proposed project would not conflict with the character and scenic quality of the area. Therefore, the proposed project would not conflict with applicable zoning and other regulations governing scenic quality. This impact would be **less than significant**.

### Mitigation Measures

No mitigation is required for this impact.

### Impact 3.1-2: Create a New Source of Substantial Light or Glare which would Adversely Affect Day or Nighttime Views in the Area

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The proposed project would be required to comply with the City of Temecula Design Guidelines, Municipal Code, and Ordinance 655, which ensure that the proposed project would not create new sources of substantial light or glare which would adversely affect day or nighttime views in the area. This impact would be **less than significant**.

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As stated above in Section 3.1.2, "Environmental Setting," the project site is located in a developed, urbanized area. The existing sources of light generated from the project site include lighting from exterior building and parking lot lighting, lighting emanating from hospital windows and doors, and lighting associated with hospital signage. There is also light from vehicles on the project site, periodic light from ambulances bringing patients to the project site, and occasional lighting from helicopters making emergency flights (in addition to lighting associated with the interim helipad location). The existing hospital utilizes low-pressure sodium outdoor lighting fixtures, which is consistent with Ordinance 655 and City of Temecula Design Guidelines and Development Code.

Lighting for the proposed project, including the emergency department expansion, hospital towers, medical office buildings, behavioral health building, and utility plant would be installed in compliance with the City's Design Guidelines, Municipal Code, and Ordinance 655, which require illumination levels onto adjacent property lines be reduced through the use of low-pressure sodium outdoor lighting fixtures that are directed down and/or shielded. The proposed project would also include exterior lighting to illuminate walkways and provide a security area around

the building. The City's Design Guidelines for commercial uses require a minimum of one footcandle of lighting for parking lots and walkways, and require that all lighting is sited, directed downward, and/or shielded to prevent spot lighting, glare, or light spillage beyond property lines. Ambulance operations would not change as a result of the proposed project; therefore ambulances would not generate substantial sources of light under the proposed project.

Although the frequency of helicopter operations would not change from existing conditions, the location of the helipad and the arrival and departure paths of the helicopters would change as a result of the proposed project. Implementation of the proposed project would involve relocating the existing helipad to the roof of the proposed four-story parking structure during Phase IV. The amount of lighting associated with the helipad and helicopters would not change as a result of the proposed project, although it would change the location of the helipad and the helicopter arrival and departure path. The proposed arrival and departure paths for the project site are shown on Figure 2-7, "Proposed Site Plan" in Section 2, "Project Description." The lights related to the helipad would be directed toward the interior of the roof top and avoid directing light onto adjacent properties as required by the City's Design Guidelines and Ordinance 655. Although lighting from the helipad would be directed toward the interior of the roof top, some of the rooftop lighting from the helipad would be visible from nearby residences and other land uses but would be consistent with the existing hospital lighting in terms of lumens and architectural compatibility, as required by the City's Design Guidelines and Ordinance 655 and thus would not adversely affect day or nighttime views in the area. Furthermore, due to the aforementioned regulatory requirements, the lights would be similar to, and blend into, the existing on-site hospital lighting and the commercial, office, residential, and street related lighting in the project vicinity. Because the lighting would be on intermittently and would be similar to existing lighting in the developed area, lighting related to the new helipad location and new helicopter arrival and departure paths would not substantially affect day or nighttime views in the area.

The marking and lighting for the hospital and the proposed helicopter landing site would be consistent with FAA Advisory Circular 150/5390-2C (Heliport Design), Chapter 4 (Hospital Heliports), and Section 415 (Heliport Lighting). The heliport consists of a touchdown and lift-off area (TLOF) surrounded by a final approach and takeoff area (FATO). A safety area is provided around the FATO. For night operations, the TLOF, the FATO, taxiways and taxi routes, and the windsock need to be lighted as described within this paragraph. AC 150/5340-28, Low Visibility Taxiway Lighting System; AC 150/5340-24, Runway and Taxiway Edge Lighting System; and AC 150/5345-46, Specification for Runway and Taxiway Light Fixtures; contain technical guidance on lighting equipment and installation details.

All helipad-related lighting would be subject to FAA regulations and would also be regulated by the City of Temecula and comply with the City's Design Guidelines, Municipal Code, and Ordinance 655, which require minimizing illumination levels onto adjacent property lines. Lighting is required to be directed down and fully shielded to reduce the amount of light rays into the night sky and onto adjacent parcels. The applicant would utilize low-pressure sodium outdoor lighting fixtures, which is consistent with Ordinance 655 to ensure that light would not result from the proposed project that could adversely affect day or nighttime views in the area.

The proposed project is not anticipated to introduce a substantial source of glare to the project area that would affect views in the area because the proposed development and buildings would be constructed using typical building materials (e.g., concrete, stucco, steel, paint), which would not create substantial daytime glare. As mentioned in Section 2.5, "Project Characteristics," glazing would be predominately storefront on lower public-facing areas of the proposed buildings, with punched windows elsewhere. Curtainwall window systems may be used at key architectural elements and main entries. Rooftop equipment would be screened from view. Mechanical screens would be either tile-covered mansard roofs or vertical wall panels clad with (Exterior Insulation Finishing System) EIFS or metal panels. Canopies, porte-cochere, or other overhanging elements can be designed to match the main building or designed with complementary painted or pre-finished metal components. Furthermore, sources of existing daytime glare from the helicopter while on the interim helipad (which is currently at ground level) would be reduced with implementation of the proposed project because the helipad would be relocated to the rooftop of the proposed four-story parking structure.

Because the proposed project would be required to comply with the City of Temecula Design Guidelines, Municipal Code, and Ordinance 655, and applicable FAA regulations, the proposed project would not create new sources of

substantial light or glare that could adversely affect day or nighttime views in the area. This impact would be **less than significant**.

### **Mitigation Measures**

No mitigation is required for this impact.

## 3.2 AIR QUALITY

This section includes a discussion of existing air quality conditions, a summary of applicable regulations, and an analysis of potential construction and operational air quality impacts caused by proposed development of the Temecula Valley Hospital Master Plan Update (proposed project). Mitigation measures are identified as necessary to avoid or substantially lessen significant air quality impacts.

Comments received regarding air quality in response to the notice of preparation included reducing construction worker commute trip lengths and related air emissions through local hire provisions.

### 3.2.1 Regulatory Setting

Air quality in the project area is regulated through the efforts of various federal, State, regional, and local government agencies. These agencies work jointly, as well as individually, to improve air quality through legislation, planning, policy-making, education, and a variety of programs. Plans, policies, and regulations at the federal, State, and local level relevant to the proposed project are discussed below.

## FEDERAL

### U.S. Environmental Protection Agency

The U.S. Environmental Protection Agency (EPA) has been charged with implementing national air quality programs. EPA's air quality mandates draw primarily from the federal Clean Air Act (CAA), which was enacted in 1970. The most recent major amendments made by Congress in 1990. EPA's air quality efforts address both criteria air pollutants (CAPs) and hazardous air pollutants (HAPs). EPA regulations concerning CAPs and HAPs are presented in greater detail below.

#### Criteria Air Pollutants

The CAA required EPA to establish National Ambient Air Quality Standards (NAAQS) for six common air pollutants found all over the U.S. referred to as CAPs. EPA has established primary and secondary NAAQS for the following criteria air pollutants: ozone, carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>), respirable particulate matter with aerodynamic diameter of 10 micrometers or less (PM<sub>10</sub>) and fine particulate matter with aerodynamic diameter of 2.5 micrometers or less (PM<sub>2.5</sub>), and lead. The NAAQS are shown in Table 3.2-1. The primary standards protect public health and the secondary standards protect public welfare. The CAA also required each State to prepare a State implementation plan (SIP) for attaining and maintaining the NAAQS. The federal Clean Air Act Amendments of 1990 added requirements for states with nonattainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. California's SIP is modified periodically to reflect the latest emissions inventories, planning documents, and rules and regulations of the air basins as reported by their jurisdictional agencies. EPA is responsible for reviewing all SIPs to determine whether they conform to the mandates of the CAA and its amendments, and whether implementation will achieve air quality goals. If EPA determines a SIP to be inadequate, EPA may prepare a federal implementation plan that imposes additional control measures. If an approvable SIP is not submitted or implemented within the mandated time frame, sanctions may be applied to transportation funding and stationary air pollution sources in the air basin.

**Table 3.2-1 National and California Ambient Air Quality Standards**

Pollutant	Averaging Time	California (CAAQS) <sup>a,b</sup>	National (NAAQS) <sup>c</sup>	
			Primary <sup>b,d</sup>	Secondary <sup>b,e</sup>
Ozone	1-hour	0.09 ppm (180 µg/m <sup>3</sup> )	— <sup>e</sup>	Same as primary standard
	8-hour	0.070 ppm (137 µg/m <sup>3</sup> )	0.070 ppm (137 µg/m <sup>3</sup> )	
Carbon monoxide (CO)	1-hour	20 ppm (23 mg/m <sup>3</sup> )	35 ppm (40 mg/m <sup>3</sup> )	Same as primary standard
	8-hour	9.0 ppm <sup>f</sup> (10 mg/m <sup>3</sup> )	9 ppm (10 mg/m <sup>3</sup> )	
Nitrogen dioxide (NO <sub>2</sub> )	Annual arithmetic mean	0.030 ppm (57 µg/m <sup>3</sup> )	53 ppb (100 µg/m <sup>3</sup> )	Same as primary standard
	1-hour	0.18 ppm (339 µg/m <sup>3</sup> )	100 ppb (188 µg/m <sup>3</sup> )	—
Sulfur dioxide (SO <sub>2</sub> )	24-hour	0.04 ppm (105 µg/m <sup>3</sup> )	—	—
	3-hour	—	—	0.5 ppm (1300 µg/m <sup>3</sup> )
	1-hour	0.25 ppm (655 µg/m <sup>3</sup> )	75 ppb (196 µg/m <sup>3</sup> )	—
Respirable particulate matter (PM <sub>10</sub> )	Annual arithmetic mean	20 µg/m <sup>3</sup>	—	Same as primary standard
	24-hour	50 µg/m <sup>3</sup>	150 µg/m <sup>3</sup>	
Fine particulate matter (PM <sub>2.5</sub> )	Annual arithmetic mean	12 µg/m <sup>3</sup>	12.0 µg/m <sup>3</sup>	15.0 µg/m <sup>3</sup>
	24-hour	—	35 µg/m <sup>3</sup>	Same as primary standard
Lead <sup>f</sup>	Calendar quarter	—	1.5 µg/m <sup>3</sup>	Same as primary standard
	30-Day average	1.5 µg/m <sup>3</sup>	—	—
	Rolling 3-Month Average	—	0.15 µg/m <sup>3</sup>	Same as primary standard
Hydrogen sulfide	1-hour	0.03 ppm (42 µg/m <sup>3</sup> )	No national standards	
Sulfates	24-hour	25 µg/m <sup>3</sup>		
Vinyl chloride <sup>f</sup>	24-hour	0.01 ppm (26 µg/m <sup>3</sup> )		
Visibility-reducing particulate matter	8-hour	Extinction of 0.23 per km		

Notes: µg/m<sup>3</sup> = micrograms per cubic meter; km = kilometers; ppb = parts per billion; ppm = parts per million.

- a California standards for ozone, carbon monoxide, SO<sub>2</sub> (1- and 24-hour), NO<sub>2</sub>, particulate matter, 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.
- b Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based on a reference temperature of 25 degrees Celsius (°C) and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
- c National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic means) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration in a year, averaged over three years, is equal to or less than the standard. The PM<sub>10</sub> 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m<sup>3</sup> is equal to or less than one. The PM<sub>2.5</sub> 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. Environmental Protection Agency for further clarification and current federal policies.
- d National primary standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
- e National secondary standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
- f The California Air Resources Board has identified lead and vinyl chloride as toxic air contaminants with no threshold of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

Source: CARB 2016.

### **Hazardous Air Pollutants and Toxic Air Contaminants**

Toxic air contaminants (TACs), or in federal parlance, HAPs, are a defined set of airborne pollutants that may pose a present or potential hazard to human health. A TAC is defined as an air pollutant that may cause or contribute to an increase in mortality or in serious illness, or that may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air; however, their high toxicity or health risk may pose a threat to public health even at low concentrations.

A wide range of sources, from industrial plants to motor vehicles, emit TACs. The health effects associated with TACs are quite diverse and generally are assessed locally, rather than regionally. TACs can cause long-term health effects such as cancer, birth defects, neurological damage, asthma, bronchitis, or genetic damage; or short-term acute effects such as eye watering, respiratory irritation (a cough), running nose, throat pain, and headaches.

For evaluation purposes, TACs are separated into carcinogens and non-carcinogens based on the nature of the physiological effects associated with exposure to the pollutant. Carcinogens are assumed to have no safe threshold below which health impacts would not occur. This contrasts with criteria air pollutants for which acceptable levels of exposure can be determined and for which the ambient standards have been established (Table 3.2-1). Cancer risk from TACs is expressed as excess cancer cases per one million exposed individuals, typically over a lifetime of exposure.

EPA regulates HAPs through its National Emission Standards for Hazardous Air Pollutants. The standards for a particular source category require the maximum degree of emission reduction that the EPA determines to be achievable, which is known as the Maximum Achievable Control Technology standards. These standards are authorized by Section 112 of the 1970 Clean Air Act and the regulations are published in 40 CFR Parts 61 and 63.

## **STATE**

CARB is the agency responsible for coordination and oversight of State and local air pollution control programs in California and for implementing the California Clean Air Act (CCAA). The CCAA, which was adopted in 1988, required CARB to establish California ambient air quality standards (CAAQS) (Table 3.2-1).

### **Criteria Air Pollutants**

CARB has established CAAQS for sulfates, hydrogen sulfide, vinyl chloride, visibility-reducing particulate matter, and the above-mentioned criteria air pollutants. In most cases the CAAQS are more stringent than the NAAQS. Differences in the standards are generally explained by the health effects studies considered during the standard-setting process and the interpretation of the studies. In addition, the CAAQS incorporate a margin of safety to protect sensitive individuals.

The CCAA requires that all local air districts in the State endeavor to attain and maintain the CAAQS by the earliest date practical. The CCAA specifies that local air districts should focus particular attention on reducing the emissions from transportation and area-wide emission sources. The CCAA also provides air districts with the authority to regulate indirect sources.

### **Toxic Air Contaminants**

TACs in California are regulated primarily through the Tanner Air Toxics Act (Assembly Bill [AB] 1807, Chapter 1047, Statutes of 1983) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588, Chapter 1252, Statutes of 1987). AB 1807 sets forth a formal procedure for CARB to designate substances as TACs. Research, public participation, and scientific peer review are required before CARB can designate a substance as a TAC. To date, CARB has identified more than 21 TACs and adopted EPA's list of HAPs as TACs. Most recently, particulate matter (PM) exhaust from diesel engines (diesel PM) was added to CARB's list of TACs.

After a TAC is identified, CARB then adopts an airborne toxics control measure for sources that emit that particular TAC. If a safe threshold exists for a substance at which there is no toxic effect, the control measure must reduce exposure below that threshold. If no safe threshold exists, the measure must incorporate best available control technology for toxics to minimize emissions.

The Hot Spots Act requires that existing facilities that emit toxic substances above a specified level prepare an inventory of toxic emissions, prepare a risk assessment if emissions are significant, notify the public of significant risk levels, and prepare and implement risk reduction measures.

AB 617 of 2017 aims to help protect air quality and public health in communities around industries subject to the State's cap-and-trade program for greenhouse gas (GHG) emissions. AB 617 imposes a new State-mandated local program to address non-vehicular sources (e.g., refineries, manufacturing facilities) of criteria air pollutants and TACs. The bill requires CARB to identify high-pollution areas and directs air districts to focus air quality improvement efforts through adoption of community emission reduction programs within these identified areas. Currently, air districts review individual sources and impose emissions limits on emitters based on best available control technology, pollutant type, and proximity to nearby existing land uses. This bill addresses the cumulative and additive nature of air pollutant health effects by requiring community-wide air quality assessment and emission reduction planning.

CARB has adopted diesel exhaust control measures and more stringent emissions standards for various transportation-related mobile sources of emissions, including transit buses, and off-road diesel equipment (e.g., tractors, generators). Over time, the replacement of older vehicles will result in a vehicle fleet that produces substantially lower levels of TACs than under current conditions. Mobile-source emissions of TACs (e.g., benzene, 1-3-butadiene, diesel PM) have been reduced significantly over the last decade and will be reduced further in California through a progression of regulatory measures (e.g., Low Emission Vehicle/Clean Fuels and Phase II reformulated gasoline regulations) and control technologies. With implementation of CARB's Risk Reduction Plan, it is expected that diesel PM concentrations will be 85 percent less in 2020 in comparison to year 2000 (CARB 2000). Adopted regulations are also expected to continue to reduce formaldehyde emissions emitted by cars and light-duty trucks. As emissions are reduced, it is expected that risks associated with exposure to the emissions will also be reduced.

## LOCAL

### City of Temecula

#### General Plan

The most recent General Plan Update was in 2005. The Air Quality Element of the General Plan establishes policy foundation to implement local air quality improvement measures and provides a framework for coordination of air quality planning efforts with surrounding jurisdictions. The Air Quality Element includes goals and policies that address four major issues: 1) achieving improvements to regional air quality, 2) integration of air quality issues into land use planning decisions, 3) reducing air pollutant emissions from automobiles, and 4) conserving energy (City of Temecula 2005).

The goals and policies relevant to the air quality impacts of the proposed project are summarized below.

**GOAL 2:** Improve air quality through effective land use planning in Temecula.

- ▶ **Policy 2.1:** Encourage new development that provides employment opportunities for Temecula residents to improve the balance of jobs relative to housing.
- ▶ **Policy 2.2:** Encourage infill development near activity centers, within Mixed Use Overlay Areas, and along transportation corridors.
- ▶ **Policy 2.3:** Minimize land use conflicts between emission sources and sensitive receptors.
- ▶ **Policy 2.4:** Mitigate air quality impacts associated with development projects to the greatest extent feasible.

**GOAL 3:** Enhance mobility to minimize air pollutant emissions.

- ▶ **Policy 3.1:** Use transportation demand reduction techniques to reduce motor vehicle trips.
- ▶ **Policy 3.2:** Use transportation systems management techniques to maintain an orderly flow of traffic and improve mobility.

- ▶ **Policy 3.3:** Pursue development of a public transit system consisting of local shuttle and bus routes, as well as bicycle and pedestrian trails that are linked to the regional transit network.
- ▶ **Policy 3.4:** Establish a convenient and efficient system of bicycle routes and pedestrian walkways.
- ▶ **Policy 3.5:** Promote the use of alternative clean-fueled vehicles, new transportation technologies, and combustion engine alternatives for personal and business use.
- ▶ **Policy 3.6:** Develop and implement programs that reduce local traffic congestion at peak hours and during special events.

**GOAL 4:** Adopt effective energy conservation and recycling practices to reduce emissions.

- ▶ **Policy 4.1:** Encourage community-wide reductions in energy consumption through conservation.
- ▶ **Policy 4.2:** Promote local recycling of wastes and the use of recycled materials.
- ▶ **Policy 4.3:** Encourage energy-efficient design in new development projects.

The General Plan includes Implementation Programs, which provide actions to implement Air Quality Element policies. Air Quality Implementation Programs are summarized below.

- ▶ AQ-1 Multi-Jurisdictional Coordination
  - Support regional transit initiatives and promote development of high-speed rail service connecting Temecula to San Diego and Los Angeles. Actively participate in efforts to protect and improve air quality in the region. Attend meetings with the County of Riverside, WRCOG, SCAQMD, SCAG, and other agencies as required to support these objectives and fulfill Temecula's requirements and obligations under the AQMP and Sub-Regional Air Quality Implementation Program.
- ▶ AQ-2 Public Participation
  - Continue to involve the general public, environmental groups, the business community, and special interest groups in the formulation and implementation of air quality programs. Conduct periodic public outreach efforts, and continue to promote public education as a method of employer compliance with the Trip Reduction Ordinance.
- ▶ AQ-3: Land Use Compatibility
  - Adhere to the policies and programs of the Land Use Element, including development of mixed-use projects where designated and feasible, to ensure that future land use patterns and traffic increases are accompanied by measures to improve air quality.
- ▶ AQ-4 Jobs/Housing Balance
  - Improve the jobs/housing balance in Temecula by encouraging development and expansion of businesses, while also promoting development of housing affordable to all segments of the community near job opportunity sites, and within Mixed Use Overlay Areas.
- ▶ AQ-5: Mitigation Measures
  - Assess the potential air quality impacts of individual development projects by requiring preparation of air quality analysis for individual projects. The City shall require individual development projects to comply with the following measures to minimize short-term, construction-related PM<sub>10</sub> and NO<sub>x</sub> emissions, and to minimize off-site impacts:
    - Water all active construction areas at least twice daily.
    - Cover all haul trucks or maintain at least two feet of freeboard.
    - Pave or apply water four times daily to all unpaved parking or staging areas.

- Sweep or wash any site access points within 30 minutes of any visible dirt deposition on any public roadway.
  - Cover or water twice daily any on-site stockpiles of debris, dirt or other dusty material.
  - Suspend all operations on any unpaved surface if winds exceed 25 mph.
  - Hydroseed or otherwise stabilize any cleared area which is to remain in active for more than 96 hours after clearing is completed.
  - Ensure that all cut and fill slopes are permanently protected from erosion.
  - Require the construction contractor to ensure that all construction equipment is maintained in peak working order.
  - Limit allowable idling to 10 minutes for trucks and heavy equipment.
  - Encourage car pooling for construction workers.
  - Limit lane closures to off-peak travel periods.
  - Park construction vehicles off traveled roadways.
  - Wet down or cover dirt hauled off-site.
  - Wash or sweep away access points daily.
  - Encourage receipt of materials during non-peak traffic hours.
  - Sandbag construction sites for erosion control.
  - Approve development that could significantly impact air quality, either individually or cumulatively, only if it is conditioned with all reasonable mitigation measures to avoid, minimize, or offset the impact.
- ▶ AQ-6: Sensitive Receptors
- Locate new sensitive receptors away from major air pollution sources. Require buffering of sensitive receptors from air pollution sources through the use of landscaping, open space and other separation techniques.
- ▶ AQ-7: Design Guidelines
- Incorporate strategies into City-wide design guidelines and development standards that promote a pedestrian-scale environment, encourage use of mass transit, and reduce dependence on the automobile.
- ▶ AQ-8: Alternative Work Schedules
- Promote the use of alternative work weeks, flextime, telecommuting, and work-at-home programs among employers in Temecula and continue to enforce provisions of the City's Trip Reduction Ordinance, including requirements for preparation of Trip Reduction Plans (TRPs) for qualifying development projects and employers.
- ▶ AQ-9: Rideshare and Transit Incentives
- Require employee rideshare and transit incentives for large employers, consistent with the requirements of the City's Trip Reduction Ordinance. Continue to encourage voluntary compliance with the Ordinance for smaller employers.
- ▶ AQ-10: Special Events
- Require operators of large scale outdoor events to submit a Trip Reduction Plan (TRP) that shall apply to both patrons and employees during the course of the event. Encourage special event operators to advertise and offer discount parking incentives to carpooling patrons, with two or more persons per vehicle, for onsite parking facilities.

- ▶ AQ-11: Transportation Alternatives
  - Work to achieve local performance goals for vehicle miles traveled (VMT) reduction, consistent with SCAG's Growth Management Plan recommended standards for the Western Riverside County subregion. Enforce requirements and options within the Trip Reduction Ordinance to achieve a 12 percent Citywide reduction in vehicle miles traveled.
- ▶ AQ-12: Alternative Fueled Vehicles
  - Promote and encourage the use of alternative fuel vehicles. Consider adoption of an ordinance requiring provision of alternative fueling stations at or near major employment locations, shopping centers, public facilities, and mixed-use developments.
- ▶ AQ-13: Multi-Use Trails and Bikeways Master Plan
  - Encourage pedestrian and bicycle trips as an option to single occupancy vehicle trips by constructing and maintaining trails and bikeways specified in the Multi-Use Trails and Bikeways Master Plan. Periodically update the Master Plan as needed to meet resident needs and City objectives.
- ▶ AQ-14: Park and Ride Facilities
  - Work with Caltrans and RTA to identify potential sites for Park and Ride facilities adjacent to key commuting routes within the City. Prioritize development of such facilities in corridors served by more than one mode of planned transportation (automobile, transit, and/or high-speed rail).
- ▶ AQ-15: Energy Efficient Design
  - Incorporate energy efficient design elements in residential, commercial and light industrial and mixed-use development projects. Examples may include (but are not limited to) the following.
  - Site orientation strategies that use shade and windbreak trees to reduce fuel consumption for heating and cooling.
  - Building designs that maximize use of natural lighting, provide for task lighting, and specify high-efficiency electric lighting.

### Municipal Code

The following sections of the City of Temecula Municipal Code (Municipal Code) are relevant to proposed project.

**18.06.100 Dust prevention and control plan.** Dust prevention and control procedures shall be employed while construction activity occurs to minimize wind borne particles. At minimum, all grading operations, land clearing, loading, stockpiling, landscaping, vehicular track-out and haul routes shall comply with South Coast Air Quality Management District (AQMD) Rule 403 (fugitive dust emissions) and the provisions of Subarticle 3.8 of the grading manual. (Ord. 04-04 Section 4 (part))

### **South Coast Air Quality Management District**

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

### Air Quality Management Plans

SCAQMD has adopted a series of air quality management plans (AQMPs) to meet the CAAQS and NAAQS. These plans require, among other emissions-reducing activities, control technology for existing sources, control programs for area sources and indirect sources, an SCAQMD permitting system that allows no net increase in emissions from any new or modified (i.e., previously permitted) emissions sources, and transportation control measures. The most

recent adopted AQMD is the 2016 AQMP, which is intended to serve as a regional blueprint for achieving the federal air quality standards for healthful air. The Draft 2022 AQMP was released for public comment in May 2022. As of July 2022, the 2022 AQMD remains in Draft form. The 2016 AQMP addressed the 1997 8-hour (80 parts per billion [ppb]) and 2008 8-hour ozone standards (75 ppb), as well as PM<sub>2.5</sub> standards. The 2022 AQMD is focused on attaining the 2015 8-hour ozone standard of 70 ppb.

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

The Draft 2022 AQMP builds upon measures already in place from previous AQMPs. It also includes a variety of additional strategies such as regulation, accelerated deployment of available cleaner technologies (e.g., zero emission technologies, when cost-effective and feasible, and low NO<sub>x</sub> technologies in other applications), best management practices, co-benefits from existing programs (e.g., climate and energy efficiency), incentives, and other CAA measures to achieve the 2015 8-hour ozone standard (SCAQMD 2022a).

### **CEQA Guidance**

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

### **Rules**

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

#### **SCAQMD Rule 402—Nuisance**

This rule prohibits the discharge of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, endanger the comfort, repose, health, or safety of any such persons or the public, or cause, or have a natural tendency to cause, injury or damage to business or property. Odors are regulated under this rule.

#### **SCAQMD Rule 403—Fugitive Dust**

This rule prohibits emissions of fugitive dust from any active operation, open storage pile, or disturbed surface area that remains visible beyond the property line of the emission's source.

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

#### **SCAQMD Rule 1108—Cutback Asphalt**

This rule specifies volatile organic compound (VOC) content limits for cutback asphalt.

**SCAQMD Rule 1146—Emissions of Oxides of Nitrogen from Industrial, Institutional and Commercial Boilers, Steam Generators, and Process Heaters**

The purpose of this rule is to set oxides of nitrogen (NO<sub>x</sub>) limits for exhaust from large external combustion equipment, such as commercial boilers, steam generators, and process heaters of equal to or greater than 5 million British thermal unit (Btu) per hour rated heat input capacity used in all industrial, institutional, and commercial operations.

**SCAQMD Rule 1146.1—Emissions of Oxides of Nitrogen from Small Industrial, Institutional and Commercial Boilers, Steam Generators, and Process Heaters**

The purpose of this rule is to set NO<sub>x</sub> limits for exhaust from small external combustion equipment, such as commercial boilers, steam generators, and process heaters that are greater than 2 million Btu per hour and less than 5 million Btu per hour rated heat input capacity used in all industrial, institutional, and commercial operations.

**SCAQMD Rule 1470—Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines**

This rule specifies requirements for stationary diesel engines greater than or equal to 50 brake-horsepower hour, including emergency standby (backup) generators. It requires owners or operators of emergency standby generators to keep monthly logs of usage, limits maintenance and testing to 50 hours per year, and requires emission rates to meet specific emission standards based on the year the permit is requested, distance to schools and other sensitive land uses, and the size of the engine.

**Southern California Association of Governments**

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

## 3.2.2 Environmental Setting

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

The ambient concentrations of air pollutant emissions are determined by the amount of emissions released by the sources of air pollutants and the atmosphere's ability to transport and dilute such emissions. Natural factors that affect transport and dilution include terrain, wind, atmospheric stability, and sunlight. Therefore, existing air quality conditions in the area are determined by such natural factors as topography, meteorology, and climate, in addition to the amount of emissions released by existing air pollutant sources, as discussed separately below.

## CLIMATE, METEOROLOGY, AND TOPOGRAPHY

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

humidity, rainfall, and topography all affect the accumulation and dispersion of pollutants throughout the Basin, making it an area of high pollution potential.

The greatest air pollution impacts in the Basin occur from June through September and are generally attributed to the large amount of pollutant emissions, light winds, and shallow vertical atmospheric mixing. These conditions frequently reduce pollutant dispersion, thereby causing elevated air pollution levels. Pollutant concentrations in the Basin vary with location, season, and time of day. Ozone (O<sub>3</sub>) concentrations, for example, tend to be lower along the coast, higher in the near inland valleys, and lower in the far inland areas of the Basin and adjacent desert.

The local meteorology of the project site and surrounding area is represented by measurements recorded at the Western Regional Climate Center Lake Elsinore station. The annual average precipitation over the period of record (1897 – 2016) is approximately 12.01 inches. January temperatures range from an average low of 51°F to an average high of 65°F. July temperatures range from an average low of 79°F to an average high of 98°F (WRCC 2016). Wind patterns vary throughout the year. Predominant wind direction in January is out of the north/northwest at 2.78 miles per hour (or 1.24 meters per second). Predominant wind direction in July is multidirectional, ranging from the southeast, southwest, and northwest at 2.91 miles per hour (or 1.30 meters per second (SCAQMD 2022b).

## CRITERIA AIR POLLUTANTS

Concentrations of criteria air pollutants are used to indicate the quality of the ambient air. A brief description of key criteria air pollutants in the Basin is provided below. Emission source types and health effects are summarized in Table 3.2-2. Monitoring data applicable to the project site is provided in Table 3.2-3. Riverside County's attainment status for the CAAQS and the NAAQS are shown in Table 3.2-4.

### Ozone

Ozone is a component of urban smog, and is a photochemical oxidant that is formed when VOC (also known as reactive organic gases [ROG]) and NO<sub>x</sub> (both byproducts of the internal combustion engine) react with sunlight. VOC are compounds made up primarily of hydrogen and carbon atoms. Internal combustion associated with motor vehicle usage is the major source of hydrocarbons. Other sources of VOC are emissions associated with the use of paints and solvents, the application of asphalt paving, and the use of household consumer products such as aerosols. The two major forms of NO<sub>x</sub> are nitric oxide (NO) and NO<sub>2</sub>. NO is a colorless, odorless gas formed from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure. NO<sub>2</sub> is a reddish-brown irritating gas formed by the combination of NO and oxygen. In addition to serving as an integral participant in ozone formation, NO<sub>x</sub> also directly acts as an acute respiratory irritant and increases susceptibility to respiratory pathogens.

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

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

Hydrocarbons (HC) are organic gases that are formed solely of hydrogen and carbon. ROG's include all HC except those exempted by CARB. VOCs are similar to ROG's in that they include all organic gases except those exempted by Federal law. Both VOCs and ROG's are emitted from incomplete combustion of HC or other carbon-based fuels. Combustion engine exhaust, oil refineries, and oil-fueled power plants are the primary sources of HC. Another source of HC is evaporation from petroleum fuels, solvents, dry cleaning solutions, and paint. Generally speaking, and in this analysis, ROG's and VOCs are used interchangeably to refer to the HC that are a precursor to O<sub>3</sub> formation. However, because SCAQMD uses VOCs as the term in the formulation of its thresholds, VOCs are presented herein.

The primary health effects of HC result from the formation of O<sub>3</sub> and its related health effects. High levels of HC in the atmosphere can interfere with oxygen intake by reducing the amount of available oxygen through displacement. There are no separate ambient air quality standards for VOC and ROG's. Carcinogenic forms of ROG/VOC are considered to be TACs, which are described below. An example is benzene, which is a carcinogen.

## Nitrogen Dioxide

NO<sub>2</sub> is formed by the combination of NO and oxygen through internal combustion. Long-term exposure to NO<sub>2</sub> can aggravate respiratory diseases, such as asthma, leading to increased hospital admissions (EPA 2019c). Controlled studies demonstrate effects (airway reactivity) among asthmatics at a short-term (less than 3 hours) exposure to 0.3 parts per million (ppm) NO<sub>2</sub>. Effects among healthy individuals occurred at high levels of exposure (1.5 to 2 ppm) (McConnell et al. 2002). For reference, the 1-hour CAAQS for NO<sub>2</sub> is 0.18 ppm (see Table 4.2-3). In addition to human health effects, NO<sub>2</sub> can also reduce visibility and react with water, oxygen, and other chemicals to contribute to acid rain, which can harm sensitive ecosystems (EPA 2019c).

## Carbon Monoxide

CO is a colorless, odorless, toxic gas produced by incomplete combustion of carbon substances, such as gasoline or diesel fuel. In the study area, high CO levels are of greatest concern during the winter, when periods of light winds combine with the formation of ground-level temperature inversions from evening through early morning. These conditions trap pollutants near the ground, reducing the dispersion of vehicle emissions. Moreover, motor vehicles exhibit increased CO emission rates at low air temperatures. The primary adverse health effect associated with CO is interference with normal oxygen transfer to the blood, which may result in tissue oxygen deprivation. Exposure to CO at concentrations above the CAAQS or NAAQS (see Table 3.2-1) can also cause fatigue, headaches, confusion, dizziness, and chest pain. There are no ecological or environmental effects from ambient CO (CARB 2019).

## Particulate Matter

Particulate matter consists of finely divided solids or liquids such as soot, dust, aerosols, fumes, and mists. Two forms of fine particulates are now regulated—inhalable coarse particles, or PM<sub>10</sub>, and inhalable fine particles, or PM<sub>2.5</sub>. Particulate discharge into the atmosphere results primarily from industrial, agricultural, construction, and transportation activities. However, wind on arid landscapes also contributes substantially to local particulate loading. Additionally, secondary formation of PM, primarily in the form of fine particulate, occurs through the chemical transformation of precursors such as NO<sub>x</sub>, SO<sub>2</sub>, ammonia, and VOCs.

Particulate pollution can be transported over long distances and may adversely affect humans, especially people who are naturally sensitive or susceptible to breathing problems. Numerous studies have linked PM exposure to premature death in people with preexisting heart or lung disease. Other symptoms of exposure may include nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms. Exposure to concentrations of PM above the current ambient air quality standards may result in these health effects (EPA 2019d). Similar to O<sub>3</sub>, the elderly and those with preexisting heart and lung diseases are at greater risk to the harmful effects of PM exposure. Children are also at increased risk because they breathe faster than adults, and therefore inhale more air per pound of body weight and tend to spend more time outdoors. The CAAQS and NAAQS for PM are set to protect these sensitive populations and define the number of particles that can be present in outdoor air without threatening the health of infants, children, or the elderly (CARB 2022a). The CAAQS and NAAQS for PM are shown in Table 3.2-1.

Depending on their compositions, both PM<sub>10</sub> and PM<sub>2.5</sub> can also affect water quality and acidity, deplete soil nutrients, damage sensitive forests and crops, affect ecosystem diversity, and contribute to acid rain (EPA 2022).

**Table 3.2-2 Sources and Health Effects of Criteria Air Pollutants**

Pollutant	Sources	Acute <sup>1</sup> Health Effects	Chronic <sup>2</sup> Health Effects
Ozone	Secondary pollutant resulting from reaction of VOC and NO <sub>x</sub> in presence of sunlight. VOC emissions result from incomplete combustion and evaporation of chemical solvents and fuels; NO <sub>x</sub> results from the combustion of fuels	increased respiration and pulmonary resistance; cough, pain, shortness of breath, lung inflammation	permeability of respiratory epithelia, possibility of permanent lung impairment
Carbon monoxide (CO)	Incomplete combustion of fuels; motor vehicle exhaust	headache, dizziness, fatigue, nausea, vomiting, death	permanent heart and brain damage
Nitrogen dioxide (NO <sub>2</sub> )	combustion devices; e.g., boilers, gas turbines, and mobile and stationary reciprocating internal combustion engines	coughing, difficulty breathing, vomiting, headache, eye irritation, chemical pneumonitis or pulmonary edema; breathing abnormalities, cough, cyanosis, chest pain, rapid heartbeat, death	chronic bronchitis, decreased lung function
Sulfur dioxide (SO <sub>2</sub> )	coal and oil combustion, steel mills, refineries, and pulp and paper mills	Irritation of upper respiratory tract, increased asthma symptoms	Insufficient evidence linking SO <sub>2</sub> exposure to chronic health impacts
Respirable particulate matter (PM <sub>10</sub> ), Fine particulate matter (PM <sub>2.5</sub> )	fugitive dust, soot, smoke, mobile and stationary sources, construction, fires and natural windblown dust, and formation in the atmosphere by condensation and/or transformation of SO <sub>2</sub> and VOC	breathing and respiratory symptoms, aggravation of existing respiratory and cardiovascular diseases, premature death	alterations to the immune system, carcinogenesis
Lead	metal processing	reproductive/ developmental effects (fetuses and children)	numerous effects including neurological, endocrine, and cardiovascular effects

Notes: NO<sub>x</sub> = oxides of nitrogen; VOC= volatile organic compounds.

<sup>1</sup> "Acute" refers to effects of short-term exposures to criteria air pollutants, usually at fairly high concentrations.

<sup>2</sup> "Chronic" refers to effects of long-term exposures to criteria air pollutants, usually at lower, ambient concentrations.

Sources: EPA 2016.

## MONITORING STATION DATA AND ATTAINMENT DESIGNATIONS

Criteria air pollutant concentrations are measured at several monitoring stations in the Basin. The Winchester-33700 Borel Road station is the closest (approximately 7 miles north of the project site) and most representative station to the project area with recent data for ozone and PM<sub>2.5</sub>. PM<sub>10</sub> is not monitored at the Winchester-33700 Borel Road station. The Lake Elsinore-W Flint Street station is the closest (approximately 19 miles north of the project site) with recent data for PM<sub>10</sub>.

Table 3.2-3 summarizes the air quality data from the last 3 years with complete data (2018-2020) at these stations.

Both CARB and EPA use this type of monitoring data to designate areas according to their attainment status for criteria air pollutants. Attainment designations for the project area are summarized in Table 3.2-4.

**Table 3.2-3 Summary of Annual Data on Ambient Air Quality (2018-2020)**

	2018	2019	2020
<b>Ozone - Winchester-33700 Borel Road</b>			
Maximum concentration (1-hr/8-hr avg, ppm)	0.107/0.085	0.091/0.079	0.108/0.091
Number of days State standard exceeded (1-hr/8-hr)	2/18	0/7	5/39
Number of days national standard exceeded (8-hr)	15	6	37
<b>Fine Particulate Matter (PM<sub>2.5</sub>) - Winchester-33700 Borel Road</b>			
Maximum concentration (24-hour µg/m <sup>3</sup> )	26.5	17.0	37.1
Average concentration (annual µg/m <sup>3</sup> )	7.1	7.6	9.5
Number of days national standard exceeded (24-hour measured)	-	-	-
<b>Respirable Particulate Matter (PM<sub>10</sub>) - Lake Elsinore-W Flint Street</b>			
Maximum concentration (µg/m <sup>3</sup> )	105.3	93.8	192.4
Number of days State standard exceeded	-	-	-
Number of days national standard exceeded (estimated days)	0.0	-	1.0

Notes: µg/m<sup>3</sup> = micrograms per cubic meter; ppm = parts per million; - = data not available  
Source: CARB 2022b.

**Table 3.2-4 Attainment Status Designations for Riverside County Portion of South Coast Air Basin**

Pollutant	National Ambient Air Quality Standard	California Ambient Air Quality Standard
Ozone	Nonattainment (1-hour) - Extreme	Nonattainment (1-hour)
	Nonattainment (8-hour) - Extreme	Nonattainment (8-hour)
Respirable particulate matter (PM <sub>10</sub> )	Attainment (Maintenance) (24-hour)	Nonattainment (24-hour)
		Nonattainment (Annual)
Fine particulate matter (PM <sub>2.5</sub> )	Nonattainment (24-hour) - Serious	(No State Standard for 24-Hour)
	Nonattainment (Annual) - Serious	Nonattainment (Annual)
Carbon monoxide (CO)	Attainment (1-hour)	Attainment (1-hour)
	Attainment (8-hour)	Attainment (8-hour)
Nitrogen dioxide (NO <sub>2</sub> )	Unclassified/Attainment (1-hour)	Attainment (1-hour)
	Attainment (Maintenance) (Annual)	Attainment (Annual)
Sulfur dioxide (SO <sub>2</sub> ) <sup>5</sup>	(Attainment Pending) (1-Hour)	Attainment (1-hour)
		Attainment (24-hour)
Lead (Particulate)	Attainment (3-month rolling avg.) <sup>1</sup>	Attainment (30 day average)
Hydrogen Sulfide	No Federal Standard	Attainment (1-hour)
Sulfates		Attainment (24-hour)
Visibly Reducing Particles		Unclassified (8-hour)
Vinyl Chloride		Attainment (24-hour)

Notes: <sup>1</sup> Note that the Los Angeles County portion of the Basin is nonattainment for the NAAQS lead standard. The remainder of the Basin, including Riverside County, is in attainment.

Source: SCAQMD 2016, CARB 2020.

## TOXIC AIR CONTAMINANTS

According to the *California Almanac of Emissions and Air Quality* (CARB 2013), the majority of the estimated health risks from TACs can be attributed to relatively few compounds, the most important being diesel PM. Diesel PM differs from other TACs in that it is not a single substance, but rather a complex mixture of hundreds of substances.

Although diesel PM is emitted by diesel-fueled internal combustion engines, the composition of the emissions varies depending on engine type, operating conditions, fuel composition, lubricating oil, and whether an emissions control system is being used. Unlike the other TACs, no ambient monitoring data are available for diesel PM because no routine measurement method currently exists. However, CARB has made preliminary concentration estimates based on a PM exposure method. This method uses the CARB emissions inventory's PM<sub>10</sub> database, ambient PM<sub>10</sub> monitoring data, and the results from several studies to estimate concentrations of diesel PM. In addition to diesel PM, the TACs for which data are available that pose the greatest existing ambient risk in California are benzene, 1,3-butadiene, acetaldehyde, carbon tetrachloride, hexavalent chromium, para-dichlorobenzene, formaldehyde, methylene chloride, and perchloroethylene.

Diesel PM poses the greatest health risk among these 10 TACs mentioned. Based on receptor modeling techniques, CARB estimated the average cancer risk associated with diesel PM concentrations in the Basin to be 360 excess cancer cases per million people in the year 2000. Overall, levels of most TACs, except para-dichlorobenzene and formaldehyde, have decreased since 1990 (CARB 2013).

According to CARB, diesel engine emissions are believed to be responsible for about 70 percent of California's estimated known cancer risk attributable to TACs. Also, diesel PM comprises about 8 percent of outdoor PM<sub>2.5</sub>, which is a known health hazard. As a significant fraction of PM<sub>2.5</sub>, diesel PM contributes to numerous health impacts that have been attributed to particulate matter exposure, including increased hospital admissions, particularly for heart disease, but also for respiratory illnesses, and even premature death. CARB estimates that diesel PM contributes to approximately 1,400 (95 percent confidence interval: 1,100-1,800) premature deaths from cardiovascular disease annually in California. Additionally, exposure to diesel exhaust may contribute to the onset of new allergies; a clinical study of human subjects has shown that diesel exhaust particles, in combination with potential allergens, may actually be able to produce new allergies that did not exist previously (CARB 2022c).

## ODORS

Odors are generally regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache).

With respect to odors, the human nose is the sole sensing device. The ability to detect odors varies considerably among the population and overall is quite subjective. Some individuals can smell very minute quantities of specific substances; others may not have the same sensitivity but may have sensitivities to odors of other substances. In addition, people may have different reactions to the same odor; an odor that is offensive to one person may be perfectly acceptable to another (e.g., fast food restaurant). It is important to also note that an unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. This is because of the phenomenon known as odor fatigue, in which a person can become desensitized to almost any odor and recognition only occurs with an alteration in the intensity. Odor sources of concern include wastewater treatment plants, sanitary landfills, composting facilities, recycling facilities, petroleum refineries, chemical manufacturing plants, painting operations, rendering plants, and food packaging plants (SCAQMD 2005). None of these odorous land uses are within proximity to the project site.

## SENSITIVE RECEPTORS

SCAQMD defines sensitive receptor locations as residential, commercial, and industrial land use areas, as well as other locations where sensitive populations may be located, such as schools, hospitals, convalescent homes, day care centers, and other locations where children, chronically ill individuals, or other sensitive persons could be exposed (SCAQMD 2005).

Surrounding land uses include commercial and single-family residences to the south (across Temecula Parkway); single-family residences to the north (across De Portola Road); professional office, commercial, and educational uses to the west; and multi-family residential uses, offices, and commercial uses to the east. Land use and zoning designations for the project site and adjacent properties are shown on Figure 2-5 of Section 2, "Project Description". Additionally, because a hospital is considered a sensitive receptor, patients, as well as workers on the project site itself, are considered sensitive receptors.

### 3.2.3 Environmental Impacts and Mitigation Measures

#### METHODOLOGY

##### Construction Emissions

Short-term construction-generated criteria pollutant emissions were calculated using the California Emissions Estimator Model (CalEEMod), Version 2020.4.0 (CAPCOA 2021), as recommended by SCAQMD. Modeling was based on project-specific information (e.g., building size, area to be graded, area to be paved, duration of the construction, energy information) where available; assumptions based on typical construction activities; and default values in CalEEMod that are based on the project location and land use type.

As described in Chapter 2, "Project Description," the proposed project is an update to the Temecula Valley Hospital Master Plan. Phase I of the Master Plan has already been constructed and is currently operational. No changes to the operation of Phase I are expected. The remaining areas would be developed in three additional phases (Phase II, III, and IV) as part of the proposed project.

Phase II is anticipated to begin construction in January 2023 and be complete in 2024. Phase III is also anticipated to begin construction in January 2023 and would be completed by June 2027. Construction of Phase II and Phase III could overlap between January 2023 to October 2024 timeframe. Phase IV is anticipated to begin construction in July 2029, and is anticipated to be complete by December 2037.

While the entire site was previously mass graded as part of Phase I, remedial grading is still required as part of the proposed project. Total grading and material import/export quantities were provided by the project applicant. Grading and material movement quantities were assigned to each phase based on the total square feet of construction in each phase. While the construction timing of each phase is generally anticipated, the schedule for specific construction activities, including site preparation, grading, building construction, paving, and architectural coating were not known at the time of the analysis. In lieu of a project-specific schedule, the CalEEMod default construction schedule was used to generate a construction schedule for the estimation of emissions.

Land uses implemented as part of the proposed project were modeled in CalEEMod based on the most appropriate land use that matches the project's uses to generate construction defaults. For instance, behavioral health land use was modeled as a medical office building; ED expansion and hospital towers were modeled as hospital uses; the central utility plant was modeled as an unrefrigerated warehouse; parking lots were modeled as surface parking lots; and parking structures were modeled as a parking structure with an elevator.

For purposes of analysis, fugitive dust emissions assume compliance with SCAQMD Rule 403. According to SCAQMD guidance, Rule 403 would reduce fugitive dust emissions by 61 percent by watering three times per day (SCAQMD 2013). Additionally architectural coating emissions assume compliance with SCAQMD Rule 1113, which sets limits to the VOC content of non-residential building exterior and interior coatings (50 grams per liter [g/L]). Detailed model assumptions and inputs for these calculations are presented in Appendix B.

##### Operational Emissions

The full buildout year is anticipated to be 2038. As noted above, the project would be implemented over three phases over a number of years. Land use uses would become operational once they are constructed. Based on the anticipated timing in Chapter 2, "Project Description", Phase II may be completed and operational by 2024, Phase III

may be completed and operational by 2027, and Phase IV may be completed by 2037. CalEEMod does not include 2038 as an operational year; thus, the operational analysis assumes a 2035 operational year.

Operational emissions were estimated for area sources (e.g., consumer products, architectural coatings, landscape maintenance equipment), energy sources (i.e., natural gas consumption), and mobile sources. Additionally, the central utility plant would provide heat and steam to the hospital using four natural gas-fueled boilers that would operate 24 hours per day, year-round, and would consume approximately 128 million BTU (MMBtu) per day and 46,915 MMBtu per year. Emissions associated with boiler natural gas consumption were estimated using the stationary source – process boiler module in CalEEMod based on default emission rates.

Mobile source emissions were modeled based on the estimated level of VMT (25,950 average daily), obtained from traffic impact analysis (see Section 3.12, “Transportation and Circulation”), and vehicle trips (8,823 average daily), obtained from the VMT letter report (see Appendix H). Daily VMT (25,950) was converted to annual VMT (9,471,750) assuming 365 operational days per year. Mobile-source emissions were calculated the derived VMT per trip, trip rates, and default emission rates in CalEEMod. Indirect emissions associated with natural gas consumption for land uses other than the hospital (e.g., medical office buildings and parking areas) were estimated using default consumption metrics and emission rates in CalEEMod. Natural gas use was considered zero for the new hospital uses as the natural gas boilers in the proposed central utility plant would heat and steam for the hospital. Architectural coating (periodic painting) takes into account compliance with SCAQMD Rule 1113. Detailed model assumptions and inputs for these calculations are presented in Appendix B.

## THRESHOLDS OF SIGNIFICANCE

The City has not adopted its own Citywide thresholds of significance for evaluating air quality impacts in CEQA documents. The State CEQA Guidelines (Section 15064.7) provide that, when available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make determinations of significance. The *SCAQMD CEQA Air Quality Handbook* (SCAQMD 1993) contains criteria to assist in the evaluation of significant impacts for individual projects. Appendix G of the State California Environmental Quality Act (CEQA) Guidelines also provides considerations for determining the significance of a project’s impacts, in the form of initial study checklist questions. Given SCAQMD’s regulatory role in the Basin, the significance thresholds and analysis methodologies established by SCAQMD are relied upon to make determinations regarding air quality impacts. The significance thresholds and analysis methodologies outlined in SCAQMD’s *CEQA Air Quality Handbook* and *Localized Significance Threshold Methodology for CEQA Evaluations* (SCAQMD 2008) guidance documents were used in evaluating project impacts.

CEQA-related air quality thresholds of significance are tied to achieving or maintaining attainment designations with the NAAQS and CAAQS, which are scientifically substantiated, numerical concentrations of criteria air pollutants considered to be protective of human health.

In consideration of the nonattainment status of the Basin with respect to the NAAQS and CAAQS, SCAQMD has identified numerical thresholds for project-generated emissions of ozone precursors that would determine whether a project’s emissions would result in a cumulative, regional contribution (i.e., significant) to the baseline nonattainment status of the Basin (SCAQMD 2019). SCAQMD’s quantitative thresholds of significance for project-level CEQA evaluation may be used to determine the extent to which a project’s emissions of ozone precursors would contribute to regional degradation of ambient air quality within the Basin.

Using federal and State guidance pertaining to TACs, SCAQMD developed cancer risk thresholds for TAC exposure. Unlike criteria air pollutants, there is no known safe concentrations of TACs. Moreover, TAC emissions contribute to the deterioration of localized air quality because of the dispersion characteristics of TAC emissions that do not cause regional-scale air quality impacts. SCAQMD thresholds are designed to ensure that a source of TACs does not contribute to a localized, significant impact to existing or new receptors.

CEQA Guidelines Appendix G also provides the following sample checklist questions for addressing air quality impacts of a project and asks whether a project would:

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

Based on the foregoing, this Draft SEIR uses the following thresholds of significance to determine whether implementation of the proposed project would produce a significant localized and/or regional air quality impact such that human health would be adversely affected.

An air quality impact would be significant if implementation of the proposed project would:

- ▶ conflict with or obstruct implementation of SCAQMD's AQMP;
- ▶ generate construction and operational emissions in exceedance of SCAQMD's mass emission thresholds shown in Table 3.2-5;
- ▶ generate construction and operational emissions in exceedance of the SCAQMD's localized significance thresholds shown in Table 3.2-5;
- ▶ generate long-term operational mobile-source CO emissions that would result in, or contribute to, an exceedance of the CAAQS (exceedance of 20 ppm over a 1-hour period or exceedance of 9 ppm over an 8-hour period) or NAAQS (exceedance of 35 ppm over a 1-hour period or exceedance of 9 ppm over an 8-hour period) for CO;
- ▶ expose sensitive receptors to TAC concentrations that result in an incremental increase in cancer risk greater than 10 in one million and/or a noncarcinogenic hazard index of 1.0 or greater; or
- ▶ result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

**Table 3.2-5 SCAQMD Significance Thresholds (pounds per day)**

	VOC <sup>a</sup>	NO <sub>x</sub>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	Pb <sup>b</sup>
<b>Regional Mass Emissions</b>							
Construction	75	100	550	150	55	150	3
Operations	55	55	550	150	55	150	3
<b>Localized Significance Thresholds</b>							
Construction (SRA 26, 5-acre site, 25-meter receptor distance) <sup>c</sup>	--	371	1,965	13	8	--	--
Operations (SRA 26, 5-acre site, 110-meter receptor distance) <sup>d</sup>	--	535.2	4,708.5	14.9	4.4	--	--

<sup>a</sup> ROG<sub>s</sub> and VOC<sub>s</sub> are used interchangeably to refer to the hydrocarbons that are a precursor to O<sub>3</sub> formation. However, because SCAQMD uses VOC<sub>s</sub> in the formulation of its thresholds, VOC<sub>s</sub> are presented herein.

<sup>b</sup> The proposed project would result in no lead emissions during construction or operations. As such, lead emissions are not evaluated.

<sup>c</sup> Localized thresholds for construction are based on a 5-acre project site and 25-meter distance to receptors within SRA 26 (Temecula Valley). SCAQMD has not developed LSTs for VOC, SO<sub>2</sub>, or Pb emissions.

<sup>d</sup> Localized thresholds for operations are based on a 5-acre project site and 110-meter distance to receptors within SRA 26 (Temecula Valley). SCAQMD has not developed LSTs for VOC, SO<sub>2</sub>, or Pb emissions. LSTs are linearly interpolated.

Source: SCAQMD 2009, 2019; Appendix B.

With respect to localized emissions, SCAQMD has developed localized significance thresholds (LSTs) and mass rate look-up tables to help public agencies analyze the project-related effects of pollutants on nearby receptors. The LSTs are based on the size or total area of the emissions source, the ambient air quality in each SRA where the emissions sources are located, and the distance to nearby sensitive receptor locations.

The project site encompasses 35.31 acres within the City of Temecula in Riverside County, which is within the Temecula Valley area (SRA 26) of SCAQMD's Temecula/Anza Monitoring Area. The proposed project consists of buildout of the Temecula Valley Hospital Master Plan Update across the entire project site. Construction would occur in three phases, with the first phase anticipated to begin as soon as 2023 and the third and final phase anticipated to be completed in 2037. The approximate timing for construction of each phase is summarized in Table 2-3 of Chapter 2, "Project Description," and a comparison of the construction phasing for the currently approved master plan and the proposed project is summarized for information purposes in Table 2-4 of Chapter 2, "Project Description."

Although the exact timing for implementation of each phase is currently unknown, construction of the three phases would be implemented over a period of approximately 15 years (2023–2037) and construction of the various elements would occur in relatively small areas over the entire 35.31 acre project area over the 15-year time frame. Therefore, because LSTs are based on the potential area disturbed on any given day and in any portion of the site (i.e., at the edge of the site near adjacent receptors), and each phase encompasses more than 5 acres, the LST analysis for construction assumes 5 acres is disturbed per day and the most conservative 25-meter receptor distance to receptors.

For operations, emissions from the majority of long-term emission sources on-site (such as for landscaping maintenance) would not be limited to a single location, but would instead occur throughout the entire 35.31 acre project site. The central utility plant would be in a fixed location within the project site, but the purpose of the LST analysis is to evaluate the localized effects of the proposed project as a whole, not a single emission source. Thus, the LST analysis is based on the acreage of the entire project area. The maximum allowed acreage within the LST methodology of 5 acres is utilized for the operational analysis. However, the majority of on-site emissions would be from the central plant, which would be located in the northeast corner of the project site. Based on the proposed project site plan (Figure 2-7), the Draft SEIR analysis assumes that the boilers would be located away from nearby residences, along the western portion of the central plant. For purposes of analysis, it was assumed the boilers would be approximately 110 meters from the nearest residence, which is the distance from the center of the proposed utility plant to the nearest residence. Consistent with the LST methodology, the LSTs for this 110-meter distance were linearly interpolated between the 100-meter and 200-meter LSTs.

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### Impact 3.2-1: Conflict With or Obstruct Implementation of the Air Quality Management Plan

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The proposed project would be consistent with the assumptions in the AQMP because the project would be consistent with the land use designations in the City's General Plan. Therefore, the proposed project would not conflict with or obstruct implementation of the AQMP. This impact would be **less than significant**.

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The Riverside County portion of the Basin is in nonattainment for ozone and PM<sub>2.5</sub> with respect to the NAAQS and CAAQS, and PM<sub>2.5</sub> relative to the CAAQS. As a result, SCAQMD is required to develop a plan to achieve and maintain the federal and State standards by the earliest practicable date. The 2016 AQMP demonstrates attainment of five NAAQS: the 2008 for 8-hour ozone NAAQS (75 ppm), the 2012 annual PM<sub>2.5</sub> NAAQS (12 µg/m<sup>3</sup>) the 2006 24-hour PM<sub>2.5</sub> NAAQS (35 µg/m<sup>3</sup>), the 1997 8-hour ozone NAAQS (80 ppb), and the 1979 1-hour ozone NAAQS (120 ppb). The 2016 AQMP was submitted to CARB in March 2017. SCAQMD recently released the Draft 2022 AQMP for public review. The 2022 AQMP focuses on attaining the 2015 8-hour ozone NAAQS (70 ppb). The Draft 2022 AQMP builds upon measures already in place from previous AQMPs, and includes a variety of additional strategies, such as regulations, accelerated deployment of available cleaner technologies, best management practices, co-benefits from existing programs (e.g., climate and energy efficiency), incentives, and other CAA measures to achieve the 2015 8-hour ozone standard. The 2022 AQMP remains in draft form. Thus, the 2016 AQMP is the applicable AQMP since it is the most recently adopted version.

The governing land use document relevant to the project area is the City's General Plan. Therefore, projects that propose development consistent with the growth anticipated in the City's adopted General Plan are considered consistent with the AQMP.

As discussed in Section 3.9, "Land Use and Planning", implementation of the proposed project would involve making revisions to the current Temecula Valley Hospital Master Plan to increase total building area, the number of hospital beds, and parking spaces over what was assumed in the approved Temecula Valley Hospital Master Plan. While the number of employees would increase from 750 employees under existing conditions to 1,425 employees under full buildout, these revisions would not change the nature of the land uses already allowed and occurring on the project site. The proposed project would be generally supportive of the relevant policies within the City's General Plan's Land Use Element, specifically Policy 1.4, which aims to support development of medical, research, and office jobs within the City, and Policy 1.8, which encourages development of a community hospital and related services to serve the community (see more details on the General Plan and these policies in Section 3.9, "Land Use and Planning"). Thus, while the proposed project would increase employment within the project site, the proposed project land uses are consistent with policies and the Professional Office land use designation for the project site in the adopted General Plan.

Pursuant to SCAQMD guidelines, because the project would be consistent with the land use designation in the General Plan, the proposed project is considered consistent with the region's AQMP. As such, project-related emissions are accounted for in the AQMP, which has been crafted to bring the Basin into attainment status for all nonattainment pollutants and precursors thereof. Accordingly, the proposed project would not conflict with or obstruct implementation of the applicable air quality plan. This impact would be **less than significant**.

### Mitigation Measures

No mitigation is required for this impact.

### Impact 3.2-2: Generate Construction and Operational Emissions in Exceedance of SCAQMD's Regional Mass Emission Thresholds

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Proposed project construction activities would generate maximum daily project-related criteria pollutant emissions that would exceed SCAQMD regional construction-period thresholds for VOC and NO<sub>x</sub>, while the increase in maximum daily project-related criteria pollutant emissions over existing conditions resulting from proposed project operations would not exceed SCAQMD operations-period thresholds for any pollutant. Therefore, the impact of proposed project construction, but not operations, would be **potentially significant**.

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The proposed project would contribute to regional air pollutant emissions during short-term construction and long-term operations. An analysis of the construction- and operations-related effects of the proposed project is presented below.

#### Construction

Construction of the proposed project has the potential to create air quality impacts through the use of vehicles and equipment such as heavy-duty construction equipment, construction workers' vehicle trips, material deliveries, and trips by heavy-duty haul trucks. In addition, earthwork activities would result in fugitive dust emissions, and paving operations would release VOCs from off-gassing. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation, and, for dust, the prevailing weather conditions. The assessment of construction air quality impacts considers each of these potential sources. Fugitive PM<sub>10</sub> and PM<sub>2.5</sub> emissions estimates reflect compliance with SCAQMD Rule 403, which is mandatory.

Construction-related regional mass emission estimates are shown in Table 3.2-6. Although the exact timing for implementation of each phase is currently unknown, to provide a realistic worst-case scenario, the analysis herein assumes construction of Phase II and Phase III would overlap and occur concurrently, as the estimated timeframe for both phases would begin in January 2023. The estimated timeframe for Phase IV is for construction to start around July 2029, which is well after Phases 2 and 3 are expected to be finished. Therefore, for purposes of this analysis, Phase IV is not expected to overlap with Phases 2 and 3, but the individual construction components (e.g., grading, paving, building construction) within Phase IV are assumed to overlap and occur concurrently on a given day.

As shown in Table 3.2-6, maximum daily project-related criteria pollutant emissions would exceed SCAQMD regional construction-period thresholds for VOC and NO<sub>x</sub>.

**Table 3.2-6 Estimated Regional Construction Emissions – Unmitigated Pounds Per Day**

Construction Phase	VOC	NO <sub>x</sub>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>
<b>Phase II</b>						
Site Preparation	3	67	30	15	7	<1
Grading	2	24	17	5	2	<1
Building Construction	2	16	21	2	1	<1
Paving	2	10	15	1	1	<1
Architectural Coating	25	1	3	<1	<1	<1
<b>Phase III</b>						
Site Preparation	4	87	36	18	8	<1
Grading	3	41	30	6	3	<1
Building Construction	2	17	23	3	1	<1
Paving	2	10	15	1	<1	<1
Architectural Coating	57	1	3	<1	<1	<1
<b>Phase IV</b>						
Site Preparation	4	102	42	21	9	<1
Grading	3	36	29	6	3	<1
Building Construction	2	16	23	4	1	<1
Paving	2	7	16	<1	<1	<1
Architectural Coating	50	1	3	1	<1	<1
<b>Maximum Theoretical Day (All Activity Overlaps)<sup>a</sup></b>	<b>164</b>	<b>437</b>	<b>306</b>	<b>84</b>	<b>38</b>	<b>1</b>
<i>SCAQMD Regional Threshold</i>	<i>75</i>	<i>100</i>	<i>550</i>	<i>150</i>	<i>55</i>	<i>150</i>
Exceed Threshold?	Yes	Yes	No	No	No	No
<b>Reasonable Maximum Day (Maximum Phase)<sup>b</sup></b>	<b>102</b>	<b>274</b>	<b>193</b>	<b>52</b>	<b>24</b>	<b>1</b>
<i>SCAQMD Regional Threshold</i>	<i>75</i>	<i>100</i>	<i>550</i>	<i>150</i>	<i>55</i>	<i>150</i>
Exceed Threshold?	Yes	Yes	No	No	No	No

<sup>a</sup> Assumes all construction activities could overlap on a worst-case day

<sup>b</sup> Assumes Phase II and Phase III could overlap in the January 2023 to October 2024 timeframe. Phase III is not assumed to overlap with Phase IV.

Source: Modeled by Ascent Environmental in 2022.

### Operations

Once operational, the proposed project would result in air pollutant emission sources that are similar to, but expand upon, existing sources, but in different quantities. Emissions resulting from proposed project buildout over existing conditions are provided in Table 3.2-7. Note that the existing hospital building and associated infrastructure that were constructed during Phase I of the currently approved project would be maintained in place. No changes to those uses constructed during Phase I are assumed.

As shown in Table 3.2-7, the increase in maximum daily project-related criteria pollutant emissions over existing conditions would not exceed SCAQMD operations-period thresholds for any pollutant.

**Table 3.2-7 Estimated Regional Operational Emissions – Unmitigated Pounds Per Day**

	VOC <sup>a</sup>	NO <sub>x</sub>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>
Area Sources	12	<1	<1	<1	<1	<1
Energy Sources	<1	<1	<1	<1	<1	<1
Mobile Sources	12	9	87	20	5	<1
Stationary Sources	3	12	49	4	4	<1
<b>Maximum Daily</b>	<b>27</b>	<b>22</b>	<b>137</b>	<b>24</b>	<b>9</b>	<b>&lt;1</b>
<i>SCAQMD Regional Threshold</i>	55	55	550	150	55	150
Exceed Threshold?	No	No	No	No	No	No

Notes: Emissions may not add up exactly because of rounding

Source: Modeled by Ascent Environmental in 2022.

### Summary

Proposed project construction activities would generate maximum daily project-related criteria pollutant emissions that would exceed SCAQMD regional construction-period thresholds for VOC and NO<sub>x</sub>, while the increase in maximum daily project-related criteria pollutant emissions over existing conditions resulting from proposed project operations would not exceed SCAQMD operations-period thresholds for any pollutant. Therefore, the impact of proposed project construction, but not operations, would be **potentially significant**.

## Mitigation Measures

### Mitigation Measure 3.2-1: Construction Low VOC Coatings

To reduce VOC emissions during construction activities involving application of coatings, the City shall require that construction contractors use low-VOC coatings that have a VOC content of 10 g/L or less during all phases of construction.

### Mitigation Measure 3.2-2: Construction Equipment Reduction Measures

To reduce VOC and NO<sub>x</sub> emissions during construction, the City shall require that construction contractors implement the following:

- ▶ Ensure that all off-road diesel-powered equipment over 25 horsepower used during construction will be equipped with an EPA Tier 4 Final engine, except for specialized construction equipment in which an EPA Tier 4 Final engine is not commercially available within 50 miles of the project site. The contractor or project proponent shall submit written evidence to the City prior to commencement of construction activities that Tier 4 or cleaner equipment shall be used, or that Tier 4 or cleaner equipment is not commercially available for use during the entire duration of that project's construction period.
- ▶ Use renewable diesel fuel in all heavy-duty off-road diesel-fueled equipment. Renewable diesel must meet the most recent ASTM D975 specification for Ultra Low Sulfur Diesel and have a carbon intensity no greater than 50 percent of diesel with the lowest carbon intensity among petroleum diesel fuels sold in California.
- ▶ Use zero or near-zero emissions equipment in lieu of diesel- or gasoline-powered equipment where such zero or near-zero equipment is commercially available within 50 miles of the project site.
- ▶ Use diesel particulate filters (or the equivalent) if permitted under manufacturer's guidelines for on-road and off-road diesel equipment.
- ▶ Contractors shall limit all construction equipment, haul truck, and delivery truck idling times by shutting down equipment when not in use and adhering to a maximum idling time of no more than 3 consecutive minutes.

### Mitigation Measure 3.2-3: Clean Construction Truck Fleet

To reduce VOC and NO<sub>x</sub> emissions during construction, the City shall require trucks used by construction contractors to meet the following requirements. Trucks with a Gross Vehicle Weight Rating (GVWR) of 19,500 pounds or greater, including haul trucks and earth movers, shall be zero-emissions (ZE), or near-zero emission (NZE) on-road haul trucks that meet the CARB's adopted optional NO<sub>x</sub> emissions standard at 0.02 grams per brake horsepower-hour (g/bhp-hr), if and when feasible. At a minimum, all trucks shall use 2010 model year or newer engines that meet CARB's 2010 engine emissions standards at 0.01 g/bhp-hr of particulate matter (PM) and 0.20 g/bhp-hr of NO<sub>x</sub> emissions.

#### Significance after Mitigation

Implementation of Mitigation Measures 3.2-1 through 3.2-3 would substantially lessen construction-related emissions of the proposed project as described below.

Mitigation Measure 3.2-1, which would require low-VOC coatings beyond SCAQMD requirements for non-residential uses, would reduce VOC emissions.<sup>1</sup> The reduction in VOC emissions from coatings is proportional to the change in VOC content. For instance, requiring coatings with a VOC content of 10 g/L instead of 50 g/L would result in an approximately 80 percent reduction in VOC emissions from the application of coatings.

Mitigation Measures 3.2-2 requires clean construction and diesel-reduction measures, would reduce NO<sub>x</sub> emissions from equipment exhaust. On average, use of Tier 4 equipment reduces NO<sub>x</sub>, PM, and VOC up to 94 percent, 95 percent, and 50 percent, respectively, relative to Tier 2, and up to 91 percent, 95 percent, and 20 percent, respectively, relative to Tier 3. Furthermore, this measure requires the use of zero or near-zero emission equipment as it becomes commercially available.

Mitigation Measures 3.2-3 requires the use of modern and clean trucks for material hauling and deliveries. This measure would substantially lessen emissions relative to use of conventional gasoline or diesel-powered delivery and haul trucks.

As shown in Table 3.2-8, implementation of Mitigation Measures AQ -1 through AQ-3 would substantially lessen the proposed project's construction air pollutant emissions, but construction-period emissions for NO<sub>x</sub> would remain above SCAQMD regional construction thresholds. Therefore, the impact during construction would be **significant and unavoidable**.

**Table 3.2-8 Estimated Regional Construction Emissions with Mitigation Measures –Pounds Per Day**

Construction Phase	VOC	NO <sub>x</sub>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>
<b>Phase II</b>						
Site Preparation	1	42	33	14	6	<1
Grading	1	8	20	4	2	<1
Building Construction	1	4	22	2	<1	<1
Paving	1	1	18	<1	<1	<1
Architectural Coating	5	<1	3	<1	<1	<1
<b>Phase III</b>						
Site Preparation	2	62	38	17	7	<1
Grading	1	9	35	5	2	<1
Building Construction	1	5	24	2	1	<1
Paving	1	1	18	<1	<1	<1
Architectural Coating	11	<1	3	<1	<1	<1

<sup>1</sup> ROG<sub>s</sub> and VOC<sub>s</sub> are used interchangeably to refer to those hydrocarbons that are a precursor to O<sub>3</sub> formation

Construction Phase	VOC	NO <sub>x</sub>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>
<b>Phase IV</b>						
Site Preparation	2	79	45	20	8	<1
Grading	1	11	36	5	2	<1
Building Construction	1	6	24	3	1	<1
Paving	1	1	18	<1	<1	<1
Architectural Coating	10	<1	3	1	<1	<1
<b>Maximum Theoretical Day (All Activity Overlaps)<sup>a</sup></b>	<b>39</b>	<b>231</b>	<b>340</b>	<b>75</b>	<b>29</b>	<b>1</b>
<i>SCAQMD Regional Threshold</i>	<i>75</i>	<i>100</i>	<i>550</i>	<i>150</i>	<i>55</i>	<i>150</i>
Exceed Threshold?	No	Yes	No	No	No	No
<b>Reasonable Maximum Day (Maximum Phase)<sup>b</sup></b>	<b>24</b>	<b>133</b>	<b>214</b>	<b>45</b>	<b>18</b>	<b>1</b>
<i>SCAQMD Regional Threshold</i>	<i>75</i>	<i>100</i>	<i>550</i>	<i>150</i>	<i>55</i>	<i>150</i>
Exceed Threshold?	No	Yes	No	No	No	No

<sup>a</sup> Assumes all construction activities could overlap on a worst-case day

<sup>b</sup> Assumes Phase II and Phase III could overlap in the January 2023 to October 2024 timeframe. Phase III is not expected to overlap with Phase IV.

Source: Modeled by Ascent Environmental in 2022.

### 3.2-3: Expose Sensitive Receptors to Substantial Pollutant Concentrations, including Emissions in Excess of SCAQMD Localized Significance Thresholds, Carbon Monoxide Emissions, and TAC Emissions

Construction-related emissions of TACs associated with proposed project would be spread over the project area, not affecting any one receptor for extended periods of time, and therefore, would not result in exposure of existing receptors to substantial TAC concentrations during construction. The proposed project also would not result in exposure of sensitive receptors to substantial TAC concentration from operational emissions. This impact would be **less than significant**.

The proposed project would contribute to localized air pollutant emissions during construction (short term) and project operations (long term). The analysis of receptor pollutant exposure includes a discussion of short-term exposure to criteria pollutants (i.e., LSTs) and TACs (i.e., exposure to diesel exhaust), while the long-term analysis includes a discussion of criteria pollutants, TACs, as well as concentrations of CO (i.e., CO hot spots) due to increased congestion and degraded roadway conditions as a result of project implementation.

#### Localized Proposed Project Emissions and SCAQMD Localized Significance Thresholds

Project construction would emit localized pollutants through the on-site use of heavy-duty construction equipment as well as fugitive dust from ground-disturbing activities. These localized emissions could expose nearby sensitive receptors to substantial pollutant concentrations. SCAQMD has developed a set of localized mass emissions rate look-up tables that can be used to evaluate localized impacts that may result from construction- and operations-period emissions. According to SCAQMD, only those emissions that occur on-site are to be considered in the LST analysis. Consistent with SCAQMD LST methodology, emissions related to haul truck and employee commuting activity during construction are not considered in the evaluation of localized impacts.

As shown in Table 3.2-9, localized emissions during construction would not exceed the applicable LSTs for the project area. Consistent with SCAQMD guidance, because LSTs would not be exceeded, no further analysis is warranted.

**Table 3.2-9 Estimated Localized Construction Emissions – Unmitigated Pounds Per Day**

	NO <sub>x</sub>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>
<b>Phase II</b>				
Site Preparation	28	18	9	5
Grading	18	15	4	2
Building Construction	14	16	1	1
Paving	10	15	1	<1
Architectural Coating	1	2	<1	<1
<i>Phase II Maximum</i>	28	33	9	5
<b>Phase III</b>				
Site Preparation	28	18	9	5
Grading	35	28	5	3
Building Construction	14	16	1	1
Paving	10	15	<1	<1
Architectural Coating	1	2	<1	<1
<i>Phase III Maximum</i>	35	33	9	5
<b>Phase IV</b>				
Site Preparation	25	18	9	5
Grading	28	26	5	2
Building Construction	12	16	1	<1
Paving	7	16	<1	<1
Architectural Coating	1	2	<1	<1
<i>Phase IV Maximum</i>	28	34	9	5
<b>Reasonable Maximum Day (Maximum Phase)</b>	<b>35</b>	<b>34</b>	<b>9</b>	<b>5</b>
<i>SCAQMD Localized Significance Threshold<sup>a</sup></i>	<i>371</i>	<i>1,965</i>	<i>13</i>	<i>8</i>
Exceed Threshold?	No	No	No	No

<sup>a</sup> Localized significance thresholds for construction are based on a 5-acre construction site and 25-meter distance to receptors within SRA 26 (Temecula Valley). SCAQMD has not developed LSTs for VOC, SO<sub>2</sub>, or Pb emissions.

Source: Modeled by Ascent Environmental in 2022.

As shown in Table 3.2-10, localized emissions during operations would not exceed the applicable LSTs for the project area. Consistent with SCAQMD guidance, because LSTs would not be exceeded, no further analysis is warranted.

**Table 3.2-10 Estimated Localized Operational Emissions – Unmitigated Pounds Per Day**

	NO <sub>x</sub>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>
Area Sources	<1	<1	<1	<1
Energy Sources	<1	<1	<1	<1
Stationary Sources	12	49	3.82	3.82
<b>Maximum Daily</b>	<b>13</b>	<b>50</b>	<b>3.83</b>	<b>3.83</b>
<i>SCAQMD Localized Significance Threshold<sup>a</sup></i>	<i>535.2</i>	<i>4,708.5</i>	<i>14.9</i>	<i>4.40</i>
Exceed Threshold?	No	No	No	No

<sup>a</sup> Localized significance thresholds for operation are based on a 5-acre construction site and 110-meter distance to receptors within SRA 26 (Temecula Valley). SCAQMD has not developed LSTs for VOC, SO<sub>2</sub>, or Pb emissions.

Source: Modeled by Ascent Environmental in 2022.

Note that the emissions analysis for the central plant is based on a set of conservative assumptions that likely overestimates the actual level of emissions that would be generated. The emission estimates are based on default emission factors with CalEEMod, which are taken from EPA's AP-42 Compilation of Emission Factors (EPA 1998) and match SCAQMD's default emission factors (SCAQMD 2021). The central utility plant will be permitted by SCAQMD through Rule 1146. Through the permitting process, the central plant and its individual emission sources would be required to ensure emissions are within the limits of Rule 1146. Once operational, it is likely that emissions would be lower than assumed herein, since typically, newer combustion sources installed through the permitting process result in lower emissions than the default assumptions used in the modeling for this Draft SEIR, as the emission factor defaults are based on emission testing data that is many years old.

Moreover, the chillers, boilers, and pumps would be enclosed within the central plant, while the cooling towers would not be enclosed. Enclosing the emission sources is likely to result in much lower particulate matter pollution at nearby residences as assumed in the LST analysis, which does not take into account the dispersion effects of a physical barrier such as the enclosed walls and roof of the proposed central utility plant. It is likely that emissions and associated downwind concentrations will be lower than assumed in the LST analysis herein, which is by design conservative.

### **Proposed Project Toxic Air Contaminant Emissions**

With respect to TACs, the closest sensitive land uses are the residential areas to the south, north, and east, and educational uses to the west. Construction would be sporadic in both duration and location, with actual construction taking place during a few years over the 15-year master plan timeframe, which is much shorter than the assumed 70-year exposure period used to estimate lifetime cancer risks. Furthermore, SCAQMD does not consider diesel-related cancer risks from construction equipment to be an issue because of the short-term nature of construction activities. Construction activities associated with the proposed project would be sporadic, transitory (i.e., occurring over the entire hospital property), and short term in nature at any given location on-site. As such, construction of the proposed project alone is not anticipated to result in an elevated health risk to exposed persons because of the short-term nature of construction-related diesel exposure.

the proposed central utility plant would provide heat and steam for hospital uses. The central utility plant would be permitted by SCAQMD and is unlikely to result in significant cancer risks because the plant would be powered by natural gas, as opposed to diesel, and would be far enough away from residences to ensure that pollutant concentrations and associated health effects would remain low. The proposed project would increase vehicle travel associated with visitation and deliveries to and within the project site, but emissions would be limited to circulation routes, and emissions are expected to be minimal. Additionally, there are currently two permitted stationary backup diesel generators within the hospital campus, which are housed in the generator enclosure area north of the current ambulance parking area and to the west of the hospital building. These diesel generators are permitted by SCAQMD and provide the hospital necessary emergency backup electric power in the event that grid-supplied electricity is not available to the hospital. The only regular generation of emissions from these diesel generators results from maintenance and testing, which the SCAQMD permit allows for up to 50 hours of testing per year. The location of these generators and the frequency and duration of testing would not change as part of the proposed project. Moreover, no additional generators would be added to the project site as part of the proposed project.

Natural gas combustion from the utility plant and gasoline and diesel fuel combustion from additional vehicle trips generated by the proposed project may increase TAC emissions, but the associated health risk to the surrounding community is expected to be minimal. In addition, TAC emissions and exposure from diesel generators would not increase as part of the proposed project. As such, operation of the proposed project is not anticipated to result in elevated health risk exposure for sensitive receptors (e.g., nearby residences).

### **Proposed Project Carbon Monoxide Emissions**

Elevated levels of CO concentrations are typically found in areas with significant traffic congestion. CO is a public health concern because at high enough concentrations, it can cause health problems such as fatigue, headache, confusion, dizziness, and even death. Ambient concentrations of CO have declined dramatically in California because of existing controls and programs. Most areas of the State, including the region in which the project is located, meet

the State and federal CO standards (CARB 2004). As part of SCAQMD's 2003 AQMP, which is the most recent AQMP that addresses CO concentrations, a revision to the Federal Attainment Plan for Carbon Monoxide that was originally approved in 1992 was provided that included a CO hot spots analysis at four specified heavily traveled intersections in Los Angeles at the peak morning and afternoon time periods. These four intersection locations selected for CO modeling are considered to be worst-case intersections that would likely experience the highest CO concentrations. The CO hot spots analysis in the 2003 AQMP did not predict a violation of CO standards at the four intersections. Of these four intersections, the busiest intersection evaluated was that at Wilshire Boulevard and Veteran Avenue, which was described as the most heavily congested intersection in Los Angeles County, with an average daily traffic volume of approximately 100,000 vehicles per day. No intersection in the project area would exceed 100,000 vehicles per day. As such, no intersection within the project area would see CO concentrations above CO standards as a result of proposed project implementation.

### **Summary**

Localized emissions during construction and operation of the proposed project would not exceed the applicable LSTs. Health risk due to TACs would be low and at emissions sources would be at sufficient distance to not result in health effects to nearby sensitive receptors. There are no intersections in the project area in which it would be possible for vehicle trips generated by the proposed project to contribute to CO concentrations that exceed standards. Therefore, this impact would be **less than significant**.

### **Mitigation Measures**

No mitigation is required.

### **Impact 3.2-4: Exposure of Sensitive Receptors to Other Emissions (Including Odors)**

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The proposed project would introduce new odor sources into the area (e.g., temporary diesel exhaust emissions during construction as well natural gas combustion from the utility plant and delivery trucks associated with project operations). However, these odor sources would be temporary, intermittent, and dissipate rapidly from the source. Further, the project would not locate land uses near any existing odor sources. Operation of the project would not result in odor sources. Thus, this impact would be **less than significant**.

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The occurrence and severity of odor impacts depends on numerous factors, including: the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of the affected receptors. While offensive odors rarely cause any physical harm, they still can be very unpleasant, leading to considerable distress among the public and often generate citizen complaints to local governments and regulatory agencies. Projects with the potential to frequently expose a substantial number of people to objectionable odors would have a significant impact.

According to the SCAQMD *CEQA Air Quality Handbook*, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting areas, refineries, landfills, dairies, and fiberglass molding facilities. The proposed project does not include any uses identified by SCAQMD as being associated with odors and therefore would not produce objectionable odors.

Odors resulting from construction of the proposed project are not likely to affect a substantial number of people because construction activities usually do not emit offensive odors. Potential odor emitters during construction activities include heavy-duty diesel equipment exhaust, asphalt paving, and architectural painting activities. SCAQMD Rule 402 prohibits the discharge of air contaminants that cause nuisance or annoyance to the public, including odors; SCAQMD Rule 1108 limits the amount of VOC emissions from cutback asphalt; and Rule 1113 limits VOC content of architectural coatings. Given mandatory compliance with SCAQMD rules, no construction activities or materials are proposed that would create a significant level of objectionable odors.

Similarly, odors resulting from operation of the proposed project are not likely to affect a substantial number of people because the project does not include land uses typically associated with objectionable odors. Operations would result in minor levels of odors from diesel-fueled delivery and hospital-related trucks as well as any food preparation. Odors generated by trucks are minor and temporary, and kitchens are not typically considered to be objectionable.

No major existing sources of odors have been identified in the project vicinity. Both project construction and operation are not anticipated to result in the frequent exposure of nearby sensitive receptors to substantial objectionable odors. Thus, this impact would be **less than significant**.

### **Mitigation Measures**

No mitigation is required.

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### 3.3 CULTURAL AND TRIBAL CULTURAL RESOURCES

This section analyzes and evaluates the potential impacts of the proposed project on known and unknown cultural resources. Cultural resources include districts, sites, buildings, structures, or objects generally older than 50 years and considered to be important to a culture, subculture, or community for scientific, traditional, religious, or other reasons. They include pre-historic resources, historic-period resources, and "Tribal Cultural Resources" (the latter as defined by Assembly Bill (AB) 52, Statutes of 2014, in Public Resources Code [PRC] Section 21074).

Archaeological resources are locations where human activity has measurably altered the earth or left deposits of prehistoric or historic-period physical remains (e.g., stone tools, bottles, former roads, house foundations). Historical (or built-environment) resources include standing buildings (e.g., houses, barns, outbuildings, cabins) and intact structures (e.g., dams, bridges, roads, districts), or landscapes. A cultural landscape is defined as a geographic area (including both cultural and natural resources and the wildlife therein), associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values. Tribal cultural resources are sites, features, places, cultural landscapes, sacred places and objects, with cultural value to a Tribe.

One comment letter regarding cultural resources was received in response to the Notice of Preparation (see Appendix A). The Native American Heritage Commission (NAHC) requested AB 52 and SB 18 compliance information; however, SB 18 is not a CEQA requirement and therefore is not discussed in this section. AB 52 compliance is described below.

#### 3.3.1 Regulatory Setting

##### FEDERAL

##### National Register of Historic Places

The National Register of Historic Places (NRHP) is the nation's master inventory of known historic properties. It is administered by the National Park Service and includes listings of buildings, structures, sites, objects, and districts that possess historic, architectural, engineering, archaeological, or cultural significance at the national, State, or local level.

The formal criteria (36 CFR 60.4) for determining NRHP eligibility are as follows:

1. The property is at least 50 years old (however, properties under 50 years of age that are of exceptional importance or are contributors to a district can also be included in the NRHP);
2. It retains integrity of location, design, setting, materials, workmanship, feeling, and associations; and
3. It possesses at least one of the following characteristics:

Criterion A Is associated with events that have made a significant contribution to the broad patterns of history (events).

Criterion B Is associated with the lives of persons significant in the past (persons).

Criterion C Embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or possesses high artistic values, or represents a significant, distinguishable entity whose components may lack individual distinction (architecture).

Criterion D Has yielded, or may be likely to yield, information important in prehistory or history (information potential).

For a property to retain and convey historic integrity it must possess most of the seven aspects of integrity: location, design, setting, materials, workmanship, feeling, and association. Location is the place where the historic property was

constructed or the place where a historic event occurred. Integrity of location refers to whether the property has been moved since its construction. Design is the combination of elements that create the form, plan, space, structure, and style of a property. Setting is the physical environment of a historic property that illustrates the character of the place. Materials are the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property. Workmanship is the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory. Feeling is a property's expression of the aesthetic or historic sense of a particular period of time. This is an intangible quality evoked by physical features that reflect a sense of a past time and place. Association is the direct link between the important historic event or person and a historic property. Continuation of historic use and occupation help maintain integrity of association.

Listing in the NRHP does not entail specific protection or assistance for a property but it does guarantee consideration in planning for federal or federally-assisted projects, eligibility for federal tax benefits, and qualification for federal historic preservation assistance. Additionally, project effects on properties listed in the NRHP must be evaluated under CEQA.

The National Register Bulletin series was developed to assist evaluators in the application of NRHP criteria. For example, National Register Bulletin #36 provides guidance in the evaluation of archaeological site significance. If a property cannot be placed within a particular theme or time period, and thereby lacks "focus," it will be unlikely to possess characteristics which would make it eligible for listing in the NRHP. Evaluation standards for linear features (such as roads, trails, fence lines, railroads, ditches, and flumes) are considered in terms of four related criteria that account for specific elements that define engineering and construction methods of linear features: (1) size and length, (2) presence of distinctive engineering features and associated properties, (3) structural integrity, and (4) setting. The highest probability for NRHP eligibility exists in the intact, longer segments, where multiple criteria coincide.

## STATE

### California Register of Historical Resources

All properties in California that are listed in or formally determined eligible for listing in the NRHP are also listed in the California Register of Historical Resources (CRHR). The CRHR is a listing of State of California resources that are significant in the context of California's history. It is a Statewide program with a scope and with criteria for inclusion similar to those used for the NRHP. In addition, properties designated under municipal or county ordinances are also eligible for listing in the CRHR.

A historical resource must be significant at the local, State, or national level under one or more of the criteria defined in the California Code of Regulations Title 15, Chapter 11.5, Section 4850 to be included in the CRHR. The CRHR criteria are tied to CEQA because any resource that meets the criteria below is considered a significant historical resource under CEQA. As noted above, all resources listed in or formally determined eligible for listing in the NRHP are automatically listed in the CRHR.

The CRHR uses four evaluation criteria:

- Criterion 1. Is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States.
- Criterion 2. Is associated with the lives of persons important to local, California, or national history.
- Criterion 3. Embodies the distinctive characteristics of a type, period, region, or method of construction; represents the work of a master; or possesses high artistic values.
- Criterion 4. Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California or the nation.

Similar to the NRHP, a historical resource must meet one of the above criteria and retain integrity to be listed in the CRHR. The CRHR uses the same seven aspects of integrity used by the NRHP.

## California Environmental Quality Act

CEQA requires public agencies to consider the effects of their actions on “historical resources,” “unique archaeological resources,” and “Tribal Cultural Resources.” Pursuant to PRC Section 21084.1, a “project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment.” Section 21083.2 requires agencies to determine whether projects would have effects on unique archaeological resources. PRC Section 21084.2 establishes that “[a] project with an effect that may cause a substantial adverse change in the significance of a Tribal Cultural Resource is a project that may have a significant effect on the environment.”

### Historical Resources

“Historical resource” is a term with a defined statutory meaning (PRC Section 21084.1; State CEQA Guidelines Sections 15064.5[a] and [b]). Under State CEQA Guidelines Section 15064.5(a), historical resources include the following:

- 1) A resource listed in, or determined to be eligible by the State Historical Resources Commission for listing in, the CRHR (PRC Section 5024.1).
- 2) A resource included in a local register of historical resources, as defined in PRC Section 5020.1(k) or identified as significant in a historical resource survey meeting the requirements of PRC Section 5024.1(g), will be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
- 3) Any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be a historical resource, provided the lead agency’s determination is supported by substantial evidence in light of the whole record. Generally, a resource will be considered by the lead agency to be historically significant if the resource meets the criteria for listing in the CRHR (PRC Section 5024.1).
- 4) The fact that a resource is not listed in or determined to be eligible for listing in the CRHR, not included in a local register of historical resources (pursuant to PRC Section 5020.1[k]), or identified in a historical resources survey (meeting the criteria in PRC Section 5024.1[g]) does not preclude a lead agency from determining that the resource may be a historical resource as defined in PRC Sections 5020.1(j) or 5024.1.

### Unique Archaeological Resources

CEQA also requires lead agencies to consider whether projects will affect unique archaeological resources. PRC Section 21083.2(g) states that “unique archaeological resource” means an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets one or more of the following criteria:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
2. Has a special and particular quality such as being the oldest of its type or the best available example of its type.
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

### Tribal Cultural Resources

CEQA also requires lead agencies to consider whether projects will affect Tribal Cultural Resources. PRC Section 21074 states:

- a) “Tribal cultural resources” are either of the following:
  - 1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American Tribe that are either of the following:
    - A) Included or determined to be eligible for inclusion in the California Register of Historical Resources.
    - B) Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.

- 2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American Tribe.
- b) A cultural landscape that meets the criteria of subdivision (a) is a Tribal Cultural Resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape.
- c) A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a "nonunique archaeological resource" as defined in subdivision (h) of Section 21083.2 may also be a Tribal Cultural Resource if it conforms with the criteria of subdivision (a).

### **Public Resources Code Section 21083.2**

Treatment options under PRC Section 21083.2(b) to mitigate impacts to archaeological resources include activities that preserve such resources in place in an undisturbed state. PRC Section 21083.2 states:

- (a) As part of the determination made pursuant to Section 21080.1, the lead agency shall determine whether the project may have a significant effect on archaeological resources. If the lead agency determines that the project may have a significant effect on unique archaeological resources, the environmental impact report shall address the issue of those resources. An environmental impact report, if otherwise necessary, shall not address the issue of nonunique archaeological resources. A negative declaration shall be issued with respect to a project if, but for the issue of nonunique archaeological resources, the negative declaration would be otherwise issued.
- (b) If it can be demonstrated that a project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts to be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. Examples of that treatment, in no order of preference, may include, but are not limited to, any of the following:
  - (1) Planning construction to avoid archaeological sites.
  - (2) Deeding archaeological sites into permanent conservation easements.
  - (3) Capping or covering archaeological sites with a layer of soil before building on the sites.
  - (4) Planning parks, greenspace, or other open space to incorporate archaeological sites.
- (c) To the extent that unique archaeological resources are not preserved in place or not left in an undisturbed state, mitigation measures shall be required as provided in this subdivision.
- (d) Excavation as mitigation shall be restricted to those parts of the unique archaeological resource that would be damaged or destroyed by the project.
- (e) In no event shall the amount paid by a project applicant for mitigation measures required pursuant to subdivision (c) exceed the following amounts:
  - (1) An amount equal to one-half of 1 percent of the projected cost of the project for mitigation measures undertaken within the site boundaries of a commercial or industrial project.
  - (2) An amount equal to three-fourths of 1 percent of the projected cost of the project for mitigation measures undertaken within the site boundaries of a housing project consisting of a single unit.
  - (3) If a housing project consists of more than a single unit, an amount equal to three-fourths of 1 percent of the projected cost of the project for mitigation measures undertaken within the site boundaries of the project for the first unit plus the sum of the following:
    - (A) Two hundred dollars (\$200) per unit for any of the next 99 units.
    - (B) One hundred fifty dollars (\$150) per unit for any of the next 400 units.
    - (C) One hundred dollars (\$100) per unit in excess of 500 units.

- (f) Unless special or unusual circumstances warrant an exception, the field excavation phase of an approved mitigation plan shall be completed within 90 days after final approval necessary to implement the physical development of the project or, if a phased project, in connection with the phased portion to which the specific mitigation measures are applicable. However, the project applicant may extend that period if he or she so elects. Nothing in this section shall nullify protections for Indian cemeteries under any other provision of law.

### **Public Resources Code Section 21080.3**

AB 52, signed by the California Governor in September of 2014, established a new class of resources under CEQA: "Tribal Cultural Resources," defined in PRC Section 21074. Pursuant to PRC Sections 21080.3.1, 21080.3.2, and 21082.3, lead agencies undertaking CEQA review must, upon written request of a California Native American Tribe, begin consultation before the release of an EIR, negative declaration, or mitigated negative declaration. PRC Section 21080.3.2 states:

Within 14 days of determining that a project application is complete, or to undertake a project, the lead agency must provide formal notification, in writing, to the tribes that have requested notification of proposed projects in the lead agency's jurisdiction. If it wishes to engage in consultation on the project, the Tribe must respond to the lead agency within 30 days of receipt of the formal notification. The lead agency must begin the consultation process with the tribes that have requested consultation within 30 days of receiving the request for consultation. Consultation concludes when either: 1) the parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a Tribal Cultural Resource, or 2) a party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached.

If the lead agency determines that a project may cause a substantial adverse change to a Tribal Cultural Resource, and measures are not otherwise identified in the consultation process, provisions under PRC Section 21084.3 (b) describe mitigation measures that may avoid or minimize the significant adverse impacts. Examples include:

- (1) Avoidance and preservation of the resources in place, including, but not limited to, planning and construction to avoid the resources and protect the cultural and natural context, or planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
- (2) Treating the resource with culturally appropriate dignity taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
  - (A) Protecting the cultural character and integrity of the resource
  - (B) Protecting the traditional use of the resource
  - (C) Protecting the confidentiality of the resource.
- (3) Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
- (4) Protecting the resource.

### **California Native American Historical, Cultural, and Sacred Sites Act**

The California Native American Historical, Cultural, and Sacred Sites Act (PRC Section 5097.9) applies to both State and private lands. The act requires, upon discovery of human remains, that construction or excavation activity cease and that the county coroner be notified. If the remains are those of a Native American, the coroner must notify the Native American Heritage Commission (NAHC), which notifies and has the authority to designate the most likely descendant (MLD) of the deceased. The act stipulates the procedures the descendants may follow for treating or disposing of the remains and associated grave goods.

### **Health and Safety Code, Section 7050.5**

Section 7050.5 of the Health and Safety Code requires that construction or 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 they are determined to be those of a Native American, the coroner must contact NAHC.

## Public Resources Code, Section 5097

PRC Section 5097 specifies the procedures to be followed if human remains of Native American origin are unexpectedly discovered on nonfederal land. The disposition of Native American burials falls within the jurisdiction of NAHC. Section 5097.5 of the code states:

No person shall knowingly and willfully excavate upon, or remove, destroy, injure, or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor.

## LOCAL

### City of Temecula General Plan

The City's General Plan contains several goals, policies, and implementation programs in the Open Space/Conservation Element (2005) related to the protection of cultural resources, including the following:

**GOAL 6:** Preservation of significant historical and cultural resources.

- ▶ **Policy 6.1:** Maintain an inventory of areas with archaeological/paleontological sensitivity, and historic sites in the Planning Area.
- ▶ **Policy 6.2:** Work to preserve or salvage potential archeological and paleontological resources on sites proposed for future development through the development review and mitigation monitoring processes.
- ▶ **Policy 6.4:** Assist property owners in seeking State and/or federal registration and appropriate zoning for historic sites and assets.
- ▶ **Policy 6.8:** Support an integrated approach to historic preservation in coordination with other affected jurisdictions, agencies, and organizations for areas within the Planning Area and surrounding region that seeks to establish linkages between historic sites or buildings with other historic features such as roads, trails, ridges, and seasonal waterways.
- ▶ **Policy 6.9:** Encourage the preservation and re-use of historic structures, landscape features, roads, landmark trees, and trails.
- ▶ **Policy 6.10:** Work with the Pechanga Band of Luiseño Indians to identify and appropriately address cultural resources and tribal sacred sites through the development review process.
- ▶ **Policy 6.11:** Encourage voluntary landowner efforts to protect cultural resource and tribal sacred sites consistent with State requirements.

In addition, the following implementation procedures from the Open Space/Conservation Element (2005) are also relevant to the protection of cultural resources:

- ▶ **OS-26: Development Review Process.** Use the development and environmental review processes to:
  - Ensure that appropriate archaeological and paleontological surveying and documentation of findings is provided prior to project approval.
  - Require effective mitigation where development may affect archaeological or paleontological resources.
  - Require that an archaeologist or paleontologist be retained to observe grading activities in areas where the probable presence of archaeological or paleontological resources is identified.
  - Enforce CEQA provisions regarding preservation or salvage of significant archaeological and paleontological sites discovered during construction activities.

- Require monitoring of new developments and reporting to the City on completion of mitigation and resource protection measures.
- ▶ **OS-27: Historic Preservation Program.** Continue to implement a historic preservation ordinance in the Old Town area to protect historically significant buildings, sites, road/trails, and other landscape elements, and to encourage their reuse, where appropriate. Consider adopting an ordinance to address preservation of other historic resources. Encourage owners of local sites to apply for recognition in the State Historic Resources Inventory, as Riverside County Landmarks, as State Points of Historic Interest, as State Landmarks, and as sites on the National Register of Historic Places, as deemed necessary.
- ▶ **OS-39: Tribal Cultural Resources.** Development projects proposed on previously undeveloped property that involve earth-disturbing activities, or are in areas with previously identified cultural resources, need to comply with the following requirements to appropriately address Tribal Cultural Resources:
  - All projects shall be evaluated by a qualified archeologist by conducting a site records search, and if feasible, a Phase I walkover survey, and if necessary, a Phase II survey prior to project approval to identify the potential for the presence of significant cultural resources.
  - If significant resources are located on the project site, or a high probability for cultural resources exists, the Pechanga Band of Luiseño Indians shall be consulted in the identification of mitigation measures to address impacts consistent with State requirements, including provisions to address inadvertent discoveries.
  - During on-site grading activities in areas with cultural resources, or with a high potential for cultural resources, a qualified archeologist and tribal monitors shall be on-site to monitor grading operations.

In the event of the discovery of a burial site, human bone, or suspected human bone, grading in the immediate area shall be immediately halted, the site protected, and the County Coroner and representatives from Pechanga Band of Luiseño Indians notified.

### 3.3.2 Environmental Setting

The information contained in this section is from the Phase I Cultural Resources Assessment Report prepared for the proposed project and provided in Appendix C to this Draft SEIR (ASM 2022).

#### REGIONAL PREHISTORY

While no single chronology is agreed upon, archaeologists generally concur that human occupation within Southern California spans at least the last 14,000 years. It was believed that people first came to North and South America over the Bering Land Bridge, however recent studies have identified that this ice-free corridor was not passable until 13,000 years ago and an alternate coastal route has been proposed. The Pacific Northwest coast was deglaciated by approximately 14,000 B.C. and travel along the Pacific Coast in boats would have been possible during this period. A widespread kelp forest could have created a “kelp highway” with enough resources to support people entering North America. Erlandson contends that “it seems most likely that the peopling of the Americas included both coastal and interior migrations of peoples from northeastern Asia and Beringia, with an earlier migration possibly following the northern Pacific coast.”

In Riverside County and the surrounding area, there is no consensus on times or terms in which human occupation started. It is unknown if the first people arrived in Riverside County via the coast or from the pluvial lakes within the Great Basin to the east, as both locations contain archaeological sites with early dates. In addition, the inland valleys of Southern California, have been less intensively studied than the desert and coastal regions and therefore a variety of cultural periods have been suggested but generally researchers have not reached a consensus on the start or phases of prehistoric occupation of the area. Overall, three general cultural periods are recognized: the Paleo-Indian Period, the Archaic Period and the Late Prehistoric Period.

## **Paleo-Indian Period/San Dieguito Period (ca. 12,000 to 8,000 YBP)**

As in most of North America, the Paleo-Indian Period is the earliest recognized period of California prehistory and coincides with the end of the late Pleistocene, circa 11,000 to 13,000 YBP (years before present). The environment was cool and moist, with deep pluvial lakes in the desert and basin lands. However, by the end of the late Pleistocene, the climate became warmer, causing glaciers to melt and sea levels to rise. Inland lakes began to recede and evaporate and there was a great deal of erosion in the coastal areas. The warmer climate also resulted in major vegetation changes and the extinction of Pleistocene megafauna.

Paleo-Indian sites have been identified across most of North America, often referred to as the Clovis Complex. The Clovis Complex is defined by the use of large fluted projectile points and other large bifacial stone tools. Within Southern California and the Colorado Desert the Clovis Complex is referred to as the Western Stemmed Point Tradition (WSPT) and was characterized by leaf shaped and large stemmed projectile points, scrapers and other stone tools. Archaeological evidence of the WSPT has been found across the western interior of North America with small regional variations. Similar archaeological remains are also known as the Lake Mohave Complex. Overall, ground stone use was infrequent in San Dieguito archaeological remains, leading to the belief that the San Dieguito were highly mobile groups and their subsistence practices focused on the hunting of large game.

Several isolated fluted points have been recorded in Southern California, but none have been recorded near the project site in association with Pleistocene fauna. In Riverside County, only one isolated fluted point has been identified on the surface of a site in the Pinto Basin in the central part of the county. Fluted points have been dated outside of California to 13,500 years before the present. The earliest known archaeological sites near the project site, with reliable dates, are from the Channel Islands. The Arlington Springs site on Santa Rosa Island dates to 13,300 years ago, and the Daisy Cave site on San Miguel Island dates to 12,300-11,120 years ago. Daisy Cave mentioned above, is one of the largest, early Holocene archaeological deposits that has been excavated. The study identified over 18 types of fish, multiple shellfish, marine mammals, and birds remains, showing that people relied on a wide assortment of marine resources as early as 8000 B.C., rather than subsisting on large mammal hunting. Over 25 shell midden sites that date to between 12,000 and 8,000 years ago have been recorded on the Channel Islands. On the mainland, a site near San Luis Obispo dates to 10,300-9,650 years ago and a several sites on Cedros Island in Baja California date to 12,000 years ago. Other early sites in the vicinity of the project site consist of the C.W. Harris Site (SDI-149), in San Diego County, with radiocarbon dates ranging from 9,030 YBP to 8,540 YBP and within Orange County, there are sites dating from 9,000 to 10,000 years ago and the Elsinore site (CA-RIV-2798-B), has deposits dating as early as 8,580 YBP. As such, no archaeological sites dating to the Paleoindian Period have been identified within the vicinity of the project site. It is unknown if the lack of Paleoindian Period sites relates to a lack of archaeological data or is evidence that the vicinity of the project site was a less sustainable area than the interior desert or the coastal regions. During this period the desert interior may have been more suitable to prehistoric occupation than the interior valleys of southern California and it is more likely that Paleoindian populations in southern California were centered on the coastal or interior desert regions or around the few large, reliable, drought-resistant water sources present within the inland valley areas.

When Paleo megafauna began to become extinct, Paleo-Indian peoples had to focus on different subsistence strategies. Recent studies along the Southern California coast have focused on the diversity of subsistence strategies during this period, acknowledging the use of smaller animals and plant foods as staples, with limited evidence for big game hunting. Byrd and Raab argue that an environmental change from 10,000 to 8,000 cal. B.C. caused warming and drying conditions which shrunk the interior lakes and streams in Southern California's deserts and spurred the change from a reliance on large game hunting to a focus on a variety of subsistence strategies. Archaeological research across Southern California has shown the use of shellfish, marine mammals, and fish declined proportionately with distance from the coast. Less is known about plant use in interior sites aside from the fact that an increase of milling tools is present suggesting that plant resources were heavily relied upon during this early period.

## **Archaic Period/Millingstone Horizon (ca. 9500/8000 to 1500 YBP)**

The Archaic Period within the vicinity of the project site was defined by a lengthy time period with little change within the archaeological record. In contrast to the Paleoindian Period the archaeological record within the Archaic Period consisted of a tool kit that focused on collection and processing of small plant seeds and hunting of a variety of

medium and small game animals. Across Southern California this period is often referred to as the Millingstone Horizon, and is often divided into the Early, Middle, and Late Archaic Period. In addition to the Early, Middle, and Late Archaic Period, it was also referred to as the Encinitas Tradition by Warren (1968), the La Jolla Tradition, in San Diego County, and the Greven Knoll Pattern. Sutton created the Greven Knoll Pattern nomenclature as a redefined interpretation of the Encinitas Tradition, and used it to refer to all expressions of the inland Milling Stone Horizon in Southern California north of San Diego County.

There is a discrepancy on the start of the Millingstone Horizon, while Lightfoot and Parrish (2009) argues that early milling stone assemblages show that by 9,000 years ago milling tools were in use and that seeds and nuts must have been a dominate food source, other archaeologists argue that the Millingstone Horizon is generally attribute to the Middle to Late Holocene Period and has been identified across much of central and southern California by ca. 8,000 to 7,000 YBP.

Interior archaeological sites from this period were thought to have been left by seasonally mobile groups with small settlements, based on the availability of food resources. There is little archaeological evidence for group size and type and use of habitation structures within Riverside County for the middle Holocene.

The Millingstone Horizon or Archaic Period tool kit at inland sites focused on collection and processing of small plant seeds and hunting of a variety of medium and small game animals; while along the coast there was a reliance on marine resources. Artifacts from this period consist of grinding implements (manos and metates), atlatl or dart projectile points, quarry-based tools, as well as lithic choppers and scrapers that indicate the focus was on collection and processing of small plant seeds and hunting of a variety of medium and small game animals.

Mortuary practices consist of flexed inhumations which are often accompanied by grave goods of milling stones and other artifacts. This seems to represent a more sedentary lifestyle with a subsistence economy based upon the use of a broad variety of terrestrial resources than identified during the Paleoindian Period. Research indicates that residential bases or camps were moved in a seasonal round, with some sites occupied year-round, with portions of the village population leaving at certain times of the year to exploit seasonally available resources.

During this lengthy period very little technological changes are identified within the archaeological record until approximately 5,000 years ago when there was an increase in sedimentation along the coast. This transformed the estuaries into shallow wetlands, closed several of the lagoons, transformed the coastal areas into sand and mudflats, and limited the kelp forests, causing the coastal region to have a lower level of subsistence resources than in the past. During this time the deserts became more arid, and there was an increase in use of the inland valleys within the vicinity of the project site.

### **Early Archaic Period (ca. 9500/8000 to 7000 YBP)**

Horne and McDougall report that there is little archaeological evidence within Riverside County during this period. However, several sites within the region date to the Early Archaic Period. The first consists of a single human burial dating to  $7380 \pm 300$  B.P., which was capped by several large highly shaped metates. The second was a small temporary camp dated by obsidian hydration data and stratigraphic information to the Early Archaic Period. An additional site within Riverside County, SDI-6069, within the San Jacinto Valley area was identified in an alluvial fan just above the floor of the San Jacinto Valley. The site contains several different cultural occupations, and the lowest level contained radiocarbon dates from 7940 to 8370 B.P., while radiocarbon from the upper component of the site dated to 2230 B.P., within the Late Archaic Period. An additional site, SDI-2798/H, known as the Lake Elsinore site, contained one radiocarbon date from  $8400 \pm 60$  B.P. Additional radiocarbon dates show habitation of the site during the Middle Archaic Period as well.

Artifacts associated with these Early Archaic Period sites include flaked stone tools and ground stone tools. Data recovery excavation within SDI-6069 identified a larger variety of artifact types including an extensive variety of flaked and ground stone tools, marine and terrestrial faunal remains, and bone and shell tools and ornaments. Crescents have also been found sparsely during this period.

Overall evidence of Early Archaic Period habitations in the vicinity of the project site are scarce, identifying that during this period the region around the project site was likely too arid to support sedentary residential occupation, and the few sites dating to this time period with evidence of a larger habitation area were found near large inland water sources.

### **Middle Archaic Period (ca. 7000 to 4000 YBP)**

During the Middle Archaic Period environmental conditions changed as the deserts became more arid and the coastal estuaries became less productive for shellfish and other food sources, causing a depopulation along the coastal zone, and settlements shifted to inland river valleys with an intensification of terrestrial game and plant resources. Gallegos states that during this period to adapt to the changing environmental condition people changed their settlement patterns by increasing their use of plant and terrestrial animal use, which is evidence in the archaeological record through an increase in habitation areas near oak and grassland resources and away from the coastal zone. Therefore, the inland valleys of western Riverside County became a more hospitable environment and there is a significantly larger number of archaeological sites dating to this period within the vicinity of the project site.

The archaeological record dating to the Middle Archaic Period has identified several intensively used residential bases, and numerous temporary camps. Diagnostic artifacts include Pinto and Silver Lake projectile points and other large leaf-shaped projectile points, choppers, crescents, large drills, manos and metates inhumations, and a variety of flaked and groundstone tools. Additional non-utilitarian items include beads, pendants, charmstones, discoidals, spherical stones, and coggled stones. During this period, it is largely unknown if occupations of inland and coastal sites represent seasonal movement by the same groups of people, or if coastal sites represent a more permanent occupation, while inland groups followed a more mobile subsistence round.

### **Late Archaic Period (ca. 4000 to 1500 YBP)**

The Late Archaic Period corresponds to a period of increased moisture in Southern California, followed by another dry period. This period is also referred to as the Intermediate Period by Wallace and the Campbell Tradition. Horne and McDougall report that archaeological site types during this period range from residential bases with large diverse artifact assemblages, abundant faunal remains and cultural features to temporary bases, camps and task specific activity areas. More intensively used archaeological sites from the Late Archaic Period are often found adjacent to permanent water sources while smaller or temporary sites are found on upland benches or adjacent to alluvial fans. In contrast to the Early and Middle Archaic Periods, archaeological sites from the Late Archaic Period show a longer and more frequent reuse suggesting an increase in sedentism. Generally, the artifact assemblage is similar to the Early and Middle Archaic Period, focusing on large projectile points, used for spears and atlatls, and ground stone items. However, projectile points became more refined, such as notched points, points with concave bases, and small stemmed points. Greater use of the mortar and pestle suggest that acorns became a more important food source. There was also an increase in broad leaf-shaped blades, bone and antler tools and use of asphaltum and steatite. In general, through the Archaic Period the archaeological evidence and artifact assemblages remain similar, but become more elaborate over time, possibly implying an increase in sedentism, an increase in subsistence efficiency, and/or an increase in sociopolitical complexity.

Little is known about the transition from the Archaic Period to the Late Prehistoric Period. Laylander reports that there is a relative scarcity of dates within archaeological sites from the period between 1300 B.C. to A.D. 200, but it is unknown if this represents a decline in population during the end of the Archaic Period, or a bias in research data.

During the end of the Late Archaic Period several researchers have identified an intermediate period, however it is largely unknown if this period is representative of the cultural change between the Milling Stone Period and the Late Prehistoric Period over time, adaptation to changing environmental conditions, or a distinct culture. This intermediate period roughly corresponds to the Medieval Warm Period which caused drought and warmer temperatures across the western United States. Archaeological evidence during this period supports a greater reliance on acorns as a food staple. Other changes include an influx of archaeological sites at reliable water sources such as the Colorado River and Lake Cahuilla.

## Late Holocene Period/Late Prehistoric Period (1500 to 150 YBP)

There are differing opinions between researchers as to whether the shift to the Late Prehistoric Period was caused by new technologies developed by people already living in the area, spurred by changing environmental conditions, or if it was brought in by a migration of people into Southern California. Archaeological and anthropological evidence suggests that at approximately 1500 to 1,350 YBP, Takic speaking (speakers of Uto-Aztecan languages) groups from the Great Basin region moved into Riverside County, marking the transition to the Late Prehistoric Period, known as the Shoshonean Wedge. An analysis of the Takic expansion by Sutton indicates that inland southern California was occupied by "proto-Yuman" populations before 1,000 YBP. The comprehensive, multi-phase model offered by Sutton uses linguistic, ethnographic, archaeological, and biological data to propose that Takic speaking groups moved south and east from the Los Angeles Basin. They then diffused south into Orange County and northern San Diego County, inland up the San Luis Rey River into the Palomar Mountain area and north into interior southern California around 1,250 YBP. In addition, during this period Lake Cahuilla began to recede, and the large populations of people living along the lake shores transitioned into the Colorado River basin to the east or the inland valleys to the west. The Late Prehistoric Period is identified as a continuation of the cultural practices that were present during the initial Euro-American exploration of Southern California and that were recorded during the Ethno-Historic Period.

The Late Prehistoric Period is defined by the introduction of the bow and arrow after approximately A.D. 500 and by A.D. 1000 ceramic vessels begin to appear at some sites. Also, during this time mortuary practices changed from inhumations to cremations. It is thought that this practice came from the north or east, and it is unknown if the transition from inhumations to cremations was adopted for religious or population reasons, or to control the spread of disease. Other hallmarks of the Late Prehistoric Period include an increase in the reliance on plant food sources, small projectile points, increase use of mortars and pestles, the use of obsidian from the Obsidian Butte source and overall an increase in the complexity and diversity of material cultural.

Many of the Late Prehistoric Period archaeological sites are located inland and contain bedrock milling features, thought to relate to acorn or other seed processing. People lived in larger coastal and lower valley villages, that were located near permanent water sources. These villages acted as ceremonial and political centers, and may have been occupied, at least partially, year-round. Smaller villages and residential areas were inhabited seasonally and were located near subsistence resources or were used for specialized activities, especially in inland areas. This may have led to an increase in community size, longer stays at the major residences and different societal organization.

Archaeological remains have identified over four dozen plant types were used in Southern California during this period. Grass seeds had the highest frequencies of use with a gradual increase in acorn usage. Little is known about plant cultivation during the Late Holocene. There is evidence that a high number of plants that follow fires were used, but no major research projects have focused on proto-agriculture. Early Spanish accounts identify that the Native Americans were practicing cultivation of certain plants through burning and water diversion. Agriculture was in use along the Colorado River, east of the project site as early as A.D. 700.

Changes in lithic artifacts show a greater number of small, finely chipped projectile points, usually stemless with convex or concave bases, suggesting an increased utilization of the bow and arrow rather than the atlatl and dart for hunting. Common lithic materials for formed tools, primarily projectile points include chert, jasper, agate, silicified wood, rhyolite, wonderstone, quartz, obsidian from Obsidian Butte, and Santiago Peak metavolcanics. Other items include steatite cooking vessels and containers, the increased presence of smaller bone and shell circular fishhooks, perforated stones, arrow shaft straighteners made of steatite, a variety of bone tools, and personal ornaments made from shell, bone, and stone. There is also an increased use of asphalt for waterproofing and as an adhesive.

During the Late Prehistoric Period villages acted as ceremonial and political centers, and may have been occupied, at least partially, year-round. Smaller residential areas were inhabited seasonally and were located near subsistence resources or were used for specialized activities, especially in inland areas. This may have led to an increase in community size, longer stays at the major residences and different societal organization. Most of the rock art in Riverside County, as in the rest of Southern California has been attributed to the Late Prehistoric Period. Ceramic use included a variety of vessel types as well as clay smoking pipes. While ceramic use is present in the Lake Cahuilla region as early as 800 YBP and there were at least five ceramic types present in the desert, it is not present in the vicinity of the project site until circa 350 YBP. Ceramic types consisted of brownwares, graywares, and buffwares.

## ETHNOGRAPHY

The Late Prehistoric period essentially ended with the Spanish colonization and establishment of the missions. Disease and forced relocation, which reduced the populations considerably among the coastal settlements, did much to destroy the cultural pattern established at that period. The Late Prehistoric culture pattern appears to have lasted longer among the inland groups. Even after the missions were secularized in 1834, some inland groups were able to maintain most of their traditional orientation until the arrival of the settlers from 1859-1879, when most of the groups were displaced or dispersed. During the Ethnohistoric period, the project site was inhabited by the Luiseño. Settlement patterns were essentially settlements typically located within valley bottoms, along streams, or along coastal strands near mountain ranges. Villages were often located in sheltered areas near good water supplies, in a defensive location, or on the side of warm thermal zone slopes.

Within the region, the diverse ecological zones provided a wide array of subsistence products. Principal game animals included deer, rabbit, jackrabbit, woodrat, mice, ground squirrels, antelope, valley and mountain quail, doves, ducks, and other birds. Coastal game included sea mammals, fish, mollusks, and crustaceans. Fresh-water game included trout and other local fish. Of high importance were acorns, and village locations were typically located near water sources for use in acorn leeching. Grass seeds were the next most ample resource, in addition to manzanita, sunflower, chia, sage, lemonade berry, prickly pear, and pine nuts. Fire was used as a crop management technique as well as for community rabbit drives. Tools for the acquisition, storage, or preparation of food were highly varied and constructed from locally derived materials, with a few items acquired via trade from specific localities. Hunting activities used either individual or group participation, using bows and arrows for larger game or curved throwing sticks, slings, traps, or pit type deadfalls for smaller animals. Cremations were used rather than inhumations.

### Luiseño

The traditional use area of the Luiseño encompassed about 1,500 square miles and extended in a north-northeasterly direction from Agua Hedionda Lagoon to Aliso Creek and, to the east, included what are today known as Oceanside, Vista, San Marcos, Escondido, Palomar Mountain, the Gujieto, a portion of Valle de San Jose, north to Soboba and Temescal.

The Luiseño were Takic-speaking, and had rigid social structures due to their high population density. The Luiseño lived in sedentary and autonomous villages located near reliable water sources and high resource areas. Each village contained named places associated with food products, raw materials, or sacred beings. Named places were owned by either an individual, a family, a chief, or the collective group. Group economic activities were restricted to areas owned by the village, whereas familial gatherings were limited to family-owned areas, unless given express permission to hold such gatherings in areas other than their own. The concept of private property was important, and trespassing upon private areas was punished severely. A Luiseño ritual and ceremonial specialist maintained the knowledge of the various ceremonies and passed on the knowledge to only one heir. Such ceremonies included funerals and clothes burning ceremonies. The decimation of the population after European contact, without doubt, caused the loss of some spiritual specialists. Additionally, the reservation system interrupted the social organization and settlement patterns.

Settlements were typically located within valley bottoms, along streams, or along coastal strands near mountain ranges. Villages were often located in sheltered areas near good water supplies, in a defensive location, or on the side of warm thermal zone slopes. Each village contained named places associated with food products, raw materials, or sacred beings. Named places were owned by either an individual, a family, a chief, or the collective group. Group economic activities were restricted to areas owned by the village as a whole, whereas familial gatherings were limited to family-owned areas, unless given express permission to hold such gatherings in areas other than their own. The concept of private property was important to the Luiseño, and trespassing upon private areas was punished severely. Private property also included houses, capital equipment, treasure goods and ritual equipment, trade and ceremonial beads, eagle nests, songs, and other nonmaterial possessions. Privately owned property was either inherited patrilineally or transferred to another owner.

The diverse ecological zones within the Luiseño territory provided a wide array of subsistence products. Principal game animals included deer, rabbit, jackrabbit, woodrat, mice, ground squirrels, antelope, valley and mountain quail, doves, ducks, and other birds. The most important gathered resource were acorns, and village locations were typically located near water sources for use in acorn leeching. Grass seeds were the next most abundant resource, in addition to manzanita, sunflower, chia, sage, lemonade berry, prickly pear, and pine nuts. Fire was used as a crop management technique as well as for community rabbit drives. Tools for the acquisition, storage, or preparation of food were highly varied and constructed from locally derived materials, with a few items acquired via trade from specific localities (steatite bowls from Santa Catalina Island, obsidian blanks or tools from either eastern or northern neighbors). Hunting activities used either individual or group participation, using bows and arrows for larger game or curved throwing sticks, slings, traps, or pit type deadfalls for smaller animals.

## HISTORIC SETTING

Riverside County history can be divided into three periods: the Spanish, Mexican, and American periods. The following summary is based on the City of Temecula's historic context (<https://www.temeculaca.gov/150/History-of-Temecula>). Additional historical information specific to the project site can be found in the *Historical/Archaeological Resources Survey Report Temecula Hospital Project, Tentative Parcel map No. 32468, City of Temecula, Riverside County, California* (CRM Tech 2004).

### Spanish Period (1769-1822)

Along the coast of California, Spanish explorers began making expeditions between the mid-1500s and 1700s. In 1769, King Charles III of Spain charged the Franciscan Order to direct religious and colonization matters in assigned territories of the Americas. The Portolá Expedition set out that same year from Baja California with Captain Gaspar de Portolá, 64 soldiers, missionaries, Baja California Native Americans, and local civilians. The expedition established the Presidio of San Diego, a fortified military outpost, as the first Spanish settlement in Alta California. In July of 1769, while Portolá was exploring southern California, Franciscan Friar Junípero Serra founded Mission San Diego de Alcalá at Presidio Hill, the first of the 21 missions that would be established in Alta California by the Spanish and the Franciscan Order between 1769 and 1823. The Mission San Gabriel Archangel was established in 1771 and the Mission San Juan Capistrano was established in 1776. The mission of San Luis Rey de Francia was established in 1798 four miles up the San Luis Rey River from the coast and in 1816, an outpost of San Luis Rey was established at Pala, 20 miles upriver. An additional outpost, the San Bernardino estancia, was established in 1819.

The first recorded Spanish contact with the Temecula region was by Franciscan Friar Juan Norberto de Santiago and Captain Pedro Lisalde who visited in October 1797 as part of an expedition sent by the Mission San Juan Capistrano to identify a site for a new mission. Santiago kept a journal of his travels and noted "Temecula...an Indian village." "Temecula" is reported to mean "the place of the sun."

### Mexican Period (1821-1846)

After years of sporadic rebellion and warfare, New Spain (Mexico and the California territory) won independence from Spain in 1821 marking the beginning of the Mexican Period. As the ports in California were opened to foreign ships the population near the coast grew. However, the inland valleys remained largely vacant of European settlers except for use as grazing lands for cattle. During the Mexican Period, the cattle industry grew in importance to become the leading industry in the region and the central focus of the Californio culture.

The Mexican Government continued the land grant system first began by Spain and granted several land grants as part of the ranch system. The Mexican government secularized the California missions in 1833, and much of the mission lands were included in the land grants. The Native Americans which had been captured as part of the mission system became eligible for Mexican citizenship, however this period continued the physical and cultural decline of the Native American population. At their peak, the 21 California missions controlled approximately 74,000 neophytes. By 1834, the year before secularization took the institution from the missionaries, only 17,000 natives remained within their domain.

The project site is at the intersection of the Temecula, Little Temecula, and Rancho Pauba land grants. The Rancho Temecula grant was allotted to Felix Valdez and the Rancho Pauba grant was allotted to Vicenta Moraga in 1844. The smaller Rancho Little Temecula was allotted to Pablo Apis; Apis was a Luiseno and one of the few Native Americans to be granted land at the dissolution of the missions.

### **American Period (1848-Present)**

The US government first surveyed the area in the 1850s and noted the village of Temecula with approximately 30 thatched houses clustered around Pablo Apis' adobe. However, by 1859, Apis' adobe was the residence of two Euro Americans known as Holmen and Seman who had supposedly purchased the land from Apis. This transaction was later fictionalized in Helen Hunt Jackson's influential novel *Ramona*, written in 1884. During the Mexican-American War, the Temecula Massacre occurred in January 1847 when Mexican soldiers trapped a group of local Native Americans in a canyon. The Mormon Battalion arrived in the area around January 25 and helped bury the victims in the Old Temecula Village Cemetery.

The signing of the Treaty of Guadalupe Hidalgo in 1848, ended the Mexican American War and marks the beginning of the American period, when California became a territory of the United States. California became the 31st State in 1850 and within three years the population of California had increased to more than 300,000.

The Treaty of Temecula was signed by US Indian agents and some remaining Native American inhabitants of Temecula Valley at Magee's Store in 1852 but was never ratified by the United States Senate. In September 1875, the Native American inhabitants who were still living on Pablo Apis' land grant of Little Temecula were forcibly evicted by local Euro-American settlers including Jose Gonzalez, Juan Murrieta, and Louis Wolf. This eviction was also fictionalized in *Ramona*. Wolf later married a mixed-race Native American woman named Ramona who partially inspired Helen Hunt Jackson. The Wolfs took over running Magee's Store in 1860. The Pechanga Reservation was established in 1882.

The Butterfield Overland Mail stagecoach route was established through Temecula in 1858 and Temecula's first post office established at the Magee Store in 1859. The Civil War brought an end to the Butterfield Stagecoach but regular rail service between National City and Temecula was established in 1882 by the California Southern Railroad.

On March 11, 1893, Riverside County was formed from an approximately 6,500 square miles of San Diego County and 560 square miles of San Bernardino County. Riverside County was formed primarily over political and tax issues between residents in San Bernardino and Riverside, and the displeasure of residents in the Temecula Valley area being too great a distance from the County seat in San Diego.

Cattle continued to dominate the southern California economy through the 1850s as a source of hides but for the more than 90,000 new residents lured to California by the Gold Rush beginning in 1848, cattle were now an important source of meat and other supplies. Cattle were at first driven along major trails or roads such as the Gila Trail or Southern Overland Trail, then were transported by trains where available. The cattle boom ended for southern California as neighbor states and territories drove herds to northern California at reduced prices. Walter Vail settled in Temecula Valley in 1904 and purchased huge tracts of land, including remnants of the Temecula, Little Temecula, and Rancho Pauba land grants. At its height, the ranch reached 87,500 acres. Vail's son Mahlon took over ranch operations upon his father's death in 1906. The Vail Ranch was instrumental in the development of Temecula Valley in the early 20<sup>th</sup> century as the local economy was dominated by this ranch.

The Vails sold the ranch to Kaiser Development Company in 1964 who planned to develop Temecula Valley for suburban residents as Rancho California. Rapid suburban and urban development of the region followed throughout the 1970s and 1980s.

## **RECORDS SEARCHES, SURVEYS, AND CONSULTATION**

### **Records Search Results**

On April 19, 2022, a records search of the project site and one-mile radius was conducted at the Eastern Information Center at the University of California, Riverside. Current site and previous project information available in the

California Historical Resources Information System (CHRIS) Geographical Information System (GIS) inventory and Built Environment Resources Directory for Riverside County was also examined for known and recorded sites and surveyed areas within the vicinity of the project site.

The records search identified a total of five previously recorded archaeological features within the project site. These archaeological features consisted of isolated prehistoric finds identified during the initial grading of the project site in 2011. Isolates are defined as one or two artifacts occurring by themselves and not associated with an archaeological site. Because they have no historical context, isolates are generally not eligible for listing in CRHR or NRHP. Moreover, the isolates were removed during the 2011 grading and are no longer present within the project site. No built-environment historical resources were identified in the records search.

The 2004 archaeological survey report for the currently approved project described how the GLO Maps from 1859 and 1872 show the prehistoric and ethnohistoric village of Temecula, several adobe homes, the road to Fort Yuma and the Road to the San Luis Rey Mission, a Native American graveyard, and the remains of a sweathouse and a store within the vicinity of the project site (CRM Tech 2004).

## Field Survey Results

In addition to the records search, a field survey was conducted on April 15, 2022, by ASM Assistant Archaeologist Michelle Hamilton. Field methods consisted of a pedestrian survey of the project site by the archaeologist in transects spaced at 10-meter intervals. Special attention was given to visible soils in areas devoid of vegetation or disturbed soils from bioturbation. The project site was photographed, and all visible soils were examined for cultural resources. No previously unrecorded cultural resources were observed.

## Tribal Cultural Resources

The NAHC maintains a confidential Sacred Lands File (SLF) that contains sites of traditional, cultural, or religious value to the Native American community. A record search of the SLF was requested on April 15, 2022. On May 19, 2022, the NAHC responded that the record search of the SLF was positive and recommended that the Pechanga Band of Indians be contacted.

### Native American Consultation

To fulfill its responsibilities pursuant to CEQA PRC Section 21080.3.152 as amended by AB 52, the City sent consultation notification letters to Native American groups affiliated with the project area on December 7, 2021. The specific details of the consultations are confidential pursuant to California law; however, a summary of events related to communication between the tribes and the City is provided below in Table 3.3-1.

**Table 3.3-1 Summary of AB 52 Consultation Process**

Native American Tribe and Contact	Consultation Letter Sent by City	Date of Initial Response from Tribe	Consultation Status
Agua Caliente Band of Cahuilla Indians Arysa Gonzalez Romero	December 7, 2021	January 18, 2022	Declined by Tribe
Pechanga Band of Luiseno Indians Juan Ochoa	December 7, 2021	December 28, 2021	Conducted; concluded October 12, 2022
Rincon Band of Luiseno Indians Cheyrl Madrigal	December 7, 2021	December 28, 2021	Conducted; concluded April 4, 2022
Soboba Band of Luiseño Indians Joseph Ontiveros	December 7, 2021	No response	n/a
Torres Martinez Desert Cahuilla Indians Michael Mirelez	December 7, 2021	No response	n/a

Source: Data compiled by Ascent Environmental in 2022.

Three tribes responded to the AB 52 notification letters sent by the City. The Agua Caliente Band of Cahuilla Indians responded on January 18, 2022, stating that the proposed project is not within the Tribe's Traditional Use Area, and therefore declined consultation. The Rincon Band of Luiseño Indians responded on December 28, 2021, requesting

consultation and copies of existing documents pertaining to the proposed project. The City provided the Tribe with the requested on documents on February 28, 2022, and on April 4, 2022, the Tribe responded stating that they have no further comments and concluded consultation. The Pechanga Band of Luiseño Indians responded on December 28, 2021, requesting consultation and stating that the project site is within a Traditional Cultural Property and therefore likely contains additional Tribal Cultural Resources. Mitigation measures requested by the Tribe are included in the impact discussion below.

### 3.3.3 Impacts and Mitigation Measures

#### METHODOLOGY

The impact analysis for archaeological and historical resources is based on the findings and recommendations of the *Phase I Cultural Resources Assessment Report for the Temecula Valley Hospital Master Plan Update Project, City of Temecula, Riverside County, California* (ASM 2022). The analysis is also informed by the provisions and requirements of federal, State, and local laws and regulations that apply to cultural resources.

PRC Section 21083.2(g) defines a “unique archaeological resource” as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets one or more of the following CRHR-related criteria: (1) that it contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information; (2) that it has a special and particular quality, such as being the oldest of its type or the best available example of its type; or (3) that it is directly associated with a scientifically recognized important prehistoric or historic event or person. An impact on a resource that is not unique is not a significant environmental impact under CEQA (State CEQA Guidelines Section 15064.5[c][4]). If an archaeological resource qualifies as a resource under CRHR criteria, then the resource is treated as a unique archaeological resource for the purposes of CEQA.

PRC Section 21074 defines “Tribal Cultural Resources” as “sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American Tribe” that are listed or determined eligible for listing in the CRHR, listed in a local register of historical resources, or otherwise determined by the lead agency to be a Tribal Cultural Resource.

For the purposes of the impact discussion, “historical resource” is used to describe built-environment historic-period resources. Archaeological resources (both prehistoric and historic-period), which may qualify as “historical resources” pursuant to CEQA, are analyzed separately from built-environment historical resources.

#### THRESHOLDS OF SIGNIFICANCE

A cultural resources impact would be significant if implementation of the proposed project would:

- ▶ cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5 of the State CEQA Guidelines;
- ▶ cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 of the State CEQA Guidelines;
- ▶ cause a substantial adverse change in the significance of a Tribal Cultural Resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe; or
- ▶ disturb any human remains, including those interred outside of formal cemeteries.

## ISSUES NOT DISCUSSED FURTHER

As described above, no built-environment historic resources were identified on the project site, either through the records search or the pedestrian survey. Therefore, proposed project construction and operation would have no impact on historical resources. This issue is not analyzed further in this Draft SEIR. The Phase I Cultural Resources Assessment Report prepared for the proposed project (ASM 2022) included a CHRIS record search and archaeological pedestrian survey. The archaeological pedestrian survey did not identify any previously unrecorded cultural resources. Additionally, the five previously recorded archaeological features identified within the project site as part of the CHRIS record search were removed during the 2011 grading of the project site, and therefore are no longer present within the site.

## ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

### Impact 3.3-1: Cause a Substantial Adverse Change in the Significance of Unique Archaeological Resources

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Construction activities for the proposed project, including any grading, grubbing, trenching, excavation, or earth-moving activities in previously undisturbed areas, or any ground disturbance that extends deeper than the mass grading previously completed in 2011 or has potential to encounter native soil, could encounter and/or damage previously undiscovered archaeological resources that qualify as unique archaeological resources under CEQA. This impact would be **potentially significant**.

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The proposed project, an update to the Temecula Valley Hospital Master Plan, consists of revisions to the currently approved Temecula Valley Hospital project. Phase I development of the hospital was completed in 2011, and the hospital was opened in 2013. Implementing the proposed project would result in revisions to the remaining phases of hospital development to address anticipated growth in the region. Specifically, the proposed project involves expanding the emergency department and constructing a behavioral health building, two additional hospital towers, two medical office buildings, a utility plant, surface parking lots, and a four-story parking structure. In addition, the helipad would be relocated from its interim location on the project site to the roof of the proposed parking structure. The hospital building and other buildings constructed during Phase I would be maintained in place.

A Phase I archaeological resource survey was completed in 2004 for the currently approved project (CRM Tech 2004), which determined that the project site has the potential to contain archaeological resources given its location in an area known to contain sensitive resources. Since certification of the 2008 EIR, Phase I of the currently approved project was constructed and became operational in 2013. The portions of the project site that would be developed under Phases II, III, and IV of the proposed project were subject to mass grading in 2011 as part of the Phase I development of the master plan.

The Phase I Cultural Resources Assessment Report prepared for the proposed project (ASM 2022) included a CHRIS record search and archaeological pedestrian survey. The archaeological pedestrian survey did not identify any previously unrecorded cultural resources. Additionally, the five previously recorded archaeological features identified within the project site as part of the CHRIS record search were removed during the 2011 grading of the project site, and therefore are no longer present within the site.

However, as further detailed in the Phase I Cultural Resources Assessment Report, the project site is in an area known to be a center of both Native American and Euro American settlement during the late 18th and early 19th centuries. The project site yielded subsurface artifacts during the initial hospital construction in Phase I of the adopted master plan and other projects in the vicinity have also yielded subsurface deposits. As such, construction activities for the proposed project, including grading, grubbing, trenching, excavation, or earth-moving activities in previously undisturbed areas, or any ground disturbance that extends deeper than the mass grading previously completed in 2011 or has potential to encounter native soil, could encounter and/or damage previously undiscovered archaeological resources that qualify as unique archaeological resources under CEQA.

Once operational, the proposed project would not include any activities that would have the potential to cause a substantial adverse change in the significance of a unique archaeological resource. The project site would continue to operate as a hospital, with changes in operations primarily limited to additional hospital staffing and patients, as well as a proposed change in the location of the helipad from its existing location to the roof of the proposed parking structure. None of these operational activities would have the potential to cause a substantial adverse change in the significance of a unique archaeological resource. Therefore, construction of the proposed project, but not operations, has the potential to cause a substantial adverse change in the significance of a unique archaeological resource. This impact would be **potentially significant**.

## Mitigation Measures

### Mitigation Measure 3.3-1a: Retain a Qualified Archaeologist

Prior to the issuance of each grading permit and before to the start of any ground-disturbing activity, the project applicant shall retain a qualified professional archaeologist, defined as an archaeologist meeting the Secretary of the Interior's Professional Qualification Standards for archeology and as approved by the City of Temecula, to provide expertise in carrying out all mitigation measures related to archeological resources (Mitigation Measures 3.3-1a through 3.3-1c).

### Mitigation Measure 3.3-1b: Develop and Implement a Worker Environmental Awareness Program

The qualified professional archaeologist, retained by the project applicant, shall prepare a worker environmental awareness program. The program shall be provided to all construction personnel and supervisors who will have the potential to encounter and alter heritage and cultural resources. A copy of the worker environmental awareness program shall be provided to the City Development Services Department before construction activities begin. The topics to be addressed in the worker environmental awareness program will include, at a minimum:

- ▶ types of cultural resources expected on the project site;
- ▶ types of evidence that indicates cultural resources might be present (e.g., ceramic shards, lithic scatters, soil changes);
- ▶ what to do if a worker encounters a possible resource;
- ▶ what to do if a worker encounters bones or possible bones; and
- ▶ penalties for removing or intentionally disturbing heritage and cultural resources, such as those identified in the Archaeological Resources Protection Act.

### Mitigation Measure 3.3-1c: Implement Procedures to Address Discovery of Subsurface Archaeological Features and Tribal Cultural Resources

Where proposed project construction includes any grading, grubbing, trenching, excavation, or earth-moving activities in previously undisturbed areas, or any ground disturbance that extends deeper than the mass grading completed in 2011 or has potential to encounter native soil, the qualified archaeologist shall conduct monitoring of these activities. If any prehistoric or historic-period subsurface archaeological features or deposits, including locally darkened soil ("midden"), that could conceal cultural deposits are discovered during construction, all ground-disturbing activity within 100 feet of the resources shall be halted and the qualified professional archaeologist shall assess the significance of the find and determine the appropriate next steps in consultation with the City of Temecula. If the qualified archaeologist determines the archaeological material to be Native American in nature, the City of Temecula shall contact the Pechanga Tribe for their input on the preferred treatment of the find. If the find is determined to be significant by the archaeologist or the tribal representative (i.e., because it is determined to constitute a unique archaeological resource or a Tribal Cultural Resource, as appropriate), the archaeologist and tribal representative, as appropriate, shall develop, and the project applicant shall implement, appropriate procedures to protect the integrity of the resource and ensure that no additional resources are affected. Procedures could include, but would not necessarily be limited to, preservation in place (which shall be the preferred manner of mitigating impacts to archaeological sites), archival research, subsurface testing, or contiguous block unit excavation and data

recovery (when it is the only feasible mitigation, and pursuant to a data recovery plan). No work at the discovery location shall resume until all necessary investigation and evaluation of the resource has been satisfied. The landowner shall relinquish ownership of all cultural resources, including sacred items, burial goods, and all archaeological artifacts that are recovered as a result of proposed project implementation to the Pechanga Tribe for proper treatment and disposition.

If, during the course of monitoring the qualified archaeologist can demonstrate, based on observations of subsurface conditions that the level of monitoring should be reduced, increased, or discontinued, the qualified archaeologist, in consultation with the project applicant and the City of Temecula, may adjust the level of monitoring, as warranted.

#### **Significance after Mitigation**

Implementation of Mitigation Measures 3.3-1a, 3.3-1b, and 3.3-1c would avoid substantial adverse changes to the significance of unique archaeological resources by requiring the project applicant to retain a qualified archaeologist, requiring training for all construction personnel and supervisors who will have the potential to encounter and alter archaeological resources, requiring construction to halt if potential archaeological resources are discovered, coordination with Native American groups (if applicable), implementation of preservation options (including data recovery, mapping, capping, or avoidance), and proper curation if significant artifacts are recovered. This impact would be **less than significant with mitigation**.

#### **Impact 3.3-2: Cause a Substantial Adverse Change in the Significance of a Tribal Cultural Resource**

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Prior development at the project site and surrounding area have resulted in the discovery of artifacts. Additionally, tribal consultation resulted in the identification that the project site is within a Traditional Cultural Property and therefore likely contains additional Tribal Cultural Resources. Therefore, excavation activities associated with proposed project construction may disturb or destroy previously undiscovered significant subsurface Tribal Cultural Resources. This impact would be **potentially significant**.

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At the time the 2006 and 2008 EIRs were certified, Tribal Cultural Resources (TCR) were not included in Appendix G of the State CEQA Guidelines, and therefore were not explicitly analyzed. As such, no Tribal Cultural Resources were identified within the project site at the time 2006 and 2008 EIRs were certified.

As described in Chapter 2, Project Description, the project site was mass graded in 2011 during construction of Phase I of the master plan. Although past construction activities at the project site may have damaged or removed subsurface Tribal Cultural Resources, there is the potential for subsurface resources, including significant resources that would qualify as a Tribal Cultural Resource, to be present where there has been less ground disturbance or where native soils are still intact. As discussed under "Native American Consultation," above, the City sent tribal consultation letters to representatives of five tribes (see Table 4.3-1). Three tribes responded, two of which did not identify any Tribal Cultural Resources as defined by PRC Section 21074 within the project site. However, the Pechanga Band of Luiseño Indians responded by stating that the project site is within a Traditional Cultural Property (TCP) and therefore likely contains additional Tribal Cultural Resources. Additionally, the SLF record search results were positive, indicating that Native American cultural resources are known to be located within the project vicinity.

Furthermore, the project site is in an area known to be a center of Native American settlement during the late 18th and early 19th centuries. The project site yielded subsurface artifacts during the initial hospital construction and other projects in the vicinity have also yielded subsurface deposits. As such, construction activities for the proposed project, including any grading, grubbing, trenching, excavation, or earth-moving activities in previously undisturbed areas, or any ground disturbance that extends deeper than the mass grading previously completed in 2011 or has potential to encounter native soil, could encounter and/or damage previously undiscovered Tribal Cultural Resources. Therefore, construction of the proposed project impacts Tribal Cultural Resources and has the potential to cause impacts to previously unknown TCRs a substantial adverse change in the significance of a Tribal Cultural Resource. Once operational, the proposed project would not include any activities that would have the potential to cause a substantial adverse change in the significance of a Tribal Cultural Resource, because only ground-disturbing activities

have the potential to result in these types of impacts. Therefore, the impact of proposed project construction, but not operations, would be **potentially significant**.

## Mitigation Measures

### Implement Mitigation Measure 3.3-1a: Retain a Qualified Archaeologist

### Implement Mitigation Measure 3.3-1b: Develop and Implement a Worker Environmental Awareness Program

### Implement Mitigation Measure 3.3-1c: Implement Procedures to Address Discovery of Subsurface Archaeological Features and Tribal Cultural Resources

#### Mitigation Measure 3.3-2a: Retain a Native American Monitor

At the time a development application is submitted to the City for future individual building/projects associated with the Temecula Valley Hospital Master Plan, as revised by the proposed project, the City shall route each development application to the Pechanga Band of Luiseño Indians for review and to request the inclusion of any conditions of approval related to the avoidance of substantial adverse changes to the significance of Tribal Cultural Resources.

Prior to the issuance of each grading permit and before the start of any ground-disturbing activity, the project applicant shall retain and compensate for the services of a Tribal monitor/consultant who is approved by the Pechanga Band. The project applicant shall contact the Tribal representatives a minimum of seven days before beginning earthwork or other ground disturbing activities in previously undisturbed areas, or any ground disturbance that extends deeper than the mass grading previously completed in 2011 or has potential to encounter native soil; construction activities will proceed if no response is received 48 hours before ground disturbing activities. The Tribal monitor shall only be present onsite during the construction phases that involve ground disturbing activities in previously undisturbed areas, including but not limited to tree removals, boring, excavation, drilling, and trenching, within the project site, or any ground disturbance that extends deeper than the mass grading previously completed in 2011 or has potential to encounter native soil. Monitoring is not required for any ground-disturbing activities that do not meet these criteria. The Tribal monitor shall complete daily monitoring logs that describe each day's activities, including construction activities, locations, soil, and any cultural materials identified. The onsite monitoring shall end when the site grading and excavation activities are completed, or when the Tribal representatives and monitor have indicated that the site has a low potential for impacting Tribal Cultural Resources.

#### Mitigation Measure 3.3-2b: Cultural Resources Treatment Agreement

The developer is required to enter into a Cultural Resources Treatment Agreement with the Pechanga Tribe. The agreement shall be in place prior to issuance of a grading permit. To accomplish this, the applicant should contact the Pechanga Tribe no less than 30 days and no more than 60 days prior to issuance of a grading permit. This Agreement will address the treatment and disposition of cultural resources, the designation, responsibilities, and participation of professional Pechanga Tribal monitors during grading, excavation and ground disturbing activities; project grading and development scheduling; terms of compensation for the monitors; and treatment and final disposition of any cultural resources, sacred sites, and human remains discovered onsite. The Pechanga monitor's authority to stop and redirect grading will be exercised in consultation with the project archaeologist in order to evaluate the significance of any potential resources discovered on the property. Pechanga and archaeological monitors shall be allowed to monitor all grading, excavation and groundbreaking activities, and shall also have the limited authority to stop and redirect grading activities should an inadvertent cultural resource be identified.

The following notes shall be included on all grading plans prior to issuance of a grading permit:

- ▶ Discovery of Cultural Resources: "If cultural resources are discovered during the project construction (inadvertent discoveries), all work in the area of the find shall cease, and the qualified archaeologist and the Pechanga monitor shall investigate the find, and make recommendations as to treatment."

- ▶ Archaeological Monitoring: "A qualified archaeological monitor will be present and will have the authority to stop and redirect grading activities, in consultation with the Pechanga Tribe and their designated monitors, to evaluate the significance of any archaeological resources discovered on the property."
- ▶ Tribal Monitoring: "A Pechanga Tribal monitor will be present and will have the authority to stop and redirect grading activities, in consultation with the project archaeologist and their designated monitors, to evaluate the significance of any potential resources discovered on the property."
- ▶ Relinquishment of Cultural Resources: "The landowner agrees to relinquish ownership of all cultural resources, including all archaeological artifacts that are found on the project area, to the Pechanga Tribe for proper treatment and disposition."

### **Significance after Mitigation**

Implementation of Mitigation Measures 3.3-1a, 3.3-1b, 3.3-1c, 3.3-2a, and 3.3-2b would avoid substantial adverse change to the significance of a Tribal Cultural Resource by providing the Pechanga Band the opportunity to review proposed development plans as they are submitted to the City and request conditions related to the protection of Tribal Cultural Resources, requiring the developer to enter into a cultural resources treatment agreement with Pechanga prior to issuance of any grading permits, requiring the project applicant to retain a Tribal monitor, requiring training for all construction personnel and supervisors who will have the potential to encounter Tribal Cultural Resources, requiring construction to halt if potential resources are discovered, implementation of preservation options (including preservation in place, data recovery, mapping, capping, or avoidance) and proper curation if significant artifacts are recovered, if deemed appropriate by the Tribe. This impact would be **less than significant with mitigation**.

### **Impact 3.3-3: Disturb Human Remains**

Based on documentary research, no evidence suggests that any prehistoric or historic-period marked or un-marked human interments are present within or in the immediate vicinity of the project site. The project site was also mass graded in 2011 as part of construction of Phase I of the approved master plan. However, ground-disturbing construction activities could uncover previously unknown human remains. Compliance with California Health and Safety Code Section 7050.5 and California Public Resources Code Section 5097 would avoid disturbance to human remains. This impact would be **less than significant**.

Based on documentary research, no evidence suggests that any prehistoric or historic-period marked or un-marked human interments are present within or in the immediate vicinity of the project site. However, the location of grave sites and Native American remains can occur outside of identified cemeteries or burial sites. Therefore, there is a possibility that unmarked, previously unknown Native American or other graves could be present within the project site and could be uncovered by project-related construction activities.

California law recognizes the need to protect Native American human burials, skeletal remains, and items associated with Native American burials from vandalism and inadvertent destruction. The procedures for the treatment of Native American human remains are contained in California Health and Safety Code Section 7050.5 and California Public Resources Code Section 5097.

These statutes require that, if human remains are discovered, potentially damaging ground-disturbing activities in the area of the remains shall be halted immediately, and the appropriate County coroner shall be notified immediately. If the remains are determined by the coroner to be Native American, NAHC shall be notified within 24 hours and the guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains. Following the coroner's findings, the NAHC-designated Most Likely Descendant, and the landowner shall determine the ultimate treatment and disposition of the remains and take appropriate steps to ensure that additional human interments, if present, are not disturbed. The responsibilities for acting upon notification of a discovery of Native American human remains are identified in PRC Section 5097.94.

Compliance with California Health and Safety Code Section 7050.5 and California Public Resources Code Section 5097 would provide an opportunity to avoid or minimize the disturbance of human remains, and to appropriately treat any remains that are discovered. Therefore, this impact would be **less than significant**.

### **Mitigation Measures**

No mitigation is required.

Existing law requires that, if human remains are discovered, potentially damaging ground-disturbing activities in the area of the remains shall be halted immediately, and the Riverside County coroner shall be notified immediately. If the remains are determined by the coroner to be Native American, NAHC shall be notified within 24 hours and the guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains. Following the coroner's findings, the NAHC-designated Most Likely Descendant, shall make their recommendation for final disposition within 48 hours of being granted access to the site. The responsibilities for acting upon notification of a discovery of Native American human remains are identified in PRC Section 5097.94 and California Health and Safety Code Section 7050.5 and California Public Resources Code Section 5097.

## 3.4 ENERGY

This section was prepared pursuant to the State CEQA Guidelines Section 15126 and Appendix F of the State CEQA Guidelines, which require that all CEQA documents include a discussion of the potential energy impacts of projects. The analysis considers whether the project would result in inefficient, wasteful, and unnecessary consumption of energy or conflicts with State or local plans for renewable energy or energy efficiency. No comments in response to the NOP were received that identified concerns regarding energy impacts.

### 3.4.1 Regulatory Setting

Energy conservation is embodied in many federal, State, and local statutes and policies. At the federal level, energy standards apply to numerous products (e.g., the U.S. Environmental Protection Agency's [EPA] EnergyStar™ program) and transportation (e.g., fuel efficiency standards). At the State level, Title 24 of the California Code of Regulations sets forth energy standards for buildings. Further, the State provides rebates/tax credits for installation of renewable energy systems and the Flex Your Power program promotes conservation in multiple areas.

#### FEDERAL

##### Energy Policy and Conservation Act, and CAFE Standards

The Energy Policy and Conservation Act of 1975 established nationwide fuel economy standards to conserve oil. Pursuant to this Act, the National Highway Traffic and Safety Administration, part of the U.S. Department of Transportation (DOT), is responsible for revising existing fuel economy standards and establishing new vehicle economy standards.

The Corporate Average Fuel Economy (CAFE) program was established to determine vehicle manufacturer compliance with the government's fuel economy standards. Compliance with the CAFE standards is determined based on each manufacturer's average fuel economy for the portion of their vehicles produced for sale in the country. EPA calculates a CAFE value for each manufacturer based on the city and highway fuel economy test results and vehicle sales. The CAFE values are a weighted harmonic average of the EPA city and highway fuel economy test results. Based on information generated under the CAFE program, DOT is authorized to assess penalties for noncompliance. Under the Energy Independence and Security Act of 2007 (described below), the CAFE standards were revised for the first time in 30 years.

##### Energy Policy Act of 1992 and 2005

The Energy Policy Act of 1992 (EPAct) was passed to reduce the country's dependence on foreign petroleum and improve air quality. EPAct includes several parts intended to build an inventory of alternative fuel vehicles (AFVs) in large, centrally fueled fleets in metropolitan areas. EPAct requires certain federal, State, and local government and private fleets to purchase a percentage of light-duty AFVs capable of running on alternative fuels each year. In addition, financial incentives are also included in EPAct. Federal tax deductions are allowed for businesses and individuals to cover the incremental cost of AFVs. States are also required by the act to consider a variety of incentive programs to help promote AFVs. The Energy Policy Act of 2005 provides renewed and expanded tax credits for electricity generated by qualified energy sources, such as landfill gas; provides bond financing, tax incentives, grants, and loan guarantees for clean renewable energy and rural community electrification; and establishes a federal purchase requirement for renewable energy.

##### Energy Independence and Security Act of 2007

The Energy Independence and Security Act of 2007 is designed to improve vehicle fuel economy and help reduce U.S. dependence on oil. It represents a major step forward in expanding the production of renewable fuels, reducing dependence on oil, and confronting global climate change. The Energy Independence and Security Act of 2007 increases the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard requiring fuel

producers to use at least 36 billion gallons of biofuel in 2022, which represents a nearly five-fold increase over current levels; and reduces U.S. demand for oil by setting a national fuel economy standard of 35 miles per gallon by 2020—an increase in fuel economy standards of 40 percent.

By addressing renewable fuels and the CAFE standards, the Energy Independence and Security Act of 2007 builds upon progress made by the Energy Policy Act of 2005 in setting out a comprehensive national energy strategy for the 21st century.

## STATE

### Warren-Alquist Act

The 1975 Warren-Alquist Act established the California Energy Resources Conservation and Development Commission, now known as the California Energy Commission (CEC). The Act established State policy to reduce wasteful, uneconomical, and unnecessary uses of energy by employing a range of measures. The California Public Utilities Commission (CPUC) regulates privately owned utilities in the energy, rail, telecommunications, and water fields.

### State of California Energy Action Plan

CEC is responsible for preparing the State Energy Plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The first Energy Action Plan (EAP) emerged in 2003 from a crisis atmosphere in California's energy markets. The State's three major energy policy agencies (CEC, CPUC, and the Consumer Power and Conservation Financing Authority [established under deregulation and now defunct]) came together to develop one high-level, coherent approach to meeting California's electricity and natural gas needs. It was the first time that energy policy agencies formally collaborated to define a common vision and set of strategies to address California's future energy needs and emphasize the importance of the impacts of energy policy on the California environment.

In the October 2005 *Energy Action Plan II*, CEC and CPUC updated their energy policy vision by adding some important dimensions to the policy areas included in the original EAP, such as the emerging importance of climate change, transportation-related energy issues and research and development activities. CEC adopted an update to the EAP II in February 2008 that supplements the earlier EAPs and examines the State's ongoing actions in the context of global climate change.

The current plan is the 2019 California Energy Action Plan which was published in November 2019. The plan calls for the State to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assistance to public agencies and fleet operators in implementing incentive programs for zero-emission vehicles and addressing their infrastructure needs; and encouragement of urban design that reduces vehicle miles traveled (VMT) and accommodates pedestrian and bicycle access (CEC 2019).

### State of California Energy Efficiency Action Plan

The 2019 California Energy Efficiency Action Plan (2019 EE Action Plan) is the State's roadmap for an energy-efficient and low-carbon future for buildings. The CEC 2019 EE Action Plan charts the progress toward doubling energy efficiency savings in buildings, industry, and agriculture; achieving increased energy efficiency in existing buildings; and reducing greenhouse gas emissions (GHGs) from buildings.

### Assembly Bill 2076: Reducing Dependence on Petroleum

Pursuant to Assembly Bill (AB) 2076 (Chapter 936, Statutes of 2000), CEC and the California Air Resources Board (CARB) prepared and adopted a joint agency report in 2003, *Reducing California's Petroleum Dependence*. Included in this report are recommendations to increase the use of alternative fuels to 20 percent of on-road transportation fuel use by 2020 and 30 percent by 2030, significantly increase the efficiency of motor vehicles, and reduce per capita

VMT (CEC 2003). Further, in response to the CEC's 2003 and 2005 *Integrated Energy Policy Reports*, Governor Davis directed CEC to take the lead in developing a long-term plan to increase alternative fuel use.

A performance-based goal of AB 2076 was to reduce petroleum demand to 15 percent below 2003 demand by 2020 and maintain that level for the foreseeable future.

### **Integrated Energy Policy Report**

Senate Bill (SB) 1389 (Chapter 568, Statutes of 2002) required CEC to: "conduct assessments and forecasts of all aspects of energy industry supply, production, transportation, delivery and distribution, demand, and prices. The Energy Commission shall use these assessments and forecasts to develop energy policies that conserve resources, protect the environment, ensure energy reliability, enhance the State's economy, and protect public health and safety" (Public Resources Code Section 25301(a)). This work culminated in the Integrated Energy Policy Report (IEPR).

CEC adopts an IEPR every two years and an update every other year. The 2020 IEPR is the most recent IEPR, which was adopted March 2021. The 2020 IEPR provides a summary of priority energy issues currently facing the State, outlining strategies and recommendations to further the State's goal of ensuring reliable, affordable, and environmentally responsible energy sources. Energy topics covered in the report include progress toward Statewide renewable energy targets and issues facing future renewable development; efforts to increase energy efficiency in existing and new buildings; progress by utilities in achieving energy efficiency targets and potential; improving coordination among the State's energy agencies; streamlining power plant licensing processes; results of preliminary forecasts of electricity, natural gas, and transportation fuel supply and demand; future energy infrastructure needs; the need for research and development efforts to Statewide energy policies; and issues facing California's nuclear power plants (CEC 2020a).

### **Senate Bill 1078: California Renewables Portfolio Standard Program**

SB 1078 (Chapter 516, Statutes of 2002) establishes a renewable portfolio standard (RPS) for electricity supply. The RPS requires that retail sellers of electricity, including investor-owned utilities and community choice aggregators, provide 20 percent of their supply from renewable sources by 2017. This target date was moved forward by SB 1078 to require compliance by 2010. In addition, electricity providers subject to the RPS must increase their renewable share by at least 1 percent each year. The outcome of this legislation will affect regional transportation powered by electricity. As of 2019, the State has reported that 36 percent of electricity is sourced from certified renewable sources (CEC 2020b).

### **Senate Bill X1-2: California Renewable Energy Resources Act**

SB X1-2 of 2011 requires all California utilities to generate 33 percent of their electricity from renewables by 2020. SB X1-2 sets a three-stage compliance period requiring all California utilities, including independently-owned utilities, energy service providers, and community choice aggregators, to generate 20 percent of their electricity from renewables by December 31, 2013; 25 percent by December 31, 2016; and 33 percent by December 31, 2020. SB X1-2 also requires the renewable electricity standard to be met increasingly with renewable energy that is supplied to the California grid from sources within, or directly proximate to, California. SB X1-2 mandates that renewables from these sources make up at least 50 percent of the total renewable energy for the 2011-2013 compliance period, at least 65 percent for the 2014-2016 compliance period, and at least 75 percent for 2016 and beyond.

### **Senate Bill 100: California Renewables Portfolio Standard Program**

SB 100 requires that all California utilities, including independently owned utilities, energy service providers, and community choice aggregators, supply 44% of retail sales from renewable resources by December 31, 2024, 50% by December 31, 2026, 52% by December 31, 2027, and 60% by December 31, 2030. The law requires that eligible renewable energy resources and zero-carbon resources supply 100% of retail sales of electricity to California end-use customers and 100% of electricity procured to serve all State agencies by December 31, 2045.

## Senate Bill 350: Clean Energy and Pollution Reduction Act of 2015

The Clean Energy and Pollution Reduction Act of 2015 (SB 350) requires doubling of the energy efficiency savings in electricity and natural gas for retail customers through energy efficiency and conservation by December 31, 2030.

## Assembly Bill 1007: State Alternative Fuels Plan

AB 1007 (Chapter 371, Statutes of 2005) required CEC to prepare a State plan to increase the use of alternative fuels in California. CEC prepared the State Alternative Fuels Plan (SAF Plan) in partnership with CARB and in consultation with other State, federal, and local agencies. The SAF Plan presents strategies and actions California must take to increase the use of alternative non-petroleum fuels in a manner that minimizes the costs to California and maximizes the economic benefits of in-State production. The SAF Plan assessed various alternative fuels and developed fuel portfolios to meet California's goals to reduce petroleum consumption, increase alternative fuel use, reduce greenhouse gas (GHG) emissions, and increase in-State production of biofuels without causing a significant degradation of public health and environmental quality.

## California Building Energy Efficiency Standards (Title 24, Part 6)

The energy consumption of new residential and nonresidential buildings in California is regulated by the State's Title 24, Part 6, Building Energy Efficiency Standards (California Energy Code). CEC updates the California Energy Code every 3 years with more stringent design requirements for reduced energy consumption, which results in the generation of fewer GHG emissions. The current California Energy Code will require builders to use more energy-efficient building technologies for compliance with increased restrictions on allowable energy use. The core focus of the building standards has been efficiency, but the 2019 Energy Code ventured into onsite generation by requiring solar photovoltaic (PV) on new homes, providing significant GHG savings.

The 2019 California Energy Code established requirements for newly constructed healthcare facilities for the first time, with a number of exceptions. The 2019 Energy Code applies to three types of healthcare facility construction: new construction, additions, and alterations. Both new construction and additions in healthcare facilities are required to comply with the Energy Code, but alterations within existing healthcare facilities are exempt. The standards apply to building envelope (walls, windows, roof, floors and other elements of the enclosure of a healthcare building), mechanical systems (limited mostly to the minimum efficiency requirements of equipment) domestic hot water systems, as well as lighting systems with exceptions for specialty lighting like surgery and exam lighting (Office of Statewide Health Planning and Development 2020).

The most recent is the 2022 California Energy Code which advances the onsite energy generation progress started in the 2019 California Energy Code by encouraging electric heat pump technology and use, establishing electric-ready requirements when natural gas is installed, expanding solar PV system and battery storage standards, and strengthening ventilation standards to improve indoor air quality. The CEC estimates that the 2022 California Energy Code will save consumers \$1.5 billion and reduce GHGs by 10 million metric tons (MMT) of carbon dioxide-equivalent (CO<sub>2</sub>e) over the next 30 years (CEC 2021a). The 2022 California Energy Code will go into effect on January 1, 2023. Future development under the proposed master plan update will be subject to the 2022 California Energy Code, or future adopted code updates (it is updated every 3 years).

## Assembly Bill 32, Senate Bill 32, and Climate Change Scoping Plan

In December 2008, CARB adopted its Climate Change Scoping Plan, which contains the main strategies California will implement to achieve reduction of approximately 118 million metric tons (MMT) of carbon dioxide-equivalent (CO<sub>2</sub>e) emissions, or approximately 21.7 percent from the State's projected 2020 emission level of 545 MMTCO<sub>2</sub>e under a business-as-usual scenario (this is a reduction of 47 MMTCO<sub>2</sub>e, or almost 10 percent, from 2008 emissions). In May 2014, CARB released and has since adopted the *First Update to the Climate Change Scoping Plan* to identify the next steps in reaching AB 32 goals and evaluate progress that has been made between 2000 and 2012 (CARB 2014). According to the update, California is on track to meet the near-term 2020 GHG limit and is well positioned to maintain and continue reductions beyond 2020 (CARB 2014). The update also reports the trends in GHG emissions from various emissions sectors (e.g., transportation, building energy, agriculture).

In August 2016, Governor Brown signed SB 32 and AB 197, which serve to extend California's GHG reduction programs beyond 2020. SB 32 amended the Health and Safety Code to include Section 38566, which contains language to authorize CARB to achieve a Statewide GHG emission reduction of at least 40 percent below 1990 levels by no later than December 31, 2030. SB 32 codified the targets established by EO B-30-15 for 2030, which set the next interim step in the State's continuing efforts to pursue the long-term target expressed in EOs S-3-05 and B-30-15 of 80 percent below 1990 emissions levels by 2050. Achievement of these goals will have the co-benefit of reducing California's dependency of fossil fuels and making land use development and transportation systems more energy efficient.

*California's 2017 Climate Change Scoping Plan (2017 Scoping Plan)*, prepared by CARB, outlines the main strategies California will implement to achieve the legislated GHG emission target for 2030 and "substantially advance toward our 2050 climate goals" (CARB 2017: 1, 3, 5, 20, 25–26). It identifies the reductions needed by each GHG emission sector (e.g., transportation, industry, electricity generation, agriculture, commercial and residential, pollutants with high global warming potential, and recycling and waste).

The *2022 Draft Scoping Plan Update (2022 Scoping Plan Update)* assesses progress toward the statutory 2030 target, while laying out a path to achieving carbon neutrality no later than 2045. The proposed 2022 Scoping Plan Update focuses on outcomes needed to achieve carbon neutrality by assessing paths for clean technology, energy deployment, natural and working lands, and others, and is designed to meet the State's long-term climate objectives and support a range of economic, environmental, energy security, environmental justice, and public health priorities (CARB 2022). The Draft 2022 Scoping Plan Update and associated environmental documentation were released for public review on May 10, 2022. The comment period ended June 24, 2022. After the end of the public review period, CARB identified revisions to certain aspects of the Scoping Plan Update and associated environmental documentation. The Recirculated Draft 2022 Scoping Plan Update and associated environmental documentation were released for public review on September 9, 2022. The comment period ends on October 24, 2022.

### **Executive Order B-30-15**

On April 20, 2015, Governor Edmund G. Brown Jr. signed Executive Order B-30-15 to establish a California GHG reduction target of 40 percent below 1990 levels by 2030. The Governor's executive order aligns California's GHG reduction targets with those of leading international governments such as the 28-nation European Union which adopted the same target in October 2014. California is on track to meet or exceed the target of reducing GHG emissions to 1990 levels by 2020, as established in the California Global Warming Solutions Act of 2006 (AB 32, discussed above). California's new emission reduction target of 40 percent below 1990 levels by 2030 will make it possible to reach the ultimate goal of reducing emissions 80 percent below 1990 levels by 2050. This is in line with the scientifically established levels needed in the U.S. to limit global warming below 2 degrees Celsius, the warming threshold at which major climate disruptions are projected, such as super droughts and rising sea levels.

### **Advanced Clean Cars Program**

In January 2012, CARB approved the Advanced Clean Cars program which combines the control of GHG emissions and criteria air pollutants, as well as requirements for greater numbers of zero-emission vehicles, into a single package of standards for vehicle model years 2017 through 2025. The new rules strengthen the GHG standard for 2017 models and beyond. This will be achieved through existing technologies, the use of stronger and lighter materials, and more efficient drivetrains and engines. The program's zero-emission vehicle regulation requires battery, fuel cell, and/or plug-in hybrid electric vehicles to account for up to 15 percent of California's new vehicle sales by 2025. The program also includes a clean fuels outlet regulation designed to support the commercialization of zero-emission hydrogen fuel cell vehicles planned by vehicle manufacturers by 2015 by requiring increased numbers of hydrogen fueling stations throughout the State. The number of stations will grow as vehicle manufacturers sell more fuel cell vehicles. By 2025, when the rules will be fully implemented, the Statewide fleet of new cars and light trucks will emit 34 percent fewer global warming gases and 75 percent fewer smog-forming emissions than the Statewide fleet in 2016 (CARB 2016).

## REGIONAL

### Southern California Association of Governments

Southern California Association of Governments (SCAG) is a regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial Counties. SCAG is responsible for addressing issues related to transportation, the economy, community development, and the environment in the region. SCAG is a Metropolitan Planning Organization federally designated for the majority of the Southern California region. SCAG develops plans related to housing, transportation, growth management, hazardous waste management and air quality. SCAG's Regional Comprehensive Plan and Guide includes chapters related to Growth Management and Regional Mobility that supports the land use and transportation components of the Air Quality Management Plan (AQMP) which provide some GHG-reduction co-benefits. In 2020, the SCAG adopted *Connect SoCal*, the area's Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). SCAG was tasked by CARB to achieve an 8 percent per capita reduction in passenger vehicle GHG emissions compared to 2005 level emissions by 2020 and a 19 percent per capita reduction by 2035, which CARB confirmed the region would achieve by implementing its SCS (CARB 2020a).

## LOCAL

### City of Temecula General Plan

The Air Quality Element "establishes policy foundation to implement local air quality improvement measures and provides a framework for coordination of air quality planning efforts with surrounding jurisdictions" (City of Temecula 2005). The goals and policies under the Air Quality element relevant to the GHG analysis include:

**GOAL 4:** Adopt effective energy conservation and recycling practices to reduce emissions.

- ▶ **Policy 4.1:** Encourage community-wide reductions in energy consumption through conservation.
- ▶ **Policy 4.2:** Promote local recycling of wastes and the use of recycled materials.
- ▶ **Policy 4.3:** Encourage energy-efficient design in new development projects. The following 15 implementation programs have also been introduced in Temecula to reduce GHG emissions.
  - AQ-1 Multi-Jurisdictional Coordination
  - AQ-2 Public Participation
  - AQ-3: Land Use Compatibility
  - AQ-4 Jobs/Housing Balance
  - AQ-5: Mitigation Measures
  - AQ-6: Sensitive Receptors
  - AQ-7: Design Guidelines
  - AQ-8: Alternative Work Schedules
  - AQ-9: Rideshare and Transit Incentives
  - AQ-10: Special Events
  - AQ-11: Transportation Alternatives
  - AQ-12: Alternative Fueled Vehicles
  - AQ-13: Multi-Use Trails and Bikeways Master Plan
  - AQ-14: Park and Ride Facilities
  - AQ-15: Energy Efficient Design

## City of Temecula Sustainability Plan

The Sustainability Plan was adopted by the City Council on June 22, 2010 and serves as a comprehensive program with eight areas of focus, including energy, green buildings, transportation, and water resources. Strategies identified in the plan seek to conserve water and energy, encourage the development of green buildings, and expand opportunities for alternative modes of travel in the City (other than driving alone).

### 3.4.2 Environmental Setting

#### Energy Facilities and Services in the Project Area

Southern California Edison (SCE) is the electricity provider for the City of Temecula and the project site. In 2020, SCE's grid electricity supply consisted of 30.9 percent renewable which included solar, wind, hydroelectric, geothermal, biomass and biowaste. (CEC 2021b).

#### Energy Types and Sources

California relies on a regional power system comprised of a diverse mix of natural gas, renewable, hydroelectric, and nuclear generation resources. One-third of energy commodities consumed in California is natural gas. In 2014, approximately 35 percent of natural gas consumed in the State was used to generate electricity. Residential land uses represented approximately 17 percent of California's natural gas consumption with the balance consumed by the industrial, resource extraction, and commercial sectors (EIA 2017). Power plants in California generate approximately 70 percent of the in-State electricity demand, with large hydroelectric in the Pacific Northwest and power plants in the Southwestern US generating the remaining electricity (CEC 2017). The contribution of in- and out-of-State power plants depends on the precipitation that occurred in the previous year, the corresponding amount of hydroelectric power that is available, and other factors.

#### Alternative Fuels

A variety of alternative fuels are used to reduce demand for petroleum-based fuels. The use of these fuels is encouraged and required through various Statewide regulations and plans (e.g., Low Carbon Fuel Standard, Climate Change Scoping Plan). Conventional gasoline and diesel may be replaced (depending on the capability of the vehicle) with many transportation fuels, including:

- ▶ biodiesel,
- ▶ electricity,
- ▶ ethanol (E-10 and E-85),
- ▶ hydrogen,
- ▶ natural gas (methane in the form of compressed and liquefied natural gas),
- ▶ propane,
- ▶ renewable diesel (including biomass-to-liquid),
- ▶ synthetic fuels, and
- ▶ gas-to-liquid and coal-to-liquid fuels.

California has a growing number of alternative fuel vehicles through the joint efforts of CEC, CARB, local air districts, federal government, transit agencies, utilities, and other public and private entities. As of January 2022, California contained nearly 14,460 alternative fueling stations (AFDC 2022).

## COMMERCIAL ENERGY USE

In aggregate, commercial buildings represent approximately 18 percent of U.S. energy consumption. In comparison, the residential sector consumed approximately 21 percent of U.S. energy consumption (U.S. EIA 2021).

## ENERGY USE AND CLIMATE CHANGE

The burning of fossil fuels by vehicles, power plants, industrial facilities, residences, and commercial facilities generates GHG emissions that increase the earth's average temperature and cause adverse changes to Earth's physical environment, which is commonly referred to as climate change. For an analysis of greenhouse gas emissions resulting from the proposed project's direct and indirect uses of energy (and other project-related sources and activities), refer to Section 3.6, "Greenhouse Gas Emissions and Climate Change."

### 3.4.3 Impacts and Mitigation Measures

#### METHODOLOGY

As described in Chapter 2, "Project Description," the project is planned to be developed in three phases. Phase I has already been developed and is currently operational. Phase II is anticipated to begin construction in January 2023 and be complete in 2024. Full operations for Phase II are projected to occur in early 2025. Phase III is also anticipated to begin construction in January 2023 and would be completed by June 2027. Full operations for Phase III are projected to occur in early 2028. Phase II and Phase III construction could overlap between January 2023 to October 2024 timeframe. Phase IV is anticipated to begin construction in July 2029 and would be completed by December 2037. Full operation of all phases of the proposed project are anticipated to commence in early 2038.

Levels of construction- and operation-related energy consumption by the proposed project were estimated and measured in megawatt-hours of electricity, therms of natural gas, gallons of gasoline, and gallons of diesel fuel. Energy consumption estimates for construction and operational activities were calculated using the proposed phasing of the project, the California Emissions Estimator Model (CalEEMod) version 2020.4.0 computer program, and fuel consumption rates obtained from CARB's Emission FACtors (EMFAC) model for SCAQMD. Where project-specific information was not known, CalEEMod default values based on the project's location were used. Refer to Appendix B for modeling assumptions for construction and operations. Table 3.4-1 summarizes the levels of energy consumption for each year of construction and Table 3.4-2 summarizes the levels of energy consumption for the first year of operation during the buildout year of 2038. Table 3.4-3 summarizes the gasoline and diesel consumption estimated for the proposed project in 2038.

Impacts related to electrical and natural gas service systems that would result from project implementation were evaluated by comparing existing infrastructure, its available capacity, and ability to serve future demand on electrical and natural gas service systems that would be caused by the project. The project's electrical and natural gas demands were calculated, as described above. The analysis determines whether the increased demand would result in the need for new or expanded facilities, the construction of which could possibly result in adverse impacts on the physical environment.

#### THRESHOLDS OF SIGNIFICANCE

An energy impact would be significant if implementation of the proposed project would:

- ▶ result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy, or wasteful use of energy resources, during project construction or operation; or
- ▶ conflict with or obstruct a State or local plan for renewable energy or energy efficiency.

#### ISSUES NOT DISCUSSED FURTHER

No energy issues have been dismissed from further discussion.

## ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

### Impact 3.4-1: Wasteful, Inefficient, or Unnecessary Consumption of Energy, During Project Construction or Operation

Implementation of the project would increase fuel (gasoline and diesel) and electricity consumption. Construction-related energy consumption would be temporary and would not require additional capacity or increased peak or base period demands for electricity or other forms of energy. Operational energy consumption would become more efficient due to the effects of State laws and regulations on the proposed project's uses of energy. Thus, energy consumption associated with construction and operation of the proposed project would not result in wasteful, inefficient, or unnecessary consumption of energy. This impact would be **less than significant**.

Appendix F of the State CEQA Guidelines requires the consideration of the energy implications of a project. CEQA requires mitigation measures to reduce "wasteful, inefficient and unnecessary" energy usage (PRC Section 21100, subdivision [b][3]). Neither the law nor the State CEQA Guidelines establish criteria that define wasteful, inefficient, or unnecessary use. Compliance with CCR Title 24 Energy Efficiency Standards would result in energy-efficient buildings. However, compliance with building codes does not adequately address all potential energy impacts during construction and operation. For example, various fuel types and energy sources would be required during construction activities and the project would result in increased use of gasoline at fueling stations.

#### Construction-Related Energy

Energy would be required to construct, operate, and maintain construction equipment and to produce and transport construction materials associated with construction of the proposed project. The proposed project would be constructed in three phases which would occur intermittently from 2023 to 2037. The one-time energy expenditure required to construct the physical buildings and infrastructure associated with the project would be nonrecoverable. Most energy consumption would result from operation of construction equipment and vehicle trips associated with commutes by construction workers and haul trucks supplying materials. See Table 3.4-1 for an estimate of fuel needed for construction activities.

**Table 3.4-1 Construction Energy Consumption**

Phase	Diesel (Gallons)	Gasoline (Gallons)
2	33,920	15,682
3	49,559	28,443
4	55,677	35,535
<b>Total</b>	<b>139,157</b>	<b>79,660</b>

Notes: Gasoline gallons include on-road gallons from worker trips. Diesel gallons include off-road equipment and on-road gallons from worker and vendor trips.

Source: Calculations by Ascent Environmental in 2022.

Although construction activities would require fuel and other energy sources, increases would be temporary. Construction contractors strive to complete construction projects in an efficient manner to meet project schedules and minimize cost. Thus, only the necessary amount of fuel would be consumed to complete construction of the proposed project.

#### Building Energy

Operation of proposed project buildings and facilities would be typical regarding use of electricity and natural gas for lighting, space and water heating, air conditioning, appliances, and landscape maintenance activities. Implementation of the proposed project would increase electricity and natural gas consumption in the region relative to existing conditions. The project would also include installation of a utility plant, which would be used to provide heat and steam-related needs for the hospital buildings, while the electric grid would meet the proposed project's lighting, appliance, and other electrical needs. See Table 3.4-2 for an estimate of the proposed project's operational energy needs.

All new buildings would be constructed in accordance with the requirements of the applicable building codes (e.g., Title 24), which include minimum requirements for energy efficiency performance.

**Table 3.4-2 Operational Energy Consumption**

Land Use/Energy Type	Energy Consumption	Units
<b>Hospital</b>		
Electricity	2,542	MWh/year
Natural Gas (from central utility plant)	46,915	MMBtu/year
<b>Medical Office and Behavior Health Buildings</b>		
Electricity	1,673	MWh/year
Natural Gas	624	MMBtu/year
<b>Parking Lot</b>		
Electricity	183	MWh/year
Natural Gas	0	MMBtu/year
<b>Parking Structure</b>		
Electricity	1,480	MWh/year
Natural Gas	0	MMBtu/year
<b>All Land Uses</b>		
Electricity	5,877	MWh/year
Natural Gas	47,539	MMBtu/year

Notes: MWh/year = megawatt-hours per year; MMBtu/year = million British thermal units per year.

Source: Calculations by Ascent Environmental in 2022.

### Transportation Energy

Annual VMT generated by the proposed project was estimated to be approximately 9,471,750 miles and would result in additional fuel demand of approximately 284,288 gallons of gasoline per year and 14,669 gallons of diesel per year (Table 3.4-3). (Refer to Appendix H and Section 3.13, "Transportation" for details on the number of vehicle trips and amount of VMT generated by the proposed project, and Appendix B for energy calculations)

**Table 3.4-3 Operational Gasoline and Diesel Consumption**

Fuel Type	Fleet Mix (%)	gallons/year
Gasoline	98.95%	284,288
Diesel	1.05%	14,669

Source: Calculations by Ascent Environmental in 2022.

### Summary

The proposed project would increase energy consumption for temporary construction activities related to vehicle use and material transport. However, construction activities would be temporary and would not increase long-term energy or fuel demand. Construction activities would consume the necessary amount of fuel/energy to complete work in an efficient and timely manner.

According to Appendix F of the State CEQA Guidelines, the means to achieve the goal of conserving energy include decreasing overall per capita energy consumption, decreasing reliance on oil, and increasing reliance on renewable energy sources. Project energy consumption for building operation and transportation would support these goals due to the effects of existing State laws and requirements. For example, the proposed project would comply with the minimum energy performance standards of the California Building Code, which decrease per capita (or per employee energy consumption). The proposed project would also support per capita energy consumption decreases through

its uses of grid electricity, which is required by State legislation (e.g., SB 100) to source at least 60 percent of its supplies from renewable energy sources by 2030 and 100 percent carbon-free sources by 2045. Transportation-related uses of energy would also be increasingly efficient during implementation of the proposed project, for example due to the State's Advanced Clean Car Standards requiring vehicles sold in the State to be increasingly fuel efficient and use fuel sources other than gasoline and diesel (e.g., electricity). The proposed project would not develop uses or involve activities that would conflict with goals of decreasing per capita energy consumption, reliance on oil (petroleum), or increasing uses of renewable energy sources, or that would result in wasteful, inefficient, or unnecessary consumption of energy. This impact would be **less than significant**.

### Mitigation Measures

No mitigation is required for this impact.

### Impact 3.4-2: Conflict with or Obstruct a State or Local Plan for Renewable Energy or Energy Efficiency

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On-site renewable energy generation from the implementation of project, would result in an increase in renewable energy use, which would directly support the goals and strategies in the State's Energy Efficiency Action Plan and the City of Temecula General Plan. Construction and operation of proposed project buildings in compliance with the California Energy Code would implement State plans for energy efficiency. Therefore, construction and operation of the project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. This impact would be **less than significant**.

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Relevant plans that pertain to the efficient use of energy include the State's Energy Efficiency Action Plan, which focuses on energy efficiency and building decarbonization (CEC 2019) and the City of Temecula General Plan and Sustainability Plan, which seek to increase conserve energy resources with the best available technology.

As discussed in Impact 3.4-1, although implementation of the proposed project would result in the overall increase in consumption of energy resources during construction and operation of new buildings and facilities, proposed project energy consumption would benefit from, and not conflict with, various State laws and requirements related to increasing use of renewable energy and using energy more efficiently, including the California Building Code, Advanced Clean Car Standards, and SB 100 requirements to increase the amount of electricity generated from renewable and carbon-free energy sources. By extension it would also not conflict with Energy Efficiency Action Plan or Sustainability Plan goals to use energy more efficiently. Therefore, the proposed project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. This impact would be **less than significant**.

### Mitigation Measures

No mitigation is required for this impact.

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## 3.5 GEOLOGY AND SOILS

This section describes the existing geology and soils conditions at the project site, provides an analysis of environmental impacts, and includes recommendations for mitigation measures for any significant or potentially significant impacts. The primary sources of information used for this section are the Report of Geotechnical Engineering Services prepared by GeoDesign (GeoDesign 2010) (Draft SEIR Appendix D), the descriptions of geotechnical and paleontological resources conditions in the 2006 FEIR, and publicly available information from the California Department of Conservation and California Geological Survey.

No comments related to geology or soils were received during public review of the Notice of Preparation.

### 3.5.1 Regulatory Setting

#### FEDERAL

##### National Earthquake Hazards Reduction Act

In October 1977, the U.S. Congress passed the Earthquake Hazards Reduction Act to reduce the risks to life and property from future earthquakes in the United States. To accomplish this, the act established the National Earthquake Hazards Reduction Program (NEHRP). The mission of NEHRP includes improved understanding, characterization, and prediction of hazards and vulnerabilities; improved building codes and land use practices; risk reduction through post-earthquake investigations and education; development and improvement of design and construction techniques; improved mitigation capacity; and accelerated application of research results. The NEHRP designates the Federal Emergency Management Agency (FEMA) as the lead agency of the program and assigns several planning, coordinating, and reporting responsibilities.

#### STATE

##### Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act of 1972 (Public Resources Code [PRC] Section 2621-2630) intends to reduce the risk to life and property from surface fault rupture during earthquakes by regulating construction in active fault corridors, and by prohibiting the location of most types of structures intended for human occupancy across the traces of active faults. The act defines criteria for identifying active faults, giving legal support to terms such as active and inactive, and establishes a process for reviewing building proposals in Earthquake Fault Zones. Under the Alquist-Priolo Act, faults are zoned and construction along or across these zones is strictly regulated if they are "sufficiently active" and "well-defined." A fault is considered sufficiently active if one or more of its segments or strands shows evidence of surface displacement during Holocene time (defined for purposes of the act as within the last 11,000 years). A fault is considered well defined if its trace can be clearly identified by a trained geologist at the ground surface or in the shallow subsurface, using standard professional techniques, criteria, and judgment (Bryant and Hart 2007). Before a project can be permitted in a designated Alquist-Priolo Earthquake Fault Zone, cities and counties must require a geologic investigation to demonstrate that proposed buildings would not be constructed across active faults. The law addresses only the hazard of surface fault rupture and is not directed toward other earthquake hazards.

##### Alfred E. Alquist Hospital Facilities Seismic Safety Act of 1983

The Alfred E. Alquist Hospital Facilities Seismic Safety Act (Hospital Facilities Seismic Safety Act) requires that hospital buildings be designed and constructed to resist the forces generated by earthquakes. In order to accomplish this purpose, the State's Office of Statewide Health Planning and Development (OSHPD) maintains proper building standards for earthquake resistance based upon current knowledge and provides an independent review of the

design and construction of hospital buildings. This act also states that hospital buildings are not subject to building standards of local jurisdictions and instead are subject to the more stringent regulations maintained by OSHPD.

### **Senate Bill 1953**

Hospitals built in accordance with the standards of the Seismic Safety Act resisted the January 1994 Northridge earthquake with minimal structural damage, while several facilities built prior to the act experienced major structural damage and had to be evacuated. However, certain nonstructural components of the hospitals did incur damage, even in facilities built in accordance with the structural provisions of the Seismic Safety Act. The provisions and subsequent regulation language of Senate Bill (SB) 1953 amended the act to address the issues of survivability of both nonstructural and structural components of hospital buildings after a seismic event. Therefore, the ultimate public safety benefit of the Seismic Safety Act is to have general acute care hospital buildings that not only are capable of remaining intact after a seismic event, but also capable of continued operation and provision of acute care medical services after a seismic event.

### **California Building Code**

The California Building Code (CBC) (California Code of Regulations, Title 24) is based on the International Building Code. The CBC has been modified from the International Building Code for California conditions, with more detailed and/or more stringent regulations. Specific minimum seismic safety and structural design requirements are set forth in Chapter 16 of the CBC. The CBC identifies seismic factors that must be considered in structural design. Chapter 18 of the CBC regulates the excavation of foundations and retaining walls, while Chapter 18A regulates construction on unstable soils, such as expansive soils and areas subject to liquefaction. Appendix J of the CBC regulates grading activities, including drainage and erosion control. The CBC contains a provision that provides for a preliminary soil report to be prepared to identify "...the presence of critically expansive soils or other soil problems which, if not corrected, would lead to structural defects." (CBC Chapter 18 §1803.1.1.1).

### **Office of Statewide Health Planning and Development**

OSHPD monitors the construction, renovation, and seismic safety of hospitals and skilled nursing facilities. The Facilities Development Division (FDD) of OSHPD reviews and inspects health facility construction projects and enforces building standards, per the CBC, as they relate to health facilities construction. The FDD maintains a seismic compliance program in accordance with the Seismic Safety Act and SB 1953. The seismic compliance program regulations consist of 11 articles. The primary purpose of these regulations is to evaluate the potential earthquake performance of a building or its components and to place the building into specified seismic performance categories. FDD is responsible for overseeing all aspects of general acute care hospital, psychiatric hospital, skilled nursing home, and intermediate care facility construction in California. This responsibility includes:

- ▶ Establishing building standards which govern construction of these types of facilities;
- ▶ Reviewing the plans and specifications for new construction, alteration, renovation, or additions to health facilities; and
- ▶ Observing construction in progress to ensure compliance with the approved plans and specifications. FDD serves as a "one-stop shop" for all aspects of health facility construction.

All geotechnical, structural, mechanical, electrical, and fire/life safety considerations for inpatient healthcare facility physical plant are handled by OSHPD FDD (see Chapters 6 and 7 of the California Administrative Code).

### **Seismic Hazards Mapping Act**

The intention of the Seismic Hazards Mapping Act of 1990 (PRC Section 2690–2699.6) is to reduce damage resulting from earthquakes. While the Alquist-Priolo Act addresses surface fault rupture, the Seismic Hazards Mapping Act addresses other earthquake-related hazards, including ground shaking, liquefaction, and seismically induced landslides. The act's provisions are similar in concept to those of the Alquist-Priolo Act: The State is charged with identifying and mapping areas at risk of strong ground shaking, liquefaction, landslides, and other corollary hazards,

and cities and counties are required to regulate development within mapped Seismic Hazard Zones. Under the Seismic Hazards Mapping Act, permit review is the primary mechanism for local regulation of development.

### **Porter-Cologne Water Quality Control Act**

Through the Porter-Cologne Water Quality Act and the National Pollution Discharge Elimination System (NPDES) program, RWQCBs have the authority to require proper management of hazardous materials during proposed project construction. For a detailed description of the Porter-Cologne Water Quality Act, the NPDES program, and the role of the San Diego RWQCB, refer to Section 3.8, "Hydrology and Water Quality."

### **NPDES Construction General Permit for Stormwater Discharges Associated with Construction Activity**

The SWRCB adopted the Statewide NPDES Construction General Permit (2009-0009-DWQ, as amended by 2010-0014-DWQ and 2012-0006-DWQ). The State requires that projects disturbing more than one acre of land during construction file a Notice of Intent with the RWQCB to be covered under this permit. Construction activities subject to the Construction General Permit include clearing, grading, stockpiling, and excavation. Dischargers are required to eliminate or reduce non-stormwater discharges to storm sewer systems and other waters. A stormwater pollution prevention plan (SWPPP) must be developed and implemented for each site covered by the permit. The SWPPP must include best management plans (BMPs) designed to prevent construction pollutants from contacting stormwater and keep products of erosion from moving off-site into receiving waters throughout the construction and life of the proposed project; the BMPs must address source control and, if necessary, pollutant control.

### **NPDES Stormwater Permit for Discharges from Small Municipal Separate Storm Sewer Systems**

The Municipal Stormwater Permitting Program regulates stormwater discharges from municipal separate storm sewer systems (MS4s). Stormwater is runoff from rain or snow melt that runs off surfaces such as rooftops, paved streets, highways or parking lots and can carry with it pollutants such as oil, pesticides, herbicides, sediment, trash, bacteria and metals. The runoff can then drain directly into a local stream, lake or bay. Often, the runoff drains into storm drains which eventually drain untreated into a local waterbody.

The MS4 permit requires the City of Temecula to designate temporary and permanent pollution prevention, source-control, and treatment-control best management practices (BMPs) on all new developments. All new development projects, such as the proposed project, would be subject to the Water Quality Management Plan (WQMP) requirements. WQMP requirements consist of structural source control and treatment control BMPs to be maintained by facility owners for as long as facilities are in operation. The WQMP requires the designation of responsible parties (i.e., property owners, developers, and business operators) for installing and implementing the required BMPs, as well as establishing a funding source for the maintenance of all structural BMPs.

## **LOCAL**

### **City of Temecula General Plan**

The City's General Plan (2005) contains the following goals, policies, and implementation programs related to geology and soils that are applicable to the proposed project:

#### **Public Safety Element**

**GOAL 1:** Protection from natural hazards associated with geologic instability, seismic events, wild land fires, flooding, and dam failures.

- ▶ **Policy 1.1:** Identify and mitigate potential adverse impacts of ground surface rupture, liquefaction, and landslides at the project level.
- ▶ **Policy 1.2:** Apply and enforce seismic design standards and building construction codes for new development.
- ▶ **Policy 1.3:** Work with property owners to remediate hazardous buildings throughout the City.

- ▶ **Policy 1.4:** Monitor the potential for seismic events and other geologic activity with the County of Riverside and California Geological Survey.
- ▶ **Policy 1.5:** Establish development management techniques to lessen the potential for erosion and landslides.

#### Open Space/Conservation Element

- ▶ **Policy 6.1:** Maintain an inventory of areas with archaeological/paleontological sensitivity, and historic sites in the Planning Area.
- ▶ **Policy 6.2:** Work to preserve or salvage potential archeological and paleontological resources on sites proposed for future development through the development review and mitigation monitoring processes.

In addition, the following implementation procedures from the Open Space/Conservation Element (2005) are also relevant to the protection of paleontological resources:

#### OS-26: Development Review Process

Use the development and environmental review processes to:

- ▶ Ensure that appropriate archaeological and paleontological surveying and documentation of findings is provided prior to project approval.
- ▶ Require effective mitigation where development may affect archaeological or paleontological resources.
- ▶ Require that an archaeologist or paleontologist be retained to observe grading activities in areas where the probable presence of archaeological or paleontological resources is identified.
- ▶ Enforce CEQA provisions regarding preservation or salvage of significant archaeological and paleontological sites discovered during construction activities.
- ▶ Require monitoring of new developments and reporting to the City on completion of mitigation and resource protection measures.

#### **City of Temecula Municipal Code**

Except as provided in Chapter 15.04 (Construction Codes), the City has adopted by reference the following codes as its building code:

- ▶ 2019 California Building Code (Part 2 of Title 24 of the California Code of Regulations), including Appendix C – Agricultural Buildings and Appendix F – Rodent Proofing;
- ▶ 2019 California Historical Building Code (Part 8 of Title 24 of the California Code of Regulations);
- ▶ 2019 California Existing Building Code (Part 10 of Title 24 of the California Code of Regulations);
- ▶ 2019 California Electrical Code (Part 3 of Title 24 of the California Code of Regulations);
- ▶ 2019 California Mechanical Code (Part 4 of Title 24 of the California Code of Regulations);
- ▶ 2019 California Plumbing Code, 2019 Edition (Part 5 of Title 24 of the California Code of Regulations), including Appendix A, B, D, H, I, and J;
- ▶ 2019 California Administrative Code (Part 1 of Title 24 of the California Code of Regulations);
- ▶ 2019 California Energy Code (Part 6 of Title 24 of the California Code of Regulations);
- ▶ 2019 California Green Building Standards Code (Part 11 of Title 24 of the California Code of Regulations), including Appendix A4 Residential Voluntary Measures, Appendix A5 Non-Residential Voluntary Measures;
- ▶ 2019 California Reference Standards Code (Part 12 of Title 24 of the California Code of Regulations); and,
- ▶ 2019 California Residential Code (Part 2.5 of Title 24 of the California Code of Regulations).

In addition, Chapter 18.06 of the Municipal Code contains the City's grading permit and application requirements. As specified in Section 18.02.020, no person shall conduct any construction, grading (stockpiling, excavating, earth moving, filling, clearing, disking, brushing or grubbing on natural or existing grade or perform work that is preparatory to grading), without first having obtained a grading permit in accordance with this title, except as specified in Section 18.06.060 "Permit exemptions" of this chapter and without having obtained coverage under the State Water Resources Control Board's national pollutant discharge elimination system (NPDES) permit for construction activity, if applicable. Additionally, Section 18.06.120 requires each application for a grading permit to include plans and specifications, soils engineering and geotechnical reports, hydrology/hydraulic reports, erosion and sediment control plans, proof of coverage under the State general permit for construction activities and all other information required by the City Engineer as noted in the Engineering and Construction Manual, and payment of the appropriate fees. In addition, a conceptual water quality management plan (WQMP) must be accepted by the City Engineer prior to issuance of final conditions of approval. A final WQMP must be accepted by the City Engineer, prior to issuance of a grading permit.

### **City of Temecula Engineering and Construction Manual**

The City's Engineering and Construction Manual (2020) sets forth the administrative procedures and technical requirements necessary to implement the provisions of Title 18 entitled "Construction, Grading and Encroachments" of the City's Municipal Code. The purpose of the manual is to assist users of the City's Municipal Code by supplementing it with detailed information regarding rules, procedures, interpretations, standard drawings, specifications, requirements, forms and other information applicable to control construction, grading (excavation, land clearing, water pollution control, etc.) and encroachment within on-site (private) development and public right-of-way in the City. The manual also supports the City's Department of Public Works' Land Development Division's purpose, which is to ensure compliance with the City and engineering standards, codes, ordinances, policies and procedures as well as all applicable State and federal regulations as they relate to the review and engineering approval of all proposed private developments and residential/commercial subdivisions within the City limits.

## **3.5.2 Environmental Setting**

The following describes the existing geology and soils conditions at the project site and in the surrounding area. Unless noted otherwise, the information contained in this section is from the Report of Geotechnical Engineering Services prepared by GeoDesign in 2010 (Draft SEIR Appendix D).

### **REGIONAL AND LOCAL GEOLOGY**

The site is located in the alluviated Pauba Valley in southwestern Riverside County. The Pauba Valley trends northeast-southwest and is truncated on the west by the Elsinore Fault Zone, which forms the boundary between the Pauba Valley on the east and the adjacent southeastern trending Wolf Valley on the west.

From Corona on the north to the upper Wolf Valley on the south, the Elsinore Fault Zone occupies a trough-like depression (the Elsinore Trough) between the Santa Ana Mountains on the west and the low-lying hills of the Perris Block on the east. These low-lying hills are composed primarily of Quaternary age sedimentary rocks and Mesozoic age igneous rocks and are traversed by many west- to southwest-trending drainages that flow into Murrieta Valley and Temecula Valley.

The Elsinore Trough has been an area of known subsidence and ground fissuring since the 1980s. Ground fissures have been documented from Murrieta to the upper Wolf Valley, primarily along pre-existing fault traces, as a result of groundwater withdrawal. Site elevations range from approximately Elevation 1,044 feet to Elevation 1,064 feet above mean sea level (MSL). The site is underlain by young (Holocene age) flood plain deposits that originated from the higher terrain on the north and from flood events on Temecula Creek located along the southern boundary of Pauba Valley.

Regionally, the site is in the Peninsular Ranges geomorphic province. This province is characterized by northwest-trending geomorphic and structural features such as the nearby, northwest-trending Elsinore Fault Zone, Wolf Valley, and the Santa Ana Mountains west of the site and the San Jacinto Fault Zone and San Jacinto Mountains east of the site.

## TOPOGRAPHY AND DRAINAGE

The site is located in the Pechanga 7.5-Minute Quadrangle and the ground surface level ranges from approximately Elevation 1,044 to Elevation 1,064 feet above MSL. The project site is currently developed with a hospital building, storage building, helipad, onsite roadways and access drives, drainage infrastructure, and stormwater quality basins. The existing hospital complex, located in the central portion of the project site, consists of a 5-story hospital building (75 feet tall) and a 1-story outpatient building (18 feet tall). The hospital complex has a total building area of 237,305 square feet. The existing storage building, located northeast of the hospital, is a 1-story building (22 feet tall) with a total building area of 5,180 square feet. There are currently two visitor parking lots located west and southwest of the hospital.

The western, northern, and eastern portions of the project site are predominately vacant, except for the helipad and modular office/storage structures located west of the hospital parking lots. However, the entire project site was mass graded in 2011 as part of Phase I of the currently approved master plan. The vacant areas that are reserved for future development are currently covered with hydroseeded landscaping for erosion control.

The existing project site has two major drainage basins that split the drainage into east and west sides. On the eastern side runoff is contained onsite where various curb inlets and grates collect water at low points; water then flows via pipes to an existing interim detention/sedimentation basin that flows southeast into an existing concrete drainage channel on Temecula Parkway. Water from offsite does not surface onto the site but pipe flows directly to the channel. The west side drains northwest to a connection at Dona Lynora Drive, north of Rancho Pueblo Road. The developed portion of the western side flows overland via curb cuts to sand filters and pipes while the undeveloped portion flows overland to a pipe. Existing onsite drainage infrastructure includes vegetative strips, sand filters, biofiltration swales, bioretention/rain gardens, modular wetland systems, detention basins/settling basins, and infiltration basins to treat stormwater.

## GROUNDWATER

Groundwater beneath the site was encountered in the 2010 borings at depths ranging from approximately 22 to 28 feet below ground surface (BGS), corresponding approximately to Elevation 1,025 feet to Elevation 1,029 feet above MSL. Groundwater was encountered in the previous 2004 explorations at the site at depths ranging from 23.5 to 39 feet BGS, corresponding to Elevation 1,016 feet to Elevation 1,031 feet above MSL.

The site is located in an alluviated valley that is underlain by young (Holocene age) flood plain deposits. Temecula Creek flows west-southwest, trending roughly parallel to Highway 79, and is located approximately 0.4-mile south of the site. The Elsinore Fault Zone is located 0.4 mile west-southwest of the site and acts as a groundwater barrier to southwesterly groundwater flow in the Pauba Valley. These conditions have resulted in high historic groundwater levels in the site vicinity, including locally artesian conditions.

Based on consultation between CRM Tech and CGS in May 2010, it is assumed that the historic high groundwater level at the site is a depth of '0 feet BGS.

## SOILS

The native alluvial soils encountered in the borings consist of Holocene age poorly consolidated flood plain deposits that are predominantly interbedded silty sand, silt, sand, and sand with gravel. Silty sand was encountered at the ground surface in all 11 borings drilled as part of the 2010 Geotechnical Report. Fill materials were not observed.

The soils encountered in the borings indicate a depositional environment and vary considerably from boring to boring. In general, the soils consist of alternating layers of silt and sand, each varying in consistency and composition.

Occasional clayey layers are present throughout the depths explored and minor amounts of gravel were typically encountered between depths of approximately 33 and 70 feet BGS.

The alluvial soils in the upper 20 to 33 feet BGS consist of alternating layers of medium dense to dense, silty sand; medium stiff sand with Silt; and silt with minor sand lenses. The soils are loose to medium dense and/or soft to medium stiff silt to depths of approximately 13 to 28 feet BGS. Below this depth, the soils are generally dense to very dense or stiff to hard silt. Localized clayey layers and high plasticity silts are also present in the upper approximately 33 feet BGS.

Below approximately 33 feet BGS, the soils generally consist of fine- to coarse-grained sand and sand with varying amounts of gravel. Intermittent silt and clay layers are also present. The exposed geologic materials at the site are fairly uniform across the project site consisting of primarily silty sand alluvial flood plain deposits of Holocene age.

## EXPANSIVE SOILS

Expansive soils (also known as shrink-swell soils) are soils that contain expansive clay minerals that can absorb significant amounts of water. The presence of these clay minerals makes the soil prone to large changes in volume in response to changes in water content. When an expansive soil becomes wet, water is absorbed and it increases in volume, and as the soil dries it contracts and decreases in volume. This repeated change in volume over time can produce enough force and stress on buildings, underground utilities, and other structures to damage foundations, pipes, and walls. The quantity and type of expansive clay minerals affects the potential for the soil to expand or contract. Where native soils still exist, soil types may be expected to be similar to those of the nearby areas.

According to the 2004 Geotechnical Study prepared by PSI Inc. for the currently approved project, the project site does not contain expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994). Additionally, the 2004 Geotechnical Study also identifies the soils on the project site as having a "very low expansion potential", as defined in the Uniform Building Code (UBC) Table No. 18-1-B (PSI 2004).

## SUBSIDENCE

Land subsidence is the gradual settling or sinking of an area with very little horizontal motion. Subsidence can be induced by both natural and human phenomena. Natural phenomena include shifting of tectonic plates and dissolution of limestone resulting in sinkholes. Subsidence related to human activity includes pumping water, oil, and gas from underground reservoirs; collapse of underground mines; drainage of wetlands; and soil compaction.

Subsidence and associated ground fissuring has been well documented in Riverside County. Areas subject to subsidence and fissuring are primarily alluviated structural valleys such as the San Jacinto Valley and Elsinore Trough that are bound by active faults that offset unconsolidated Holocene age alluvium. The location of ground fissures is typically controlled by underlying geologic structure and typically coincide with pre-existing fault traces. In the southerly portion of the Elsinore Trough, ground subsidence and associated ground fissuring related to changes in groundwater levels has occurred from Murrieta on the north to the upper Wolf Valley on the south. The documented subsidence and fissuring has been confined to the area between fault traces that define the Elsinore Fault Zone on the east and west.

The County of Riverside has established "subsidence report" zones in areas of known subsidence and fissuring, including areas with a moderate to high potential for this phenomenon to occur. Geotechnical reports for proposed developments within these zones must address the potential for future subsidence and ground fissuring. The site is not within a County of Riverside "subsidence report" zone. The closest "subsidence report" zone to the site is approximately 0.4 mile to the west-southwest, confined to the Elsinore Trough between the Wildomar and Willard faults.

The geologic conditions in the Pauba Valley are not characteristic of areas with a potential for large-scale subsidence and associated ground fissuring. However, the unconsolidated Holocene age sediments at the site could be susceptible to subsidence or hydro-collapse from changes in groundwater levels.

Moisture-sensitive soils will consolidate or expand due to changes in moisture. Typically, dry, clean sands and silts are subject to hydro-consolidation. In general, the on-site soils consist of variable mixtures of silt and sand with gravel at depth and intermittent clay layers and lenses. There is not a well-defined continuous zone of loose, clean sand or soft silt that would be subject to hydro-consolidation at the site; therefore, the potential for hydro-consolidation is low at this site.

## MASS WASTING AND LANDSLIDES

Mass wasting refers to the collective group of processes that characterize down slope movement of rock and unconsolidated sediment overlying bedrock. These processes include landslides, slumps, rockfalls, flows, and creeps. Many factors contribute to the potential for mass wasting, including geologic conditions as well as the drainage, slope, and vegetation of the site. Site elevations range from approximately elevation 1,044 feet to elevation 1,064 feet above MSL. As described above, the project site is currently developed with a hospital building, storage building, helipad, onsite roadways and access drives, drainage infrastructure, and stormwater quality basins. Although the western, northern, and eastern portions of the project site are predominately vacant, except for the helipad and modular office/storage structures located west of the hospital parking lots, the entire project site was mass graded in 2011 as part of Phase I.

There are no known landslides near the site nor is the site in the path of any known or potential landslides. The potential for landslides or slope instability at the site is considered low. Additionally, the site is not within an area susceptible to seismic slope stability. Due to the lack of slopes at the site or adjacent to the site, the potential for slope instability as a result of a seismic event adversely affecting the site and the proposed development is considered low.

## SEISMICITY

Most earthquakes originate along fault lines. A fault is a fracture in the Earth's crust along which rocks on one side are displaced relative to those on the other side due to shear and compressive crustal stresses. Most faults are the result of repeated displacement that may have taken place suddenly and/or by slow creep (Bryant and Hart 2007). The State of California has a classification system that designates faults as either active, potentially active, or inactive, depending on how recently displacement has occurred along them. Faults that show evidence of movement within the last 11,000 years (the Holocene geologic period) are considered active, and faults that have moved between 11,000 and 1.6 million years ago (comprising the later Pleistocene geologic period) are considered potentially active.

Faults in California are considered active, potentially active, and inactive based on criteria developed by CGS for the Alquist-Priolo Earthquake Fault Zoning Program. A fault is considered active that has had surface displacement within Holocene time (approximately the last 11,000 years). A potentially active fault is a fault that has demonstrated displacement of Quaternary age deposits (last 1.6 million years). Inactive faults have no documented movement in the last 1.6 million years. The primary purpose of the Alquist-Priolo Earthquake Fault Zoning Program is to identify sites that have a potential for surface rupture due to faults that are in close proximity to a site. In such cases, a building setback zone is established to address the potential for surface fault rupture.

The closest active fault to the project site is the Wildomar Fault of the active Elsinore Fault Zone, located approximately 0.4-mile to the west-southwest. The Elsinore Fault Zone strikes northwest and extends for a distance of at least 124 miles from Corona on the north to the Mexican border and beyond on the south. The fault zone separates the stable Perris Block on the east from the Santa Ana Mountains on the west.

The Elsinore Fault Zone consists of a series of parallel to sub-parallel, right-stepping, strike-slip faults that have a west-dipping normal component on the east and a series of east-dipping, steeply inclined normal faults on the west. From Corona to the upper Wolf Valley, the geomorphic expression of the fault zone is characterized by a trough-like depression called the Elsinore Trough. In the vicinity of the project site, the Wildomar Fault and the Willard Fault form the east and west boundaries of the trough, respectively.

Other nearby active faults include the San Jacinto Fault Zone (approximately 20 miles northeast), Rose Canyon Fault Zone (approximately 30 miles southwest), Newport-Inglewood Fault Zone (approximately 31 miles southwest), San Joaquin Hills Thrust (approximately 35 miles west), and the San Andreas Fault Zone (approximately 37 miles northeast).

Seismic hazards resulting from earthquakes include surface fault rupture, ground shaking, and liquefaction. Each of these potential hazards is discussed below.

### **Surface Fault Rupture**

Surface rupture is the surface expression of movement along a fault. Structures built over an active fault can be torn apart if the ground ruptures. The potential for surface rupture is based on the concepts of recency and recurrence. Surface rupture along faults is generally limited to a linear zone a few meters wide. The Alquist-Priolo Act (see the Regulatory Setting discussion above) was created to prohibit the location of structures designed for human occupancy across, or within 50 feet of, an active fault, thereby reducing the loss of life and property from an earthquake. Active faults are not known to be located beneath or projecting toward the project site. The closest fault to the site capable of surface rupture is the Wildomar Fault of the Elsinore Fault Zone, located approximately 0.4-mile to the west-southwest. An Alquist-Priolo Earthquake Fault Zone has been established for the Wildomar Fault and is located approximately 0.3 mile west-southwest of the site at its closest point. Due to the distance of the earthquake fault zone to the site, the potential for surface fault rupture to adversely affect the site is considered low.

### **Ground Shaking**

The intensity of seismic shaking, or strong ground motion, during an earthquake is dependent on the distance and direction from the epicenter of the earthquake, the magnitude of the earthquake, and the geologic conditions of the surrounding area. Ground shaking could potentially result in the damage or collapse of buildings and other structures. The seismic hazard for the site and the surrounding Temecula area is considered high based on the location of nearby active faults. Consequently, the site could experience strong ground shaking as a result of an earthquake originating on any of the nearby faults identified above.

### **Liquefaction and Lateral Spreading**

Liquefaction is a phenomenon in which loose, saturated, granular soil deposits lose a significant portion of their shear strength because of excess pore water pressure buildup. An earthquake typically causes the increase in pore water pressure and subsequent liquefaction. These soils are behaving like a liquid during seismic shaking and re-solidify when shaking stops. The potential for liquefaction is highest in areas with high groundwater and loose, fine, sandy soils at depths of less than 50 feet. Based on the City of Temecula General Plan (Figure PS-1), the site is within an area identified as having shallow groundwater and underlain by sediments that have a very high susceptibility for liquefaction (City of Temecula 2005). Additionally, the project site is identified as being within a liquefaction zone on the California Earthquake Hazards Zone Application produced by CGS (CGS 2022). The 2010 Geotechnical Report prepared by CRM Tech conducted a liquefaction analysis and determined that the distribution of potentially liquefiable soils at the site is variable and the liquefiable layers are generally discontinuous.

Liquefaction may also lead to lateral spreading. Lateral spreading (also known as expansion) is the horizontal movement or spreading of soil toward an "open face," such as a streambank, the open side of fill embankments, or the sides of levees. It often occurs in response to liquefaction of soils in an adjacent area. The potential for failure from lateral spreading is highest in areas where there is a high groundwater table, where there are relatively soft and recent alluvial deposits, and where creek banks are relatively high. One feature that meets these conditions is the adjacent drainage channel, which is present immediately east of the project site.

Future developments within approximately 200 feet of the channel may be adversely affected by lateral spreading. The distance of 200 feet was determined based on the typical spacing from the borings and the general discontinuous nature of liquefiable soils at the site.

## Seismically Induced Dry Settlement

Seismically induced (dry) settlement can occur in loose to medium dense, granular soils as a result of strong ground shaking. Since the liquefaction analysis is based on the historic high groundwater level of 10 feet BGS, the upper 10 feet of soils were evaluated for seismic (dry) settlement. The upper soils generally consist of medium dense, silty sands and sandy silts are not considered subject to seismically induced (dry) settlement.

## UNIQUE PALEONTOLOGICAL RESOURCES AND GEOLOGIC FEATURES

A Paleontological Resources Assessment Report was prepared by CRM Tech in 2004 for the currently approved project (CRM Tech 2004). As part of this report, a records search was completed by the San Bernadino County Museum in Redlands and the Natural History Museum of Los Angeles, while a literature search was conducted using materials maintained by CRM Tech. Additionally, a field survey was completed by CRM Tech on August 31, 2004. The record searches indicated that project site contains sedimentary deposits that typically do not produce significant vertebrate fossil remains. However, one nearby fossil locality (LACM 6967), located in the Pauba Valley directly east of the project site, has produced a variety of small vertebrate fossils. The San Bernadino County Museum and Natural History Museum of Los Angeles also indicated that significant fossil remains and/or non-renewable paleontological resources could be present in either older Quaternary alluvium or the underlying Pleistocene Pauba Formation. This formation has been demonstrated to have a high potential for containing fossils throughout the Murrieta and Temecula regions including a variety of vertebrate fossils.

Based on the information collected from the record and literature searches and field survey, the Paleontological Resources Assessment Report determined that at least the upper 10 feet of sediments on the project site are of Holocene-age, and therefore do not likely contain any Pleistocene-age paleontological resources. However, paleontological resources may be present at depths greater than 10 feet, specifically within any Pleistocene-age sedimentary rocks.

Additionally, because the project site was mass graded in 2011, there are no unique geologic features present on the site.

## 3.5.3 Environmental Impacts and Mitigation Measures

### METHODOLOGY

The following evaluation of geology and soils impacts is based on a review of the Geotechnical Exploration Report prepared by PSI, Inc. in 2004, Report of Geotechnical Engineering Services prepared by GeoDesign in 2010, Paleontological Resources Assessment Report prepared by CRM Tech in 2004, applicable elements from the City's General Plan, and prior CEQA documents prepared for the project, as well as publicly available information from the California Department of Conservation and California Geological Survey. The impact analysis considers the existing geology and soil conditions described in Section 3.5.2, Environmental Setting, and the applicable laws and regulations pertaining to geologic hazards and soils described in Section 3.5.1, Regulatory Setting, to determine whether the proposed project would directly or indirectly exacerbate existing geologic hazards or conditions.

### THRESHOLDS OF SIGNIFICANCE

A geology and soils impact is considered significant if implementation of the proposed project would:

- ▶ directly or indirectly expose people or structures to potential substantial adverse impacts, including the risk of loss, injury, or death through the rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure, soil liquefaction, or landslides;
- ▶ result in substantial soil erosion or the loss of topsoil;
- ▶ 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-site or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse;

- ▶ be located on expansive soil, creating substantial direct or indirect risks to life or property;
- ▶ have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater; and/or
- ▶ directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

## ISSUES NOT DISCUSSED FURTHER

### Fault Rupture

Although the project site is located in a seismically active region that includes several active earthquake faults of local and regional significance, the project site is not located within a designated Alquist-Priolo Earthquake Fault Zone and there are no known fault traces that extend through, or in the immediate vicinity of, the project site. The closest fault to the site capable of surface rupture is the Wildomar Fault of the Elsinore Fault Zone, located approximately 0.4 mile (0.6 km) to the west-southwest. An Alquist-Priolo Earthquake Fault Zone has been established for the Wildomar Fault and is located approximately 0.3 mile (0.5 km) west-southwest of the site at its closest point. Due to the distance of the earthquake fault zone to the site, the potential for surface fault rupture to adversely affect the site is considered low (GeoDesign 2010). Compliance with the CBC requirements would minimize any potential effects related to fault rupture that could create ground shaking at the project site. Moreover, given the distance between the project site and Wildomar Fault, the proposed project would not directly or indirectly result in the rupture of this fault. Therefore, the proposed project would not expose people or structures to potential substantial adverse effects related to the rupture of a known earthquake fault, and no impact would occur. This issue is not discussed further in the Draft SEIR.

### Landslides

The project site is not located in a County of Riverside Landslide Management Zone that identifies areas prone to slope instability (including landslides, rockfalls, and debris flows) (GeoDesign 2010). There are no slopes at the site and the topography consists of gently sloping terrain. There are no known landslides near the site nor is the site in the path of any known or potential landslides. The potential for landslides or slope instability at the site is considered low. Additionally, the site is not within an area susceptible to seismic slope stability. Due to the lack of slopes at the site or adjacent to the site, the potential for slope instability as a result of a seismic event adversely affecting the site and the proposed development is considered low. Therefore, no impact related to landslides would occur, and this issue is not discussed further in the Draft SEIR.

### Expansive Soils

According to the geotechnical study prepared by PSI Inc. in 2004 for the original hospital master plan, the project site does not contain expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994) (PSI 2004). Additionally, the 2004 geotechnical study also identifies the soils on the project site as having a "very low expansion potential", as defined in the Uniform Building Code (UBC) Table No. 18-1-B. Therefore, the proposed project would not be located on expansive soil, creating substantial direct or indirect risks to life or property, and no impact would occur. This issue is not discussed further in the Draft SEIR.

### Adequate Soils for Septic Tanks or Alternative Wastewater Disposal Systems

The proposed project site would not utilize septic tanks or alternative wastewater disposal systems. The proposed project would be required to connect to the public sewer system that currently serves the existing hospital and surrounding development. Approvals from the Riverside County Department of Environmental Health and/or Eastern Municipal Water District for solid wastes and wastewater would be required prior to issuance of any building permits for the proposed project. Because the proposed project would not rely on septic tanks or alternative wastewater disposal systems, no impact would occur. Therefore, this issue is not discussed further in the Draft SEIR.

## ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

### Impact 3.5-1: Directly or Indirectly Cause Potential Substantial Adverse Effects, including the Risk of Loss, Injury, or Death Involving Seismic Ground Shaking or Seismic-Related Ground Failure, including Soil Liquefaction

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The project site is located in a seismically active region that includes several active earthquake faults of local and regional significance, and there are several active faults nearby, with the closest fault being the Wildomar Fault of the Elsinore Fault Zone located approximately 0.4-mile to the west-southwest. However, all future structures that would be developed as part of the proposed project would be required to comply with all State and local standards to ensure that all new buildings would be capable of withstanding anticipated levels of ground shaking. Additionally, there are no aspects of the proposed project that would have the potential to create new seismic events or exacerbate existing seismic hazards during construction or operation. Therefore, potential impact related to ground shaking and seismic-related ground failure would be **less than significant**.

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The proposed project, an update to the Temecula Valley Hospital Master Plan, consists of revisions to the currently approved Temecula Valley Hospital project. Phase I development of the hospital was completed in 2011, and the hospital was opened in 2013. As part of Phase I, the entire site was mass graded. Implementing the proposed project would result in revisions to the remaining phases of hospital development to address anticipated growth in the region. Specifically, the project involves expanding the emergency department and constructing a behavioral health building, two additional hospital towers, two medical office buildings, a utility plant, surface parking lots, and a four-story parking structure. In addition, the helipad would be relocated from its interim location on the project site to the roof of the proposed parking structure. The hospital building and other buildings constructed during Phase I would be maintained in place.

As described under Section 3.5.2, the project site is located in a seismically active region that includes several active earthquake faults of local and regional significance. No active faults are known to be located beneath or projecting toward the project site, nor is the site within an Alquist-Priolo Fault Zone. However, there are several active faults nearby, with the closest fault being the Wildomar Fault of the Elsinore Fault Zone located approximately 0.4 mile (0.6 km) to the west-southwest. An Alquist-Priolo Earthquake Fault Zone has been established for the Wildomar Fault and is located approximately 0.3 mile (0.5 km) west-southwest of the site at its closest point. Other nearby active faults include the San Jacinto Fault Zone (approximately 20 miles northeast), Rose Canyon Fault Zone (approximately 30 miles southwest), Newport-Inglewood Fault Zone (approximately 31 miles southwest), San Joaquin Hills Thrust (approximately 35 miles west), and the San Andreas Fault Zone (approximately 37 miles northeast).

Strong ground shaking from an earthquake can result in damage or collapse of buildings or other structures from seismic hazards such as ground lurching and liquefaction, both of which could occur at the project site. The severity of ground shaking at the project site during a seismic event would be influenced by the distance from the seismic source (depending on which fault and where on the fault the seismic source occurs). Additionally, because of the presence of shallow groundwater and underlying sediments that have a very high susceptibility for liquefaction, seismic-related ground failure could occur if these conditions are not addressed through proper design and construction practices (GeoDesign 2010).

All future structures that would be developed as part of the proposed project would be required to comply with the current seismic design requirements of the CBC to ensure that all new buildings would be capable of withstanding anticipated levels of ground shaking. The CBC incorporates the latest seismic design standards for structural loads and materials, as well as provisions from the National Earthquake Hazards Reduction Program, to mitigate losses from an earthquake and provide for the latest in earthquake safety. Chapter 18, Soils and Foundations, of the CBC requires the preparation of geotechnical evaluations that include, among other requirements, a record of the soil profile, evaluation of active faults in the area, and recommendations for foundation type and design criteria that address issues, as applicable, such as (but not limited to) bearing capacity of soils and provisions to mitigate the effects of liquefaction, settlement, and varying soil strength. Section 1803.1.1.3 of Chapter 18 states that if a building department, or other appropriate enforcement agency, determines that recommended action(s) presented in the

geotechnical evaluations are likely to prevent structural damage, the approved recommended action(s) must be made a condition of the building permit (Section 1803.1.1.3 of Chapter 18).

In addition to the CBC requirements, there are several State seismic hazard regulations that are specific to hospitals. The Hospital Facilities Seismic Safety Act requires that hospital buildings be designed and constructed to resist the forces generated by earthquakes and is enforced by OSHPD, which maintains proper building standards for earthquake resistance based upon current knowledge. OSHPD also monitors the construction, renovation, and seismic safety of hospitals and skilled nursing facilities. The FDD of OSHPD reviews and inspects health facility construction projects and enforces building standards, per the CBC, as they relate to health facilities construction.

Furthermore, the ancillary facilities associated with the proposed project (e.g., parking lots, lighting) would be required to comply with Chapter 15.04 and Chapter 18.06 of the City's Municipal Code, which prescribe the City's building code and grading permit requirements, respectively. Specifically, Section 18.06.120 requires each application for a grading permit to include soils engineering and geotechnical reports as well as all other information required by the City Engineer as noted in the City's Engineering and Construction Manual. In addition, development under the proposed project would be required to submit a Geotechnical Report for review and approval by the City or City Geotechnical Consultant. Compliance with these State and local requirements would ensure that seismic-related effects such as strong ground shaking and seismic-related ground failure (including liquefaction) are addressed during project design through the incorporation of recommendations provided in the geotechnical evaluations.

It is important to note that CEQA generally does not require an EIR to analyze the potential impact of existing environmental conditions on a project's future users or residents unless the proposed project would directly or indirectly cause or exacerbate those conditions. In those specific instances, it is the project's impact on the environment and not the environment's impact on the project that compels an evaluation of how future residents or users may be affected by exacerbated conditions. There are no aspects of the proposed project that would have the potential to create new seismic events or exacerbate existing seismic hazards during construction or operation because no faults traverse the project site that could be altered by the project. Therefore, potential impact related to ground shaking and seismic-related ground failure would be **less than significant**.

### Mitigation Measures

No mitigation is required for this impact.

### Impact 3.5-2: Result in Substantial Soil Erosion and Loss of Topsoil

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Ground disturbance from the proposed remedial grading activities and other construction activities could loosen on-site soils and increase the potential for soil erosion. However, development of the future phases of the proposed project would be required to comply with the requirements of the NPDES General Construction Permit issued by the San Diego RWQCB and CBC, which require the implementation of erosion and sediment control BMPs during construction. This impact would be **less than significant**.

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As described in Impact 3.5-1, the entire project site was mass graded in 2011 as part of Phase I construction and the proposed project would not involve major changes to the site's topography. Although major excavation and grading during construction is not anticipated since the project site was previously mass graded and partially developed with Phase I, the proposed project would require approximately 36,000 cubic yards of remedial grading. The existing hospital building and associated infrastructure that were constructed during Phase I of the currently approved project would remain under the proposed project.

Ground disturbance from the proposed remedial grading activities and other construction activities could loosen on-site soils and increase the potential for soil erosion. Rain of sufficient intensity and duration could dislodge soil particles, generate runoff, and cause localized erosion. Soil disturbance during the summer months could result in loss of topsoil because of wind erosion. Heavy equipment traffic on the site could result in soil compaction which would reduce the water holding capacity of the soil, increasing the potential for runoff and erosion. However, development of the future phases of the proposed project would be required to comply with the requirements of the NPDES General Construction Permit (2009-0009-DWQ, as amended by 2010-0014-DWQ and 2012-0006-DWQ) issued

by the San Diego RWQCB, as applicable. As required by the General Construction Permit, a stormwater pollution prevention plan (SWPPP) would be developed for the project by a qualified SWPPP developer, which must describe the site, the facility, erosion and sediment controls, runoff water quality monitoring, means of waste disposal, implementation of approved local plans, control of construction sediment and erosion control measures, maintenance responsibilities, and non-stormwater management controls. The SWPPP would identify specific BMPs for sediment and erosion control that would be implemented during project construction. Implementation of these BMPs would minimize the potential for substantial soil erosion and sedimentation from exposed soils. Additionally, the proposed project would be required to comply with the CBC, which requires the preparation of geotechnical reports and implementation of site-specific measures addressing site grading, clearing and grubbing, soil stabilization, and general erosion control. Development under the proposed project would be required to submit a Geotechnical Report for review and approval by the City.

Once operational, the site would contain both pervious and impervious surfaces. The proposed pervious features on-site would include various existing and proposed water quality basins and detention basins, trees included in parking islands and open spaces with drought tolerant vegetation. These features would capture stormwater runoff on the site, and therefore would not contribute to erosion or loss of topsoil during operations.

Therefore, because compliance with CBC standards as well as implementation of the site-specific SWPPP and BMPs would reduce potential runoff, impacts related to erosion and loss of topsoil would be **less than significant**.

### Mitigation Measures

No mitigation is required for this impact.

### Impact 3.5-3: Be Located on Unstable Geologic Units or Soils, Resulting in On-Site or Off-Site Lateral Spreading, Subsidence, Liquefaction, or Collapse

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Although conditions related to liquefaction and lateral spreading are present at the project site, future structures that would be developed as part of the proposed project would be required to comply with the current requirements of the CBC. Additionally, the ancillary facilities associated with the proposed project (e.g., parking lots, lighting, etc.) would be required to comply with Chapter 15.04 and Chapter 18.06 of the City's Municipal Code. Compliance with these State and local requirements would ensure that conditions related to liquefaction and lateral spreading are addressed during project design through the incorporation of recommendations provided in the geotechnical evaluations. Therefore, this impact would be **less than significant**.

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As described in Section 3.5.2, the geologic conditions in the Pauba Valley are not characteristic of areas with a potential for large-scale subsidence and associated ground fissuring. However, the unconsolidated Holocene age sediments at the site could be susceptible to subsidence or hydro-collapse from changes in groundwater levels (GeoDesign 2010).

Moisture-sensitive soils will consolidate or expand due to changes in moisture. Typically, dry, clean sands and silts are subject to hydro-consolidation. In general, the on-site soils consist of variable mixtures of silt and sand with gravel at depth and intermittent clay layers and lenses. There is not a well-defined continuous zone of loose, clean sand or soft silt that would be subject to hydro-consolidation at the site; therefore, the potential for hydro-consolidation is low at this site. Consequently, the proposed project would not have the potential to exacerbate conditions that would result in subsidence or soil collapse.

However, as detailed under Impact 3.5-1, the project site is within an area identified as having shallow groundwater and is underlain by sediments with a very high susceptibility for liquefaction. Liquefaction may also lead to lateral spreading. The potential for failure from lateral spreading is highest in areas where there is a high groundwater table, where there are relatively soft and recent alluvial deposits, and where creek banks are relatively high. One feature that meets these conditions is the adjacent drainage channel, which is present immediately east of the project site. The 2010 Geotechnical Report noted that future development within 200 feet of the channel may be adversely affected by lateral spreading.

Although conditions related to liquefaction and lateral spreading are present at the project site, future structures that would be developed as part of the proposed project would be required to comply with the current requirements of the CBC related to unstable soils. These include requirements for specific materials to be used for fill, compaction specifications, dewatering requirements, removal of unsuitable material prior to placing fill, and other soil enhancements for surficial stability. Specifically, Chapter 18, Soils and Foundations, of the CBC requires the preparation of geotechnical evaluations that include, among other requirements, a record of the soil profile and recommendations for foundation type and design criteria that address issues, as applicable, such as (but not limited to) bearing capacity of soils and provisions to mitigate the effects of liquefaction, settlement, and varying soil strength. In addition, Chapter 18 of the CBC includes specific requirements for excavation, grading, and fill, and requires these issues to be addressed prior to project construction (i.e., during project design).

Furthermore, the ancillary facilities associated with the proposed project (e.g., parking lots, lighting, etc.) would be required to comply with Chapter 15.04 and Chapter 18.06 of the City's Municipal Code, which prescribe the City's building code and grading permit requirements, respectively. Specifically, Section 18.06.120 requires each application for a grading permit to include soils engineering and geotechnical reports as well as all other information required by the City Engineer as noted in the City's Engineering and Construction Manual. In addition, development under the proposed project would be required to submit a Geotechnical Report for review and approval by the City.

Compliance with these State and local requirements would ensure that conditions related to liquefaction and lateral spreading are addressed during project design through the incorporation of recommendations provided in the geotechnical evaluations. Therefore, this impact would be **less than significant**.

### Mitigation Measures

No mitigation is required for this impact.

### Impact 3.5-4: Directly or Indirectly Destroy a Unique Paleontological Resource or Site or Unique Geologic Feature

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Construction activities for the proposed project, including any ground disturbance that extends deeper than the mass grading previously completed in 2011 or greater than 10 feet below the ground surface, whichever is less, or ground disturbance within any previously ungraded areas, could encounter and/or damage previously undiscovered paleontological resources. This impact would be **potentially significant**.

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As described in Section 3.5.2, there are no unique geologic features present on the project site. As such, the proposed project would not directly or indirectly destroy a unique geologic feature.

According to the Paleontological Resources Assessment Report for the currently approved project (CRM Tech 2004), one nearby fossil locality (LACM 6967), located in the Pauba Valley directly east of the project site, has produced a variety of small vertebrate fossils. The San Bernadino County Museum and Natural History Museum of Los Angeles also indicated that significant fossil remains and/or non-renewable paleontological resources could be present in either older Quaternary alluvium or the underlying Pleistocene Pauba Formation. This formation has been demonstrated to have a high potential for containing fossils throughout the Murrieta and Temecula regions including a variety of vertebrate fossils. Based on the information collected from the record and literature searches and field survey, the Paleontological Resources Assessment Report determined that at least the upper 10 feet of sediments on the project site are of Holocene-age, and therefore should not contain any Pleistocene-age paleontological resources. However, paleontological resources may be present at depths greater than 10 feet, specifically within any Pleistocene-age sedimentary rocks.

Since certification of the 2008 EIR, Phase I of the currently approved project was constructed and became operational in 2013. The portions of the project site that would be developed under Phases II, III, and IV of the proposed project were subject to mass grading in 2011 as part of the Phase I development of the master plan. As a condition of approval for the currently approved project, monitoring for paleontological resources was required during all ground disturbing activities. As such, it is anticipated that any paleontological resources on the project site would have been

recovered during monitoring of the mass grading that occurred as part of Phase I. However, any ground disturbance that extends deeper than the mass grading previously completed in 2011 or greater than 10 feet below the ground surface, whichever is less, or ground disturbance within any previously ungraded areas, could encounter and/or damage previously undiscovered paleontological resources.

Once operational, the proposed project would not include any activities that would have the potential to directly or indirectly destroy a unique paleontological resource. The project site would continue to operate as a hospital, with changes in operations primarily limited to additional hospital staffing and patients, as well as a proposed change in the location of the helipad from its existing location to the roof of the proposed parking structure. None of these operational activities would have the potential to cause a substantial adverse change in the significance of a unique paleontological resource. Therefore, construction of the proposed project, but not operations, has the potential to directly or indirectly destroy a unique paleontological resource. This impact would be **potentially significant**.

## Mitigation Measures

### Mitigation Measure 3.5-4: Paleontological Resources Monitoring and Protection

The project applicant shall retain a qualified paleontologist to conduct an on-site training that will alert all construction personnel and supervisors involved in equipment training about the possibility of encountering fossils. The qualified paleontologist shall describe the appearance and types of fossils likely that could be seen during construction. Construction personnel shall be trained about the proper notification procedures should fossils be encountered.

The qualified paleontologist shall also monitor all ground disturbing activities that extend deeper than the mass grading previously completed in 2011 or greater than 10 feet below the ground surface, whichever is less, or ground disturbance within any previously ungraded areas.

If paleontological resources are discovered during earthmoving activities, the qualified paleontologist shall immediately halt operations within 100 feet of the find and notify the City of Temecula. The qualified paleontologist shall identify and salvage fossils so that construction delays can be minimized. If large specimens are discovered, the qualified paleontologist shall have the authority to halt or divert grading and construction equipment while the finds are removed. The qualified paleontologist shall be responsible for implementing all tasks summarized below.

- ▶ In the event of discovery, salvage of unearthed fossil remains, typically involving simple excavation of the exposed specimen but possibly also plaster-jacketing of large and/or fragile specimens, or more elaborate quarry excavations of richly fossiliferous deposits.
- ▶ Recovery of stratigraphic and geologic data to provide a context for the recovered fossil remains, typically including description of lithologies of fossil-bearing strata, measurement and description of the overall stratigraphic section, and photographic documentation of the geologic setting.
- ▶ Laboratory preparation (cleaning and repair) of collected fossil remains to a point of curation, generally involving removal of enclosing rock material, stabilization of fragile specimens (using glues and other hardeners), and repair of broken specimens.
- ▶ Cataloging and identification of prepared fossil remains, typically involving scientific identification of specimens, inventory of specimens, assignment of catalog numbers, and entry of data into an inventory database.
- ▶ Preparation of a final report summarizing the field and laboratory methods used, the stratigraphic units inspected, the types of fossils recovered, and the significance of the curated collection.

### Significance after Mitigation

Implementation of Mitigation Measure 3.5-4 would avoid direct and indirect impacts on unique paleontological resources by requiring the project applicant to retain a qualified paleontologist, requiring training for all construction personnel and supervisors who will have the potential to encounter and alter paleontological resources, requiring construction to halt if potential paleontological resources are discovered, and proper curation if paleontological resources are recovered. This impact would be **less than significant with mitigation**.

## 3.6 GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

This section presents a summary of regulations applicable to greenhouse gas (GHG) emissions; a summary of climate change science and GHG sources in California; quantification of GHGs generated due to proposed changes in the previous master plan and discussion about their contribution to global climate change; and analysis of the project's resiliency to climate change-related risks. In addition, mitigation measures are recommended to reduce the proposed project's contribution to climate change.

### 3.6.1 Regulatory Setting

#### FEDERAL

In *Massachusetts et al. v. Environmental Protection Agency et al.*, 549 U.S. 497 (2007), the Supreme Court of the United States ruled that carbon dioxide (CO<sub>2</sub>) is an air pollutant as defined under the federal Clean Air Act and that the U.S. Environmental Protection Agency (EPA) has the authority to regulate GHG emissions.

In 2010, EPA started to address GHG emissions from stationary sources through its New Source Review permitting program, including operating permits for "major sources" issued under Title V of the federal Clean Air Act.

#### Regulations for Greenhouse Gas Emissions from Passenger Cars and Trucks and Corporate Average Fuel Economy Standards

In October 2012, EPA and the National Highway Traffic Safety Administration, on behalf of the U.S. Department of Transportation, issued final rules to further reduce GHG emissions and improve corporate average fuel economy standards for light-duty vehicles for model years 2017 and beyond (77 Federal Register [FR] 62624). These rules would increase fuel economy to the equivalent of 54.5 miles per gallon, limiting vehicle emissions to 163 grams of CO<sub>2</sub> per mile for the fleet of cars and light-duty trucks by model year 2025 (77 FR 62630). However, on April 2, 2018, the EPA administrator announced a final determination that the current standards are not appropriate and should be revised.

In December 2021, EPA finalized revised national GHG emissions standards for passenger cars and light trucks for model years 2023 through 2026. The final standards leverage advances in clean car technology to unlock \$190 billion in net benefits to Americans, including reducing climate pollution, improving public health, and saving drivers money at the pump. These standards are the strongest vehicle emissions standards ever established for the light-duty vehicle sector and are based on sound science and grounded in a rigorous assessment of current and future technologies. The updated standards will result in avoiding more than 3 billion tons of GHG emissions through 2050.

These standards set the light-duty vehicle GHG program on track to provide a strong launch point for the Agency's next phase of standards for MY 2027 and beyond. EPA is planning to initiate a separate rulemaking to establish multi-pollutant emission standards under the Clean Air Act for MY 2027 and later that will speed the transition of the light-duty vehicle fleet toward a zero-emissions future consistent with President Biden's Executive Order, "Strengthening American Leadership in Clean Cars and Trucks."

#### Clean Power Plan

In 2015, EPA unveiled the Clean Power Plan. The purpose of the plan was to reduce CO<sub>2</sub> emissions from electrical power generation by 32 percent relative to 2005 levels within 25 years. EPA is proposing to repeal the Clean Power Plan because of a change to the legal interpretation of Section 111(d) of the federal Clean Air Act, on which the Clean Power Plan was based. The comment period on the proposed repeal closed April 26, 2018.

In June 2019, the EPA, under authority of the Clean Air Act section 111(d), issued the Affordable Clean Energy rule which provided guidance to states on establishing emissions performance standards for coal-fired electric generating units (EGUs). Under this rule, states were required to submit plans to the EPA which demonstrated the use of

specifically listed retrofit technologies and operating practices to achieve carbon dioxide reduction through heat rate improvement (HRI). HRI is a measurement of power plant efficiency that EPA determined as part of this rulemaking to be the best system of emissions reduction for carbon dioxide generated from coal fired EGUs (EPA 2019). On the last full day of the Trump administration, the DC Circuit Court of Appeals rejected the new rule, characterizing it as a “fundamental misconstruction” of environmental laws. The ruling did not reinstate the Clean Power Plan. However, it did create the opportunity for the Biden administration to improve and clarify the rules.

## STATE

Plans, policies, regulations, and laws established by the state agencies are generally presented in the order they were established.

### Statewide GHG Emission Targets and the Climate Change Scoping Plan

Reducing GHG emissions in California has been the focus of the State government for approximately two decades (State of California 2018). GHG emission targets established by the State legislature include reducing statewide GHG emissions to 1990 levels by 2020 (Assembly Bill [AB] 32 of 2006) and reducing them to 40 percent below 1990 levels by 2030 (Senate Bill [SB] 32 of 2016). Executive Order S-3-05 calls for statewide GHG emissions to be reduced to 80 percent below 1990 levels by 2050. Executive Order B-55-18 calls for California to achieve carbon neutrality by 2045 and achieve and maintain net negative GHG emissions thereafter. These targets are in line with the scientifically established levels needed in the United States to limit the rise in global temperature to no more than 2 degrees Celsius, the warming threshold at which major climate disruptions, such as super droughts and rising sea levels, are projected; these targets also pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius (United Nations 2015:3).

*California's 2017 Climate Change Scoping Plan*, prepared by CARB, outlines the main strategies California will implement to achieve the legislated GHG emission target for 2030 and “substantially advance toward our 2050 climate goals” (CARB 2017: 1, 3, 5, 20, 25–26). It identifies the reductions needed by each GHG emission sector (e.g., transportation, industry, electricity generation, agriculture, commercial and residential, pollutants with high global warming potential, and recycling and waste).

The *2022 Draft Scoping Plan Update* (2022 Scoping Plan Update) assesses progress toward the statutory 2030 target, while laying out a path to achieving carbon neutrality no later than 2045. The proposed 2022 Scoping Plan Update focuses on outcomes needed to achieve carbon neutrality by assessing paths for clean technology, energy deployment, natural and working lands, and others, and is designed to meet the State’s long-term climate objectives and support a range of economic, environmental, energy security, environmental justice, and public health priorities (CARB 2022). The Draft 2022 Scoping Plan Update and associated environmental documentation were released for public review on May 10, 2022. The comment period ended on June 24, 2022. After the end of the public review period, CARB identified revisions to certain aspects of the Scoping Plan Update and associated environmental documentation. The Recirculated Draft 2022 Scoping Plan Update and associated environmental documentation were released for public review on September 9, 2022. The comment period ends on October 24, 2022.

The State has also passed more detailed legislation addressing GHG emissions associated with industrial sources, transportation, electricity generation, and energy consumption, as summarized below.

### Cap-and-Trade Program

CARB administers the State’s cap-and-trade program, which covers GHG emission sources that emit more than 25,000 metric tons of carbon dioxide equivalent per year (MTCO<sub>2e</sub>/year), such as refineries, power plants, and industrial facilities. This market-based approach to reducing GHG emissions provides economic incentives for achieving GHG emission reductions.

### Transportation-Related Standards and Regulations

As part of its Advanced Clean Cars program, CARB established more stringent GHG emission standards and fuel efficiency standards for fossil fuel-powered on-road vehicles. In addition, the program’s zero-emission vehicle (ZEV)

regulation requires battery, fuel cell, and plug-in hybrid electric vehicles to account for up to 15 percent of California's new vehicle sales by 2025 (CARB 2016a:15). By 2025, when the rules will be fully implemented, GHG emissions from the statewide fleet of new cars and light-duty trucks will be reduced by 34 percent and cars will emit 75 percent less smog-forming pollution than the statewide fleet in 2016 (CARB 2016b:1).

Executive Order B-48-18, issued by Governor Jerry Brown, requires all State entities to work with the private sector to have at least 5 million ZEVs on the road by 2030, as well as 200 hydrogen fueling stations and 250,000 electric vehicle-charging stations installed by 2025. It specifies that 10,000 of these charging stations must be direct-current fast chargers.

CARB adopted the Low Carbon Fuel Standard (LCFS) in 2007 to reduce the carbon intensity of California's transportation fuels. The LCFS applies to fuels used by on-road motor vehicles and by off-road vehicles, including construction equipment (Wade, pers. comm., 2017).

In addition to regulations that address tailpipe emissions and transportation fuels, the State legislature has passed regulations to address the amount of driving by on-road vehicles. Since passage of SB 375 in 2008, CARB requires metropolitan planning organizations (MPOs) to adopt plans showing reductions in GHG emissions from passenger cars and light trucks in their respective regions for 2020 and 2035 (CARB 2018: 1). These plans link land use and housing allocation to transportation planning and related mobile-source emissions.

SB 743 of 2013 required that the Governor's Office of Planning and Research (OPR) propose changes to the State CEQA Guidelines to address transportation impacts in transit priority areas and, at OPR's discretion, other areas of the State. In response, Section 15064.3 was added to CEQA in December 2018, requiring that transportation impacts no longer consider congestion but instead focus on the impacts of vehicle miles traveled (VMT). Agencies had until July 1, 2020 to implement these changes. In support of these changes, OPR published its *Technical Advisory on Evaluating Transportation Impacts in CEQA*, which recommends that the transportation impact of a project be based on whether the project would generate a level of VMT per capita (or VMT per employee or some other metric) that is 15 percent lower than that of existing development in the region (OPR 2017a:12–13), or that a different threshold is used based on substantial evidence. OPR's technical advisory explains that this criterion is consistent with Public Resources Code Section 21099, which states that the criteria for determining significance must "promote the reduction of greenhouse gas emissions" (OPR 2017b:18). This metric is intended to replace the use of delay and level of service to measure transportation-related impacts. More detail about SB 743 is provided in the "Regulatory Setting" section of Section 3.13, "Transportation."

## Legislation Associated with Electricity Generation

The State has passed legislation requiring the increasing use of renewables to produce electricity for consumers. California utilities are required to generate 33 percent of their electricity from renewables by 2020 (SB X1-2 of 2011); 52 percent by 2027 (SB 100 of 2018); 60 percent by 2030 (also SB 100 of 2018); and 100 percent by 2045 (also SB 100 of 2018).

## Building Energy Efficiency Standards (Title 24, Part 6)

The energy consumption of new residential and nonresidential buildings in California is regulated by the State's Title 24, Part 6, Building Energy Efficiency Standards (California Energy Code). The California Energy Commission (CEC) updates the California Energy Code every 3 years with more stringent design requirements for reduced energy consumption, which results in the generation of fewer GHG emissions. The current California Energy Code will require builders to use more energy-efficient building technologies for compliance with increased restrictions on allowable energy use. The core focus of the building standards has been efficiency, but the 2019 Energy Code ventured into onsite generation by requiring solar photovoltaic (PV) on new homes, providing significant GHG savings.

The 2019 California Energy Code established requirements for newly constructed healthcare facilities for the first time, with a number of exceptions. The 2019 Energy Code applies to three types of healthcare facility construction: new construction, additions, and alterations. Both new construction and additions in healthcare facilities are required to comply with the Energy Code, but alterations within existing healthcare facilities are exempt. The standards apply to building envelope (walls, windows, roof, floors and other elements of the enclosure of a healthcare building),

mechanical systems (limited mostly to the minimum efficiency requirements of equipment) domestic hot water systems, as well as lighting systems with exceptions for specialty lighting like surgery and exam lighting (Office of Statewide Health Planning and Development 2020).

The most recent is the 2022 California Energy Code, which advances the onsite energy generation progress started in the 2019 California Energy Code by encouraging electric heat pump technology and use, establishing electric-ready requirements when natural gas is installed, expanding solar PV system and battery storage standards, and strengthening ventilation standards to improve indoor air quality. The CEC estimates that the 2022 California Energy Code will save consumers \$1.5 billion and reduce GHGs by 10 MMTCO<sub>2e</sub> over the next 30 years (CEC 2021). The 2022 California Energy Code will go into effect on January 1, 2023.

## LOCAL

### City of Temecula

#### General Plan

The most recent comprehensive General Plan Update was in 2005. There is no GHG or climate change element of the General Plan. However, the Air Quality Element establishes policy foundation to implement local air quality improvement measures and provides a framework for coordination of air quality planning efforts with surrounding jurisdictions. The Air Quality Element includes goals and policies that address four major issues: 1) achieving improvements to regional air quality, 2) integration of air quality issues into land use planning decisions, 3) reducing air pollutant emissions from automobiles, and 4) conserving energy (City of Temecula 2005). The goals, policies, and intent of the Air Quality Element are applicable to GHG emission reductions as well, since the emission sources that degrade air quality and GHG emission sources are often the same.

The General Plan includes Implementation Programs, which provide actions to implement Air Quality Element policies. For the most part, the Air Quality Implementation Programs are applicable to GHG emission reductions as well. The goals, policies, and Implementation Programs are summarized in Section 3.2.1 of Section 3.2, "Air Quality".

#### Sustainability Plan

The City of Temecula (City) adopted its Sustainability Plan in 2010 (City of Temecula 2010). The plan is a blueprint which is designed to address sustainability and climate change by setting targets for GHG reduction, energy and water use, growth planning, reducing waste and championing emerging technologies. The Sustainability Plan provides recommendations on performance in energy, green buildings, water resources, air resources, waste management, transportation, open space, and community outreach. To monitor the plan's success goals, success indicators, and implementation measures have been developed for each category.

### South Coast Air Quality Management District

As described in Section 3.2, "Air Quality", the project lies within the Riverside County portion of the South Coast Air Basin (Basin), which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). SCAQMD is primarily responsible for developing and implementing rules and regulations for attainment of the National and California Ambient Air Quality Standards (NAAQS and CAAQS), developing air quality management plans (AQMP), permitting new or modified sources, and adopting and enforcing air pollution regulations within the Basin. The ability of SCAQMD to control emissions (both criteria pollutants and GHGs) is provided primarily through permitting, but also through its role as a CEQA lead or commenting agency, the establishment of CEQA thresholds, and the development of analytical requirements for CEQA documents.

In the 2008 through 2010 timeframe, SCAQMD convened a series of GHG CEQA Significance Threshold Working Group sessions, and developed draft thresholds for stationary sources and land use development projects. Following public review, SCAQMD formally adopted the 10,000 MTCO<sub>2e</sub> threshold for stationary/industrial facilities where SCAQMD is the lead agency (SCAQMD 2008, SCAQMD 2019). For land use development projects, SCAQMD proposed two different approaches to be taken by lead agencies when analyzing GHG emissions:

- ▶ Option #1 includes using separate numerical thresholds for residential projects (3,500 MTCO<sub>2</sub>e/year), commercial projects (1,400 MTCO<sub>2</sub>e/year), and mixed-use projects (3,000 MTCO<sub>2</sub>e/year).
- ▶ Option #2 includes use of a single numerical threshold for all nonindustrial projects of 3,000 MTCO<sub>2</sub>e/year. (SCAQMD 2010).

SCAQMD noted in its draft thresholds guidance that use of these thresholds was only a recommendation for lead agencies and not a mandatory requirement. While these land use development thresholds may be used at the discretion of the local lead agency, these thresholds for land use development projects have not been adopted by SCAQMD.

It is worth noting that within SCAQMD's interim GHG threshold documentation (SCAQMD 2008), the focus of the commercial land use category was retail and office uses. As noted by SCAQMD, the bulk of emissions from commercial (retail and office) uses are from indirect (mobile) sources. The intent of the 3,000 MTCO<sub>2</sub>e/year threshold was to capture 90 percent of the GHG emissions from new residential, commercial, and mixed-use (residential and commercial) projects. Projects with industrial sources, such as boilers that provide energy to hospital uses, were not considered within the commercial project category, as these type of emission sources are not associated with typical land use projects. While hospital uses include indirect sources (vehicles trips), the overall emissions profile of a hospital was not considered by SCAQMD in its GHG threshold documentation. Therefore, these thresholds for land use development projects are not applicable to the proposed project.

### **Southern California Association of Governments**

Southern California Association of Governments (SCAG) is a regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial Counties. SCAG is responsible for addressing issues related to transportation, the economy, community development, and the environment in the region. SCAG is a MPO federally designated for majority of the Southern California region. SCAG develops plans related to housing, transportation, growth management, hazardous waste management and air quality. SCAG's Regional Comprehensive Plan and Guide includes chapters related to Growth Management and Regional Mobility that supports the land use and transportation components of the AQMP which provide some GHG-reduction co-benefits. In 2020, the SCAG adopted *Connect SoCal*, the area's Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). SCAG was tasked by CARB to achieve an 8 percent per capita reduction compared to 2005 level emissions by 2020 and a 19 percent per capita reduction by 2035, which CARB confirmed the region would achieve by implementing its SCS (CARB 2020).

## **3.6.2 Environmental Setting**

### **THE PHYSICAL SCIENTIFIC BASIS OF GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE**

Certain gases in the earth's atmosphere, classified as GHGs, play a critical role in determining the earth's surface temperature. Solar radiation enters the atmosphere from space. A portion of the radiation is absorbed by the earth's surface, and a smaller portion of this radiation is reflected toward space. The absorbed radiation is then emitted from the earth as low-frequency infrared radiation. The frequencies at which bodies emit radiation are proportional to temperature. The earth has a much lower temperature than the sun; therefore, the earth emits lower frequency radiation. Most solar radiation passes through GHGs; however, infrared radiation is absorbed by these gases. As a result, radiation that otherwise would have escaped back into space is instead "trapped," resulting in a warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on earth.

Prominent GHGs contributing to the greenhouse effect are CO<sub>2</sub>, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Human-caused emissions of these GHGs in excess of natural ambient concentrations are found to be responsible for intensifying the greenhouse effect and leading to a trend of unnatural

warming of the earth's climate, known as global climate change or global warming. It is "extremely likely" that more than half of the observed increase in global average surface temperature from 1951 to 2010 was caused by the anthropogenic increase in GHG concentrations and other anthropogenic forces (IPCC 2014:5).

Climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern. Whereas most pollutants with localized air quality effects have relatively short atmospheric lifetimes (approximately 1 day), GHGs have long atmospheric lifetimes (1 year to several thousand years). GHGs persist in the atmosphere long enough to be dispersed around the globe. Although the lifetime of any GHG molecule depends on multiple variables and cannot be determined with any certainty, it is understood that more CO<sub>2</sub> is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, and other forms of sequestration. Of the total annual human-caused CO<sub>2</sub> emissions, approximately 55 percent are estimated to be sequestered through ocean and land uptake every year, averaged over the last 50 years, whereas the remaining 45 percent of human-caused CO<sub>2</sub> emissions remain stored in the atmosphere (IPCC 2013:467).

The quantity of GHGs in the atmosphere responsible for climate change is not precisely known, but it is enormous. No single project alone would measurably contribute to an incremental change in the global average temperature or to global or local climates or microclimates. From the standpoint of CEQA, GHG impacts relative to global climate change are inherently cumulative.

## GREENHOUSE GAS EMISSION SOURCES

As discussed previously, GHG emissions are attributable in large part to human activities. The total GHG inventory for California in 2019 was 418 million MMTCO<sub>2</sub>e (CARB 2021). This is less than the 2020 target of 431 MMTCO<sub>2</sub>e (CARB 2021). Table 3.6-1 summarizes the statewide GHG inventory for California.

**Table 3.6-1 Statewide GHG Emissions by Economic Sector**

Sector	Percent	Total Emissions (MMTCO <sub>2</sub> e) <sup>1</sup>
Transportation	41	170
Industrial	24	100
Electricity generation (in state)	9	37
Electricity generation (imports)	5	22
Agriculture	8	32
Residential	8	33
Commercial	6	24

Notes: MMTCO<sub>2</sub>e = million metric tons of carbon dioxide equivalent.

<sup>1</sup> Total emission are approximate value based on 2019 total California emissions. Totals may not equal the sum of the numbers because of independent rounding.

Source: CARB 2021

As shown in Table 3.6-1, transportation, industry, and electricity generation are the largest GHG emission sectors. Emissions of CO<sub>2</sub> are byproducts of fossil fuel combustion. Methane, a highly potent GHG, primarily results from off-gassing (the release of chemicals from nonmetallic substances under ambient or greater pressure conditions) and is largely associated with agricultural practices and landfills. Nitrous oxide is also largely attributable to agricultural practices and soil management. CO<sub>2</sub> sinks, or reservoirs, include vegetation and the ocean, which absorb CO<sub>2</sub> through sequestration and dissolution (CO<sub>2</sub> dissolving into the water), respectively, two of the most common processes for removing CO<sub>2</sub> from the atmosphere. Within the commercial sector of CARBs GHG inventory, statewide healthcare-related natural gas fuel combustion emissions are estimated to be 1.54 MMTCO<sub>2</sub>e, which amounts to approximately 6 percent of the commercial sector emissions and 0.37 percent of the statewide total. Healthcare-related natural gas fuel combustion emissions have increased 11 percent since 2000 and 16 percent since 1990 (CARB 2021, CARB 2007).

The City of Temecula has not developed a GHG emissions inventory. However, the City has participated in the Western Riverside Council of Governments (WRCOG) Subregional Climate Action Plan (CAP). The Subregional CAP was completed in 2014, and includes feasible actions Western Riverside County communities can take to meet the CAP's 2020 and 2035 targets. The GHG inventory and forecast for the WRCOG region is summarized in Table 3.6-2.

Note that WRCOG is currently preparing an update to the Subregional CAP. The Subregional CAP Update will include a comprehensive update to GHG inventories and reduction strategies for all sectors, and will establish GHG targets for the years 2030 and 2050 for all WRCOG member jurisdictions. The CAP Update was estimated to be completed by June 2021, but an updated timeline is not available (WRCOG 2022).

**Table 3.6-2 Western Riverside County Greenhouse Gas Emissions Inventory and Building-as-Usual Forecast Years (MTCO<sub>2</sub>e)**

Emissions Sector	2010	2020	2035
Transportation	3,317,387	4,057,626	5,399,600
Commercial/Industrial Energy	1,226,479	1,655,925	1,953,137
Residential Energy	1,167,843	1,368,126	1,729,452
Waste	112,161	138,326	169,107
Wastewater	10,531	13,740	18,797
<b>Total</b>	<b>1,167,843</b>	<b>1,368,126</b>	<b>1,729,452</b>

Notes: Totals may not equal the sum of the numbers because of independent rounding.

MTCO<sub>2</sub>e = metric tons of carbon dioxide equivalent.

Source: WRCOG 2014.

### 3.6.3 Environmental Impacts and Mitigation Measures

#### METHODOLOGY

GHG emissions associated with the project would be generated during project construction and during operation after the project is built. Estimated levels of construction- and operation-related GHGs are presented below. The project is evaluated for its consistency with adopted regulations, plans, and policies aimed at reducing GHG emissions, including the 2022 Scoping Plan, SCAG's adopted RTP/SCS, the City of Temecula General Plan and Sustainability Plan.

#### Construction-Related Greenhouse Gas Emissions

Short-term construction-generated GHG emissions were calculated using the California Emissions Estimator Model (CalEEMod), Version 2020.4.0 (CAPCOA 2021), as recommended by SCAQMD and other air districts in California. Modeling was based on project-specific information (e.g., building size, area to be graded, area to be paved, duration of the construction, energy information) where available; assumptions based on typical construction activities; and default values in CalEEMod that are based on the project location and land use type.

As described in Chapter 2, "Project Description," the project is planned to be developed in three phases. Phase I has already been developed and is currently operational. Phase II is anticipated to begin construction in January 2023 and be complete in 2024. Full operations for Phase II are projected to occur in early 2025. Phase III is also anticipated to begin construction in January 2023 and would be completed by June 2027. Full operations for Phase III are projected to occur in early 2028. Phase II and Phase III construction could overlap between January 2023 to October 2024 timeframe. Phase IV is anticipated to begin construction in July 2029 and would be completed by December 2037. Full operations for Phase IV are projected to occur in early 2038. Total grading and material import/export quantities were known and were scaled according to the total square feet of construction in each phase. Since the schedule of construction activities including site preparation, grading, building construction, paving and architectural coating were not known at the time of the analysis, CalEEMod defaults were used for estimation of emissions of GHG. To

model the central utility plant that would be built in Phase III, an unrefrigerated warehouse land use was assumed in CalEEMod to represent the structure that will be required to house the plant's equipment. For architectural coating, SCAQMD's Rule 1113 was applied, which requires non-residential building's exterior and interior as well as parking areas to be coated with paints that have Volatile Organic Compound's maximum concentration of 100 grams per liter.

SCAQMD's draft GHG guidance document recognizes that construction-related GHG emissions from projects "occur over a relatively short-term period of time" and that "they contribute a relatively small portion of the overall lifetime project GHG emissions." In accordance with SCAQMD guidance, GHG emissions from construction are amortized (i.e., averaged annually) over the lifetime of the proposed project. SCAQMD defines the typical lifetime of a project as 30 years (SCAQMD 2008).

Detailed model assumptions and inputs for these calculations are presented in Appendix B.

## Operational Greenhouse Gas Emissions

The full buildout year is anticipated to be 2038. Since CalEEMod does not have that year built in, a more conservative year of 2035 was assumed. Operation-related emissions of GHGs were estimated for the following sources: area sources (e.g., landscape maintenance equipment), energy use (i.e., electricity and natural gas consumption), water use, solid waste generated, and mobile sources.

Operation-related mobile-source GHG emissions were modeled based on the estimated level of VMT by patients, employees, and vendors making deliveries. Mobile source emissions were modeled based on the estimated level of VMT (25,950 average daily), obtained from traffic impact analysis (see Section 3.12, "Transportation and Circulation"), and vehicle trips (8,823 average daily), obtained from the VMT letter report (see Appendix H). Daily VMT (25,950) was converted to annual VMT (9,471,750) assuming 365 operational days per year. Indirect emissions associated with electricity consumption were estimated using the projected 2035 emission factor for SCE (CAPCOA 2022) and default electricity consumption for hospital, medical office, and parking uses in CalEEMod. Emissions associated with natural gas combustion was considered to be zero for the hospital land use, as the central utility plant would provide power for the heat and steam needs of the hospital. GHG emissions from natural gas fired boilers were estimated using the heat input as described in Chapter 2, "Project Description", and default combustion emission factors in CalEEMod. Natural gas emissions for the other project uses (medical office buildings and behavior health building) were based on CalEEMod defaults for office uses. No natural gas use results from the proposed project's parking uses. For architectural coating due to periodic painting over the life of the project, SCAQMD's Rule 1113 was applied, which requires non-residential buildings' exteriors and interiors and parking areas to be coated with paints that have Volatile Organic Compound's maximum concentration of 100 gram per liter. Detailed model assumptions and inputs for these calculations are presented in Appendix B.

## THRESHOLDS OF SIGNIFICANCE

The issue of global climate change is inherently a cumulative issue because the GHG emissions of individual projects cannot be shown to have any material effect on global climate. Thus, the project's impact on climate change is addressed only as a cumulative impact.

State CEQA Guidelines Section 15064 and relevant portions of Appendix G recommend that a lead agency consider a project's consistency with relevant, adopted plans and discuss any inconsistencies with applicable regional plans, including plans to reduce GHG emissions. Under Appendix G of the State CEQA Guidelines, implementing a project would result in a cumulatively considerable contribution to climate change if it would:

- ▶ generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, or
- ▶ conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.

With respect to GHG emissions, CEQA Guidelines Section 15064.4 provides guidance to lead agencies for determining the significance of impacts from GHG emissions. Section 15064.4(a) provides that a lead agency will make a good-faith effort based, to the extent possible, on scientific and factual data to describe, calculate, or

estimate the amount of GHG emissions resulting from a project. Section 15064.4(a) further provides that a lead agency will have the discretion to determine, within the context of a particular project, whether to quantify GHG emissions from a project or rely on qualitative analysis or performance-based standards. Pursuant to the CEQA Guidelines in Section 15064.4(a), the analysis presented herein quantifies GHG emissions resulting from the project, and describes, calculates, and estimates those emissions. CEQA Guidelines Section 15064.4(b) provides that when assessing the significance of impacts from GHG emissions, a lead agency should focus the analysis on the incremental contribution of the project's emissions to the effects of climate change and consider an appropriate timeframe for the project. The lead agency's analysis should reasonably reflect evolving scientific knowledge and State regulatory schemes and consider (1) the extent to which the project may increase or reduce GHG emissions compared with existing conditions, (2) whether the project's GHG emissions exceed a threshold of significance that the lead agency determines applies to the project, and (3) the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. The analysis of the potential impacts from the project's GHG emissions follows this approach.

CEQA Guidelines do not provide numeric or quantitative thresholds of significance for evaluating GHG emissions. Instead, they leave the determination of threshold significance up to the lead agency and authorize it to consider thresholds of significance previously adopted or recommended by other public agencies or experts, provided that the lead agency's decision is supported by substantial evidence (CEQA Guidelines Sections 15064.7[b] and 15064.7[c]). Additionally, any public agency may also use an environmental standard as a threshold of significance, as it would promote consistency in significance determination and integrate environmental review with other environmental program planning and regulations (CEQA Guidelines Section 15064.7[d]).

The proposed project would be phased over many years, with full buildout expected by 2038. There are currently no adopted quantitative thresholds relevant to the project. The City of Temecula has neither drafted nor adopted threshold approaches and guidelines for analyzing GHG emissions and climate change in CEQA documents. Additionally, although the City participated in the 2014 WRCOG Subregional CAP, that CAP was prepared to comply with the 2020 GHG reduction goal established by AB 32, and thus would not be applicable to use in evaluating GHG emissions of the proposed project beyond the 2020 timeframe (i.e., the proposed project's buildout) consistent with CEQA Guidelines Section 15183.5. Moreover, although SCAQMD has adopted a 10,000 MTCO<sub>2</sub>e per year numerical bright-line significance threshold level for stationary/industrial projects, this threshold would not be applicable to the proposed project because the project is a mixture of hospital and medical office uses that do not fit into the industrial project category; SCAQMD has not adopted a threshold level for hospital and medical office uses.

As noted above, SCAQMD has drafted separate numerical thresholds for residential projects (3,500 MTCO<sub>2</sub>e/year), commercial projects (1,400 MTCO<sub>2</sub>e/year), and mixed-use and all non-industrial projects (3,000 MTCO<sub>2</sub>e/year). At its September 2010 meeting, SCAQMD staff recommended that the 3,000 MTCO<sub>2</sub>e numerical threshold be used for all non-industrial projects (SCAQMD 2010). This 3,000 MTCO<sub>2</sub>e level "captures" a substantial fraction of the emissions of future land use (commercial and residential) development that would be constructed to accommodate future statewide population and job growth, but excludes small development projects that would contribute a relatively small fraction of cumulative statewide GHG emissions. SCAQMD has not adopted these land use development thresholds. Additionally, the proposed project is not a residential, commercial, or mixed-use project.

Lastly, each of the numerical bright-line GHG threshold concepts are based on AB 32's requirement to reduce statewide GHG emissions to 1990 levels by 2020. Neither AB 32 nor SCAQMD's draft CEQA thresholds address reduction targets beyond 2020, which could include increasing the capture rate (upwards from the 90 percent capture rate for 2020) and must take into account the type and amount of land use projects and their expected emissions out to the next milestone year. EO B-55-18 establishes a goal to achieve statewide carbon neutrality as soon as possible and no later than 2045, and EO S-03-05 has set forth a long-term reduction target to reduce GHG emissions by 80 percent below 1990 levels by 2050. Consequently, these draft numerical thresholds from SCAQMD are not applicable to the proposed project. AB 1279, which was signed into law September 16, 2022, requires the State to achieve net zero greenhouse gas emissions as soon as possible, but no later than 2045, and achieve and maintain net negative greenhouse gas emissions thereafter, and to ensure that by 2045, statewide anthropogenic greenhouse gas emissions are reduced to at least 85% below the 1990 levels

Courts have ruled that although there are various potential thresholds and methodologies for evaluating project-level GHG emissions consistent with CEQA, use of statewide emission reduction goals is a permissible criterion of significance, so long as substantial evidence and reasoned explanation is provided to close the analytical gap between the level of effort required at one scale (State level) to the level of effort required at another scale (e.g., a project level). The plan to achieve these statewide emission reduction goals is the Scoping Plan; comparing a project to the Scoping Plan can demonstrate whether a project is consistent or conflicts with statewide reduction targets and goals.

CEQA case law has identified the need to analyze both near-term and post-2020 emissions, as applicable, with the court stating that an "EIR taking a goal-consistency approach to CEQA significance may in the near future need to consider the project's effects on meeting longer-term emissions reduction targets".<sup>1</sup> Moreover, analyses must use the best scientific information available and to determine whether planning decisions are consistent with State goals. SCAQMD's thresholds and the WRCOG CAP are based on AB 32's requirement to reduce statewide GHG emissions to 1990 levels by 2020. However, SB 32 establishes a statewide GHG target of reducing emissions to 40 percent below 1990 levels by 2030 and AB 1279 establishes a statewide target of achieving net zero greenhouse gas emissions as soon as possible, but no later than 2045, and to achieve and maintain net negative greenhouse gas emissions thereafter, and to ensure that by 2045, statewide anthropogenic greenhouse gas emissions are reduced to at least 85% below the 1990 levels. While not adopted, the draft 2022 Scoping Plan Update assesses progress toward the statutory 2030 target, outlining different scenarios for achieving statewide carbon neutrality by 2045.

Therefore, given the lack of an evidence-based bright-line numeric threshold consistent with the State long-term GHG goals for this type of hospital use project, and the lack of an applicable adopted plan for the reduction of greenhouse gases consistent with CEQA Guidelines Section 15183.5, the proposed project's GHG emissions are evaluated using the following approach. GHG emissions that would be generated by the proposed project are evaluated for each major emission sector (e.g., energy, water, waste, mobile, and stationary) to determine whether proposed project's emissions would conflict with applicable Scoping Plan strategies needed to achieve statewide GHG reduction targets and goals. To evaluate the significance of the proposed project's GHG emissions, the two sample checklist questions from Appendix G of the State CEQA Guidelines have been combined into a single impact statement, as shown below.

A GHG emissions impact would be significant if implementation of the proposed project would:

- ▶ generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment or conflict with State GHG reduction goals.

Note that GHG emissions are by their nature cumulative impacts because climate change is inherently a cumulative problem; there are no non-cumulative GHG emissions impacts from a climate change perspective. Therefore, in accordance with the scientific consensus regarding the cumulative nature of GHGs, the analysis herein analyzes the cumulative contribution of proposed project generated GHG emissions to climate change.

## ISSUES NOT DISCUSSED FURTHER

No issues related to GHG emissions have been dismissed from further discussion.

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<sup>1</sup> Center for Biological Diversity v. Department of Fish and Wildlife (2015) 62 Cal.4th 204

## ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

### Impact 3.6-1: Generate Greenhouse Gas Emissions, Either Directly or Indirectly, That May Have a Significant Impact on the Environment or Conflict with State GHG Reduction Goals

The proposed project would generate annual GHG emissions levels from activities and sources that would conflict with the statewide plans and goals for reducing GHG emissions, including the fuels used to meet hospital energy demand, the rate of VMT per employee, and the level of solid waste generation. Because proposed project annual emissions levels would be inconsistent with statewide GHG reduction goals, the proposed project would result in a significant impact on the environment. This impact would be **potentially significant**.

GHG emissions associated with the proposed project would be generated during both construction and operational activities. Construction and operational emissions are analyzed in the following sections.

#### Construction

Project-related construction activities would result in GHG emissions from the use of heavy-duty off-road construction equipment, delivery trucks associated with materials transport, and vehicle use during worker commute. Construction activities are anticipated to occur in three phases, which would be built out over a number of years. Construction is anticipated to begin in early 2023, and would occur incrementally over the next 15-years. The anticipated construction timeframe for each phase is based on the estimated timeframes shown in Table 2-4 of Section 2, "Project Description". Model defaults were used to estimate the amount of activity and emissions associated with each phase. Table 3.6-3 provides a summary of the estimated construction emissions that would occur over the life of the construction period.

**Table 3.6-3 Project-Generated Construction Greenhouse Gas Emissions**

Construction Year	Total GHG Emissions (MTCO <sub>2</sub> e)
Phase II (January 2023 to October 2024)	686
Phase III (January 2023 to June 2027)	1,082
Phase IV (July 2029 to December 2037)	1,236
<b>Total Construction Emissions</b>	<b>3,004</b>
<b>Amortized Construction Emissions</b>	<b>100</b>

Notes: Totals may not add due to rounding; GHG = greenhouse gas; MTCO<sub>2</sub>e = metric tons of carbon dioxide equivalent.

Source: Modeled by Ascent Environmental in 2022.

Consistent with SCAQMD guidance, total construction emissions are summed and amortized over a 30-year project life and added to operational emissions, which are discussed below, to determine the significance of the proposed project's GHG emissions impacts. As mentioned above, project-level GHG emissions are inherently cumulative; therefore, the construction emissions listed in Table 3.6-3 are considered as part of the GHG emissions for the proposed project lifecycle, including GHG emissions during operation.

#### Operations

Operation of the project would result in mobile-source GHG emissions associated with vehicle trips to and from the project site, area-source emissions from the operation of landscaping equipment, energy-source emissions from the consumption of electricity and natural gas end uses in buildings, water-related energy consumption associated with water use and the conveyance and treatment of wastewater, stationary-source emissions from the natural gas boilers of the utility plant, and solid waste-generated emissions from the transport and disposal of solid waste. Refer to Section 3.4, "Air Quality," for detailed methodology. Modeling results are summarized in Table 3.6-4 with details provided in Appendix B.

**Table 3.6-4 Project-Generated Operational Greenhouse Gas Emissions**

Emissions Source	GHG Emissions (MTCO <sub>2e</sub> /year)
Area	<1
Energy	1,098
Mobile	2,592
Stationary (Utility Plant)	10,019
Solid Waste	2,889
Water	211
Construction GHG - Amortized	100
<b>Total Operational GHG Emissions</b>	<b>16,811</b>
<b>Total Annual GHG Emissions</b>	<b>16,911</b>

Notes: Totals may not add due to rounding; GHG = greenhouse gas; MTCO<sub>2e</sub> = metric tons of carbon dioxide equivalent.

Source: Modeled by Ascent Environmental in 2022.

As shown in Table 3.6-4, the proposed project would generate GHG emissions of approximately 16,911 MTCO<sub>2e</sub>/year. As noted above, given the lack of an evidence-based bright-line numeric threshold for a hospital use project, this analysis focuses on whether the proposed project's GHG emissions would conflict with applicable Scoping Plan strategies needed to achieve statewide GHG reduction targets and goals. An evaluation of each proposed project emissions source is presented below.

The Scoping Plan is the State's roadmap to achieving long-term GHG reduction targets. The 2017 Scoping Plan lays out the framework for achieving the 2030 statewide GHG reduction target of reducing Statewide emissions to 40 percent below 1990 levels and achieve substantial progress toward achieving the State's 2050 goal of reducing emission to 80 percent below 1990 levels. The 2017 Scoping Plan integrates various CARB regulations and strategies, including Cap-and-Trade, LCFS, SB 350, Sustainable Freight Action Plan, Mobile Source Strategy, and the SLCP Strategy. Appendix B of the 2017 Scoping Plan includes detailed GHG reduction measures and local actions that land use development projects can implement to support the statewide goal. The draft 2022 Scoping Plan Update aims to assess progress towards achieving the SB 32 2030 target and lay out a path to achieve statewide carbon neutrality by no later than 2045 through implementation of zero emission technologies in every sector and a substantial reduction in fossil fuel dependence, combined with investments in carbon capture and sequestration and nature-based solutions. Appendix D of the draft 2022 Scoping Plan includes local action recommendations that align with the State's climate strategies. Scoping Plan recommendations are neither exhaustive nor binding. For CEQA analyses, both the 2017 and 2022 Scoping Plans recommend that projects implement feasible mitigation, preferably measures that can be implemented on-site.

The discussion below summarizes the types of proposed project activities and sources that would generate GHG emissions and evaluates each for potential conflicts with the changes in these activities and sources that are needed to achieve the State's goals for GHG reductions in 2030 and beyond as identified in the adopted Scoping Plan.

### Building and Facility Energy Consumption

GHGs are emitted directly from buildings through the combustion of any type of fuel (e.g., natural gas for cooking). GHGs can also be emitted indirectly from the generation of electricity. The Scoping Plan outlines strategies to decarbonize buildings by replacing natural gas energy with zero-carbon electricity, expanding construction of zero-emission buildings, and increasing production and use of highly efficient and flexible, zero-emission appliances. For example, SB 100 requires a doubling of energy efficiency by 2030 and an RPS of 60 percent renewable by 2030. SB 100 also sets a target of 100 percent carbon-free electricity by 2045. The 2019 Title 24 standards established requirements for healthcare facilities, while the 2022 Title 24 standards expand on this by mandating higher efficiency levels and rooftop solar photovoltaic systems for all new residential and non-residential buildings. Future standards are expected to result in zero net energy for newly constructed commercial buildings. The CEC also enforces the

Appliance Efficiency Regulations contained in Title 20 of the California Code of Regulations. The regulations establish water and energy efficiency standards for both federally regulated and non-federally regulated appliances.

OPR recommends that a land use development project that “achieves applicable building energy efficiency standards, uses no natural gas or other fossil fuels, and includes Energy Star appliances where available, may be able to demonstrate a less-than-significant greenhouse gas impact associated with project operation” (OPR 2018). Over time, CARB and other State agencies are likely to be directed to adopt zero-emission building standards for new construction through Title 24 or other means.

Although the proposed project would comply with mandatory building energy efficiency standards, it would use natural gas and electricity sources generated at least partially from fossil fuels. It would also use at least some appliances that are not Energy Star certified. As time goes on, it is likely that hospital and medical office uses built in the out years (closer to 2030 and beyond) will be subject to increasingly stringent building codes. Energy use from the office and parking areas is minimal, amounting to 1,098 MTCO<sub>2e</sub> per year, which is 6 percent of the estimated annual total. The majority of this is from electricity consumption in the proposed uses. The emissions estimate herein is based on the anticipated emission rate for SCE in 2035. Per SB 100, SCE will be required to achieve 100 percent carbon-free electricity by 2045. SCE has stated its intent to go beyond the State mandate and achieve 80 percent carbon free power by 2030 (the State mandate is 60 percent by 2030). Thus, while the estimate herein is based on the anticipated 2035 emissions rate based on information known today, emissions from electricity will trend to zero over time and may end up lower than assumed herein.

Natural gas uses for office uses (to provide space and water heating) amounts to only 48 MTCO<sub>2e</sub> per year (0.3 percent) of the estimated annual total emissions. While fossil fuel consumption is expected to be low, and trend down as the electric portfolio becomes more renewable, there is some reliance on fossil fuels.

The utility plant is necessary to provide the hospital with a reliable supply of heat and steam using natural gas boilers; Natural gas is methane, which is a GHG, and emits CO<sub>2</sub>, another GHG, when combusted. There may be a future requirement to install or use a different fuel that still provides a reliable energy source, such as renewable natural gas or another fuel, but as of this writing in October 2022, it would be too speculative to address when such a requirement might take effect, or if it would apply to the proposed project. In the draft 2022 Scoping Plan, CARB mentions the need to research, develop, demonstrate, and deploy large, high-efficiency, low-GWP heat pumps and other advanced low carbon HVAC technologies that can reduce reliance on gas boilers for large commercial buildings. The utility plant is the proposed project’s highest GHG-emitting source, amounting to 10,019 MTCO<sub>2e</sub> per year, which is 59 percent of the estimated annual total. This level of reliance on fossil fuels would conflict with State GHG reduction goals, which rely in large part on switching from fossil fuels like natural gas to renewable or other non-GHG emitting alternatives.

### Mobile Sources

GHG emissions associated with on-road mobile sources are generated from visitors, staff, and deliveries associated with proposed project operations. With respect to mobile emissions, there is a nexus between SB 743 and the State’s goals to reduce GHG emissions; one of the criteria under SB 743 for determining the significance of the transportation impacts of a project is a reduction in GHG emissions. In response to SB 743, OPR released the Transportation Impacts (SB 743) CEQA Guidelines Update and Technical Advisory in April 2018 (OPR 2018). The advisory presents screening thresholds for land use projects so that agencies can quickly determine whether a project would result in a less-than-significant transportation impact. The advisory states:

*Absent substantial evidence indicating that a project would generate a potentially significant level of VMT, or inconsistency with a SCS or general plan, projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than-significant transportation impact.*

The activities that under full buildout scenario of the proposed project would exceed this screening threshold. As shown in Table 3.6-4, emissions associated with mobile sources are estimated to total 2,592 MTCO<sub>2e</sub> per year at full buildout, which amounts to 15 percent of the estimated annual total.

While the proposed project would provide for a regional hospital campus that would provide patient services for local and regional residents, which may reduce the need to travel further distances, the proposed project's baseline average VMT per service population of 38.4 miles per employee would be 31 percent higher than the City's threshold of 29.4 miles per service population (see Table 3.13-1 in Section 3.13, "Transportation"). Thus, operational VMT resulting from the proposed project would exceed the City's 15 percent below WRCOG baseline average VMT per service population threshold, and the VMT impact is significant. Given the nexus between SB 743 and the State's goals to reduce GHG emissions from mobile sources, the project would be inconsistent with the long-term GHG reduction goals of reducing VMTs in the region.

### **Water Use and Wastewater Generation**

As shown in Table 3.6-4, emissions associated with water use and wastewater generation are estimated to be 211 MTCO<sub>2e</sub> per year, which is 1 percent of the estimated annual total. However, the proposed project has identified water efficiency as a priority for the facility, and the proposed project would aim to reduce the indoor water usage to the extent possible. To achieve this reduction, the new phases to be built under the proposed project would install water-conserving plumbing fixtures, such as low-flow and/or dual flush water closets for all buildings, sensory-type lavatory faucets, ultra-low-flow urinals for acute care, and waterless urinals in other uses. The proposed project also prioritizes the selection of medical equipment that could be air-cooled rather than being cooled by water.

With respect to outdoor water use, drought tolerant vegetation will be used in open spaces, all flows from buildings and parking lots will be routed to the proposed project's biofiltration basins, and non-structural improvements such as rain barrels and tree wells would also be installed. These features will reduce outdoor water use for irrigation.

### **Waste Generation**

As shown in Table 3.6-4, emissions associated with waste would total approximately 2,889 MTCO<sub>2e</sub> per year, which is 17 percent of the estimated annual total. California has specific goals for diverting organic waste, which decomposes in landfills to produce the super pollutant methane. State law also directs edible food go to hungry families rather than being discarded. Additionally, the Scoping Plan mentions that while reducing organic waste disposal is the most effective means of achieving reductions in the waste sector, additional strategies to reduce emissions from waste once it hits the landfill will also play a role in achieving emission reductions. Emission estimates are based on default waste disposal rates, overall waste composition from CalRecycle, and statewide gas capture, which are embedded in CalEEMod. This emissions modeling does not take into account expected waste generation and composition from the proposed project, which may be different and result in different emissions in reality and does not take into account additional regulations at the State or local level that will increase recycling, reduce the amount of waste sent to landfill, and increase gas capture once the waste is in the landfill beyond default modeling assumptions.

### **Stationary Sources**

As shown in Table 3.6-4, emissions associated with stationary permitted sources would total approximately 10,019 MTCO<sub>2e</sub>/year. This is expected to be the largest share of GHG emissions, comprising approximately 59 percent of GHG emissions at full buildout. The existing hospital uses are not regulated under CARB's cap-and-trade program, and it is unclear if the utility plant would meet the criteria to be regulated under the cap-and-trade program in the future. Regardless, the central utility plant would be permitted and regulated by SCAQMD through SCAQMD Rule 1146 or 1146.1 (depending on the installed rated heat input capacity), which sets emission limits for boilers, steam generators, and process heaters at industrial, institutional, or commercial operations. Facilities regulated under the cap-and-trade program account for approximately 80 percent of California's emissions. Each year, CARB allots fewer allowances and the annual emissions "cap" declines. The proposed project will implement various sustainability goals for reducing resource consumption, which will help reduce the need to expand permitted facilities. Regardless, if the utility plant is regulated under cap-and-trade or SCAQMD, or both, the project by default will be consistent with this program.

### **Area Sources**

As shown in Table 3.6-4, emissions associated with area sources, which include gasoline-powered landscaping equipment (e.g., trimmers, mowers), would total less than 1 MTCO<sub>2e</sub>/year at full buildout, which amounts to 0.004 percent of the estimated annual total. Given that the landscape improvements would feature low-maintenance plants

that require minimal care, the use of trimmers and mowers is also anticipated to be minimal. Additionally, the State is in the process of adopting a regulation focused on transitioning to zero emission small off-road engines, which includes lawn and garden equipment along with small portable generators and pressure washers. While these regulations are not yet adopted, additional regulations aimed at small gasoline engines is likely over the next few years.

### **Summary**

The activities and sources causing proposed project generated GHG emissions, for example, the rate of VMT and reliance on fossil fuels for building and facility energy demand, would conflict with the State's plans for reducing emissions from these activities and sources in order to meet its targets and goals for GHG reduction in 2030 and beyond. Therefore, the amount of GHG emissions generated by construction and operations of the proposed would have a significant effect on the environment. This impact would be **potentially significant**.

## **Mitigation Measures**

### **Mitigation Measure 3.6-1: Mitigation Measures for Reducing GHG Emissions from Construction Activities**

The applicant (or its contractors) shall implement the following emission-reduction measures during project construction:

- ▶ All equipment and delivery truck idling times will be limited by shutting down equipment and vehicles when not in use, and requiring the maximum idling time for equipment and vehicles not being used to no more than 3 consecutive minutes. Clear signage will be installed at all delivery driveways and loading areas regarding the limitation on idling time. Vehicle and equipment idling required to perform construction work is not subject to this requirement (e.g., running a motor to spin the drum on a cement mixer truck).
- ▶ All construction equipment will be maintained and properly tuned in accordance with manufacturers' specifications. Prior to the commencement of construction activities using diesel-powered vehicles or equipment, construction contractors will verify that all vehicles and equipment have been checked by a certified mechanic and determined to be running in proper condition prior to admittance into the project site. A report by the certified mechanic of the condition of the construction and operations vehicles and equipment will be submitted to and approved by the City prior to their use.
- ▶ Alternative-fuel (e.g., biodiesel, electric) construction vehicles/equipment (comprising at least 15 percent of the fleet) with lower tailpipe GHG emissions than gasoline or diesel equivalents will be used when commercially available.
- ▶ Renewable diesel fuel will be used for all diesel-powered heavy construction equipment and on-road vehicles to the extent that it is commercially available from a local supplier in the Southern California region.
- ▶ Local building materials and recycled products, including cement and concrete made with recycled products, will be used, to the extent feasible. A construction waste management plan will be implemented to divert landfilled waste by requiring the recycling of a minimum of 65 percent of all non-hazardous construction waste.

### **Mitigation Measure 3.6-2: Mitigation Measures for Reducing GHG Emissions from Operational Activities**

The applicant shall implement the following GHG reduction measures for all new development under the master plan:

- ▶ The applicant (or its contractors) will implement the following water conservation measures, which are in addition to those required by codes and ordinances:
  - Install public bathroom faucet aerators (non-residential & residential over 6 stories) with a flow rate of 0.4 gallons per minute (gpm),
  - Install cooling tower conductivity controllers or cooling tower pH conductivity controllers,
  - Install rotating sprinkler nozzles for landscape irrigation 0.5 to 1.0 gpm,
  - Install drip/subsurface irrigation (i.e., micro-irrigation),

- Implement proper hydro-zoning (i.e., groups plants with similar water requirements together),
  - Install zoned irrigation,
  - Contour landscaping to minimize precipitation runoff,
  - Install drought tolerant plants in 50 percent of total new landscaping,
  - Install water conserving turf in 100 percent of new turf added to landscaping, and
  - Use recycled water for stationary equipment that requires water cooling, to the extent feasible.
- ▶ Prepare a plan demonstrating, based on substantial evidence and to the satisfaction of the City, demonstrating that a minimum 85 percent of organic waste produced by the development would not be disposed of in a landfill. Measures to achieve this standard include, but are not limited to, the following:
- Operating a program to reduce the generation of food waste and divert food waste from going to a landfill (e.g., sort out food waste separate from other waste for collection or composting),
  - Operating a program to safely recover edible food and divert it to a local food bank,
  - Operating a program to divert green waste (e.g., plant debris from landscaping) from going to a landfill (e.g., sort out food waste separate from other waste for collection or composting).
- ▶ Install Energy Star-rated appliances.
- ▶ Dedicate five percent of new parking spaces for plug-in vehicles and equip those spaces with installed electric vehicle charging equipment.
- ▶ Install a high-efficiency lighting system that takes advantage of natural daylighting.
- ▶ Maximize the installation of on-site solar systems, or other systems that provide on-site power from renewable or zero carbon sources.
- ▶ Install, high-performance glazing with a low solar heat gain coefficient value that reduces the amount of solar heat allowed into the building, without compromising natural illumination.
- ▶ Install cool roofs with an R value (i.e., the measurement of the effectiveness of thermal insulating materials) of 30 or better on proposed new buildings.
- ▶ Increase urban tree canopy cover to provide shade to a minimum of 40 percent of the length of internal roadways on the project site.
- ▶ Use electric powered landscaping equipment, rather than fossil-fuel powered landscaping equipment.
- ▶ Use native plants and trees to provide new, water-wise landscaping that blends the facility with the ecology of the surrounding natural environment.

In addition to the above, the applicant shall also implement the following GHG reduction measures for new development under the master plan, except for the proposed hospital uses (i.e., emergency department expansion, new hospital towers):

- ▶ Achieve net zero carbon buildings, in which building operational energy consumption is met through on- or off-site renewable or zero carbon energy sources
- ▶ Heating and cooling systems and other appliances and building end uses powered by natural gas will not be installed where electric-powered equivalents capable of meeting the building's operational requirements are commercially available in the project area.

**Mitigation Measure 3.13-1: Implement a Voluntary Commute Trip Reduction Program (see Section 3.13, Transportation)****Mitigation Measure 3.13-2: Implement No-Cost Transit Pass Program for Employees (see Section 3.13, Transportation)****Mitigation Measure 3.13-3: Provide End-of-Trip Bicycle Facilities (see Section 3.13, Transportation)****Significance after Mitigation**

Implementation of Mitigation Measures 3.6-1 and 3.6-2, 3.13-1, 3.13-2, and 3.13-3. would reduce the amount of GHG emissions generated from construction and operation of the proposed project, as described below.

Mitigation measure 3.6-1 covers construction activities. The provisions include requiring equipment to not idle excessively, be properly maintained, use alternative fueled equipment with lower GHG emissions than gasoline or diesel fuels and renewable diesel instead of traditional diesel if they are commercially available, use locally-sourced materials to reduce the overall transport distance of materials, and divert construction waste away from landfills. These measures are not quantified, but would reduce GHG emissions during project construction activities by substantially lessening the amount of fossil fuels (e.g., gasoline and diesel) that are consumed during construction of the proposed project.

Mitigation Measure 3.6-2 covers operational activities, and would reduce the amount of GHG emissions generated during operations. For building energy, Mitigation Measure 3.6-2 would require implementation of energy-efficiency measures in development under the master plan (except for proposed emergency department and hospital towers), including the use of Energy Star rated appliances, use of electric-powered appliances and HVAC, high-efficiency lighting, high-performance glazing on new buildings, and installation of a cool roof on new buildings. Implementation of these measures, along with increases in carbon-free electricity production required by State law, will reduce generation of GHG emissions from operation of proposed project buildings.

For mobile sources, Mitigation Measure 3.6-2 requires a percentage of parking spaces be dedicated to clean air vehicles and have EV charging installed. Additionally, Mitigation Measures 3.13-1 through 3.13-3 would reduce the amount of VMT driven by employees at the project site by establishing a program encouraging commuting by travel modes other than driving alone, providing transit passes at no-cost to all employees, and providing end-of-trip bicycle facilities (e.g., bike parking, lockers, changing facilities, showers) to encouraging biking as a viable means of commuting to work. These measures would reduce the amount of GHG emissions generated by operation of the proposed project by reducing the number and length of vehicle trips, and thereby reducing the amount of gasoline and diesel consumed.

For water use and wastewater generation, Mitigation Measure 3.6-2 will require water conservation measures that will reduce indoor and outdoor water consumption, through water-efficient faucets, efficient irrigation, and drought tolerant landscaping. Reducing indoor water usage not only reduces GHG emissions associated with the electricity embedded in water supply, but would also reduce the amount of water that feeds into the wastewater system, thereby reducing emissions associated with wastewater as well. Taken together, these measures would reduce the amount of GHG emissions associated with water supply and wastewater generation by reducing water consumption.

For waste generation, Mitigation Measure 3.6-2 will require the project to achieve at a minimum solid waste diversion rate of 85 percent by 2035, by implementing programs, such as a food waste diversion program and onsite recycling. This measure is in line with the State's goal in SB 1383 of reducing methane emissions associated with solid waste. Implementation of these measures will reduce the amount of waste that goes to landfills.

Future phases under the proposed project would aim to implement the actions in Mitigation Measures 3.6-1 and 3.6-2, and Mitigation Measures 3.13-1, 3.13-2, and 3.13-3. If fully implemented, the proposed project would not conflict with the State's long-term emissions reduction goals and targets by implementing all relevant measures in the 2017 and 2022 Scoping Plans. However, if not fully implemented, the proposed project would conflict with the State's long-term emissions reduction goals and targets by implementing all relevant measures in the 2017 and 2022 Scoping Plans. Implementation of mitigation measures 3.6-1, 3.6-2, 3.13-1, 3.13-2, and 3.13-3 would reduce

construction and operational GHG emissions by reducing emissions in various sectors, but may not fully assist the City in meeting the State's long-term emissions reduction target and ensure consistency with the Scoping Plan.

Residual proposed project generated GHG emissions after implementation of mitigation, for example, the residual rate of VMT and reliance on fossil fuels for building and facility energy demand, would conflict with the State's targets and goals for GHG emissions reductions. Therefore, the amount of GHG emissions generated by construction and operations of the proposed would have a significant effect on the environment. Because additional feasible mitigation measures are not available to further reduce the proposed project's GHG emissions (e.g., achieve additional reductions in the rate of VMT, use zero or lower emissions fuels to meet the hospital's energy demands), this impact would remain **significant and unavoidable**.

## 3.7 HAZARDS AND HAZARDOUS MATERIALS

This section describes the potential for existing hazards on the project site and provides a qualitative evaluation of the proposed project's potential to create a significant hazard for the public or the environment, conflict with adopted airport land use or emergency response plans or expose people to wildland fires. The analysis includes a description of the existing environmental conditions, the methods used for assessment, and the potential direct and indirect impacts of proposed project implementation.

For purposes of this section, the term "hazardous materials" refers to both hazardous substances and hazardous wastes. A "hazardous material" is defined in the Code of Federal Regulations (CFR) as "a substance or material that ... is capable of posing an unreasonable risk to health, safety, and property when transported in commerce" (49 CFR 171.8). California Health and Safety Code Section 25501 defines a hazardous material as follows:

"Hazardous material" means any 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 which a handler or the administering 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.

"Hazardous wastes" are defined in California Health and Safety Code Section 25141(b) as wastes that:

...because of their quantity, concentration, or physical, chemical, or infectious characteristics, [may either] cause, or significantly contribute to an increase in mortality or an increase in serious illness [or] pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

Although chemicals are the most recognized type of hazardous materials, medical waste can also be considered a hazardous waste and is generated or produced as a result of the diagnosis, treatment, or immunization of human beings or animals and the production or testing of biological materials. Cultures, blood and blood products, tissues, and body parts are all considered medical waste.

No comments related to hazards and hazardous materials were submitted in response to the notice of preparation.

### 3.7.1 Regulatory Setting

#### FEDERAL

##### Management of Hazardous Materials

Various federal laws address the proper handling, use, storage, and disposal of hazardous materials, as well as requiring measures to prevent or mitigate injury to health or the environment if such materials are accidentally released. The U.S. Environmental Protection Agency (EPA) is the agency primarily responsible for enforcement and implementation of federal laws and regulations pertaining to hazardous materials. Applicable federal regulations pertaining to hazardous materials are primarily contained in CFR Titles 29, 40, and 49. Hazardous materials, as defined in the Code, are listed in 49 CFR 172.101. Management of hazardous materials is governed by the following laws.

- ▶ The Toxic Substances Control Act of 1976 (15 U.S. Code [USC] Section 2601 et seq.) regulates the manufacturing, inventory, and disposition of industrial chemicals, including hazardous materials. Section 403 of the Toxic Substances Control Act establishes standards for lead-based paint hazards in paint, dust, and soil.
- ▶ The Resource Conservation and Recovery Act (RCRA) of 1976 (42 USC 6901 et seq.) established a federal regulatory program for the generation, transport, and disposal of hazardous substances. The RCRA is the law

under which EPA regulates hazardous waste from the time the waste is generated until its final disposal (“cradle to grave”). The RCRA was amended by the Hazardous and Solid Waste Amendments of 1984, which banned the disposal of hazardous waste on land and strengthened EPA’s reporting requirements.

- ▶ The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (also called the Superfund Act) (42 USC 9601 et seq.) gives EPA authority to seek out parties responsible for releases of hazardous substances and ensure their cooperation in site remediation.
- ▶ The Superfund Amendments and Reauthorization Act of 1986 (Public Law 99-499; USC Title 42, Chapter 116), also known as SARA Title III or the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA), imposes hazardous materials planning requirements to help protect local communities in the event of accidental release.
- ▶ The Spill Prevention, Control, and Countermeasure (SPCC) rule includes requirements for oil spill prevention, preparedness, and response to prevent oil discharges to navigable waters and adjoining shorelines. The rule requires specific facilities to prepare, amend, and implement SPCC Plans. The SPCC rule is part of the Oil Pollution Prevention regulation, which also includes the Facility Response Plan rule.

### **Transport of Hazardous Materials**

The U.S. Department of Transportation (DOT) regulates transport of hazardous materials between States and is responsible for protecting the public from dangers associated with such transport. The basic statute regulating transport of hazardous materials in the United States, addressed in 49 USC 5101 et seq. (formerly the Hazardous Materials Transportation Act, 49 USC 1801 et seq.), regulates intrastate and interstate transport by rail car, aircraft, motor vehicle, and vessel and includes requirements related to the appropriate packaging and labeling of the hazardous material for transit. There are registration requirements for individuals that offer and accept hazardous wastes, and hazardous materials must be properly classed, described, packaged, marked, and labeled. Hazardous materials transport regulations are enforced by the Federal Highway Administration, the U.S. Coast Guard, the Federal Railroad Administration, and the Federal Aviation Administration (FAA).

### **Occupational Safety and Health Administration Worker Safety Requirements**

The federal Occupational Safety and Health Administration (OSHA) is responsible for ensuring worker safety. OSHA sets federal standards for implementation of workplace training, exposure limits, and safety procedures for handling hazardous substances and addressing other potential industrial hazards. OSHA also establishes criteria by which each State can implement its own health and safety program. The Hazard Communication Standard (CFR Title 29, Part 1910) requires that workers be informed of the hazards associated with the materials they handle. Workers must be trained in safe handling of hazardous materials, use of emergency response equipment, and building emergency response plans and procedures. Containers must be labeled appropriately, and material safety data sheets must be available in the workplace.

### **Radiation Control Law**

Pursuant to the federal Atomic Energy Act requiring States to assume responsibility for the use, transport, and disposal of low level radioactive material and for the protection of the public from radiation hazards, the Radiological Health Branch (RHB) of the California Department of Public Health (CDPH) administers the Radiation Control Law, which governs the use, transportation, and disposal of radioactive material and radiation producing equipment. Radioactive material regulations require registration of sources of ionizing radiation, licensing of radioactive material, and protection against radiation exposures. RHB also regulates the transport of radioactive materials and disposal of radioactive wastes. The regulations specify appropriate use and disposal methods for radioactive substances, as well as worker safety precautions and health monitoring programs. The Radiation Control Law applies to electronic product radiation generated by medical equipment such as diagnostic x-ray or ultrasound imaging devices, microwave or ultrasound diathermy devices, microwave blood warmers or sterilizers, laser coagulators, ultrasound phacoemulsifiers, and x-ray or electron accelerators.

## Biosafety Standards

A hazardous biologic material is any potentially harmful biologic material (including infectious agents, oncogenic viruses, and recombinant DNA) or any material contaminated with a potentially harmful biologic material. This includes medical waste generated at hospitals and other medical facilities. The National Institutes of Health and the Centers for Disease Control and Prevention operate under the U.S. Department of Health and Human Services and establish standards for working with biohazardous materials.

## STATE

### Management of Hazardous Materials

In California, both federal and State community right-to-know laws are coordinated through the Governor's Office of Emergency Services. The federal law, SARA Title III or EPCRA, described above, encourages and supports emergency planning efforts at the State and local levels and provides local governments and the public with information about potential chemical hazards in their communities. Because of the community right-to-know laws, information is collected from facilities that handle (e.g., produce, use, store) hazardous materials above certain quantities. The provisions of EPCRA apply to four major categories:

- ▶ emergency planning,
- ▶ emergency release notification,
- ▶ reporting of hazardous chemical storage, and
- ▶ inventory of toxic chemical releases.

The corresponding State law is Chapter 6.95 of the California Health and Safety Code (Hazardous Materials Release Response Plans and Inventory). Under this law, qualifying businesses are required to prepare a Hazardous Materials Business Plan, which would include hazardous materials and hazardous waste management procedures and emergency response procedures, including emergency spill cleanup supplies and equipment. At such time as the applicant begins to use hazardous materials at levels that reach applicable State and/or federal thresholds, the plan is submitted to the administering agency.

The California Department of Toxic Substances Control (DTSC), a division of the California Environmental Protection Agency (CalEPA), has primary regulatory responsibility over hazardous materials in California, working in conjunction with EPA to enforce and implement hazardous materials laws and regulations. As required by Section 65962.5 of the California Government Code, DTSC maintains a hazardous waste and substances site list for the State, known as the Cortese List. Individual regional water quality control boards (RWQCBs) are the lead agencies responsible for identifying, monitoring, and cleaning up leaking underground storage tanks (USTs). The San Diego RWQCB has jurisdiction over the project site.

### The Hazardous Waste Control Act

The Hazardous Waste Control Act (HSC Section 25100 et seq.) is the seminal hazardous waste control law in California. It establishes standards for regulating the generation, handling, processing, storage, transportation, and disposal of hazardous wastes. The hazardous waste control program is administered by DTSC and local Certified Unified Program Agencies (CUPAs). Within CalEPA, DTSC is primarily responsible for regulating the generation, transport, and disposal of hazardous substances under the authority of the Hazardous Waste Control Act; enforcement is delegated to local jurisdictions. Regulations implementing the Hazardous Waste Control Act list hazardous chemicals and common substances that may be hazardous; establish criteria for identifying, packaging, and labeling hazardous substances; prescribe hazardous substances management; establish permit requirements for the treatment, storage, disposal, and transportation of hazardous substances; and identify hazardous substances prohibited from landfills. These regulations apply to the protection of human health and the environment during construction activities.

## **Transport of Hazardous Materials and Hazardous Materials Emergency Response Plan**

The State of California has adopted U.S. Department of Transportation regulations for the movement of hazardous materials originating within the State and passing through the State; State regulations are contained in title 26 of the California Code of Regulations (CCR). State agencies with primary responsibility for enforcing State regulations and responding to hazardous materials transportation emergencies are the California Highway Patrol and the California Department of Transportation. Together, these agencies determine container types used and license hazardous waste haulers to transport hazardous waste on public roads.

California has developed an emergency response plan to coordinate emergency services provided by federal, State, and local governments and private agencies. Response to hazardous materials incidents is one part of the plan. The plan is managed by the Governor's Office of Emergency Services, which coordinates the responses of other agencies in the project area.

## **California Government Code Section 65962.5**

The provisions of California Government Code Section 65962.5 (Cortese List) are commonly referred to as the "Cortese List" (after the legislator who authored the law). The Cortese List is a planning document used by State and local agencies to comply with CEQA requirements in providing information about the location of hazardous materials release sites. The list, or a site's presence on the list, has bearing on the local permitting process. DTSC is responsible for a portion of the information contained in the Cortese List. Other State and local government agencies in California, such as the State Water Resources Control Board (SWRCB), also must provide additional release information.

Government Code Section 65962.5 requires CalEPA to develop an updated Cortese List at least annually. However, because this statute was enacted more than 20 years ago, some of the provisions refer to agency activities that are no longer being implemented, and in some cases, the information to be included in the Cortese List does not exist. Further, although Government Code Section 65962.5 makes reference to the preparation of a "list," many changes have occurred related to web-based information access since 1992, and this information is now largely available on the internet sites of the responsible organizations. A centralized list is no longer compiled.

## **California Hazardous Materials Release Response Plans and Inventory Law**

The California Hazardous Materials Release Response Plans and Inventory Law requires preparation of hazardous materials business plans and disclosure of hazardous materials inventories. Such plans must include an inventory of hazardous materials handled, facility floor plans showing where hazardous materials are stored, and an emergency response plan, and they must establish emergency response procedures that include employee training (HSC, Division 20, Chapter 6.95, Article 1). The business plan program is administered by the California Emergency Management Agency.

## **California Accidental Release Prevention Program**

The goal of the California Accidental Release Prevention Program (CCR Title 19, Division 2, Chapter 4.5) is to reduce the likelihood and severity of consequences of any releases of extremely hazardous materials. Any business that handles regulated substances (chemicals that pose a major threat to public health and safety or the environment because they are highly toxic, flammable, or explosive, including ammonia, chlorine gas, hydrogen, nitric acid, and propane) must prepare a risk management plan. The risk management plan is a detailed engineering analysis of the potential accident factors present at a business and the measures that can be implemented to reduce accident potential. The plan must provide safety information, hazard data, operating procedures, and training and maintenance requirements. The list of regulated substances is found in Article 8, Section 2770.5 of the program regulations.

## **Porter-Cologne Water Quality Control Act**

Through the Porter-Cologne Water Quality Act and the National Pollution Discharge Elimination System (NPDES) program, RWQCBs have the authority to require proper management of hazardous materials during proposed project construction. For a detailed description of the Porter-Cologne Water Quality Act, the NPDES program, and the role of the San Diego RWQCB, refer to Section 3.8, "Hydrology and Water Quality."

The SWRCB adopted the statewide NPDES Construction General Permit (2009-0009-DWQ, as amended by 2010-0014-DWQ and 2012-0006-DWQ). The State requires that projects disturbing more than one acre of land during construction file a Notice of Intent with the RWQCB to be covered under this permit. Construction activities subject to the Construction General Permit include clearing, grading, stockpiling, and excavation. Dischargers are required to eliminate or reduce non-stormwater discharges to storm sewer systems and other waters. A stormwater pollution prevention plan (SWPPP) must be developed and implemented for each site covered by the permit. The SWPPP must include best management plans (BMPs) designed to prevent construction pollutants from contacting stormwater and keep products of erosion from moving off-site into receiving waters throughout the construction and life of the proposed project; the BMPs must address source control and, if necessary, pollutant control.

### **California Occupational Safety and Health Administration Worker Safety Requirements**

The California Occupational Safety and Health Administration (Cal/OSHA) assumes primary responsibility for developing and enforcing workplace safety regulations in California. Cal/OSHA regulations for the use of hazardous materials in the workplace (CCR Title 8) require safety training, available safety equipment, accident and illness prevention programs, hazardous substance exposure warnings, and preparation of emergency action and fire prevention plans. Cal/OSHA enforces regulations on hazard communication programs and mandates specific training and information requirements. These requirements include procedures for identifying and labeling hazardous substances, providing hazard information about hazardous substances and their handling, and preparing health and safety plans to protect workers and employees at hazardous waste sites. Employers must make material safety data sheets available to employees and document employee information and training programs.

### **Medical Waste Management Act**

The Medical Waste Management Act (HSC Sections 117600–118360) regulates the generation, handling, storage, treatment, and disposal of medical waste. It requires that all hospitals develop and implement a medical waste management plan. The purpose of the plan is to successfully guide the proper handling of medical waste throughout the facility, including storage, transport, and disposal. The law imposes cradle-to-grave tracking and a calibration and monitoring system for on-site treatment. Facilities that treat medical waste must obtain permits to do so and are subject to annual audits.

### **California Department of Public Health Services Licensing**

The Centralized Applications Branch of CDPH provides standardization and consistency of State licensing and federal certification through the application process. Health care facilities and providers submit an application, an analyst validates that all required forms and supporting documents are received, and fees are paid; then the Central Applications Branch makes a determination to approve or deny the application based on the information contained in the application and its compliance with State and federal requirements. Among these requirements, the applicant is required to prepare facility-specific emergency evacuation and shelter in place procedures.

Within CDPH, RHB administers federal and State radiation safety laws that govern the storage, use, and transportation of radioactive materials and the disposal of radioactive waste, including the Radiation Control Law, Radiologic Technology Act, and Nuclear Medicine Technology Certification, through the implementing regulations contained in CCR Title 17. To obtain a California radioactive material license, an applicant must complete a detailed application that requires a description of plans for decontamination and decommissioning, including identification of transfer or disposal procedures taken before decommissioning and any necessary surveys. To maintain a radioactive materials license, an institution must meet training and radiation safety requirements and be subject to routine inspections.

### **California Fire Code**

The California Fire Code (CFC) is Chapter 9 of CCR Title 24. It is the primary means for authorizing and enforcing procedures and mechanisms to ensure the safe handling and storage of any substance that may pose a threat to public health and safety. The CFC regulates the use, handling, and storage requirements for hazardous materials at fixed facilities. The CFC and the California Building Code use a hazard classification system to determine what protective measures are required to protect life and provide fire safety. These measures may include applying

construction standards, requiring separation between structures and property lines, and using specialized equipment. To ensure that these safety measures are met, the CFC employs a permit system based on hazard classification. The CFC is updated every 3 years.

### **California State Aeronautics Act**

At the State level, the California Department of Transportation's Division of Aeronautics administers FAA regulations (Stats. 1951, Ch. 764; Public Utilities Code Section 21001 et seq.). The division issues permits for hospital heliports and public-use airports. In addition, the Division of Aeronautics administers noise regulation and land use planning laws, which regulate the operational activities and provides for the integration of aviation planning on a regional basis.

## **LOCAL**

### **Riverside County Hazardous Waste Management Plan**

Developed pursuant to the Tanner Act (Assembly Bill 2948), the Riverside County Hazardous Waste Management Plan (HWMP) identifies current and projected future hazardous waste generation and management needs throughout the County. The HWMP provides a framework for the development of facilities to manage hazardous wastes, i.e. facility siting criteria. The HWMP also includes a Households Hazardous Waste Element that is designed to divert household hazardous wastes from the County's landfills (City of Temecula 2005a).

The County HWMP addresses only those hazardous waste issues with which local governments have responsibilities, namely land use decisions. The County and cities are required to implement facility siting policies and criteria within local planning and permitting processes (City of Temecula 2005a). The City is required to take one of three actions:

- ▶ Adopt a City Hazardous Waste Management Plan
- ▶ Incorporate by reference all applicable portions of the County Plan into its General Plan
- ▶ Enact an ordinance requiring all applicable land use permitting and decisions to be consistent with the siting criteria set forth in the County HWMP

The City has adopted by reference the applicable portions of the County HWMP (City of Temecula 2005a).

### **Riverside County Airport Land Use Compatibility Plan**

The Riverside County Airport Land Use Commission (ALUC) is responsible for reviewing projects near airports to make sure they are consistent with approved airport land use compatibility plans. To provide guidance for land use recommendations, an airport land use compatibility plan was developed to promote compatibility between air facilities and the land uses that surround them. The plan includes policies by which the ALUC operates and conducts compatibility reviews of proposed development actions; describes the overall context of airport land use compatibility planning in general and for airports in Riverside County in particular; and includes the procedures that the ALUC would follow in making compatibility determinations.

### **Riverside County Multi-Jurisdictional Local Hazard Mitigation Plan**

The Riverside County Multi-Jurisdictional Local Hazard Mitigation Plan (LHMP) identifies the County's hazards, reviews and assesses past disaster occurrences, estimates the probability of future occurrences and sets goals to mitigate potential risks to reduce or eliminate long-term risk to people and property from natural and man-made hazards (Riverside County 2018). The plan identifies vulnerabilities, provides recommendations for prioritized mitigation actions, evaluates resources, identifies mitigation shortcomings, and provides future mitigation planning and maintenance of the existing plan (Riverside County 2018).

### **City of Temecula Local Hazard Mitigation Plan Annex**

While the County of Riverside is responsible for adopting the 2017 Riverside County Operational Area Multi-Jurisdictional Local Hazard Mitigation Plan, the City of Temecula is responsible for adopting the annex to the County's plan – more specifically, the 2017 City of Temecula Local Hazard Mitigation Plan Annex (LHMP Annex) (City of

Temecula 2017). The purpose of the plan is to guide hazard mitigation planning to better protect the people and property of the County from the effects of hazard events, such as flood, drought, earthquake, and severe weather. This plan also ensures that Riverside County and participating jurisdictions, including the City, continue to be eligible for federal disaster assistance, including the Federal Emergency Management Agency's Hazard Mitigation Grant Program, Pre-Disaster Mitigation Program, and Flood Mitigation Assistance Program. The LHMP provides policies and programs for participating jurisdictions to implement that reduce the risk of hazards and protect public health, safety, and welfare.

### City of Temecula Municipal Code

**Section 17.40.130 General requirements—Airports and helipads:** All wireless telecommunication facilities and antennas located at or near any airport or helipad shall comply with the following measures:

- A. No telecommunication facility or antenna shall be installed within the safety zone of any airport or any helipad unless the airport land use commission indicates that it will not adversely affect the operation of the airport or helipad.
- B. No telecommunication facility or antenna shall be installed at a location where special painting or lighting will be required by the FAA regulations unless technical evidence acceptable to the planning director or planning commission, as appropriate, is submitted showing that this is the only technically feasible location for this facility.
- C. Where tower lighting is required, it shall be shielded or directed to the greatest extent possible in such a manner as to minimize the amount of light that falls onto nearby properties, particularly residences.

### City of Temecula General Plan

The following City of Temecula General Plan policies are applicable to the proposed project (City of Temecula 2005a):

- ▶ **Policy 2.1:** Minimize the risks associated with hazardous materials through careful land use planning and coordination with responsible federal, State, and County agencies.
- ▶ **Policy 2.3:** The policies and programs of the current Riverside County Hazardous Waste Management Plan (HWMP) are hereby adopted by reference.
- ▶ **Policy 4.1:** Provide for and maintain a coordinated emergency services response to reduce community risks and property damage in the event of a disaster.
- ▶ **Policy 4.5:** Regulate the location of critical facilities to ensure they continue to function after a disaster.
- ▶ **Policy 4.6:** Discourage the closure of streets that limit or delay access for emergency services.

### City of Temecula Emergency Operations Plan

The City of Temecula has prepared an emergency operations plan (EOP) to ensure the most effective allocation of resources for protection of people and property in time of an emergency. The EOP establishes the emergency organization, assigns tasks, specifies policies and general procedures, and provides for coordination of planning efforts of the various emergency staff and service elements utilizing Standardized Emergency Management System (SEMS) and, by extension, National Incident Management System (NIMS), which is currently being integrated into SEMS in California by the Governor's Executive Order S2-05 (City of Temecula 2019).

## 3.7.2 Environmental Setting

The project site comprises 35.31 acres of land that is currently being used for operation of Temecula Valley Hospital. Existing development on the site includes a five-story hospital tower, on-site driveways, and parking lots. However, the hospital currently uses the approved helipad site as an EMS landing site when necessary.

Because of the relatively recent development of Phase I which included entirely mass grading the project site in 2011, there is a low potential for presence of hazardous materials in the built environment (e.g., lead in paints and asbestos

insulation) or undocumented contamination from legacy infrastructure (e.g., older underground storage tanks) or past use (e.g., aerially deposited lead along highways associated with use of leaded gasoline).

### Documented Sites of Contamination

The project site is not on any of the lists of hazardous waste and substances site maintained by CalEPA pursuant to Government Code Section 65962.5. It is not on the Cortese List of hazardous waste and substance sites (DTSC 2022) or SWRCB's list of open, active leaking underground storage tank sites (SWRCB 2022).

The project site is not included on, or within one-mile of, a property included on the Superfund's National Priority List (EPA 2022). There are no sites of known contamination on or near the project site identified by either SWRCB or DTSC in their respective databases.

### Aboveground and Underground Storage Tanks

The SWRCB administers the petroleum above-ground storage tank (AST) program. The program covers facilities that store petroleum in a single tank, or multiple tanks with an aggregate capacity in excess of 1,320 gallons and requires that tank owners or operators file a storage statement, pay a facility fee, and prepare and implement a federal SPCC Plan. The SPCC Plan must include procedures, methods, and equipment in place at the facility to prevent discharges of petroleum from reaching navigable waters.

The RWQCB also administers the UST program. State laws governing USTs specify requirements for permitting, construction, installation, leak detection monitoring, repairs, release reporting requirements, corrective actions, cleanup, and closure. The Riverside County Environmental Health Department enforces applicable regulations, which include permitting and inspection requirements. The San Diego RWQCB is the local enforcement agency for leaking underground storage tanks.

There were three existing or former gasoline service stations within 1,000 feet of the project site with USTs that warranted investigation for soil or groundwater contamination. Due to leaks from these tanks, all have undergone regular groundwater monitoring since 2001. Chevron Service Station #204029 is located approximately 200 feet southeast, Shell Service Station is located approximately 840 feet east by southeast, and Arco Service Station #5695 is located approximately 240 feet east of the project site.

The project site was reviewed for impacts relating to methyl tertiary butyl ether (MTBE) from nearby gas station underground fuel storage tanks in the 2008 SEIR. The 2008 SEIR analyzed the extent and concentration of volatile organic compounds (VOCs) including MTBE in soil vapor and ground water at key locations of the site and significant environmental effects the project might cause by bringing development and people onto the project site. The 2008 SEIR assessed the likelihood of a significant human health risk in association with VOCs and MTBE due to the upward migration of soil vapors containing elevated concentrations of petroleum hydrocarbons as well as the possibility of the MTBE plume migrating towards the project site.

No detectable concentrations of the target analytes (VOCs or MTBE) were reported in soil vapor beneath the proposed site buildings footprints. Under existing conditions there is a less than significant risk of exposure to MTBE in soil vapor and thus a less than significant risk of related significant human health risk from soil vapor migration into the proposed buildings. As such, in the existing condition there is a low likelihood of exposure to benzene or MTBE resulting from soil vapor migration and flux and a very low likelihood of related significant human health risk.

### Schools

Children are particularly susceptible to long-term effects from emissions of hazardous materials. Therefore, locations where children spend extended periods, such as schools, are sensitive to hazardous air emissions and accidental release associated with the handling of extremely hazardous materials, substances, or wastes. This risk is considered substantial where the potential release is within one-quarter mile of the school. No existing or proposed schools are within one-quarter mile of the project site. The nearest school is the Rancho Christian School, located approximately 0.30 mile southwest of the site.

## Airports and Airstrips

There are no active public airports or private airstrips within 2 miles of the project site. The closest public use airport facility is the French Valley Airport, which is located approximately 6.6 miles northwest from the project site. The project site lies far outside of the French Valley Airport compatibility zones and airport influence area and is not within the planned traffic pattern of the proposed helipad relocation.

## Wildland Fire Hazards

Although all of California is subject to some degree of wildfire hazard, specific features make certain areas more hazardous. The California Department of Forestry and Fire Protection (CAL FIRE) is required by law to map areas of significant fire hazards based on fuels, terrain, weather, and other relevant factors (Public Resources Code Sections 4201–4204 and Government Code Sections 51175–51189). Factors that increase an area's susceptibility to fire hazards include slope, vegetation type and condition, and atmospheric conditions. When development spreads into less densely populated, often hilly areas, it increases the number of people living in areas that are prone to wildfire.

The project site is within a local responsibility area (i.e., an area under the jurisdiction of a local entity) that is mapped by CAL FIRE as a non-very high fire hazard severity zone (CAL FIRE 2009). The City of Temecula Fire Department is responsible for providing fire protection services to the project site.

## Evacuation Routes

Evacuation routes utilizing the City circulation system are described in the Public Safety Element of the City of Temecula General Plan. According to the General Plan, due to the unpredictability of the impact of a disaster on streets and highways, appropriate evacuation routes cannot be predetermined (City of Temecula 2005a). In general, all traffic will be channeled to the nearby freeways, State highways, and other major arterials. I-15 will serve as the primary north-south evacuation channel. Winchester and Rancho California Roads will be used for east-west evacuation. In the event of a natural or human-caused disaster requiring evacuation, the public will be alerted and given evacuation instructions by various means, including school alert/monitor receivers, radio and television announcements, sirens, mobile loudspeakers, and personal contact (City of Temecula 2005a). The project site is located approximately 1.8 miles east of I-15, approximately 4.2 miles southeast of Winchester Road and approximately 3.2 miles southeast of California Road.

## 3.7.3 Environmental Impacts and Mitigation Measures

### METHODOLOGY

The following evaluation is based on a review of documents and publicly available information about hazardous and potentially hazardous conditions on the project site and in the project area to determine the potential for proposed project implementation to result in an increased health or safety hazard to people or the environment. The references consulted include City and county planning documents, SWRCB, San Diego RWQCB and DTSC hazardous materials database information, and the prior CEQA documents prepared for the project. Physical surveys of the project site were not conducted as part of preparation of this Draft SEIR.

Proposed project construction and operation were evaluated against the hazardous materials information gathered from these sources to determine whether any risks to public health and safety or other conflicts would occur.

### THRESHOLDS OF SIGNIFICANCE

A hazards and hazardous materials impact would be significant if implementation of the proposed project would:

- ▶ create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;

- ▶ create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment;
- ▶ emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- ▶ be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment;
- ▶ for a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area;
- ▶ impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or
- ▶ expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.

## ISSUES NOT DISCUSSED FURTHER

### **Emission or Handling of Hazardous Materials, Substances, or Wastes within One-Quarter Mile of an Existing or Proposed School**

There are no existing or proposed schools within one-quarter mile of the project site. The Rancho Christian School is located approximately 0.3 mile southwest of the project site. The proposed project involves expanding the hospital emergency department and constructing a behavioral health building, two additional hospital towers, two medical office buildings, a utility plant, surface parking lots, and a four-story parking structure. It is not anticipated to emit substantial emissions, materials, or wastes that would create a significant impact. The potential for hazardous materials to be handled during construction of the proposed modifications would be limited, and all work would be conducted in accordance with established regulations. Because there are no existing or proposed schools within one-quarter mile of the project site, there would be no impact on existing or proposed schools associated with the handling or emission of hazardous materials during construction or operation of the project. Therefore, this impact is not discussed further in this Draft SEIR.

### **Safety Hazard or Excessive Noise Related to Proximity to an Airport**

The nearest airport is the French Valley Airport located at 37600 Sky Canyon Drive in the City of Murrieta, which is approximately 6.4 miles northwest of the project site. The French Valley Airport is one of 16 airports in Riverside County governed by the Riverside County ALUC (City of Temecula 2005b). Figure LU-2 of the City of Temecula General Plan identifies the French Valley Airport Land Use Compatibility Zone, as adopted by the ALUC in 2004. According to Figure LU-2, the project site is not located within an airport land use plan or within two miles of a public airport. Since the project site is not 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, no impact would occur. This impact is not discussed further in this Draft SEIR.

For additional discussion of the potential noise generated by helicopter operations associated with operation of the project, refer to Section 3.10, "Noise and Vibration."

### **Loss, Injury, or Death from Wildland Fire**

The project site is within a local response area where fire protection is provided by the City of Temecula Fire Department. The project site is not located in an area that has a significant amount of vegetation. The project site was entirely mass graded in 2011 and is characterized by flat topography. CAL FIRE has designated the area as a non-very high fire hazard severity zone, which is defined as an area not prone to intense, damaging wildfires (CAL FIRE 2009). New construction is subject to the CFC, which includes safety measures to minimize the threat of fire. Title 24 of the CCR sets forth the minimum development standards for emergency access, fuel modification, setback, signage, and

water supply, which help prevent damage to structures or people by reducing wildfire hazards. Construction and operation of the project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires. Therefore, this impact is not discussed further.

## ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

### Impact 3.7-1: Create a Significant Hazard to the Public or the Environment through the Routine Transport, Use, or Disposal of Hazardous Materials

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Project construction and operation would require the routine use of hazardous materials. Federal, State, and local regulations in place provide protection to the public and the environment from hazardous materials. Compliance with these regulations will assure that the proposed project will not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. This impact would be **less than significant**.

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The proposed project, an update to the Temecula Valley Hospital Master Plan, consists of revisions to the currently approved Temecula Valley Hospital project. Phase I development of the hospital was completed in 2011, and the hospital was opened in 2013. Implementing the proposed project would result in revisions to the remaining phases of hospital development to address anticipated growth in the region. Specifically, the project involves expanding the emergency department and constructing a behavioral health building, two additional hospital towers, two medical office buildings, a utility plant, surface parking lots, and a four-story parking structure. In addition, the helipad would be relocated from its interim location on the project site to the roof of the proposed parking structure. The hospital building and other buildings constructed during Phase I would be maintained in place.

Common hazardous materials used in construction of the proposed project would include fuels, solvents, caulking, tar, concrete curing compounds, asphalt products, paints, asbestos-containing building materials, architectural coatings, light bulbs, mercury switches, and batteries. Construction-related activities, such as pumping, pouring, emptying, injecting, spilling, and dumping, may also release hazardous materials into the environment. The severity of potential effects varies with the activity conducted and with the concentration and type of hazardous material present. Generally, incidents involving construction-related hazardous materials are small fuel or oil spills that would have a negligible impact on public health. All hazardous materials would be stored, handled, and disposed of according to the manufacturers' recommendations, and spills would be cleaned up in accordance with the Hazardous Waste Control Act (HSC Section 25100 et seq.), CCR Title 24

Further, the project would be required to prepare a spill prevention and treatment plan for rapidly, effectively, and safely cleaning up and disposing of any spills or releases that may occur during construction. As required under State and federal law, notification and evacuation procedures for site workers and local residents in the event of a hazardous materials release during on-site construction would be included as part of the plan. In addition, SWRCB Construction General Permit (2009-0009 DWQ as amended by 2010-0014-DWQ and 2012-0006-DWQ) requires spill prevention and containment plans to avoid spills and releases of hazardous materials and wastes into the environment. The permit conditions require that inspections would be conducted by a qualified SWPPP developer or qualified SWPPP practitioner, or by the project applicant, to verify consistent implementation of general construction permit conditions and the BMPs intended to avoid and minimize the potential for spills and releases and to ensure a response to them, including their immediate cleanup. BMPs include, for example, the designation of special storage areas and labeling, containment berms, coverage from rain, and concrete washout areas. Compliance with the Construction General Permit (2009-0009 DWQ as amended by 2010-0014-DWQ and 2012-0006-DWQ) would minimize the potential risk of a spill or accidental release of hazardous materials during construction.

Operation of the proposed development would produce medical waste and thus require the routine use of hazardous materials. These materials generally consist of, but are not limited to, acids, bases, flammable liquids, organic and inorganic reagents, stains and dyes, compressed gases, and pharmaceuticals. Many of the hospital's diagnostic laboratory procedures would involve the use of small quantities of chemicals. The operation of businesses that use, create, or dispose of hazardous materials is regulated and monitored by federal, State, and local regulations that

provide protection to the public and the environment from hazardous materials. CalEPA oversees the regulation and management of hazardous materials on a Statewide level through DTSC. Use of hazardous materials requires permits and monitoring through the local CUPA to avoid hazardous waste release. RCRA, Title 22 of the CCR, and the Hazardous Waste Control Act regulate the generation, transport, treatment, storage, and disposal of hazardous waste. These laws impose regulatory systems for handling hazardous waste in a manner that protects human health and the environment, including requirements for the classification of materials, packaging, and hazard communication.

Trucks transporting hazardous materials use many of the same freeways, arterials, and local streets as other traffic, which creates a risk of accidents and associated release of hazardous materials for other drivers and for people along these routes. Although the transport of hazardous materials during both project construction and operation may result in accidental spills, leaks, toxic releases, fire, or explosion, the DOT Office of Hazardous Materials Safety prescribes regulations for the safe transportation of hazardous materials, as described in Title 49 of the CFR, that specify packaging and labeling requirements for hazardous materials. The standard accident and hazardous materials recovery training and procedures are enforced by the State and followed by private State-licensed, -certified, and -bonded transportation companies and contractors. The proposed project is subject to local, State, and federal regulations, the intent of which is to minimize risks to human health and the environment. The proposed project will not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. This impact would be **less than significant**.

### Mitigation Measures

No mitigation is required for this impact.

### Impact 3.7-2: Create a Significant Hazard to the Public or the Environment through Reasonably Foreseeable Upset and/or Accident Conditions Involving the Release of Hazardous Materials into the Environment

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The proposed project could create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment and result in a potentially significant impact. The project site was reviewed for impact relating to Methyl Tertiary Butyl Ether (MTBE) from nearby gas station underground fuel storage tanks in the 2008 SEIR, and no detectable concentrations of MTBE or Volatile Organic Compounds (VOCs) were found at the project site. However, although unlikely, it is possible that contaminated soil could be at further distances below ground surface. Encountering contaminated soil, surface water, and groundwater without taking proper precautions during ground-disturbing project construction activities could result in the exposure of construction workers and consequently result in associated potentially significant adverse human health and environmental impacts. This impact would be **potentially significant**.

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As stated in Section 3.7.2, "Environmental Setting," the project site is not identified as a hazardous materials site on any list maintained by the California Environmental Protection Agency pursuant to Government Code Section 65962.5. Because of the prior mass grading of the project site and existing development of the current uses on the site, it is unlikely that undocumented hazards, such as spills of potentially hazardous materials that have not been reported, are present. Nevertheless, the disturbance of undocumented hazardous wastes during remedial grading or excavation activities may result in hazards to the environment and human health. Potential hazards to human health include ignition of flammable liquids or vapors, inhalation of toxic vapors in confined spaces, such as trenches, and skin contact with contaminated soil or water. If hazardous materials are discovered through the construction process, existing regulations provide prescriptive requirements for ceasing work, notifying appropriate government agencies, and providing remediation if necessary. Federal and State laws require that soils and groundwater having concentrations of contaminants such as lead, gasoline, or industrial solvents that are higher than certain acceptable levels are handled and disposed of as hazardous waste during excavation, transportation, and disposal. Title 22 of the CCR, Sections 66261.20–66261.24, contains technical descriptions of characteristics that would cause soil to be classified as a hazardous waste. Additionally, although many hazardous construction materials remaining after project construction can likely be reused on other projects, those materials that cannot be (or are not) reused would require

disposal. Hazardous waste generated during construction may consist of welding materials, fuel and lubricant containers, paint and solvent containers, and cement products containing strong basic or acidic chemicals.

As discussed under Impact 3.7-1, construction of the proposed project would involve the temporary use of hazardous substances in the form of paint, adhesives, surface coatings and other finishing materials, and cleaning agents, fuels, and oils. The use of these materials during construction would occur over three different phases during the span of more than a decade and in accordance with standard construction practices and applicable federal, State, and local regulations. All materials would be used, stored, and disposed of in accordance with applicable laws and regulations and manufacturers' instructions. Any emissions from the use of such materials would be minimal and localized to the project site. Major excavation and grading during construction is not anticipated since the project site has been previously mass graded and partially developed. However, the proposed project would require approximately 36,000 cubic yards of remedial grading. Although construction of the proposed project is not anticipated to encounter on-site subsurface hazardous materials, these materials are required to be handled in accordance with applicable regulations and would likely be localized to the project site.

As described in Section 3.7.2, "Environmental Setting," the project site is within 1,000 ft of three service stations which have all undergone regular groundwater monitoring since 2001. The project site was reviewed for impact relating to Methyl Tertiary Butyl Ether (MTBE) from nearby gas station underground fuel storage tanks in the 2008 SEIR. The 2008 SEIR analyzed the extent and concentration of volatile organic compounds (VOCs) including MTBE in soil vapor and ground water at key locations of the site and significant environmental effects the project might cause by bringing development and people onto the project site. The 2008 SEIR assessed the likelihood of a significant human health risk in association with VOCs and MTBE due to the upward migration of soil vapors containing elevated concentrations of petroleum hydrocarbons as well as the possibility of the MTBE plume migrating towards project site.

Consequently, no detectable concentrations of the target analytes (VOCs or MTBE) were reported in soil vapor beneath the proposed site buildings footprints. Under existing conditions there is a less than significant risk of exposure to MTBE in soil vapor and thus a less than significant risk of related significant human health risk from soil vapor migration into the proposed buildings. As such, it has been concluded that there is a low likelihood of exposure to benzene or MTBE resulting from soil vapor migration and flux and a very low likelihood of related significant human health risk.

However, it is possible (but unlikely) that contaminated soil could be at further distances below ground surface. Encountering contaminated soil, surface water, and groundwater without taking proper precautions during project construction could result in the exposure of construction workers and consequently result in associated significant adverse human health and environmental impacts. Petroleum hydrocarbons did appear to be historically present in subsurface soils in the area of the off-site USTs; however, considering lack of any evidence of contaminated soil on the project site based on prior investigations, the potential for contamination is likely to be localized around the off-site USTs, and is unlikely to be present at the project site, as evident by groundwater samples with no detectable concentrations of gasoline or its constituent components.

The construction activities of the proposed project would not include major excavation and grading because the project site has been previously mass graded and partially developed. However, the proposed project would require approximately 36,000 cubic yards of remedial grading. Disturbance of the project site's soil could expose construction workers or the public to adverse health conditions due to the presence of hazardous materials such as gasoline constituents including MTBE and other VOCs. However, the potential for encountering these contaminants during construction ground disturbance activities on the project site is considered unlikely as described by the 2008 SEIR.

Furthermore, there has been no new information or change in circumstances identified during the preparation of this Draft SEIR that would indicate the potential for encountering contaminated soil or groundwater has increased since certification of the 2008 SEIR. The mitigation measures contained in the previously certified 2008 SEIR and mitigation monitoring program adopted by the City in 2008 remain applicable to the proposed project and will be implemented.

Although no detectable concentrations of MTBE or VOCs have been identified on the project site in the past, it is possible but unlikely that such contamination could be encountered during future ground-disturbing construction

activities. Contact with MTBE or VOC concentrations can be associated with adverse impacts to human health or the environment. This impact would be **potentially significant**.

## Mitigation Measures

### Mitigation Measure 3.7-1 Monitoring and Disposal of Any Contaminated Soils

Where proposed project construction includes any grading, grubbing, trenching, excavation, or earth-moving activities in previously undisturbed areas, or any ground disturbance that extends deeper than the mass grading completed in 2011 or has potential to encounter native soil, construction personnel shall conduct monitoring of these activities for the potential presence of MTBE or VOCs (e.g., where stained or odiferous soils are encountered). Soils determined to have detectable levels of MTBE or VOCs, if any, shall be segregated, stockpiled on-site in accordance with applicable regulations, and sampled prior to disposal at an appropriate facility, in accordance with the requirements of the respective disposal facility. All contaminated soils shall be disposed of off-site in accordance with applicable local, State, and federal laws regulating the transport and disposal of hazardous and non-hazardous materials. These materials shall be transported to a permitted disposal facility by a licensed waste hauler. Any soils with detectable levels of MTBE- or other VOC-impacted soil shall be removed, handled, and properly disposed of by appropriately licensed and qualified individuals in accordance with applicable regulations.

Prior to the issuance of any encroachment permit, the project applicant shall provide documentation (for example, all required waste manifests) to the City of Temecula showing that abatement of any soils with detectable levels of MTBE- or other VOCs- has been completed in full compliance with all applicable regulations and approved by the appropriate regulatory agencies (40 CFR, Subchapter R, TSCA, Parts 790, 792, 797, 798, and 799 and CCR Title 8, Article 2.6).

#### Significance after Mitigation

Implementation of Mitigation Measure 3.7-1 would require the proper removal, handling, and disposal of any soils contaminated with detectable levels of MTBE or VOCs encountered at the project site during ground-disturbing construction activities, thus preventing a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment. Therefore, the impact would be **less than significant with mitigation**.

### Impact 3.7-3: Be Located on a Site Which is Included on a List of Hazardous Materials Sites Compiled Pursuant to Government Code Section 65962.5 and, as a Result, would it Create a Significant Hazard to the Public or the Environment

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The project is not located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, thus, would not create a significant hazard to the public or the environment. This impact would be **less than significant**.

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As referenced in Section 3.7.2, "Environmental Setting," the project site is not on any of the lists of hazardous waste and substances site maintained by CalEPA pursuant to Government Code Section 65962.5. It is not currently on the Cortese List of hazardous waste and substance sites (DTSC 2022) or SWRCB's list of open, active leaking underground storage tank sites (SWRCB 2022). The project site is not included on, or within one-mile of, a property included on the Superfund's National Priority List (EPA 2022). There are no active sites of known contamination on or near the project site identified by either SWRCB or DTSC in their respective databases. Because the project is not located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, this impact would be **less than significant**.

As discussed in Impact 3.7-2, the project site was reviewed for impact relating to MTBE from nearby gas station underground fuel storage tanks in the 2008 SEIR, and no detectable concentrations of MTBE or VOCs were found at the project site. See Impact 3.7-2 for analysis of potential impacts related to the possible but unlikely presence of MTBE or VOC contamination at the project site.

## Mitigation Measures

No mitigation is required for this impact.

### Impact 3.7-4: Impair Implementation of or Physically Interfere with an Adopted Emergency Response Plan or Emergency Evacuation Plan

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The proposed project would not impair the implementation of adopted emergency response or evacuation plans, and it would not physically interfere with evacuation routes as identified in the General Plan. Furthermore, there would be no temporary road closures during construction that would physically interfere with an adopted emergency response or evacuation plan. This impact would be **less than significant**.

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The City of Temecula participates in the City of Temecula Local Hazard Mitigation Plan Annex (to the Riverside County Operational Area Multi-Jurisdictional Local Hazard Mitigation Plan). The purpose of the plan is to guide hazard mitigation planning to better protect the people and property of the county from the effects of hazard events. The Temecula LHMP Annex includes policies and programs for participating jurisdictions to implement that reduce the risk of hazards and protect public health, safety, and welfare. The City's EOP provides a strategy for the City to coordinate and conduct emergency response. The intent of the EOP is to provide direction on how to respond to an emergency from the initial onset, through an extended response, and into the recovery process.

Evacuation routes utilizing the City circulation system are described in the Public Safety Element of the City of Temecula General Plan. According to the General Plan, due to the unpredictability of the impact of a disaster on streets and highways, appropriate evacuation routes cannot be predetermined (City of Temecula 2005a). In general, all traffic will be channeled to the nearby freeways, State highways, and other major arterials. I-15 will serve as the primary north-south evacuation channel. Winchester and Rancho California Roads will be used for east-west evacuation. In the event of a natural or human-caused disaster requiring evacuation, the public will be alerted and given evacuation instructions by various means, including school alert/monitor receivers, radio and television announcements, sirens, mobile loudspeakers, and personal contact (City of Temecula 2005a). The project site is located approximately 1.8 miles east of I-15, approximately 4.2 miles southeast of Winchester Road and approximately 3.2 miles southeast of California Road. Therefore, access to these evacuation roads would not be affected with development of the proposed project.

The project site and surrounding area are in an area where adequate circulation and access is provided to facilitate emergency response. A backbone circulation system and access driveways were previously developed on the project site and would remain unchanged. Primary site access is currently provided from Temecula Parkway, at the intersection of County Glen Way. The site can also be accessed from the north via De Portola Road. Internal circulation throughout the project site serves as fire lanes for the City of Temecula Fire Department.

During Phase II, the internal, on-site circulation system would be extended in the western portion of the project site, with new roadways that connect to Dona Lynora. Driveway and building configurations would comply with applicable fire access and code requirements for emergency evacuation. As part of project approval, the Temecula Fire Department would be required to review and approve fire flow, fire lanes, and fire suppression systems associated with the proposed project.

Construction activities related to project development would be confined to the project site and would be subject to emergency access standards and requirements of the Temecula Fire Department to ensure traffic safety. No permanent or temporary road closures are anticipated during project construction. As such, development of the proposed project would not impair or physically interfere with an adopted emergency response plan or emergency evacuation plan. This impact would be **less than significant**.

## Mitigation Measures

No mitigation is required for this impact.

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## 3.8 HYDROLOGY AND WATER QUALITY

This section identifies the regulatory context and policies related to hydrology and water quality, describes the existing hydrologic conditions at the project site, and evaluates potential hydrology and receiving water-quality impacts of the proposed project. Information in the Preliminary Water Quality Management Plan for the proposed project was utilized to prepare this section (Draft SEIR Appendix E). The potential for soil and groundwater contamination on the project site is addressed in Section 3.7, "Hazards and Hazardous Materials." Potential effects related to water-supply, sewer/wastewater, and drainage/stormwater facilities are addressed in Section 3.13, "Utilities and Service Systems."

No comments related to hydrology and water quality were submitted in response to the notice of preparation.

### 3.8.1 Regulatory Setting

#### FEDERAL

##### Clean Water Act

The U.S. Environmental Protection Agency (EPA) is the lead federal agency responsible for water quality management. The Clean Water Act (CWA) is the primary federal law that governs and authorizes water quality control activities by EPA as well as the States. Various elements of the CWA address water quality. These are discussed below.

##### CWA Water Quality Criteria/Standards

Pursuant to federal law, EPA has published water quality regulations under Title 40 of the Code of Federal Regulations (CFR). Section 303 of the CWA requires States to adopt water quality standards for all surface waters of the United States. As defined by the act, water quality standards consist of designated beneficial uses of the water body in question and criteria that protect the designated uses. Section 304(a) requires EPA to publish advisory water quality criteria that accurately reflect the latest scientific knowledge on the kind and extent of all effects on health and welfare that may be expected from the presence of pollutants in water. Where multiple uses exist, water quality standards must protect the most sensitive use. As described in the discussion of State regulations below, the State Water Resources Control Board (SWRCB) and its nine regional water quality control boards (RWQCBs) have designated authority in California to identify beneficial uses and adopt applicable water quality objectives.

##### CWA Section 303(d) Impaired Waters List

Under Section 303(d) of the CWA, States are required to develop lists of water bodies that do not attain water quality objectives after implementation of required levels of treatment by point source dischargers (municipalities and industries). Section 303(d) requires that the State develop a total maximum daily load (TMDL) for each of the listed pollutants. The TMDL is the amount of the pollutant that the water body can receive and still comply with water quality objectives. The TMDL is also a plan to reduce loading of a specific pollutant from various sources to achieve compliance with water quality objectives. In California, implementation of TMDLs is achieved through water quality control plans, known as Basin Plans, of the State RWQCBs. See "State Plans, Policies, Regulations, and Laws," below.

##### National Pollutant Discharge Elimination System

The National Pollutant Discharge Elimination System (NPDES) permit program was established in the CWA to regulate municipal and industrial discharges to surface waters of the United States. NPDES permit regulations have been established for broad categories of discharges including point source waste discharges and nonpoint source stormwater runoff. Each NPDES permit identifies limits on allowable concentrations and mass emissions of pollutants contained in the discharge. Sections 401 and 402 of the CWA contain general requirements regarding NPDES permits.

“Nonpoint source” pollution originates over a wide area rather than from a definable point. Nonpoint source pollution often enters receiving water in the form of surface runoff and is not conveyed by way of pipelines or discrete conveyances. Two types of nonpoint source discharges are controlled by the NPDES program: discharges caused by general construction activities and the general quality of stormwater in municipal stormwater systems. The goal of the NPDES nonpoint source regulations is to improve the quality of stormwater discharged to receiving waters to the maximum extent practicable. The RWQCBs in California are responsible for implementing the NPDES permit system (see the discussion of “State Plans, Policies, Regulations, and Laws” section below).

### **National Flood Insurance Act**

The Federal Emergency Management Agency (FEMA) is tasked with responding to, planning for, recovering from and mitigating against disasters. The Federal Insurance and Mitigation Administration within FEMA is responsible for administering the National Flood Insurance Program (NFIP) and administering programs that aid with mitigating future damages from natural hazards.

FEMA prepares Flood Insurance Rate Maps (FIRMs) that delineate the regulatory floodplain to assist local governments with the land use planning and floodplain management decisions needed to meet the requirements of NFIP. Floodplains are divided into flood hazard areas, which are areas designated per their potential for flooding, as delineated on FIRMs. Special Flood Hazard Areas are the areas identified as having a one percent chance of flooding in each year (otherwise known as the 100-year flood). In general, the NFIP mandates that development is not to proceed within the regulatory 100-year floodplain, if the development is expected to increase flood elevation by one foot or more.

## **STATE**

### **California Porter-Cologne Act**

California’s primary statute governing water quality and water pollution issues with respect to both surface waters and groundwater is the Porter-Cologne Water Quality Control Act of 1970 (Porter-Cologne Act). The Porter-Cologne Act grants the State Water Board and each of the nine RWQCBs power to protect water quality, and is the primary vehicle for implementation of California’s responsibilities under the Clean Water Act. The applicable RWQCB for the proposed project is the San Diego RWQCB. The State Water Board and the San Diego RWQCB have the authority and responsibility to adopt plans and policies, regulate discharges to surface and groundwater, regulate waste disposal sites, and require cleanup of discharges of hazardous materials and other pollutants. The Porter-Cologne Act also establishes reporting requirements for unintended discharges of any hazardous substances, sewage, or oil or petroleum products.

Under the Porter-Cologne Act, each RWQCB must formulate and adopt a water quality control plan (known as a “Basin Plan”) for its region. The Basin Plan for the San Diego Region includes a comprehensive list of waterbodies within the region and detailed language about the components of applicable Water Quality Objectives (WQOs).

Specifically, the San Diego Basin Plan:

- ▶ designates beneficial uses for surface and ground waters;
- ▶ sets narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to the State’s antidegradation policy;
- ▶ describes implementation programs to protect the beneficial uses of all waters in the Region; and
- ▶ describes surveillance and monitoring activities to evaluate the effectiveness of the Basin Plan [California Water Code sections 13240 thru 13244, and section 13050(j)].
- ▶ Additionally, the Basin Plan incorporates by reference all applicable State and Regional Board plans and policies.

The San Diego RWQCB also administers the adoption of waste discharge requirements, manages groundwater quality, and adopts projects within its boundaries under the NPDES Construction General Permit (2009-0009-DWQ, as amended by 2010-0014-DWQ and 2012-0006-DWQ).

### **NPDES Construction General Permit for Stormwater Discharges Associated with Construction Activity**

The State Water Board adopted the Statewide NPDES General Permit in August 1999. The State requires that projects disturbing more than one acre of land during construction file a Notice of Intent with the RWQCB to be covered under this permit. Construction activities subject to the General Permit include clearing, grading, stockpiling, and excavation. Dischargers are required to eliminate or reduce non stormwater discharges to storm sewer systems and other waters. A stormwater pollution prevention plan (SWPPP) must be developed and implemented for each site covered by the permit. The SWPPP must include best management plans (BMPs) designed to prevent construction pollutants from contacting stormwater and keep products of erosion from moving off-site into receiving waters throughout the construction and life of the project; the BMPs must address source control and, if necessary, pollutant control.

### **NPDES Stormwater Permit for Discharges from Small Municipal Separate Storm Sewer Systems**

The Municipal Stormwater Permitting Program regulates stormwater discharges from municipal separate storm sewer systems (MS4s). Stormwater is runoff from rain or snow melt that runs off surfaces such as rooftops, paved streets, highways or parking lots and can carry with it pollutants such as oil, pesticides, herbicides, sediment, trash, bacteria and metals. The runoff can then drain directly into a local stream, lake or bay. Often, the runoff drains into storm drains which eventually drain untreated into a local waterbody.

The MS4 Permit requires the City of Temecula to designate temporary and permanent pollution prevention, source-control, and treatment-control best management practices (BMPs) on all new developments. All new development projects, such as the proposed project, would be subject to the Water Quality Management Plan (WQMP) requirements. WQMP requirements consist of structural source control and treatment control BMPs to be maintained by facility owners for as long as facilities are in operation. The WQMP requires the designation of responsible parties (i.e., property owners, developers, and business operators) for installing and implementing the required BMPs, as well as establishing a funding source for the maintenance of all structural BMPs.

### **California Water Code**

The California Water Code is enforced by the California Department of Water Resources (DWR). The mission of DWR is "to manage the water resources of California in cooperation with other agencies, to benefit the State's people, and to protect, restore, and enhance the natural and human environments." DWR is responsible for promoting California's general welfare by ensuring beneficial water use and development Statewide.

### **Groundwater Management**

Groundwater Management is outlined in the California Water Code, Division 6, Part 2.75, Chapters 1-5, Sections 10750 through 10755.4. The Groundwater Management Act was first introduced in 1992 as Assembly Bill (AB) 3030, and has since been modified by Senate Bill (SB) 1938 in 2002, AB 359 in 2011, and the Sustainable Groundwater Management Act (SB 1168, SB 1319, and AB 1739) in 2014. The intent of the Acts is to encourage local agencies to work cooperatively to manage groundwater resources within their jurisdictions and to provide a methodology for developing a Groundwater Management Plan.

The Sustainable Groundwater Management Act of 2014 (SGMA) became law on January 1, 2015, and applies to all groundwater basins in the State (Water Code Section 10720.3). By enacting the SGMA, the legislature intended to provide local agencies with the authority and the technical and financial assistance necessary to sustainably manage groundwater within their jurisdiction (Water Code Section 10720.1).

Pursuant to the SGMA, any local agency that has water supply, water management or land use responsibilities within a groundwater basin may elect to be a "groundwater sustainability agency" for that basin (Water Code Section 10723). The Temecula Valley Groundwater Basin is adjudicated and is exempt from SGMA. However, a Court-appointed Watermaster for the Santa Margarita Watershed provides oversight and administration of water rights

within the Santa Margarita River Watershed, which includes the Temecula Valley Groundwater Basin (RCWD 2021). The Watermaster prepares the "Santa Margarita Watershed Annual Watermaster Report" (Annual Watermaster Report), providing annual reporting of water conditions in the watershed, but does not manage groundwater basins. The Annual Watermaster Report, prepared pursuant to the U.S. District Court Order, March 13, 1989, includes information on surface and subsurface water, imports and exports, water rights, water production and use, threats to water supply, water quality, review of agreements, and a Watermaster 5-year projection of activities (RCWD 2021). The Court has retained jurisdiction over all surface flows of the Santa Margarita River Watershed and all underground waters determined by the Court to be subsurface flow of streams or creeks or which is determined by the Court to add to, support, or contribute to the Santa Margarita River stream system. Local vagrant groundwaters that do not support the Santa Margarita River stream system are outside the Court jurisdiction (RCWD 2021).

## LOCAL

### Rancho California Water District

The Rancho California Water District (RCWD) provides water and reclamation services to the City of Temecula, portions of the City of Murrieta, and unincorporated areas of Riverside County. The mission of the RCWD is to deliver reliable, high quality water and reclamation services to its customers and communities in a prudent and sustainable manner.

The RCWD currently obtains its water supplies from the following primary water sources:

- 1) Local groundwater from the Temecula Valley Groundwater Basin;
- 2) Imported State Water Project (SWP) and Colorado River water from the Metropolitan Water District of Southern California (MWDSC) via Eastern Municipal Water District (EMWD) and Western Municipal Water District (WMWD); and
- 3) Recycled water from both the RCWD and EMWD.

The RCWD receives its imported water (treated and untreated) directly through six MWDSC water turnouts. The RCWD pumps groundwater from 48 district wells, and owns and operates 43 storage reservoirs and 1 surface reservoir, Vail Lake. Historically, groundwater has supplied between 25 percent to 40 percent of the RCWD's total water supply, and imported water has supplied between 60 percent to 70 percent. In 2020, recycled water comprised approximately 7 percent of the RCWD's water supply portfolio (RCWD 2021).

### Rancho California Water District Urban Water Management Plan

The State of California mandates that all urban water suppliers within the State prepare an Urban Water Management Plan (UWMP, Plan). Detailed information on what must be included in the Plan as well as who must complete them can be found in California Water Code Sections 10610 through 10657.

Rancho Water's 2020 Urban Water Management Plan (UWMP) has been prepared in compliance with Sections 10610 through 10656 of the Urban Water Management Planning Act (Act), which were added by Statute 1983, Chapter 1009, and became effective on January 1, 1984 (RCWD 2021). The Act, as amended, requires development of an UWMP every 5 years. The UWMP is intended to serve as a general, flexible, and open-ended document that periodically can be updated to reflect changes in the regional water supply trends, and conservation and water use efficiency policies (RCWD 2021). The 2020 UWMP replaced the 2015 UWMP prepared by RCWD, and incorporates changes enacted by legislation since that time.

### City of Temecula Stormwater Ordinance

The City adopted the Stormwater and Urban Runoff Management and Discharge Controls Ordinance (TMC Title 8.28) with the purpose and intent of protecting the water quality of City watercourses, water bodies, groundwater, and wetlands in a manner pursuant to and consistent with the federal CWA to ensure the future health, safety, and general welfare of residents of the City by:

- ▶ Regulating non-stormwater urban runoff to the storm drain system;
- ▶ Reducing pollutants in stormwater to the maximum extent practicable;

- ▶ Establishing requirements for development projects for permanent water quality control measures;
- ▶ Establishing requirements to reduce pollutant discharges from construction sites;
- ▶ Establishing requirements to reduce pollutants in runoff from existing development; and
- ▶ Prohibiting illicit connections and illegal discharges to the storm drain system.

New development and modifications to existing development are required to be designed to control pollutants in stormwater and urban runoff so as to prevent any deterioration of water quality that would impair subsequent or competing uses of the receiving waters. The City Engineer approves the BMPs that would be implemented to prevent deterioration and approves the manner of implementation. The ordinance requires a WQMP for all new development projects that meet the specified categories listed in the City of Temecula MS4 Permit and modifications to existing development projects as defined in the MS4 Permit.

### **Santa Margarita River Watershed Management Area Water Quality Improvement Plan**

The City of Temecula is located entirely within the Santa Margarita River Watershed Management Area. The purpose of this Water Quality Improvement Plan (WQIP) is to guide the development and implementation of jurisdictional runoff management programs towards achieving the outcome of improved water quality in MS4 (Municipal Separate Storm Sewer System) discharges and receiving waters within the Santa Margarita River Watershed Management Area. The WQIP has been collaboratively developed to identify specific water quality priorities, establish numeric water quality goals and objectives, the schedules by which they would be achieved, and the implementation strategies to achieve them.

### **City of Temecula Jurisdictional Runoff Management Program**

The City's Jurisdictional Runoff Management Program (JRMP) serves as the City's foundational program management tool developed to present an integrated programmatic approach to reducing the discharge of pollutants from the MS4 to the maximum extent practicable standard, and to protect and improve the quality of water bodies in Temecula. The JRMP describes operational programs and activities developed to meet the requirements of Regional MS4 Permit and serves as the implementation mechanism for WQIP jurisdictional strategies. The JRMP has been developed in light of the water quality priorities and goals identified in the Santa Margarita River Watershed Management Area WQIP. The water quality improvement strategies selected for implementation in the WQIP have been incorporated into the City's JRMP. The JRMP document describes minimum program implementation standards in compliance with the Regional MS4 Permit and integrates the priorities and actuates the strategies defined by the WQIP (City of Temecula 2018).

### **City of Temecula General Plan**

The City of Temecula General Plan Public Safety and Open Space and Conservation Elements (City of Temecula 2005a, 2005b) contains the following policies related to hydrology and water quality:

- ▶ **Policy PS-1.6:** Provide and maintain adequate flood control facilities and limit development within the 100-year floodplain and potential dam inundation areas.
- ▶ **Policy PS-1.7:** Prohibit development of any kind within the floodway portion of the 100-year floodplain.
- ▶ **Policy OS-2.1:** Coordinate with the Riverside County Flood Control District to design flood control improvements that preserve, to the maximum extent feasible, important natural features and resources of the local creeks and riparian forest of the Santa Margarita River.
- ▶ **Policy OS-2.2:** Identify and protect groundwater resources from depletion and sources of pollution in cooperation with the Rancho California Water District and the San Diego Water Quality Control Board.
- ▶ **Policy OS-2.3:** Conserve potable water by requiring water conservation techniques in all new development.
- ▶ **Policy OS-2.7:** Ensure that approved projects have filed a Notice of Intent and Stormwater Pollution Prevention Plan in accordance with the Federal Clean Water Act, prior to issuance of grading permits.

- ▶ **Policy OS-2.9:** Participate in regional planning for the Santa Margarita River Watershed in conjunction with federal, State, regional and local agencies, and nonprofit organizations.
- ▶ **Policy OS-2.10:** Participate in water resource management planning to facilitate the long-term availability of water resources for western Riverside County.
- ▶ **Policy OS-2.11:** Participate in outreach educational programs to educate the public about water conservation methods, new technologies and drought resistant landscapes.
- ▶ **Policy OS-2.12:** Work with appropriate agencies to encourage ground water recharge facilities along flood control channels and creeks.
- ▶ **Policy OS-3.7:** Maintain and enhance the resources of Temecula Creek, Pechanga Creek, Murrieta Creek, Santa Gertrudis Creek, Santa Margarita River, and other waterways to ensure the long-term viability of the habitat, wildlife, and wildlife movement corridors.
- ▶ **Policy OS-6.2:** Whenever possible, use alternative flood control techniques to reduce capital and maintenance costs and provide recreational and open space opportunities.
- ▶ **Policy OS-6.3:** Conserve the natural resources of area watercourses, including Santa Gertrudis, Temecula and Murrieta Creeks, through appropriate development densities, managing stormwater runoff, and conservation site planning.

## 3.8.2 Environmental Setting

### HYDROLOGY AND DRAINAGE

#### Local Hydrology

The project site lies within the San Diego Basin, known as Region 9 of SWRCB. The San Diego Basin consists of 11 major drainage basins which encompass most of San Diego County, parts of southwestern Riverside County, and portions of southwestern Orange County. These basins are under the jurisdiction of San Diego RWQCB. Temecula is located within the Santa Margarita Hydrologic Unit, a rectangular area of approximately 750 square miles encompassing portions of Camp Pendleton, as well as the civilian population centers of Murrieta, Temecula, and portions of Fallbrook in San Diego County.

#### Stormwater Drainage

The existing project site has two drainage basins that divide the site's drainage into east and west areas. On the eastern side runoff is contained onsite where various curb inlets and grates collect water at low points; water then flows via storm drains to an existing interim detention/sedimentation basin that flows southeast into an existing concrete drainage channel on Temecula Parkway. Water from offsite does not drain onto the site but flows directly to the channel. The west side drains northwest to a connection at Dona Lynora, north of Rancho Pueblo Road. The developed portion of the western side of the project site flows overland via curb cuts to sand filters and pipes while the undeveloped portion flows overland to a pipe. Existing on-site drainage infrastructure includes vegetative strips, sand filters, biofiltration swales, bioretention/rain gardens, modular wetland systems, detention basins/settling basins, and infiltration basins to treat stormwater.

#### Dams

"Dam inundation" refers to flooding that occurs when dams fail. Dam failure can occur from overtopping of a dam during extreme storm events, water seepage through earthen embankments causing internal soil erosion, or damage caused by seismic activities. National statistics show that overtopping due to inadequate spillway design, debris blockage of spillways, or settlement of the dam's crest accounts for approximately 34 percent of all U.S. dam failures (ASDSO 2020).

Three dams are located in areas surrounding Temecula: Lake Skinner, Vail Lake, and Diamond Valley Lake. Portions of Temecula face inundation if any of the three dams should fail. Lake Skinner Dam is an earthen dam at Skinner Reservoir (also known as Lake Skinner and located approximately 4.5 miles northeast of Temecula). Failure of the Lake Skinner Dam would result in flooding along Tualota Creek and Benton Road, which is located near the south side of the reservoir, as well as flooding along parts of Santa Gertrudis Creek and Warm Springs Creek. Vail Lake is located approximately 10 miles southeast of Temecula; dam failure would inundate portions of the Pauba and Temecula valleys, including I-15 and an adjacent 3-mile area. Diamond Valley Lake is the largest reservoir in Southern California and is located north of Skinner Reservoir, nearly six miles northeast of Temecula. Failure of the western dam would result in flooding in the northern parts of the City (City of Temecula 2005a). The project site is located in the Vail Lake dam inundation area as shown in the Figure PS-2 of the City of Temecula General Plan.

## Flood Conditions

Temecula contains several FEMA Special Flood Hazard Areas. Figure PS-2 of the City of Temecula General Plan identifies areas of potential flood hazards. The project site is within a 500-year flood area.

## Groundwater Hydrology

The project site is within the boundaries of the Temecula Valley Groundwater Basin (Basin). The Basin lies under several valleys within the southwest portion of Riverside County and parts of northern San Diego County, within the Santa Margarita River Watershed. Natural recharge of the Basin is from direct precipitation and percolation in the Warm Springs, Tualota, Santa Gertrudis, Murrieta, and Pechanga Creeks and the Temecula River. The Basin is not critically overdrafted (i.e., the average annual amount of groundwater extraction exceeds the long-term average annual supply of water to the basin) (DWR 2020). Average annual precipitation in the Basin ranges from 7 to 15 inches (DWR 2020).

The Temecula-Murrieta subbasin is an alluvial basin within the Temecula Valley Basin. Within the Temecula-Murrieta Basin lie two aquifers: the Pauba aquifer and the Temecula aquifer. The Pauba aquifer covers approximately 18 square miles and is underlain by the confined Temecula aquifer which extends over an area of approximately 100 square miles (RCWD 2021).

The RCWD receives groundwater from the Temecula Valley Groundwater Basin (Basin 9-005), as identified in California's Groundwater Bulletin 118. Per Bulletin 118 the Temecula Valley Groundwater Basin is a "low priority basin" and per the Sustainable Groundwater Management Act (SGMA) the Temecula Valley Basin is considered "adjudicated" (RCWD 2021). SGMA establishes management requirements for high and medium priority groundwater basins and exempts "adjudicated" groundwater basins from the Act. Therefore, the Temecula Valley Groundwater Basin is exempt from SGMA.

## WATER QUALITY

The RCWD safeguards its water supply by collecting and analyzing more water samples than required by the EPA and SWRCB Division of Drinking Water. RCWD collects more than 2,000 samples a year for analysis of 120 different contaminants including bacteria, metals, organic chemicals, pesticides, and aesthetic-related substances. As reported in the RCWD's Annual Consumer Confidence Report for calendar year 2019, all water produced and delivered by the RCWD meets or exceeds the standards for public drinking water (RCWD 2021).

## Surface Water Quality

Vail Lake is a reservoir that was created with the construction of Vail Dam in 1948-1949. The reservoir is located approximately 10 miles east of Temecula having a watershed area of 318 square miles. The primary purposes of Vail Lake are water supply and recreation. The natural inflow to Vail Lake is from Temecula Creek, Wilson Creek, Kolb Creek, and Arroyo Seco Creek. While RCWD has the infrastructure to store imported water in Vail Lake, it has not done so. Releases from Vail Lake recharge native groundwater. The average annual yield over the five years from 2015 to 2020 is 116 AFY. There have been several years where the annual yield was 0 AF, and with a maximum yield of 276 AF in 2017. The highest historic yield from Vail Lake was 35,552 AF in 1993 (RCWD 2021).

## Groundwater Quality

Groundwater quality can be affected by many things, but the chief controls on the characteristics of groundwater quality are the source and chemical composition of recharge water, properties of the host sediment, and history of discharge or leakage of pollutants. The project site has been previously reviewed for detectable presence of methyl tertiary butyl ether (MTBE) contamination from nearby gas station underground fuel storage tanks and the potential groundwater contamination associated. No detectable concentrations of MTBE or volatile organic compounds (VOCs) were found at the project site. For a more detailed discussion of potential onsite contamination from the nearby gas station underground fuel storage tanks, see Section 3.7, "Hazards and Hazardous Materials."

Groundwater in most of the Pauba aquifer and the Temecula aquifer is generally suitable for domestic and irrigation uses (RCWD 2021). Constituents of concern include (RCWD 2021):

- ▶ Arsenic. Sources of arsenic include discharge from petroleum refineries, fire retardants, ceramics, electronics, and solder. RCWD's water meets the water quality standards for arsenic but it does contain low levels of arsenic. Arsenic has been detected above the MCL in three of the RCWD's 48 active wells. The water from these wells is blended with water from other wells to reduce the level of arsenic to acceptable levels.
- ▶ Fluoride. Fluoride occurs in the groundwater basins as a result of natural erosion. Fluoride above the MCL has been detected in two active wells. The water from these wells is blended with water from other wells to reduce the level of fluoride to acceptable levels.
- ▶ Manganese and iron. Like many contaminants manganese and iron in groundwater are the result of natural leaching. RCWD treats water from Well 102 to reduce manganese and iron levels.

## 3.8.3 Environmental Impacts and Mitigation Measures

### METHODOLOGY

Evaluation of potential hydrologic and water quality impacts is based on a review of existing documents and studies that address water resources in the vicinity of the project. Information obtained from these sources was reviewed and summarized to describe existing conditions and to identify potential environmental effects, based on the standards of significance presented in this section. In determining the level of significance, the analysis assumes that the project would comply with relevant federal, State, and local laws, ordinances, and regulations.

### THRESHOLDS OF SIGNIFICANCE

A hydrology and water quality impact would be significant if implementation of the project would:

- ▶ violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality;
- ▶ substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin;
- ▶ 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 that would:
  - result in substantial erosion or siltation on- or off-site;
  - result in flooding on-site or off-site;
  - create or contribute runoff water that would exceed the capacity of existing or planned stormwater- drainage systems or provide substantial additional sources of polluted runoff;
  - impede or redirect flood flows

- ▶ in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation; or
- ▶ conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

## ISSUES NOT DISCUSSED FURTHER

### Flood Hazard, Tsunami, or Seiche Zones, Risk Release of Pollutants due to Project Inundation

A seiche is an oscillation of a body of water in an enclosed or semi-enclosed basin, such as a reservoir, harbor, lake, or storage tank. A tsunami is a great sea wave, commonly referred to as a tidal wave, produced by a significant undersea disturbance such as tectonic displacement of the sea floor associated with large, shallow earthquakes.

The project site is not located near a coastline or large body of water which would subject the site to inundation by flood hazard, tsunami, or seiche and therefore would not risk release of pollutants due to project inundation. The project site is not located within a 100-Year Flood Zone (City of Temecula 2005a). Figure PS-2 of the City of Temecula General Plan Public Safety Element identifies areas of potential flood hazards, and although the project site is located in a dam inundation area, the project would be required to comply with the requirements of the NPDES General Construction Permit (2009-0009-DWQ, as amended by 2010-0014-DWQ and 2012-0006-DWQ) issued by the San Diego RWQCB as applicable. Future development would be required to implement a SWPPP during construction that includes BMPs to reduce pollutants in stormwater runoff from the project site.

As discussed in Section 3.7, "Hazards and Hazardous Materials," the project site was reviewed for impact relating to MTBE from nearby gas station underground fuel storage tanks in the 2008 SEIR, and no detectable concentrations of MTBE or VOCs were found at the project site. Therefore, the project would not risk release of pollutants due to project inundation and no impact would occur, and these issues are not discussed further in the Draft SEIR.

## ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

### Impact 3.8-1: Violate Any Water Quality Standards or Waste Discharge Requirements or Otherwise Substantially Degrade Surface or Ground Water Quality

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The proposed project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. Buildout of the site under the proposed project would contribute to an increase in impervious surfaces. Project development would be required to comply with the requirements of the NPDES General Construction Permit (2009-0009-DWQ, as amended by 2010-0014-DWQ and 2012-0006-DWQ) from the San Diego RWQCB as applicable and would be required to implement a SWPPP during construction that includes BMPs to reduce pollutants in stormwater runoff from the project site. No grading shall be permitted until an NPDES Notice of Intent has been filed or the project is shown to be exempt. By complying with the NPDES requirements the project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade water quality. This impact would be **less than significant**.

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The proposed project, an update to the Temecula Valley Hospital Master Plan, consists of revisions to the currently approved Temecula Valley Hospital project. Phase I development of the hospital was completed in 2011, and the hospital was opened in 2013. Implementing the proposed project would result in revisions to the remaining phases of hospital development to address anticipated growth in the region. Specifically, the project involves expanding the emergency department and constructing a behavioral health building, two additional hospital towers, two medical office buildings, a utility plant, surface parking lots, and a four-story parking structure. In addition, the helipad would be relocated from its interim location on the project site to the roof of the proposed parking structure. The hospital building and other buildings constructed during Phase I would be maintained in place.

Surface water quality is subject to federal, State, and local water quality requirements administered and enforced by EPA, SWRCB, and RWQCB with cooperation from each county. The principal law governing pollution of the nation's surface waters is the CWA (formerly the Federal Water Pollution Control Act). Under the CWA, regulatory

requirements for industrial and municipal dischargers were set, as well as requirements for States to adopt water quality standards.

Further, the City implements its JRMP, which describes the City's urban runoff management programs implemented to comply with the requirements of the NPDES MS4 Permit. The City's Storm Water Ordinance (City of Temecula Municipal Code Title 8.28) is also implemented to address water quality and outlines the City's NPDES requirements in accordance with the NPDES MS4 Permit.

Implementation of the proposed project would result in buildout of the undeveloped areas of the project site. Although major excavation and grading during construction is not anticipated since the project site was previously mass graded and partially developed with Phase I, the proposed project would require approximately 36,000 cubic yards of remedial grading. The existing hospital building and associated infrastructure that were constructed during Phase I of the currently approved project would be remain under the proposed project.

The ground disturbance from proposed remedial grading activities could loosen on-site soils and increase the potential for erosion and sedimentation deposition, as well as polluted runoff from the site, to occur. Water discharge from project construction may consist of oil and grease, trash, heavy metals, and pathogens, as well as other potential pollutants. These potential discharges can be of concern for development projects, as damage to downstream water bodies can occur. Regulation of discharges into these waters is the responsibility of the SWRCB.

According to the City of Temecula WQMP prepared for the proposed project, future development of the project site under the proposed project would increase the amount of impervious surface area on the project site to 1,020,439 sq ft (Excel Engineering 2022). However, development of the future phases of the proposed project would be required to be designed to not violate water quality standards or waste discharge requirements since all future development would be required to comply with the requirements of the NPDES General Construction Permit (2009-0009-DWQ, as amended by 2010-0014-DWQ and 2012-0006-DWQ) issued by the San Diego RWQCB as applicable. Future development would be required to implement a SWPPP during construction that includes BMPs to reduce pollutants in stormwater runoff from the project site. As discussed in the "Environmental Setting," the proposed pervious features on-site would include various existing and proposed water quality basins and detention basins, trees included in parking islands and open spaces with drought tolerant vegetation. All flows from future buildings and parking lots would be routed to the project's biofiltration basins; non-structural improvements such as rain barrels and tree wells would also be installed as needed to comply with applicable pollutant control and hydromodification requirements. Water quality improvements installed on the east side, where the existing hospital building and storage building are located, during Phase I would remain; new water quality improvements would be focused on the existing, undeveloped west side of the project site, and where new development and reconfigurations are proposed on the east side (see Figure 2-7, Proposed Site Plan).

Existing on-site stormwater infrastructure would be modified or expanded to accommodate the proposed development. In the southeast portion of the project site, the existing open-air infiltration pond/basin would be converted into underground infiltration chambers and additional modular wetland systems would be installed. Several existing in-ground systems at the northwesterly-draining subbasin would be removed and reinstalled to accommodate the newly proposed layout. Additional vegetative strips, sand filters, modular wetland systems, and bioretention/rain garden systems would be installed throughout the project site to treat stormwater as intended under the WQMP approvals for the currently approved project.

According to the WQMP, all flow from buildings and parking lots would be routed into the biofiltration basins; non-structural improvements such as rain barrels and tree wells would also be installed as needed to comply with applicable pollutant control and hydromodification requirements. Water quality improvements installed on the east side, where the existing hospital building and storage building are located, during Phase I would remain; new water quality improvements would be focused on the existing, undeveloped west side of the project site, and where new development and reconfigurations are proposed on the east side. (Excel Engineering 2022). Implementation of the specific drainage features within the WQMP would ensure that development of the proposed project would meet the City's MS4 Permit and Stormwater Ordinance requirements.

By complying with the NPDES Construction General Permit (2009-0009-DWQ, as amended by 2010-0014-DWQ and 2012-0006-DWQ) requirements, the proposed project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. This impact would be **less than significant**.

### Mitigation Measures

No mitigation is required for this impact.

### Impact 3.8-2: Substantially Decrease Groundwater Supplies or Interfere Substantially with Groundwater Recharge Such that the Project May Impede Sustainable Groundwater Management of the Basin

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The proposed project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the Temecula Valley Groundwater Basin. Natural recharge of the Basin is from direct precipitation and percolation in the Warm Springs, Tocalota, Santa Gertrudis, Murrieta, and Pechanga Creeks and the Temecula River. The project is not anticipated to have a significant effect on the quantity and quality of groundwater, either through direct additions or withdrawals. The proposed project is required to comply with local development standards, including lot coverage and landscaping requirements, which would allow percolation and groundwater recharge. Implementation of the proposed project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. This impact would be **less-than-significant** impact.

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The project site overlies the Temecula Valley Groundwater Basin. Natural recharge of the Basin is from direct precipitation and percolation in the Warm Springs, Tocalota, Santa Gertrudis, Murrieta, and Pechanga Creeks and the Temecula River. Impervious surfaces can intercept rainwater and inhibit infiltration that would recharge local groundwater systems. Over time, this can lead to declines in aquifer levels. This effect is especially pronounced in urban areas where stormwater runoff from large and continuous impervious areas is collected and routed away from the site through the storm drain system. The volume and rate of stormwater runoff generated from an area is affected by development through conversion of vegetated or other pervious surfaces to impervious surfaces and by the development of drainage systems that connect these impervious surfaces to streams or other water bodies. In this way, development can increase the rate of runoff and eliminate storage and infiltration that would naturally occur along drainage paths. According to the WQMP prepared for the proposed project, buildout of the site under the proposed project would contribute to an increase in impervious surfaces, resulting in 1,020,439 sq ft of impervious surface area.

Furthermore, as discussed above in the "Environmental Setting," the proposed project consists of a variety of pervious features on-site. All flows from the proposed buildings and parking lots would be routed to the project's biofiltration basins; non-structural improvements such as rain barrels and tree wells would also be installed as needed to comply with applicable pollutant control and hydromodification requirements. Water quality improvements installed on the east side, where the existing hospital building and storage building are located, during Phase I would remain; new water quality improvements would be focused on the existing, undeveloped west side of the project site, and where new development and reconfigurations are proposed on the east side.

The project would be required to comply with the requirements of the NPDES General Construction Permit (2009-0009-DWQ, as amended by 2010-0014-DWQ and 2012-0006-DWQ) from the San Diego RWQCB as applicable and would be required to implement a SWPPP during construction that includes BMPs to reduce pollutants in stormwater runoff from the project site. Project compliance with existing agency regulatory programs, including General Plan goals and policies, would further reduce potential impacts on groundwater supplies. Implementation of the proposed project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. This impact would be **less than significant**.

## Mitigation Measures

No mitigation is required for this impact.

### Impact 3.8-3: Substantially Alter the Existing Drainage Pattern of the Site or Area, Including Through the Alteration of the Course of a Stream or River

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The proposed project would not substantially alter the existing drainage pattern of the site or area, including the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site. The project includes an on-site drainage plan, and the proposed modifications would not alter off-site drainage patterns or alter the course of a stream or river, and would not result in substantial erosion or siltation on-or off-site. The project is also required to comply with Best Management Practices (BMP's), Regional Water Quality Control Board (RWQCB) regulations as well as National Pollution Discharge Elimination System (NPDES) standards, which addresses drainage, siltation and erosion. Therefore, the proposed project would not substantially alter the existing drainage pattern of the site or area, including the alteration of the course of a stream or river. This impact would be **less than significant**.

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According to the WQMP prepared for the proposed project, future development of the project site under the proposed project would increase the amount of impervious surface area on the project site to 1,020,439 sq ft. Furthermore, as discussed above in the "Environmental Setting," the proposed project consists of a variety of pervious features on-site. All flows from buildings and parking lots would be routed to the project's biofiltration basins; non-structural improvements such as rain barrels and tree wells would also be installed as needed to comply with applicable pollutant control and hydromodification requirements. Water quality improvements installed on the east side, where the existing hospital building and storage building are located, during Phase I would remain; new water quality improvements would be focused on the existing, undeveloped west side of the project site, and where new development and reconfigurations are proposed on the east side. However, as stated in Section 2.0, "Project Description," the entire project site was mass graded in 2011 and the proposed project would not involve major changes to the site's topography.

The WQMP contains a summary of findings regarding site drainage from the drainage report prepared for the proposed project. According to the drainage report, there are three drainage patterns within the project site: eastern, western, and off-site. Approximately two-thirds of the site slope generally to the south and east, which would be conveyed to the box culvert in the southeast corner of the site. Immediately upstream of this box culvert is an on-site drainage channel maintained by the Riverside County Flood Control & Water Conservation District. None of the site drainage would be collected in the drainage channel. The remaining one-third of the site slopes generally to the north and west to an existing drainage culvert adjacent to the northwest corner of the site (Excel Engineering 2022).

Since the entire project site was entirely mass graded in 2011 and the proposed project does not involve major changes to the site's topography, the project would not substantially alter the existing drainage pattern of the site or area, including the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site. The overall project includes an on-site drainage plan, and the proposed revisions would not substantially alter off-site drainage patterns or alter the course of a stream or river and would not result in substantial erosion or siltation on-or off-site.

The construction of future development within the project site would be required to comply with the development planning requirements of the San Diego RWQCB MS4 General Construction Permit (2009-0009-DWQ, as amended by 2010-0014-DWQ and 2012-0006-DWQ) and the City of Temecula Stormwater Ordinance. The future development of the project would be required to generate a project-specific WQMP, as required by the City of Temecula Stormwater Ordinance and as specified in the City's Jurisdictional Runoff Management Plan. The implementation of the specific drainage features within the WQMP, would ensure that future development project would meet the City's MS4 Permit and Stormwater Ordinance requirements. As a part of the WQMP, future development would be required to incorporate and maintain BMPs into the project design, which include measures to reduce increases in runoff through biofiltration basins, vegetative strips, bioswales, rain gardens and detention ponds for protection.

Therefore, the project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river. This impact would be **less than significant**.

### Mitigation Measures

No mitigation is required for this impact.

### Impact 3.8-4: Conflict with or Obstruct Implementation of a Water Quality Control Plan or Sustainable Groundwater Management Plan

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The project site is within the Temecula Valley Groundwater Basin, which is adjudicated and therefore exempt from SGMA. The proposed project is not located in an area subject to a Sustainable Ground Water Management Plan. Furthermore, by complying with the NPDES Construction General Permit (2009-0009-DWQ, as amended by 2010-0014-DWQ and 2012-0006-DWQ) requirements, conflicts with or obstructing of implementation of a water quality control plan would not occur. This impact would be **less than significant**.

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Development of the proposed project would be required to be designed to not violate water quality standards or waste discharge requirements. The City of Temecula requires all new developments and modifications to existing developments that have the potential to contact stormwater, to implement project-wide Low Impact Development BMPs. Implementing BMPs enables pollutants to be effectively removed from the project's post-construction runoff. Therefore, preparation of a WQMP is required to illustrate how BMPs have been applied to projects. A WQMP was prepared for the project which contains BMPs that meet local, State, and federal regulations, and when implemented during project construction, would reduce pollutants in stormwater runoff from the project site. According to the WQMP, the project site's water quality requirements were met with Modular Wetland Systems, Sand Filters, Biofiltration Swales, and Infiltration and Detention Treatment Basins.

All development of the project would be required to comply with the requirements of the NPDES Construction General Permit (2009-0009-DWQ, as amended by 2010-0014-DWQ and 2012-0006-DWQ) issued by the San Diego RWQCB, as applicable. Project development would be required to implement a SWPPP during construction that includes BMPs to reduce pollutants in stormwater runoff from the project site.

The project site is within the Temecula Valley Groundwater Basin, a "low priority" groundwater basin that is adjudicated and therefore exempt from SGMA. Because the proposed project is not located in an area subject to a Sustainable Ground Water Management Plan, the proposed project would not conflict with or obstruct the implementation of such a plan.

By complying with the NPDES requirements and implementing BMPs to reduce potentially pollutants in stormwater runoff from the proposed project, the project would not conflict with or obstruct implementation of a water quality control plan. Since the proposed project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan, this impact would be **less than significant**.

### Mitigation Measures

No mitigation is required for this impact.

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## 3.9 LAND USE AND PLANNING

This section describes the regulatory and environmental setting for land use and planning and evaluates the impacts associated with implementing the proposed project. The physical environmental impacts associated with the proposed project, many of which pertain to issues of land use compatibility (e.g., noise, aesthetics, air quality), are evaluated in other sections of Chapter 3 of this Draft SEIR.

No comments related to land use and planning were submitted in response to the notice of preparation.

### 3.9.1 Regulatory Setting

#### FEDERAL

No federal plans, policies, regulations, or laws related to land use are applicable to the proposed project.

#### STATE

California law (Government Code Section 65302 et seq.) requires cities and counties to include as part of their general plans a land use element that designates the proposed general distribution and general location and extent of the uses of the land for housing; business; industry; open space, including agriculture, natural resources, recreation, and enjoyment of scenic beauty; education; public buildings and grounds; solid and liquid waste disposal facilities; greenways, as defined in Section 816.52 of the Civil Code; and other categories of public and private uses of land. The City's General Plan, initially adopted in 1993, was updated in 2005.

#### LOCAL

##### City of Temecula General Plan

The Land Use Element of the *City of Temecula General Plan* (City of Temecula 2005) includes the following land use policies relevant to the proposed project:

- ▶ **Policy 1.4:** Support development of light industrial, clean manufacturing, technology, biomedical, research and development, and office uses to diversify Temecula's economic base.
- ▶ **Policy 1.6:** Encourage flexible zoning techniques in appropriate locations to encourage mixed use development, preserve natural features, achieve innovative site design, achieve a range of transition of densities, provide open space and recreation facilities, and/or provide necessary amenities and facilities.
- ▶ **Policy 1.8:** Encourage future development of a community hospital and related services, as well as a community college, major college or university.

##### City of Temecula Zoning Ordinance

The City of Temecula Zoning Ordinance, Chapter 17 of the Temecula Municipal Code, was adopted by the City Council in 2005. The Zoning Ordinance implements the land use designations in the City General Plan and applicable community plans; regulates the use of land, buildings, and other structures; and establishes minimum regulations and standards for the development of land in the City of Temecula.

## 3.9.2 Environmental Setting

The 35.31-acre project site is located at 31700 Temecula Parkway in the City of Temecula in Riverside County. The site is approximately 720 feet west of Margarita Road and 420 feet south of De Portola Road and is bordered on the south by Temecula Parkway and on the west by Dona Lynora, a private road (see Figures 2-1 and 2-2).

### EXISTING LAND USES

Existing land uses on the project site are associated with Phase I development of the Temecula Valley Hospital, which was completed in 2011. The hospital opened in 2013. The site is developed with a 237,305-square-foot, 140-bed hospital building; 5,180-square-foot storage building; helipad; on-site roadways and access drives; drainage infrastructure; and stormwater quality basins (see Figure 2-3). Approximately 86,072 square feet of the project site is composed of building footprint, and 33,481 square feet is composed of parking areas. The remaining approximately 1,102,552 square feet is landscaped area. The western, northern, and eastern portions of the project site are vacant except for the helipad and modular office/storage structures located between and west of the hospital parking lots. The vacant areas that are reserved for future development were previously graded and are covered with hydroseeded landscaping for erosion control.

### EXISTING LAND USE DESIGNATIONS AND ZONING

The General Plan designation for the project site is Professional Office, and the site is zoned Temecula Hospital Planned Development Overlay (PDO-9) (see Figure 2-5). The Temecula Hospital Planned Development Overlay District provides for design flexibility regarding the building height of hospital projects.

### SURROUNDING LAND USES

Land uses surrounding the project site include commercial and single-family residences to the south (across Temecula Parkway); single-family residences to the north (including residences across De Portola Road); professional office, commercial, and educational uses to the west; and multifamily residential uses, offices, and commercial uses to the east. The land use designations and zoning for these properties are shown in Figure 2-5.

## 3.9.3 Environmental Impacts and Mitigation Measures

### METHODOLOGY

Evaluation of potential land use and planning impacts is based on review of planning documents pertaining to the project area, existing and planned land uses on the project site, and the project description.

### THRESHOLDS OF SIGNIFICANCE

A land use and planning impact would be significant if implementation of the proposed project would:

- ▶ physically divide an established community or
- ▶ cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

### ISSUES NOT DISCUSSED FURTHER

No issues related to land use and planning have been dismissed from further discussion.

## ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

### Impact 3.9-1: Physically Divide an Established Community

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Implementing the proposed project involves revising the remaining phases of Temecula Valley Hospital development. The existing hospital is an established part of the City, and expansion of the hospital facilities, which would be confined to the hospital project site, would not create any barriers between communities. Therefore, implementation of the proposed project would not physically divide an established community. **No impact** would occur.

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The proposed project, an update to the Temecula Valley Hospital Master Plan, consists of revisions to the currently approved Temecula Valley Hospital project. Phase I development of the hospital was completed in 2011, and the hospital was opened in 2013. Implementing the proposed project would result in revisions to the remaining phases of hospital development to address anticipated growth in the region. Specifically, the project involves expanding the emergency department and constructing a behavioral health building, two additional hospital towers, two medical office buildings, a utility plant, surface parking lots, and a four-story parking structure. In addition, the helipad would be relocated from its interim location on the project site to the roof of the proposed parking structure. The hospital building and other buildings constructed during Phase I would be maintained in place.

The existing hospital is an established part of the City, located in an existing, developed area that includes residential, office, commercial, and educational uses, and is served by an existing roadway system. The development of the project site with the additional uses identified in the revisions to the master plan would be confined to the project site, and would not create any physical barriers that would divide the surrounding established community. During construction, staging of equipment, vehicles, and materials would be located within the boundary of the existing site. Construction and operation of the project would not involve any off-site improvements that could create a temporary or permanent physical barrier. Therefore, implementation of the proposed project would not physically divide an established community. **No impact** would occur.

#### Mitigation Measures

No mitigation is required for this impact.

### Impact 3.9-2: Cause a Significant Environmental Impact Due to a Conflict with Any Land Use Plan, Policy, or Regulation Adopted for the Purpose of Avoiding or Mitigating an Environmental Effect

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Land uses under the proposed project would be consistent with the General Plan land use designation for the project site. Development associated with revisions to the existing master plan, however, would be inconsistent with the PDO-9 zoning for the project site. For this reason, implementation of the proposed project would require City approval of a PDO amendment for the updated master plan. Because the project is consistent with the General Plan land use designation for the project site and the City would approve a PDO amendment for the updated master plan that would address the revisions to the existing master plan, the project would not conflict with any land use plan, policy, or regulation, including a plan adopted for the purpose of avoiding or mitigating an environmental effect; therefore, this impact would be **less than significant**.

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Implementation of the proposed project would involve making revisions to the current Temecula Valley Hospital Master Plan. These revisions would address changes to the remaining phases of hospital development proposed to address anticipated growth in the region. Changes include expanding the emergency department and constructing a behavioral health building, two additional hospital towers, two medical office buildings, a utility plant, surface parking lots, and a four-story parking structure. In addition, the helipad would be relocated from its interim location on the project site to the roof of the proposed parking structure. The hospital master plan would no longer include a cancer center, fitness rehabilitation center, or jogging trail. Compared to the approved master plan, the revisions under the proposed project would result in an additional 184,961 square feet in total building area (from 571,160 to 756,121 square feet), an additional 244 hospital beds (from 320 to 564), and an additional 470 parking spaces (from 1,278 to 1,748).

Revisions to the project would not change the nature of the land uses already allowed and occurring on the project site. Because the land uses proposed under the project are consistent with the Professional Office land use designation for the project site in the General Plan, no General Plan Amendment is required. Implementation of the project would, however, require a Development Plan Major Modification, including design and site review. Development resulting from the revisions to the existing master plan would be inconsistent with the PDO-9 zoning for the project site. For this reason, implementation of the proposed project would require City approval of a PDO amendment for the updated master plan. Because the proposed project is consistent with the General Plan land use designation for the project site and the City would be required to approve a PDO amendment for the updated master plan as part of project approval, the proposed project would not conflict with any land use plan, policy, or regulation, including a plan adopted for the purpose of avoiding or mitigating an environmental effect; therefore, this impact would be **less than significant**.

### **Mitigation Measures**

No mitigation is required for this impact.

## 3.10 NOISE

This section includes definitions of common noise terms, a summary of applicable regulations related to noise, construction and vibration, a description of ambient-noise conditions, and an analysis of potential short-term construction and long-term operational-source and long-term vehicle traffic noise impacts associated with the Temecula Valley Hospital Master Plan Update. In addition, the proposed new helipad location and helicopter flight path is analyzed to find potential noise impacts to nearby noise-sensitive land uses. Mitigation measures are recommended as necessary to reduce significant noise impacts. Additional data is provided in Appendix F, "Noise Measurement Data and Noise Modeling Calculations" and Appendix G, "Helipad Noise Analysis Technical Report."

During the scoping meeting held on March 23, 2022, the following noise-related topics were raised during public comments: vehicle traffic noise and helicopter noise, potential effects of future parking lot operational noise concerns on residential land uses located north of the proposed parking structure near De Portola Road, and stationary noise from the proposed central utility plant.

Prior to discussing the regulatory and environmental setting, the following definitions of commonly used noise terms throughout this section are provided.

- ▶ **Equivalent Continuous Sound Level ( $L_{eq}$ ):**  $L_{eq}$  represents an average of the sound energy occurring over a specified period. In effect,  $L_{eq}$  is the steady-state sound level containing the same acoustical energy as the time-varying sound level that occurs during the same period (Caltrans 2013:2-48). For instance, the 1-hour equivalent sound level, also referred to as the hourly  $L_{eq}$ , is the energy average of sound levels occurring during a 1-hour period and is the basis for noise abatement criteria used by California Department of Transportation (Caltrans) and Federal Transit Administration (FTA) (Caltrans 2013:2-47; FTA 2006:2-19).
- ▶ **Maximum Sound Level ( $L_{max}$ ):**  $L_{max}$  is the highest instantaneous sound level measured during a specified period (Caltrans 2013:2-48; FTA 2006:2-16).
- ▶ **Day-Night Level ( $L_{dn}$ ):**  $L_{dn}$  is the energy average of A-weighted sound levels occurring over a 24-hour period, with a 10-dB "penalty" applied to sound levels occurring during nighttime hours between 10 p.m. and 7 a.m. (Caltrans 2013:2-48; FTA 2006:2-22).
- ▶ **Community Noise Equivalent Level (CNEL):** CNEL is the energy average of the A-weighted sound levels occurring over a 24-hour period, with a 10-dB penalty applied to sound levels occurring during the nighttime hours between 10 p.m. and 7 a.m. and a 5-dB penalty applied to the sound levels occurring during evening hours between 7 p.m. and 10 p.m. (Caltrans 2013:2-48).
- ▶ **Vibration Decibels (VdB):** VdB is the vibration velocity level in decibel scale (FTA 2018:Table 5-1).
- ▶ **Peak Particle Velocity (PPV):** PPV is the peak signal value of an oscillating vibration waveform. Usually expressed in inches/second (in/sec) (FTA 2018:Table 5-1).
- ▶ **Sound Exposure Level (SEL):** SEL, expressed in A-weighted decibels (dBA), is a time-integrated measure, expressed in decibels, of the sound energy of a single noise event at a reference duration of 1 second. The sound level is integrated over the period that the level exceeds a threshold. Therefore, SEL accounts for both the maximum sound level and the duration of the sound. The SEL for a particular aircraft noise event is a numerically higher value than the  $L_{max}$  for the same event. This is because the SEL consolidates the energy of the entire noise event into a reference duration of one second. The SEL is not "heard", but is a derived value used for calculation of cumulative aircraft noise exposure as defined by the Day-night average sound level ( $L_{dn}$ ). SELs for aircraft noise events depend on the location of the aircraft relative to the noise receptor, the type of operation (landing, takeoff, or cruise), and the type of aircraft.

## 3.10.1 Regulatory Setting

### FEDERAL

#### U.S. Environmental Protection Agency Office of Noise Abatement and Control

The U.S. Environmental Protection Agency (EPA) Office of Noise Abatement and Control was originally established to coordinate Federal noise control activities. In 1981, EPA administrators determined that subjective issues such as noise would be better addressed at more local levels of government. Consequently, in 1982 responsibilities for regulating noise control policies were transferred to State and local governments. However, documents and research completed by the EPA Office of Noise Abatement and Control continue to provide value in the analysis of noise effects.

#### Federal Aviation Administration

The Federal Aviation Administration (FAA) establishes 65 dB CNEL as the maximum noise exposure limit associated with aircraft noise measured at exterior locations in noise-sensitive land uses (e.g., land uses where quiet environments are essential such as residential areas, churches, and hotels).

#### Federal Interagency Committee on Aviation Noise

The Federal Interagency Committee on Aviation Noise (FICAN) was established in 1993 to assist agencies in providing adequate forums for discussion of public and private sector proposals, identifying needed research, and encouraging the conduct of research and development in these areas. The Federal Interagency Committee on Noise (FICON) published the *Federal Agency Review of Selected Airport Noise Analysis Issues* recommending an interim dose-response curve to predict percent of the exposed population expected to be awakened as a function of the exposure to single-event noise levels expressed in terms of SEL (FICON 1992).

Since the adoption of FICON's interim curve in 1992, substantial field research in the area of sleep disturbance has been completed. In 1997, FICAN published the *Effects of Aviation Noise on Awakenings from Sleep* which recommends the adoption of a new dose-response curve for predicting awakening (FICAN 1997). The FICAN 1997 curve represents the upper limit of the observed field data and should be interpreted as predicting the "maximum percent of the exposed population expected to be behaviorally awakened," or the "maximum % awakened" for a given residential population. Based on the 1997 FICAN dose-response curve, 10 percent of the population is estimated to be awakened when the SEL interior noise level is 81 dB. An estimated 5 to 10 percent of the population is affected when the SEL interior noise level is between 65 and 81 dB, and few sleep awakenings (less than five percent) are predicted if the interior SEL is less than 65 dB (FICAN 1997:5).

#### Federal Interagency Committee on Noise

There are no state or federal regulations related to assessment of the project's noise impacts, although federal guidelines provide direction regarding what constitutes a significant change in noise conditions. FICON determined what level of increase in noise level (measured in terms of CNEL) is noticeable; and a noticeable change may indicate a significant impact. These findings, as shown in Table 3.10-1, Significance of Changes in Cumulative Noise Exposure, indicate that, at lower existing noise levels, a greater increase is needed to create a significant impact. The FICON findings were developed as part of an assessment related to aircraft operations, but these findings have commonly been applied to all types of community noises.

**Table 3.10-1 FICON Significance of Change in Noise Exposure**

Ambient Noise Level Without Project	Significant Impact Occurs if the Project Increases Ambient Noise Levels by:
< 60 dB	+5 dB or more
<60-65 dB	+3 dB or more
>65 dB	+1.5 dB or more

Source: Table based on FICON 1992:7.

## Federal Transit Administration

To address the human response to ground vibration, the Federal Transit Administration (FTA) has set forth guidelines for maximum-acceptable vibration criteria for different types of land uses. These guidelines are presented in Table 3.10-2. In addition, FTA has also established construction vibration damage criteria, shown below in Table 3.10-3.

**Table 3.10-2 FTA Indoor Ground-Borne Vibration Impact Criteria for General Vibration Assessment**

Land Use Category	Ground-Borne Vibration Impact Levels (VdB re 1 micro-inch /sec)		
	Frequent Events <sup>1</sup>	Occasional Events <sup>2</sup>	Infrequent Events <sup>3</sup>
Category 1: Buildings where vibration would interfere with interior operations.	65 VdB <sup>4</sup>	65 VdB <sup>4</sup>	65 VdB <sup>4</sup>
Category 2: Residences and buildings where people normally sleep.	72 VdB	75 VdB	80 VdB
Category 3: Institutional land uses with primarily daytime use.	75 VdB	78 VdB	83 VdB

<sup>1</sup> Frequent events: More than 70 events per day

<sup>2</sup> Occasional events: 30-70 events per day

<sup>3</sup> Infrequent events: Fewer than 30 events per day

<sup>4</sup> This criterion limit is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. For equipment that is more sensitive, a Detailed Vibration Analysis must be performed.

Source: Table based on FTA 2018:126.

**Table 3.10-3 FTA Construction Damage Vibration Criteria**

Land Use Category	PPV, in/sec
Reinforced-concrete, steel or timber (no plaster)	0.5
Engineered concrete and masonry (no plaster)	0.3
Non-engineered timber and masonry buildings	0.2
Buildings extremely susceptible to vibration damage	0.12

Notes: PPV= peak particle velocity

Source: Table based on FTA 2018:126.

## STATE

### California General Plan Guidelines

The State of California General Plan Guidelines 2017, published by the California Governor's Office of Planning and Research (2003), provides guidance for the compatibility of projects within areas of specific noise exposure.

Acceptable and unacceptable community noise exposure limits for various land use categories have been determined to help guide new land use decisions in California communities. In many local jurisdictions, these guidelines are used to derive local noise standards and guidance. Citing EPA materials and the State Sound Transmissions Control Standards, the State's General Plan Guidelines recommend interior and exterior CNEL of 45 and 60 decibels (dB) for residential units, respectively (OPR 2003:378).

### California Public Utilities Code

The California's Public Utilities Code (PUC) Section 21662.4. (a) states that emergency aircraft flights for medical purposes by law enforcement, firefighting, military, or other persons who provide emergency flights for medical purposes are exempt from local ordinances adopted by a city, county, or city and county, whether general law or chartered, that restrict flight departures and arrivals to particular hours of the day or night, that restrict the departure or arrival of aircraft based upon the aircraft's noise level, or that restrict the operation of certain types of aircraft. Pursuant to this, the City cannot restrict helicopter activity at the hospital for medical purposes.

## LOCAL

### City of Temecula General Plan

The *City of Temecula General Plan* Noise Element (City of Temecula 2005) contains noise goals and policies (e.g., exterior and interior noise-level performance standards for new projects affected by using the Noise Compatibility Matrix [Table 3.10-4], and Land Use/Noise Standard [Table 3.10-5]). The applicable policies contained in the General Plan are summarized below.

- ▶ **Policy 1.1** Discourage noise sensitive land uses in noisy exterior environments unless measures can be implemented to reduce exterior and interior noise to acceptable levels. Alternatively, encourage less sensitive uses in areas adjacent to major noise generators but require sound-appropriate interior working environment.
- ▶ **Policy 1.2** Limit the hours of construction activity next to residential areas to reduce noise intrusion in the early morning, late evening, weekends and holidays.
- ▶ **Policy 1.3** Use information from the noise contour map in the General Plan in the development review process to prevent location of sensitive land uses near major stationary noise sources.
- ▶ **Policy 2.1** Limit the maximum permitted noise levels crossing property lines and impacting adjacent land uses.
- ▶ **Policy 2.2** Establish criteria for placement and operation of stationary outdoor equipment.
- ▶ **Policy 2.3** Require that mixed-use structures and areas be designed to prevent transfer of noise and vibration from commercial areas to residential areas.
- ▶ **Policy 3.1** Enforce and maintain acceptable noise limit standards.
- ▶ **Policy 3.3** Encourage the creative use of site and building design techniques as a means to minimize noise impacts.
- ▶ **Policy 3.4** Evaluate potential noise conflicts for individual sites and projects, and require mitigation of all significant noise impacts as a condition of project approval.
- ▶ **Policy 4.1** Minimize noise conflicts between land uses and the circulation network, and mitigate sound levels where necessary or feasible to ensure the peace and quiet of the community.
- ▶ **Policy 4.2** Ensure the effective enforcement of city, state and federal noise impacts from vehicles, particularly in residential areas.
- ▶ **Policy 4.3** Enforce the speed limit on arterials and local roads to reduce noise impacts from vehicles, particularly in residential areas.

**Table 3.10-4 City of Temecula Noise/Land Use Compatibility Matrix**

Land Use	Community Noise Exposure (Ldn or CNEL)			
	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Residential <sup>1</sup>	50-60	60-70	70-75	Above 75
Transient Lodging – Motel, Hotel	50-60	60-70	70-80	Above 80
Schools, Libraries, Churches, Hospitals, Nursing Homes	50-60	60-70	70-80	Above 80
Auditoriums, Concert Halls, Amphitheaters <sup>2</sup>	—	0-70	—	Above 70
Sports Arena, Outdoor Spectator Sports <sup>2</sup>	—	0-75	—	Above 75
Playgrounds, Parks	50-70	—	70-75	Above 75
Golf Course, Riding Stables, Water Recreation, Cemeteries	50-70	—	70-80	Above 80

Land Use	Community Noise Exposure (Ldn or CNEL)			
	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Office Buildings, Business Commercial, and Professional	50-65	65-75	Above 75	—
Industrial, Manufacturing, Utilities, Agriculture	50-70	70-80	Above 80	—

Notes: Modified from 1998 State of California General Plan Guidelines.

**Normally Acceptable:** Specified land use is satisfactory, based upon the assumption that any buildings involved meet conventional Title 24 construction standards. No special noise insulation requirements.

**Conditionally Acceptable:** New construction or development shall be undertaken only after a detailed noise analysis is made and noise reduction measures are identified and included in the project design.

**Normally Unacceptable:** New construction or development is discouraged. If new construction is proposed, a detailed analysis is required, noise reduction measures must be identified, and noise insulation features included in the design.

**Clearly Unacceptable:** New construction or development should clearly not be undertaken.

<sup>1</sup> Regarding aircraft-related noise, the maximum acceptable exposure for new residential development is 60dB CNEL.

<sup>2</sup> No normally acceptable condition is defined for these uses. Noise studies are required prior to approval.

Source: City of Temecula 2005.

**Table 3.10-5 City of Temecula Land Use/Noise Standard**

Property Receiving Noise		Maximum Noise Level (Ldn or CNEL, dBA)	
Type of Use	Land Use Designation	Interior	Exterior <sup>3</sup>
Residential	Hillside Rural Very Low Low Low Medium	45	65
	Medium	45	65/70 <sup>1</sup>
	High	45	70 <sup>1</sup>
Commercial and Office	Neighborhood Community Highway Tourist Service	—	70
	Professional Office	50	70
Light Industrial	Industrial Park	55	75
Public Institutional	Schools	50	65
	All Others	50	70
Open Space	Vineyards/Agriculture	—	70
	Open Space	—	70/65 <sup>2</sup>

Notes: CNEL = community noise equivalent level; L<sub>dn</sub> = day-night average noise level

<sup>1</sup> Maximum exterior noise levels up to 70 dB CNEL are allowed for Multiple-Family Housing.

<sup>2</sup> Where quiet is a basis required for the land use.

Source: City of Temecula 2005.

### City of Temecula Municipal Code

Section 9.20 of the Temecula Municipal Code establishes guidelines citywide to regulate noise. The following sections from 9.20 are relevant to the project.

### **9.20.030 Exemptions**

Sound coming from the following sources will be exempt from the guidelines set in chapter 9.20:

- E. Public safety personnel in the course of executing their official duties, including, but not limited to, sworn peace officers, emergency personnel and public utility personnel. This exemption includes, without limitation, sound emanating from all equipment used by such personnel, whether stationary or mobile.
- J. Safety, warning and alarm devices, including, but not limited to, house and car alarms, and other warning devices that are designed to protect the public health, safety, and welfare.

### **9.20.040 General Sound Level Standards**

No person shall create any sound, or allow the creation of any sound, on any property that causes the exterior sound level on any other occupied property to exceed the sound level standards set forth in Tables N-1 [Table 3.10-5] and N-2 [Table 3.10-4].

### **9.20.060 Special Sound Sources Standard**

No person shall engage in or conduct construction activity, when the construction site is within one-quarter mile of an occupied residence, between the hours of 6:30 pm and 7:00 am, Monday through Friday, and shall only engage in or conduct construction activity between the hours of 7:00 am and 6:30 pm on Monday through Saturday. Further, no construction activity shall be undertaken on Sunday and nationally recognized holidays. The City Council may, by formal action, exempt projects from the provisions of this chapter.

### **9.20.070 Exceptions**

Exceptions may be requested from the standards set forth in Sections 9.20.040 (general sound standards) or 9.20.060 (special sound sources standards) and may be characterized as construction-related or single event exceptions.

## **3.10.2 Environmental Setting**

### **ACOUSTIC FUNDAMENTALS**

Prior to discussing the noise setting for the project, background information about sound, noise and vibration is needed to provide context and a better understanding of the properties of noise.

#### **Sound, Noise, and Acoustics**

Sound can be described as the mechanical energy of a vibrating object transmitted by pressure waves through a liquid or gaseous medium (e.g., air) to a human ear. Noise is defined as loud, unexpected, annoying, or unwanted sound.

In the science of acoustics, the fundamental model consists of a sound (or noise) source, a receiver, and the propagation path between the two. The loudness of the noise source and obstructions or atmospheric factors affecting the propagation path to the receiver determines the sound level and characteristics of the noise perceived by the receiver. The field of acoustics deals primarily with the propagation and control of sound.

#### **Frequency**

Continuous sound can be described by frequency (pitch) and amplitude (loudness). A low-frequency sound is perceived as low in pitch. Frequency is expressed in terms of cycles per second, or hertz (Hz) (e.g., a frequency of 250 cycles per second is referred to as 250 Hz). High frequencies are sometimes more conveniently expressed in kilohertz, or thousands of hertz. The audible frequency range for humans is generally between 20 Hz and 20,000 Hz.

#### **Sound Pressure Levels and Decibels**

The amplitude of pressure waves generated by a sound source determines the loudness of that source. Sound pressure amplitude is measured in micro-Pascals (mPa). One mPa is approximately one hundred billionth (0.0000000001) of normal atmospheric pressure. Sound pressure amplitudes for different kinds of noise

environments can range from less than 100 to 100,000,000 mPa. Because of this large range of values, sound is rarely expressed in terms of mPa. Instead, a logarithmic scale is used to describe sound pressure level (SPL) in terms of dB.

### Addition of Decibels

Because decibels are logarithmic units, SPLs cannot be added or subtracted through ordinary arithmetic. Under the decibel scale, a doubling of sound energy corresponds to a 3-dB increase. In other words, when two identical sources are each producing sound of the same loudness at the same time, the resulting sound level at a given distance would be 3 dB higher than if only one of the sound sources was producing sound under the same conditions. For example, if one idling truck generates an SPL of 70 dB, two trucks idling simultaneously would not produce 140 dB; rather, they would combine to produce 73 dB. Under the decibel scale, three sources of equal loudness together produce a sound level approximately 5 dB louder than one source.

### A-Weighted Decibels

The decibel scale alone does not adequately characterize how humans perceive noise. The dominant frequencies of a sound have a substantial effect on the human response to that sound. Although the intensity (energy per unit area) of the sound is a purely physical quantity, the loudness or human response is determined by the characteristics of the human ear.

Human hearing is limited in the range of audible frequencies as well as in the way it perceives the SPL in that range. In general, people are most sensitive to the frequency range of 1,000–8,000 Hz and perceive sounds within this range better than sounds of the same amplitude with frequencies outside of this range. To approximate the response of the human ear, sound levels of individual frequency bands are weighted, depending on the human sensitivity to those frequencies. Then, an “A-weighted” sound level (expressed in units of A-weighted decibels) can be computed based on this information.

The A-weighting network approximates the frequency response of the average young ear when listening to most ordinary sounds. When people make judgments of the relative loudness or annoyance of a sound, their judgment correlates well with the A-scale sound levels of those sounds. Thus, noise levels are typically reported in terms of A-weighted decibels. All sound levels discussed in this section are expressed in A-weighted decibels. Table 3.10-6 describes typical A-weighted noise levels for various noise sources.

**Table 3.10-6 Typical A-Weighted Noise Levels**

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	— 110 —	Rock band
Jet fly-over at 1,000 feet	— 100 —	
Gas lawn mower at 3 feet	— 90 —	
Diesel truck at 50 feet at 50 miles per hour	— 80 —	Food blender at 3 feet, Garbage disposal at 3 feet
Noisy urban area, daytime, Gas lawn mower at 100 feet	— 70 —	Vacuum cleaner at 10 feet, Normal speech at 3 feet
Commercial area, Heavy traffic at 300 feet	— 60 —	
Quiet urban daytime	— 50 —	Large business office, Dishwasher next room
Quiet urban nighttime	— 40 —	Theater, large conference room (background)
Quiet suburban nighttime	— 30 —	Library, Bedroom at night
Quiet rural nighttime	— 20 —	
	— 10 —	Broadcast/recording studio
Lowest threshold of human hearing	— 0 —	Lowest threshold of human hearing

Source: Caltrans 2013: Table 2-5.

### Human Response to Changes in Noise Levels

The doubling of sound energy results in a 3-dB increase in the sound level. However, given a sound level change measured with precise instrumentation, the subjective human perception of a doubling of loudness will usually be different from what is measured.

Under controlled conditions in an acoustical laboratory, the trained, healthy human ear can discern 1-dB changes in sound levels when exposed to steady, single-frequency (“pure-tone”) signals in the mid-frequency (1,000–8,000 Hz) range. In general, the healthy human ear is most sensitive to sounds between 1,000 and 5,000 Hz and perceives both higher and lower frequency sounds of the same magnitude with less intensity (Caltrans 2013:2-18). In typical noisy environments, changes in noise of 1–2 dB are generally not perceptible. However, it is widely accepted that people can begin to detect sound level increases of 3 dB in typical noisy environments. Further, a 5-dB increase is generally perceived as a distinctly noticeable increase, and a 10-dB increase is generally perceived as a doubling of loudness (Caltrans 2013:2-10). Therefore, a doubling of sound energy (e.g., doubling the volume of traffic on a highway) that would result in a 3-dB increase in sound would generally be perceived as barely detectable.

## Vibration

Vibration is the periodic oscillation of a medium or object with respect to a given reference point. Sources of vibration include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) and those introduced by human activity (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous, (e.g., operating factory machinery) or transient in nature (e.g., explosions). Vibration levels can be depicted in terms of amplitude and frequency, relative to displacement, velocity, or acceleration.

Vibration amplitudes are commonly expressed in peak particle velocity (PPV) or root-mean-square (RMS) vibration velocity. PPV and RMS vibration velocity are normally described in inches per second or in millimeters per second. PPV is defined as the maximum instantaneous positive or negative peak of a vibration signal. PPV is typically used in the monitoring of transient and impact vibration and has been found to correlate well to the stresses experienced by buildings (FTA 2006:7-5).

Although PPV is appropriate for evaluating the potential for building damage, it is not always suitable for evaluating human response. It takes some time for the human body to respond to vibration signals. In a sense, the human body responds to average vibration amplitude. The RMS of a signal is the average of the squared amplitude of the signal, typically calculated over a 1-second period. As with airborne sound, the RMS velocity is often expressed in decibel notation as VdB, which serves to compress the range of numbers required to describe vibration (FTA 2018:7-4; Caltrans 2020:7). This is based on a reference value of 1 micro inch per second.

The typical background vibration-velocity level in residential areas is approximately 50 VdB. Ground vibration is normally perceptible to humans at approximately 65 VdB. For most people, a vibration-velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels (FTA 2018:7-8; Caltrans 2020:27).

Typical outdoor sources of perceptible ground vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the ground vibration is rarely perceptible. The range of interest is from approximately 50 VdB, which is the typical background vibration-velocity level, to 100 VdB, which is the general threshold where minor damage can occur to fragile buildings. Construction activities can generate sufficient ground vibrations to pose a risk to nearby structures. Constant or transient vibrations can weaken structures, crack facades, and disturb occupants (FTA 2018:7-5).

Vibrations generated by construction activity can be transient, random, or continuous. Transient construction vibrations are generated by blasting and wrecking balls. Continuous vibrations are generated by vibratory pile drivers, large pumps, and compressors. Random vibration can result from jackhammers, pavement breakers, and heavy construction equipment. Table 3.10-7 presents vibration levels for typical pieces of equipment used during construction.

**Table 3.10-7 Vibration Reference Levels for Construction Equipment**

Equipment		PPV at 25 ft, in/sec	Approximate Lv * at 25 ft
Pile Driver (impact)	upper range	1.518	112
	typical	0.644	104
Pile Driver (sonic)	upper range	0.734	105
	typical	0.17	93

Equipment	PPV at 25 ft, in/sec	Approximate Lv * at 25 ft
Clam shovel drop (slurry wall)	0.202	94
Hydromill (slurry wall)	in soil	66
	in rock	75
Vibratory Roller	0.21	94
Hoe Ram	0.089	87
Large bulldozer	0.089	87
Caisson drilling	0.089	87
Loaded trucks	0.076	86
Jackhammer	0.035	79
Small bulldozer	0.003	58

Note: \*RMS velocity in decibels, VdB re 1 micro-in/sec

Source: FTA 2018:184.

## Sound Propagation

When sound propagates over a distance, it changes in level and frequency content. The manner in which a noise level decreases with distance depends on the following factors:

### Geometric Spreading

Sound from a localized source (i.e., a point source) propagates uniformly outward in a spherical pattern. The sound level attenuates (or decreases) at a rate of 6 dB for each doubling of distance from a point source. Roads and highways consist of several localized noise sources on a defined path and hence can be treated as a line source, which approximates the effect of several point sources, thus propagating at a slower rate in comparison to a point source. Noise from a line source propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of 3 dB for each doubling of distance from a line source.

### Ground Absorption

The propagation path of noise from a source to a receiver is usually very close to the ground. Noise attenuation from ground absorption and reflective-wave canceling provides additional attenuation associated with geometric spreading. Traditionally, this additional attenuation has also been expressed in terms of attenuation per doubling of distance. This approximation is usually sufficiently accurate for distances of less than 200 feet. For acoustically hard sites (i.e., sites with a reflective surface between the source and the receiver, such as a parking lot or body of water), no excess ground attenuation is assumed. For acoustically absorptive or soft sites (i.e., those sites with an absorptive ground surface between the source and the receiver, such as soft dirt, grass, or scattered bushes and trees), additional ground-attenuation value of 1.5 dB per doubling of distance is normally assumed. When added to the attenuate rate associated with cylindrical spreading, the additional ground attenuation results in an overall drop-off rate of 4.5 dB per doubling of distance. This would hold true for point sources, resulting in an overall drop-off rate of up to 7.5 dB per doubling of distance.

### Atmospheric Effects

Receivers located downwind from a source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lowered noise levels, as wind can carry sound. Sound levels can be increased over large distances (e.g., more than 500 feet) from the source because of atmospheric temperature inversion (i.e., increasing temperature with elevation). Other factors such as air temperature, humidity, and turbulence can also affect sound attenuation.

### Shielding by Natural or Human-Made Features

A large object or barrier in the path between a noise source and a receiver attenuate noise levels at the receiver. The amount of attenuation provided by shielding depends on the size of the object and the frequency content of the noise

source. Natural terrain features (e.g., hills and dense woods) and human-made features (e.g., buildings and walls) can substantially reduce noise levels. A barrier that breaks the line of sight between a source and a receiver will typically result in at least 5 dB of noise reduction (Caltrans 2013:2-41; FTA 2006:5-6, 6-25). Barriers higher than the line of sight provide increased noise reduction (FTA 2006:2-12). Vegetation between the source and receiver is rarely effective in reducing noise because it does not create a solid barrier unless there are multiple rows of vegetation (FTA 2006:2-11).

## EXISTING NOISE ENVIRONMENT

### Existing Noise- and Vibration-Sensitive Land Uses

Noise-sensitive land uses are generally considered to include those uses where noise exposure could result in health-related risks to individuals, as well as places where quiet is an essential element of their intended purpose. Residential dwellings are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels, and because of the potential for nighttime noise to result in sleep disruption. Additional land uses such as schools, transient lodging, historic sites, cemeteries, and places of worship are also generally considered sensitive to increases in noise levels. These land use types are also considered vibration-sensitive land uses in addition to commercial and industrial buildings where vibration would interfere with operations within the building, including levels that may be well below those associated with human annoyance.

The nearest noise-sensitive receptors are single family homes located along De Portola Road approximately 180 feet north of the project site boundary and 180 feet south of the project site boundary south of Temecula Parkway 79. Additionally, the closest single-family residence west of the project site is located approximately 220 feet west along De Portola Road. Some multifamily residential units are located approximately 150 feet east of where construction staging activities would occur for future phase developments.

### Existing Noise Sources and Ambient Levels

To characterize the existing ambient noise environment at the project site, four long-term (24-hour continuous) and one short-term (20 minute) measurements were conducted on April 3, 2022. A Larson Davis Laboratories Model 831 Type 1 sound level meter was used for the ambient noise level measurement surveys. All noise meters were programmed in "slow" mode to record noise levels in "A" weighted form. The meters were calibrated before use with Larson Davis Laboratories Model CAL200 acoustical calibrators to ensure measurement accuracy. The measurement equipment meets all pertinent specifications of the American National Standards Institute. It is important to note that noise measurements conducted also include noise associated with the existing helipad, as a test flight occurred on May 3, 2022. Test flight noise levels were also used to conduct the helicopter noise analysis described below within Impact 3.10-3. The results of the ambient noise measurement survey are summarized below in Table 3.10-8 and measurement locations are depicted on Figure 3.10-1.



Source: Based on information from Meridian Consultants; adapted by Ascent in 2022.

Figure 3.10-1 Noise Measurement Locations

**Table 3.10-8 Noise Measurement Summary CNEL**

Existing Noise Measurements in Project Vicinity			Ambient Noise Level, CNEL 2022
Location Number	Location Description	Measurement Period	
Location 1	30390 De Portola Road (Single Family Residential)	24 hours	73.7
Location 2	30955 De Portola Road (Single Family Residential)	24 hours	60.8
Location 3	31775 De Portola Road (Medical Office)	24 hours	55.5
Location 4	On project site, at offset of proposed five-story bed tower	20 minutes	55.4
Location 5	31602 Calle Los Padres (adjacent to Highway 79-Single-Family Residential)	24 hours	75.8

Notes: Refer to Figure 3.10-1 for ambient noise level measurement locations.

Source: 2022 data collected by Meridian Consultants 2022.

To supplement noise measurements conducted, traffic noise modeling was also conducted. The predominant noise source in the project area is vehicle traffic on the surrounding roadway network (e.g., Temecula Parkway, De Portola Road, and Margarita Road). Existing traffic noise levels on roadway segments in the project area were modeled using calculation methods consistent with Federal Highway Administration (FHWA) Traffic Noise Model, Version 2.5 (FHWA 2004) and using average daily traffic volumes provided in the traffic analysis conducted by Linscott, Law and Greenspan (Appendix H). Table 3.10-9 summarizes the modeled existing traffic noise levels at 100 feet from the centerline of each area roadway segments, and lists distances from each roadway centerline to the 70, 65, and 60 CNEL traffic noise contours. For further details on traffic-noise modeling inputs and parameters, refer to Appendix F.

**Table 3.10-9 Summary of Modeled Existing Traffic Noise Levels**

Roadway Segment/Segment Description	CNEL at 100 feet from Roadway Centerline	Distance (feet) from Roadway Centerline to CNEL Contour		
		70	65	60
De Portola Road between Vallejo Road and Jedediah Smith Road	65.7	36	114	359
De Portola Road between Jedediah Smith Road and the Project Driveway	65.3	33	105	331
De Portola Road between Project Driveway and Margarita Parkway	65.6	35	111	351
De Portola Road between Margarita Parkway and Meadows Parkway	65.7	36	114	359
De Portola Road between Meadows Parkway and Campanula Way	64.1	25	79	249
De Portola Road between Campanula Way and Butterfield Stage Road	63.9	24	75	237
Temecula Parkway between I-15 ramps and Bedford Court	75.3	298	942	2980
Temecula Parkway between Bedford Court and La Paz Road	75.4	304	962	3042
Temecula Parkway between La Paz Road and Wabash Lane	75.4	309	978	3091

Roadway Segment/Segment Description	CNEL at 100 feet from Roadway Centerline	Distance (feet) from Roadway Centerline to CNEL Contour		
		70	65	60
Temecula Parkway between Wabash Lane and Pechanga Parkway	75.3	302	956	3022
Temecula Parkway between Jedediah Smith Road and Kevin Place	73.5	197	623	1971
Temecula Parkway between Kevin Place and Avenida de Missionnes	73.0	178	562	1777
Temecula Parkway between Avenida De Missionnes and Dona Lynora	73.0	177	560	1771
Temecula Parkway between Dona Lynora and Country Glen Way	72.7	166	524	1656
Temecula Parkway between Country Glen Way and Redhawk Parkway	72.8	168	531	1681
Temecula Parkway between Redhawk Parkway and Camino Del Sol	71.8	134	425	1344
Temecula Parkway between Camino Del Sol and Meadows Parkway	72.2	147	466	1474
Temecula Parkway between Meadows Parkway and Mahlon Vail Road	71.8	134	425	1344
Temecula Parkway between Meadows Parkway and Butterfield Stage Road	70.8	107	338	1068
Pechanga Parkway between Temecula Parkway and Rainbow Valley Boulevard	70.7	104	328	1037
Margarita Road between Jedediah Smith Road and De Portola Road	70.3	108	343	1083
Margarita Road between De Portola Road and Temecula Parkway	68.4	73	231	732
Margarita Road between Temecula Parkway and Vail Ranch Parkway	67.7	59	187	592
Meadows Parkway between De Portola Road and Campanula Way	67.4	52	165	521
Meadows Parkway between Campanula Way and Temecula Parkway	65.8	38	120	379
Butterfield Stage Road between De Portola Road and Temecula Parkway	66.0	39	125	395
Butterfield Stage Road between Temecula Parkway and Nighthawk Pass	69.3	86	272	862

Notes: CNEL = Community Noise Equivalent Level

All modeling assumes average pavement, level roadways (less than 1.5% grade), constant traffic flow, and does not account for shielding of any type or finite roadway adjustments. All noise levels are reported as A-weighted noise levels. For additional details, refer to Appendix F for detailed traffic data, and traffic-noise modeling input data and output results.

Source: Data modeled by Ascent Environmental in 2022.

## 3.10.3 Environmental Impacts and Mitigation Measures

### METHODOLOGY

#### Construction Noise and Vibration

To assess potential short-term (construction-related) noise and vibration impacts, sensitive receptors and their relative exposure were identified. Project-generated construction source noise and vibration levels were determined based on methodologies, reference emission levels, and usage factors from FTA's *Guide on Transit Noise and Vibration Impact Assessment* methodology (FTA 2006) and FHWA's *Roadway Construction Noise Model User's Guide* (FHWA 2006). Reference levels for noise and vibration emissions for specific equipment or activity types are well documented and the usage thereof common practice in the field of acoustics.

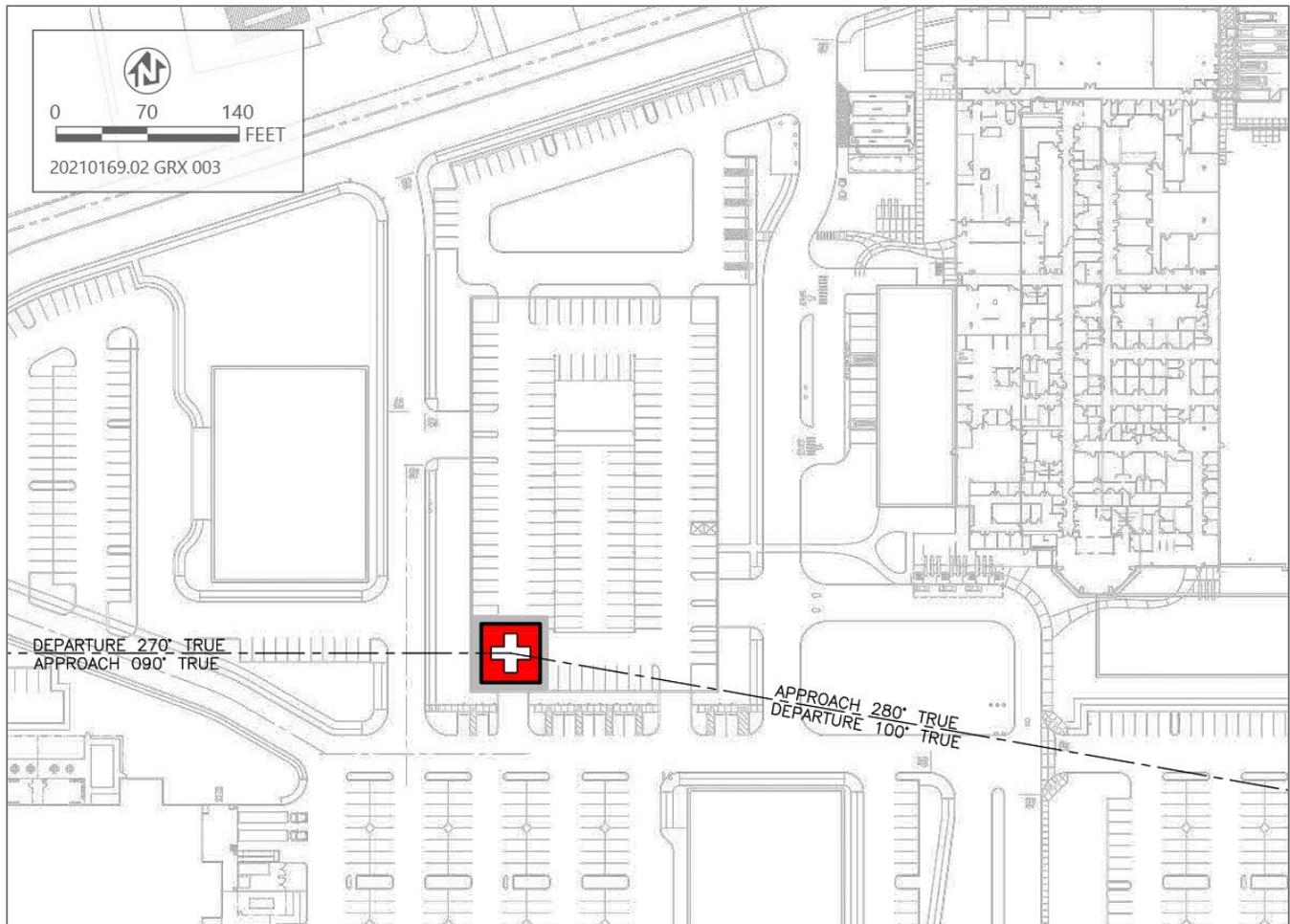
#### Operational Noise and Vibration

With respect to non-transportation noise sources (e.g., stationary) associated with project implementation, the assessment of long-term (operational-related) impacts was based on reference noise emission levels, and measured noise levels for activities and equipment associated with project operation (e.g., helicopter activity and central utility plant operation which includes generators, chillers, pumps, and cooling towers, as well as parking lot activity), and standard attenuation rates and modeling techniques.

To assess potential long-term (operation-related) noise impacts due to project-generated increases in traffic, noise levels were estimated using calculations consistent with the Federal Highway Administration's Traffic Noise Model Version 2.5 (FHWA 2004) and project-specific traffic data. The analysis is based on the reference noise emission levels for automobiles, medium trucks, and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and ground attenuation factors. Truck usage and vehicle speeds on area roadways were estimated from field observations and the project-specific traffic report. Note that the modeling conducted does not account for any natural or human-made shielding (e.g., the presence of walls or buildings) or reflection off building surfaces. Ambulances bringing patients to the project site also generate noise when using their sirens. Ambulance operations would not change as a result of the proposed project; therefore, ambulances would not generate noise impacts as a result of the proposed project.

#### Operational Noise from Helicopter

Noise-level calculations at the location of the noise sensitive land uses in the project vicinity were assessed using the SoundPLAN noise model. The SoundPLAN model depicts noise contours at varying distances and accounts for various inputs to analyze topography, vegetation, propagation from buildings, and existing and proposed-noise sources and barriers. The SoundPLAN model considers the varying slant distances between the helicopter and the receiver. The software uses various inputs to analyze the topography, vegetation, vehicle traffic, existing- and proposed barriers to depict noise contours at varying distances. The software utilizes algorithms to calculate noise level projections. The software allows the user to input specific noise sources, spectral content, sound barriers, building placement, topography, and sensitive receptor locations. Helicopter flight profiles were modeled based on the future flight paths shown in Figure 3.10-2 below and were programmed into the SoundPLAN noise modeling system.



Source: Image produced and provided by Heliplanners Aviation Consultants in 2022.

**Figure 3.10-2 Flightpath Alignment**

## THRESHOLDS OF SIGNIFICANCE

A noise impact would be significant if implementation of the proposed project would:

- ▶ generate construction noise levels that exceed the City of Temecula's Land Use maximum exterior noise standards for nearby noise-sensitive land uses (i.e., 65 dBA CNEL) or result in a substantial temporary increase over existing levels, using FICON's increase standards summarized in Table 3.10-1;
- ▶ generate short-term construction vibration levels or long-term vibration levels exceeding FTA's recommended standards with respect to the prevention of structural building damage (i.e., 0.2 PPV in/sec for non-engineered timber and masonry building) or FTA's maximum-acceptable-vibration standard with respect to human response (i.e., 80 VdB for residential uses) at nearby existing vibration-sensitive land uses;
- ▶ generate long-term helicopter noise levels that exceed the applicable maximum acceptable exterior noise standards for nearby noise sensitive land uses as specified in the City of Temecula's Land Use Standard (i.e., 65 dBA CNEL for low density residential and 70 dBA CNEL for multi-family residential), FAA's 65 dBA standard for helicopters, FICAN's 65 dBA SEL standard for sleep disturbance, or a substantial permanent increase in noise that exceed FICON's increase standards summarized in Table 3.10-1;

- ▶ generate long-term vehicle traffic noise levels that exceed the applicable maximum acceptable exterior noise standards for nearby noise sensitive land uses as specified in the City of Temecula's Land Use Standard (i.e., 65 dBA CNEL for low density residential and 70 dBA CNEL for multi-family residential), or a substantial permanent increase in noise that exceed FICON's increase standards summarized in Table 3.10-1;
- ▶ generate long-term noise levels by stationary or area sources that exceed the maximum noise level allowed for nearby land uses in the City of Temecula's Land Use Standard (i.e., 65 dBA CNEL exterior for low-density single-family homes and 70 dBA CNEL for medium density multi-family homes), or result in a substantial permanent increase in noise that exceeds FICON's increase standards summarized in Table 3.10-1; or
- ▶ 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.

## ISSUES NOT DISCUSSED FURTHER

The proposed project would not result in new operational vibration sources, thus, potential increases in long-term operational vibration sources is not discussed further in this Draft SEIR. The proposed project is not located within an airport influence area or an airport land use plan, and no public or private airport is within 2 miles of the project site. Therefore, no environmental impact associated with airport operations will result and this issue is not discussed further in this Draft SEIR.

## ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

### Impact 3.10-1: Exposure of Existing Sensitive Receptors to Short-Term Construction Noise

Construction of the proposed project would occur in three phases, with construction activities anticipated to begin as early as January 2023. While construction intensity, duration, and equipment location are not precisely known at this time, reference noise levels for typical construction activities associated with land development were used to assess peak construction noise generated by the proposed project. Based on those reference levels, construction noise could reach levels of up to 89.5 dB  $L_{eq}$  and 93.5 dB  $L_{max}$  at 50 feet. In addition, to assess increases in ambient noise levels, 24-hour CNEL levels were also calculated and estimated to be as high as 79 dBA CNEL. Thus, construction activities could result in a substantial temporary and periodic increase in noise during daytime hours at existing and future sensitive land uses. This impact would be **potentially significant**.

Construction of the proposed project would occur in three phases (referred to as Phases II, III, and IV), with construction activities anticipated to begin in January 2023. The approximate timing for construction of each phase is summarized in Table 2-3. Although the exact timing for construction of each phase would occur in response to demand for the proposed uses and facilities and is not precisely known at this time, this analysis assumes that construction of the first phase would begin in January 2023 and construction of the final phase would end in December 2037.

Overall construction activities would include grading/site preparation, building construction of the proposed behavioral health building, medical office buildings, hospital towers, expansion of the existing hospital building emergency department, central utility plant, and a parking structure, and surface parking areas. See Table 2-3 and Table 2-4 for more details regarding proposed project components that would be constructed in each phase.

The types of heavy equipment used during project construction would include dozers, backhoes, excavators, graders, scrapers, cranes, concrete trucks, rollers, compactors, generators, welders, compressors, and haul trucks. No pile driving or blasting would occur as part of the proposed project construction. Reference noise levels of heavy equipment that would be used during project construction are summarized in Table 3.10-10.

**Table 3.10-10 Noise Emission Levels from Construction Equipment**

Equipment Type	Typical Noise Level ( $L_{max}$ dBA) @ 50 feet
Backhoe	80
Concrete Mixer	85
Compactor	80
Crane/Lift	85
Dozer	85
Dump Truck	84
Excavator	85
Flat Bed Truck	84
Front End Loader	80
Generator	70
Grader	85
Paver	89
Roller	85
Pickup Trucks	54
Scraper	85

Notes: Assumes all equipment is fitted with a properly maintained and operational noise control device, per manufacturer specifications. Noise levels listed are manufacture-specified noise levels for each piece of heavy construction equipment.

Source: FTA 2018: 176.

Construction noise can be characterized based on the type of activity and associated equipment needed and, in this analysis, is evaluated by considering noise levels associated with grading, building construction, and paving, all construction phases that would occur throughout the buildout of the project and activities that generate the most noise. Using construction equipment typically associated with these construction phases, reference noise levels shown in Table 3.10-10, and assuming the simultaneous use of multiple pieces of equipment, worst-case noise levels were modeled for each phase of construction.

The reference noise levels for construction equipment were obtained from FTA's Transit Noise and Vibration Impact Assessment Manual and are all referenced to a distance of 50 feet from the operation of equipment. When discussing noise levels, providing a reference distance from the source is necessary to be able to calculate perceived noise levels at various distances from the source (i.e., noise reduces as distance between the source and receiver increase). In this analysis, the noise levels at 50 feet from operating equipment were used to calculate perceived noise levels at nearby receptors, at distances beyond 50 feet. In addition, these noise levels represent a conservative estimate based on the assumptions that multiple pieces of equipment would operate at the same location and time affecting the same individual receptors. However, typically, construction equipment move about a site and individual pieces of equipment operate at varying frequencies throughout the day, thus, noise levels tend to fluctuate during the day, resulting in varying noise levels at surrounding receptors. In addition, this analysis is focused on the nearest receptors to the construction activities because these receptors would be exposed to the loudest noise levels. At receptors located at further distances, noise levels would be lower because noise levels dissipate with increased distance from the source. Table 3.10-11 below summarizes  $L_{eq}$  and  $L_{max}$  associated with grading, building construction, and paving activities at nearby sensitive receptors.

**Table 3.10-11 Estimated Temporary Noise Levels During Each Construction Phase**

Noise-Sensitive Receptor	Construction Phase	Estimated $L_{eq}$ at 50 feet, dB	Estimated $L_{eq}$ at Sensitive Location dB	Estimated $L_{max}$ at 50 feet, dB	Estimated $L_{max}$ at Sensitive Location dB
31450 De Portola Rd. (Single Family Residential)	Grading	87.9	76.8	91.9	80.8
	Construction	89.5	78.4	93.5	82.4
	Paving	87.7	76.5	91.6	80.5
44153 Margarita Road (Madera Vista Apartments/Multi-Family Residential)	Grading	87.9	78.4	91.9	82.4
	Construction	89.5	80.0	93.5	84.0
	Paving	87.7	82.1	91.6	82.1
31630 Heather Way (Single-Family Residential)	Grading	87.9	76.8	91.9	80.8
	Construction	89.5	78.4	93.5	82.4
	Paving	87.7	76.5	91.6	80.5
30955 De Portola Rd. (Single-Family Residential)	Grading	87.9	75.1	91.9	79.0
	Construction	89.5	76.7	93.5	80.6
	Paving	87.7	74.8	91.6	78.8

Source: Appendix F.

As shown above in Table 3.10-11, hourly noise levels associated with building construction are anticipated to generate the highest noise levels. Considering that construction activities would occur during the daytime hours (7:00 am to 6:30 pm), 24-hour CNEL levels were calculated and added to existing ambient noise levels to determine temporary increases in noise associated with construction activities. Table 3.10-12 below summarizes existing noise level, project-generated construction CNEL noise levels, and the associated increases in noise.

**Table 3.10-12 Temporary Noise Change in CNEL Due to Construction Activity**

Noise-Sensitive Receptor	Current Ambient Noise Levels Present <sup>1</sup>	Combined Ambient Noise Levels and Construction Activity	Increase Above Ambient	Threshold / Increase Allowed <sup>2</sup>	Threshold Exceeded / Significant Impact?
	CNEL, dBA				
31450 De Portola Road (Single-Family Residential)	60.8	76.5	15.7	+3	Yes
44153 Margarita Road (Madera Vista Apartments/ Multi-Family Residential)	55.5	78.0	23	+5	Yes
31630 Heather Way (Single-Family Residential)	75.8	79.1	3.3	+1.5	Yes
30955 De Portola Road (Single-Family Residential)	60.8	74.8	14	+3	Yes

Notes:<sup>1</sup> Current ambient noise levels refer to 2022 Master Plan Update CNEL values on Table 3.10-9. Closest measurement locations to receivers were selected to represent ambient.

<sup>2</sup> Refers to thresholds set by FICON on Table 3.10-1 which is based on existing ambient values.

Source: Appendix F.

As shown above in Table 3.10-12, applying the FICON noise increases standards, construction-generated noise levels would result in substantial temporary increases in noise at nearby sensitive receptors in addition to exceedance of the City of Temecula's maximum allowable exterior noise level for residential uses of 65 dBA CNEL. Thus, construction noise would be generated during multiple construction phases on the project site over several years and would result in increases in noise levels at nearby receptors by as much as 15.7 dBA, which would be perceived by receptors as a more than doubling of existing noise levels. This impact would be **potentially significant**.

## Mitigation Measures

### Mitigation Measure 3.10-1: Implement Construction-Noise Reduction Measures for Daytime Construction

To reduce noise from construction activities, the City shall require construction contractors to comply with following measures:

#### Equipment Restrictions

- ▶ Locate all stationary equipment (e.g., generators, welders, dehumidifiers) on the construction site as far away from adjacent residential land uses and other noise-sensitive sites as possible and no less than 50 feet from residential uses.
- ▶ Position onsite stationary equipment such that existing noise sources (e.g., roadways) or structures (e.g., existing buildings) block the line of sight between the onsite equipment and offsite sensitive land uses
- ▶ All construction equipment shall be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with manufacturers' recommendations. Equipment engine shrouds shall be closed during equipment operation.
- ▶ All construction equipment with back-up alarms shall be equipped with either audible self-adjusting backup alarms or alarms that only sound when an object is detected. The self-adjusting backup alarms shall automatically adjust to 5 dBA over the surrounding background levels. All non-self-adjusting backup alarms shall be set to the lowest setting required to be audible above the surrounding noise levels. In addition to the use of backup alarms, the construction contractor shall implement the use of observers and scheduling of construction activities such that alarm noise is minimized.

#### Quieter Alternative Methods and Equipment

- ▶ Each construction contractor shall use noise reducing operations measures, techniques, and equipment. This requirement shall be enforced through its inclusion on all construction bid specifications for all potential construction contractors hired within the project site. The bid specifications shall require that construction contractors provide an equipment inventory list for all equipment within the fleet with greater than 50 horsepower engines, that includes (at a minimum), make, model, and horsepower of equipment; operating noise levels at 50 feet, available noise control device that are installed on each piece of equipment; and associated noise reduction from the installed technology. Control devices shall include, but are not limited to, high-efficiency mufflers, acoustic dampening and protected internal noise absorption layers to vibrating panels, enclosures, and electric motors. In addition, the contractor shall specify how proposed alternative construction procedures will be employed to reduce noise at sensitive receptors compared to other more traditional methods. Examples include, but are not limited to, welding instead of riveting, mixing concrete off-site instead of on-site, and the use of thermal lance instead of drive motors and bits. In all cases, the requirement is that the best commercially available noise-reducing technology and noise-reducing alternative construction method shall be used, provided that there are no safety concerns, engineering limits, or environmental constraints preventing it from being used. If a unique circumstance does exist that prevents an alternative quieter construction method to be used, the contractor shall provide evidence to support their proposal. The noise reduction elements of construction bid submittals shall be approved by the City of Temecula, in coordination with a qualified acoustical professional.
- ▶ Combine noisy operations (e.g., riveting, cutting, hammering) to occur in the same time period (e.g., day or construction phase), such that the overall duration of these activities is reduced to the extent practical. By performing the noisiest operations together within the same time period, the overall duration that excessive noise would occur is reduced, minimizing the disturbing effects of exposure to prolonged increased noise levels. Where construction activities at any one location on the project site occur for an extended duration of more than 30 days affecting the same offsite receptor, install temporary noise curtains that meet the following parameters:
  - Install temporary noise curtains as close as possible to the boundary of the construction site within the direct line of sight path of the nearby sensitive receptor(s).

- Temporary noise curtains shall consist of durable, flexible composite material featuring a noise barrier layer bounded to sound-absorptive material on one side. The noise barrier layer shall consist of rugged, impervious, material with a surface weight of at least one pound per square foot.

### Significance after Mitigation

Implementation of Mitigation Measure 3.10-1 would result in reduced noise levels at sensitive receptors during construction activities by requiring noise-reducing equipment, alternative quieter construction methods, installation of temporary noise barriers, siting equipment as far away from receptors as possible, and relocating or clustering noise-generating activities such that the magnitude and duration of noise levels affecting sensitive receptors are minimized. Effectiveness of these mitigation measures would vary from several decibels (which in general is a relatively small change) to ten or more decibels (which subjectively would be perceived by receptors as a substantial change or a reduction by half), depending upon the specific equipment and the original condition of that equipment, the specific locations of the noise sources and the receivers. Installation of a noise barrier, for example, would vary in effectiveness depending upon the degree to which the line-of-sight between the source and receiver is broken, and typically ranges from 5 to 10 dB (NCHRP 1999). Installation of more effective silencers could range from several decibels to well over 10 decibels. Reduction of idling equipment could reduce overall noise levels from barely any reduction to several decibels.

However, given that construction activities are anticipated to occur over an extended period of time while the proposed project phases are constructed and that construction activities could result in a more than doubling of the existing noise levels at sensitive receptors in the project vicinity, temporary increases in construction-related noise would remain above threshold levels with the implementation of mitigation. This impact would be **significant and unavoidable**.

### **Impact 3.10-2: Exposure of Sensitive Receivers to Construction Vibration**

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Operation of construction equipment, possibly including a vibratory roller, would generate vibration during project construction. However, the resultant vibration level would not have the potential to cause structural damage to nearby structures or human annoyance at nearby residences. This impact would be **less than significant**.

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Construction activities generate varying degrees of temporary ground vibration, depending on the specific construction equipment used and activities involved. Ground vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance. The effects of ground vibration may be imperceptible at the lowest levels, result in low rumbling sounds and detectable vibrations at moderate levels, and, at high levels, cause annoyance, sleep disturbance, or damage to nearby structures.

Pile driving and blasting are the types of construction activities that typically generate the highest vibration levels and are, therefore, of greatest concern when evaluating construction-related vibration impacts. However, pile driving and blasting would not be conducted as part of the project.

Based on reference vibration levels for typical construction equipment (Table 3.10-7), the piece of equipment that could generate the greatest levels of ground vibration would be a vibratory roller which generates ground vibration levels of 0.210 in/sec PPV and 94 VdB at 25 feet (FTA 2018:184). Other typical equipment that was also evaluated includes delivery trucks and a jackhammer. Reference vibration levels for this equipment are included in Table 3.10-7 and 3.10-13 below. Using reference vibration levels and the distance to nearby receptors, potential vibration levels were modeled and are summarized below in Table 3.10-13.

When evaluating impacts from vibration-inducing activities, annoyance/disturbance to sensitive land uses and the potential for structural damage to occur are both considered. FTA's criteria of 80 VdB was applied to evaluate disturbance to sensitive receptors and 0.2 PPV in/sec was applied to evaluate the potential for structural damage.

Considering the nearest sensitive receptor to construction activity is the multi-family Madera Vista Homes located approximately 150 feet east of the project site, at 150 feet the assumed equipment to be used as shown in Table 3.10-13 shows that the peak VdB reaches at most 70.7 VdB and 0.014 PPV inc/sec. These levels are below both the 80 VdB

criteria for assessing disturbance to sensitive receptors (i.e., human annoyance) and the 0.2 PPV in/sec criteria for evaluating potential for structural damage. Further, as vibration levels would not be considered substantial at the nearest sensitive land uses, vibration levels would be even lower at other surrounding land uses/structures at distances beyond 150 feet. This impact would be **less than significant**.

**Table 3.10-13 Vibration Emission Levels from Construction Equipment**

Noise-Sensitive Receptor	Construction Equipment	Estimated VdB at 25 feet	Estimated VdB at Sensitive Location	Estimated PPV at 25 feet	Estimated PPV at Sensitive Location			
31450 De Portola Road (Single-Family Residential)	Vibratory Roller Loaded Trucks Jackhammer	94	68.3	.210	.011			
			60.3		.004			
			53.3		.002			
44153 Margarita Road (Madera Vista Apartments/Multi-Family Residential)			70.7		.014			
			62.7		.005			
			55.7		.002			
31630 Heather Way (Single-Family Residential)			79		68.3	.076	.011	
					60.3		.004	
					53.3		.002	
30955 De Portola Road (Single-Family Residential)						65.7	.035	.008
						57.7		.003
						50.7		.001

Source: Appendix F.

## Mitigation Measures

No mitigation is required for this impact.

## Impact 3.10-3: Exposure of Existing Sensitive Receptors to Operational Helicopter Noise

The project proposes to relocate the existing helipad from its existing at-grade location onto the top of a proposed four story parking lot structure during Phase III. Additionally, a new flight path alignment is included in the proposed project as shown on Figure 3.10-2. The frequency or time of helicopter arrivals and departures on the project site would not change as a result of the proposed project. To evaluate changes in noise levels associated with the proposed change in helipad location and flight path alignment, noise measurements of helicopter test flights at the existing helipad and flight path alignment were conducted and compared to noise modeling of the proposed project. The modeling shows that project-generated helicopter noise levels would not exceed applicable City exterior noise standards for residential uses of 65 dBA CNEL and no helicopter activity would push existing noise levels to above the City's standards of 65 dB CNEL at low to medium residential areas and 70 dB CNEL at multi-family housing areas. In addition, project-generated helicopter noise increases would be below the FICON-recommended 5.0 dB threshold for ambient noise of less than 60 dBA CNEL, 3.0 dB threshold for ambient noise of 60–65 dBA CNEL, and the 1.5 dB threshold for ambient noise greater than 65 dBA CNEL. Finally, residential development or other sensitive receptors would not be exposed to operation noise level increases exceeding the FAA adopted threshold of 65 dB CNEL. However, helicopter overflights that could occur during the nighttime hours could result in exceedances of the FICAN 65 dBA SEL standard at sensitive receptors along the proposed flight path alignment, which could result in sleep disturbance. Because the change in the helicopter flight path alignment could expose sensitive receptors to noise levels with potential to cause sleep disturbance, this impact would be **potentially significant**.

The proposed project includes relocating the existing helipad from its interim location to the roof of the proposed parking structure. In the previously approved environmental documents, the currently used helipad location and associated helipad were evaluated and it was determined that helicopter-generated CNEL noise levels would not exceed applicable standards at nearby residences; however, SEL noise levels from helicopter overflights were determined to be significant and unavoidable.

This analysis considers the project-generated changes to the existing noise environment from the proposed permanent flightpath location as well as a comparison to the findings of the previously adopted documents, to determine if new or substantially worse noise impacts would occur as a result of the proposed new helipad location and associated flight path. Both are discussed separately below.

### 24-hour CNEL

Long-term noise levels are measured using 24-hour CNEL. The existing project site includes a helipad and helicopter arrivals follow a northeast-southwest arrival/departure path. To determine how the proposed changes in helipad location and flight path alignment would affect existing ambient noise levels, existing noise measurements (as shown in figure 3.10-1) were conducted at the receptor locations closest to the existing and proposed flight path and helicopter flight operations (i.e., up to 3 flights in any given day, 1 flight in the evening from 7:00 pm to 10:00 pm, and one flight during the night from 10:00 pm to 7:00 am) were modeled. See Appendix F for more details on helicopter operations and modeling assumptions. Existing ambient noise levels, modeled helicopter noise, and project-generated increases in ambient noise at modeled locations are summarized below in Table 3.10-14.

**Table 3.10-14 Changes in Exterior Noise Levels Due to Proposed Helipad and Helicopter Flight Path**

Location Number	Location Description	Existing Ambient Noise Levels (dBA, CNEL)	Modeled Helicopter Noise Levels (dBA, CNEL)	Combined Ambient and Helicopter Noise Levels (dBA, CNEL)	Increase Above Ambient (dBA, CNEL)	Significant Impact?
<b>Proposed Flight Path to and from the East</b>						
Location 1	30390 De Portola Road (residence)	73.7	28.5	73.7	0.0	No
Location 2	30955 De Portola Road (residence)	60.8	40.5	60.8	0.0	No
Location 3	31775 De Portola Road (residence)	55.5	40.9	55.6	0.1	No
Location 5	31602 Calle Los Padres (residence)	75.8	44.1	75.8	0.0	No
<b>Proposed Flight Path to and from the West</b>						
Location 1	30390 De Portola Road (residence)	73.7	33.2	73.7	0.0	No
Location 2	30955 De Portola Road (residence)	60.8	40.3	60.8	0.0	No
Location 3	31775 De Portola Road (residence)	55.5	31.7	55.5	0.0	No
Location 5	31602 Calle Los Padres (residence)	75.8	44.5	75.8	0.0	No

Notes: Site 4 (hospital site) is not included in the table because it is not a noise sensitive land use.

Source: Meridian Consultant 2022.

As shown in Table 3.10-14, helicopter noise levels during flight paths to and from the east would range from a low of 28.5 dBA CNEL at Location 1 to a high of 44.1 dBA CNEL at Location 5 at the project site. Additionally, helicopter noise levels during flight paths to and from the west would range from 31.7 dBA CNEL at Location 3 to a high of 44.5 dBA CNEL at Location 5. Based on the modeling conducted, project-generated helicopter noise levels would not exceed applicable City exterior noise standards for residential uses of 65 dBA CNEL and no helicopter activity would push existing noise levels to above the City of Temecula's land use standard of 65 dB CNEL at low to medium residential areas and 70 dB CNEL at multi-family housing areas. In addition, project-generated helicopter noise increases would be below the FICON-recommended 5.0 dB threshold for ambient noise of less than 60 dBA CNEL, 3.0 dB threshold for ambient noise of 60–65 dBA CNEL, and the 1.5 dB threshold for ambient noise greater than 65

dBa CNEL. Finally, residential development or other sensitive receptors would not be exposed to operation noise level increases exceeding the FAA adopted threshold of 65 dB CNEL.

### **Single Event Noise (SEL)**

In addition to long-term permanent changes in ambient noise levels, characterized by the CNEL metric described above, when evaluating noise impacts, especially from aircraft, the potential to result in disturbance to sensitive receptors, including sleep awakenings, that could result in adverse health effects (e.g., stress, sleep deprivation), is also a consideration. To evaluate the potential for sleep disturbance from the proposed helipad and flight path, the 65 dBA SEL (interior) standard established by FICAN was used. To determine noise levels at nearby sensitive uses, reference noise levels for helicopter overflights were obtained during the noise measurements conducted for this project, and using the reference noise levels and other modeling inputs (e.g., flight path, weather parameters) SEL values were modeled at nearby receptors. Refer to Appendix F for further details and modeling inputs/outputs. Modeled SEL values at nearby receptors are summarized below in Table 3.10-15.

**Table 3.10-15 Project-Generation Helicopter Noise Levels (SEL)**

Location Number	Location Description	Existing Helicopter Noise Levels <sup>1</sup>	Proposed Project Modeled Helicopter Noise Levels	Difference	Exceeds Threshold?
<b>Helicopter Arrivals/Departures: to and from the East</b>					
Location 1	30390 De Portola Road (residence)	65.6	51.6	-14.0	No
Location 2	30955 De Portola Road (residence)	85.5	63.6	-21.9	No
Location 3	31775 De Portola Road (residence)	77.8	64.0	-13.8	No
Location 5	31602 Calle Los Padres (residence)	75.6	67.1	-8.5	Yes
Location 6	Direct Overflight of Equestrian Trail	100.8	64.7	-36.1	No
<b>Helicopter Arrivals/Departures: to and from the West</b>					
Location 1	30390 De Portola Road (residence)	73.3	56.3	-17.0	No
Location 2	30955 De Portola Road (residence)	73.3	63.4	-9.9	No
Location 3	31775 De Portola Road (residence)	59.6	54.8	-4.8	No
Location 5	31602 Calle Los Padres (residence)	79.7	67.6	-12.1	Yes
Location 6	Direct Overflight of Equestrian Trail	76.3	66.3	-10.0	Yes

Notes:<sup>1</sup> Refer to Table 3.3-10: Summary of Existing Ambient Noise Measurements and INM Location Point Noise for the Interim Location from Temecula Valley Hospital Helipad Project Draft EIR (November 2014).

Location 4 (hospital site) not listed as sensitive use.

Source: Meridian Consultant 2022.

As shown above in Table 3.10-15, when comparing future, with project, helicopter SEL noise levels at nearby sensitive receptors to noise levels at these same receptors under existing conditions, overall, SEL noise levels decrease as a result of the proposed project. This is because the proposed helipad would be located on the future parking structure building rather than at-grade, as in its current location, which shifts the noise exposure contours above grade rather than at a direct line-of-sight to the receiving uses, thus, reducing noise exposure.

Although SEL noise levels would decrease compared to existing conditions, the 65 dBA SEL threshold level would continue to be exceeded at Location 5 during flights from the east and west and Location 6 during flights from the west. Regarding Location 6, this is not a sensitive land use where people sleep so no adverse impact would occur here. Location 5 is within an existing residential neighborhood, thus, the potential for sleep disturbance would occur if helicopter flights occur during the night. It should be made clear that the 65 dBA SEL standard applies to interior noise levels, not exterior. Thus, under typical circumstances when the doors and windows of a residence are closed, assuming interior-to-exterior attenuation of 15-dB, interior noise levels during helicopter flights near Location 5 would be anticipated to be 52.6 dBA SEL, which would be below the 65 dBA SEL noise standard. Therefore, only under the infrequent occurrence when an emergency helicopter flight occurs during the early morning or late night hours, and a nearby receptor at Location 5 has open windows and/or doors during the flight, would the 65 dBA SEL interior noise level be exceeded.

### **Summary**

Based on the modeling conducted, project-generated helicopter noise levels would not exceed applicable City exterior noise standards for residential uses of 65 dBA CNEL and no helicopter activity would push existing noise levels to above the City of Temecula's land use standard of 65 dB CNEL at low to medium residential areas and 70 dB CNEL at multi-family housing areas. In addition, project-generated helicopter noise increases would be below the FICON-recommended 5.0 dB threshold for ambient noise of less than 60 dBA CNEL, 3.0 dB threshold for ambient noise of 60–65 dBA CNEL, and the 1.5 dB threshold for ambient noise greater than 65 dBA CNEL. Finally, residential development or other sensitive receptors would not be exposed to operation noise level increases exceeding the FAA adopted threshold of 65 dB CNEL. However, helicopter overflights that could occur infrequently during the nighttime hours, could result in exceedances of the FICAN 65 dBA SEL standard for interior noise levels at sensitive receptors if windows and/or doors are open during the flight, which in turn could result in sleep disturbance. This impact would be **potentially significant**.

### **Mitigation Measures**

Flight related mitigation measures cannot be placed on this type of medical helicopter activity to reduce noise impacts because the California's PUC Section 21662.4. states that emergency aircraft flights for medical purposes are exempt from local restrictions related to flight departures and arrivals based upon the aircraft's noise level. The City cannot restrict helicopter activity at the hospital that is for medical purposes.

Potential mitigation that could be effective in reducing helicopter noise at residential uses along Calle Los Padres would include upgrades to windows and building insulation and installation of central air conditioning in houses that don't have it already, which would allow people to close their windows. However, these upgrades would not preclude an individual to still open their windows at night. In addition, this type of mitigation may not be completely effective because it is infeasible for the City to require residents to close their windows and doors during all helicopter flights. Thus, the potential remains that if helicopters were to fly over residential uses during the early morning or nighttime hours, it could result in SEL levels that exceed the FICAN standard of 65 dBA, and thus, have the potential to disturb people during sleep. Although this occurrence would be minimal and infrequent, the potential exists, therefore, this impact would remain **significant and unavoidable**.

### **Impact 3.10-4: Exposure of Sensitive Receivers to Operational Parking Structure and Surface Parking Activity**

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The project would construct one four-story parking structure and six additional surface parking lots, ranging in capacity. Parking lot noise was modeled for a peak hour and assumed to occur for 24-hours per day. Based on modeling conducted, maximum exterior levels of 65 dBA CNEL were not exceeded and increases in noise would not be considered substantial, using FICON increase noise standards. Noise associated with other surface lots would be lower than modeled noise levels due to the smaller size of these lots. In all cases, parking lot noise would not result in substantial permanent increases in noise above ambient levels or that exceed the allowable levels of 65 dBA CNEL for residential uses. This impact would be **less than significant**.

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With respect to parking, implementation of the proposed project would include the construction of new surface parking lots, a 680-stall four-story parking structure, and expansion of existing surface parking lots. The use of parking lots generates various noise sources, including vehicular traffic-related noise, car doors closing/slamming, people talking, and car alarms/radios going off. This impact assesses increases in parking lot noise associated with the proposed new and expanded parking facilities.

All proposed parking facilities are depicted on Figure 2-7. Of all the proposed parking, the new four-story 680-stall structure would be the largest and, at its nearest point, would be located approximately 216 feet from the nearest residential receptor located at 30955 De Portola Road. In addition to the 680-lot parking structure, six surface parking lots would be expanded/constructed. In the northeast area of the project site, the second largest parking lot would be a 335-stall surface lot (Lot 1) and would be located approximately 200 feet south of the nearest sensitive receptor, a single-family residence at 31450 De Portola Road. The next largest lot would be located on the southeast side of the project site, east of the hospital main entrance and would be a 279-stall surface lot (Lot 2) located approximately 175 feet away from a neighboring medical office (Rancho Family Medical Group Urgent Care at 31720 Temecula Parkway/SR 79). A new 229 stall surface parking lot (Lot 3) would be constructed for the Medical Office Building 1 and 2, which would be approximately 180 feet north of a residential neighborhood along Temecula Parkway/SR 79. A new 58-stall surface lot (Lot 4) would be constructed for the Behavior Health Building at the southern edge of the project site along Temecula Parkway/SR 79 and would be as close as 65 feet to the east of an existing medical office along Dona Lynora Road. The existing lot west of the hospital main entrance and north from SR 79 would be replaced by the four-story structure and a new 81-stall surface lot (Lot 5) would be constructed directly to the west of the existing interim helistop and 280 feet to the south of the residence at 30895 De Portola Road. Last, a new 50-stall surface parking lot (Lot 6) would be constructed immediately north of the 680-stall parking structure, located approximately 130 feet south from the nearest sensitive receiver at 30925 De Portola Road.

Noise levels associated with parking lots tend to increase as hourly or daily vehicular traffic increases, thus, larger parking facilities typically generate more noise than smaller ones. Further, as with any noise source, the closer the source to the receptor, the more audible the source is and if noise sources occur during the sensitive times of the day when background levels are lower, noise can be more audible and potentially disruptive to nearby receptors. Given that the hospital would operate 24-hours a day and applying an assumption that two-thirds of the entire four-story structure's capacity (i.e., 425 vehicles) could enter/leave the structure during any hour within a 24-hour period, parking lot noise was modeled for each hour of the day (hourly  $L_{eq}$ ) and for a 24-hour period (CNEL) from the proposed four-story parking structure to the nearest residence approximately 216 feet north of the structure for comparison to existing noise levels and FICON's increase standards (Table 3.10-1). Note that the assumption of 425 vehicles entering/leaving the parking structure at any hour during a 24-hour period was chosen for the modeling so that the upper range of potential noise impacts could be presented in this analysis. In actuality, the level of vehicle activity at the proposed parking structure is expected to ebb and flow throughout a 24-hour day in proportion with fluctuations in activity taking place at the hospital. In general activity levels would be higher during the daytime compared with overnight. See Table 3.10-16 below for a summary of parking lot noise and modeling inputs/outputs in Appendix F.

Based on the modeling conducted and the assumed vehicle rate of 425 per hour or 7 vehicles per minute, parking lot noise at 50 feet from the parking lot structure would equate to 58.7 dBA  $L_{eq}$ . However, at the closest residence north of the structure approximately 216 feet at 30925 De Portola Road the output from the parking lot activity alone would be an hourly  $L_{eq}$  of 46 dBA. It should be noted that during all hours of the day, FICON increase standards, based on existing noise levels, would not be exceeded. Regarding 24-hour CNEL noise levels, project-generated CNEL levels were calculated using the hourly modeled noise levels shown above in Table 3.10-10 and combined with existing noise CNEL noise levels of 60.8 dBA CNEL, resulting in a 1.1 dB increase to 61.9 dBA CNEL, which would be below applicable allowable FICON increase standards of 3 dB and below the maximum allowable exterior noise level of 65 dBA CNEL for residential uses. Regarding noise from other parking lots, all other surface lots would have a lower capacity; and therefore, would also have a lower peak vehicle activity and associated noise level compared to the noise levels presented above. Due to the logarithmic properties of noise, a doubling of the source would result in a 3-dB increase. Likewise, a 50 percent reduction in a noise source would result in a reduction in noise by 3-dB. In the case of parking lot noise that would mean that a parking lot with half as many vehicles per hour would result in noise levels 3-dB lower compared to the four-story parking structure noise. For parking lots with even lower capacity and

throughput, noise would reduce more than 3-dB. Thus, given that all other parking lots would have a lower maximum capacity (i.e., ranging from 50 stalls to 335 stalls) that is at least 50 percent of the modeled parking lot noise described above, parking lot noise at other surface lots would be anticipated to be lower than levels presented above. Further, even considering that some new lots may be closer to receptors than the modeled distance for the parking structure, provided that noise levels would be lower at these other lots, increases in noise from all other parking structures would be similar or lower than levels described for the parking structure. For these reasons, parking lot noise would not result in substantial permanent increases in noise above ambient levels or that exceed the allowable levels of 65 dBA CNEL for residential uses. This impact would be **less than significant**.

**Table 3.10-16 Modeled Parking Lot Noise Levels Compared to Existing Noise Levels**

Hour of the Day	Existing Measured Noise Levels <sup>1</sup>	Parking Lot Noise Levels attenuated to Sensitive Receiver (216 feet)	Existing + Parking Lot Noise Levels	Difference Between Existing Parking Lot Noise Levels	Noise Increase Threshold <sup>2</sup>	Significant Impact?
	Leq, dBA					
0:00	43.4	46.0	47.9	+4.5	+5	No
1:00	43.3	46.0	47.8	+4.5	+5	No
2:00	43.4	46.0	47.9	+4.5	+5	No
3:00	44.7	46.0	48.4	+3.7	+5	No
4:00	48.6	46.0	50.5	+1.9	+5	No
5:00	55.3	46.0	55.8	+0.5	+5	No
6:00	51.8	46.0	52.8	+1.0	+5	No
7:00	51.4	46.0	52.5	+1.1	+5	No
8:00	50.9	46.0	52.1	+1.2	+5	No
9:00	50.1	46.0	51.5	+1.4	+5	No
10:00	49.2	46.0	50.9	+1.7	+5	No
11:00	54.3	46.0	54.9	+0.6	+5	No
12:00	51.8	46.0	52.8	+1.0	+5	No
13:00	49.7	46.0	51.2	+1.5	+5	No
14:00	68.7	46.0	68.7	0.0	+1.5	No
15:00	52.5	46.0	53.4	+0.9	+5	No
16:00	54.3	46.0	54.9	+0.6	+5	No
17:00	54.2	46.0	54.8	+0.6	+5	No
18:00	68.8	46.0	68.8	0.0	+1.5	No
19:00	61.8	46.0	61.9	+0.1	+3	No
20:00	48.6	46.0	50.5	+1.9	+5	No
21:00	47.2	46.0	49.6	+2.4	+5	No
22:00	45.9	46.0	48.9	+3.0	+5	No
23:00	44.0	46.0	48.1	+4.1	+5	No

Notes: Leq= hourly average level; dBA=A-weighted decibels;

<sup>1</sup> Refers to Table 3.10-10 with location 2 Leq measurements done in 2022

<sup>2</sup> Maximum threshold that is allowed based on existing noise levels and standards that FICON set in Table 3.10-1.

Source: Appendix F.

## Mitigation Measures

No mitigation is required for this impact.

### Impact 3.10-5: Generate Substantial Increase in Long-Term Traffic Noise Levels

Existing and future vehicle traffic noise levels on roadways in the project area exceed standards for maximum allowable noise levels without accounting for vehicle traffic from the proposed project. While the operation of the buildings and facilities developed as part of the proposed project would increase vehicle traffic volumes on project area roadways, the increases in traffic noise levels attributable to the proposed project would not be substantial or even perceptible. This impact would be **less than significant**.

Project-generated vehicle trips generated by the anticipated increase of both faculty and patients would increase average daily traffic volumes and associated increases in traffic noise levels along affected roadway segments near the project site. To analyze the impact of project-generated transportation noise sources, traffic volumes and their correlating noise level under existing and existing-plus-project conditions were modeled for major roadway segments in the project area that could be affected by project-related vehicle trips and roadway segments with sensitive receptors. Refer to Appendix F for detailed traffic noise modeling input parameters. Table 3.10-17 summarizes the modeled traffic noise levels at 100 feet from the roadway centerlines under existing and existing plus project conditions, along with the overall net change in noise level because of project-generated traffic.

**Table 3.10-17 Modeled Traffic Noise Levels under Existing and Existing Plus Project Conditions**

Item No.	Roadway	Segment From	Segment To	Existing (2022)	Existing Plus Project	Change (dBA)
				dBA CNEL, 100 Feet from Roadway Centerline		
1	De Portola Road	Vallejo Road	Jedediah Smith Road	65.7	65.8	0.2
2	De Portola Road	Jedediah Smith Road	Project Driveway	65.3	65.5	0.2
3	De Portola Road	Project Driveway	Margarita Parkway	65.6	66.0	0.4
4	De Portola Road	Margarita Parkway	Meadows Parkway	65.7	65.8	0.2
5	De Portola Road	Meadows Parkway	Campanula Way	64.1	64.3	0.2
6	De Portola Road	Campanula Way	Butterfield Stage Road	63.9	64.3	0.5
7	Temecula Parkway	I-15 Ramps	Bedford Court	75.3	75.4	0.1
8	Temecula Parkway	Bedford Court	La Paz Road	75.4	75.4	0.1
9	Temecula Parkway	La Paz Road	Wabash Lane	75.4	75.5	0.1
10	Temecula Parkway	Wabash Lane	Pechanga Parkway	75.3	75.4	0.1
11	Temecula Parkway	Pechanga Parkway	Jedediah Smith Road	73.5	73.7	0.2
12	Temecula Parkway	Jedediah Smith Road	Kevin Place	73.0	73.4	0.3
13	Temecula Parkway	Kevin Place	Avenida De Missionnes	73.0	73.3	0.3
14	Temecula Parkway	Avenida De Missionnes	Dona Lynora	72.7	73.1	0.3
15	Temecula Parkway	Dona Lynora	Hospital Driveway (Country Glen Way)	72.8	73.1	0.3
16	Temecula Parkway	Hospital Driveway (Country Glen Way)	Redhawk Parkway	71.8	72.3	0.4
17	Temecula Parkway	Redhawk Parkway	Camino Del Sol	72.2	72.5	0.3
18	Temecula Parkway	Camino Del Sol	Meadows Parkway (Apis Road)	71.8	72.1	0.3
19	Temecula Parkway	Meadows Parkway (Apis Road)	Mahlon Vail Road	70.8	71.0	0.2
20	Temecula Parkway	Meadows Parkway (Apis Road)	Butterfield Stage Road	70.7	70.9	0.2
21	Pechanga Parkway	Temecula Parkway	Rainbow Valley Boulevard	70.3	70.4	0.1
22	Margarita Road (Redhawk Parkway)	Jedediah Smith Road	De Portola Road	68.4	68.6	0.2

Item No.	Roadway	Segment From	Segment To	Existing (2022)	Existing Plus Project	Change (dBA)
				dBA CNEL, 100 Feet from Roadway Centerline		
23	Margarita Road (Redhawk Parkway)	De Portola Road	Temecula Parkway	67.7	67.8	0.1
24	Margarita Road (Redhawk Parkway)	Temecula Parkway	Vail Ranch Parkway	67.4	67.4	0.0
25	Meadows Parkway	De Portola Road	Campanula Way	65.8	66.1	0.3
26	Meadows Parkway	Campanula Way	Temecula Parkway	66.0	66.4	0.4
27	Butterfield Stage Road	De Portola Road	Temecula Parkway	69.3	69.4	0.1
28	Butterfield Stage Road	Temecula Parkway	Nighthawk Pass	68.2	68.4	0.1

Notes: Traffic noise levels were calculated using methods consistent with the FHWA roadway noise prediction model, based on data obtained from the traffic analysis prepared for this project; dBA=A-weighted decibel.

Source: Modeled by Ascent Environmental in 2022.

The Temecula Valley General Plan Noise Element requires that transportation noise levels stay at or below the permitted land use exterior noise standards. However, as seen in the current 2022 noise levels as shown in table 3.10-10, noise from traffic already exceeds noise levels permitted for sensitive land uses (i.e. 65 dBA CNEL). Considering that existing noise levels currently exceed allowable standards, this analysis focusses on incremental noise increases associated with long-term increases in traffic noise, using the FICON standards shown in Table 3.10-1. Considering traffic noise specifically, an increase in noise levels exceeding these standards would be considered substantial. With the complete project buildout, the greatest increase in noise that would occur would be 0.5 dB, which would not be a perceptible increase to any existing receptor. Further, considering FICON standards, this increase would not be considered a substantial increases (i.e., 5 dB or greater for existing noise levels of 60 dB or below, 3 dB for existing noise levels of 60-65 dB, and 1.5 dB or greater for noise levels of 65 dB or above) in traffic noise on affected roadways. Therefore, increases in traffic due to the Temecula Valley Hospital Master Plan Update would not result in audible increases in noise and would not be considered substantial under FICON standards. This impact would be **less than significant**.

### Mitigation Measures

No mitigation is required for this impact.

### Impact 3.10-6: Generate Substantial Long-term Stationary Noise Level Increases

The proposed project includes a central utility plant, which would include new stationary sources (i.e., boilers, air chillers, cooling towers). Based on the modeling conducted, 24-hour CNEL noise levels at all nearby receptors would exceed applicable City exterior noise standards (i.e., 65 dBA CNEL for single-family homes, 70 dBA CNEL for multi-family homes), and would result in substantial increases (i.e., more than 5 dBA increase where existing noise levels are less than 60 dBA and a more than 3 dBA increase where existing noise levels are between 60 and 65 dBA) in noise. In addition, new HVAC units would be installed on the roofs of new project buildings. However, HVAC units are typical noise sources in urban areas and already exist in the project area. Further, existing noise sources (i.e., Temecula Parkway) would continue to dominate the ambient noise environment as HVAC units are intermittent noise sources that would not result in a substantial increase in noise. Nonetheless, the proposed central utility plant would result in a substantial increase in noise and in noise levels that exceed applicable City exterior noise standards. This impact would be **potentially significant**.

A 14,000-square-foot central utility plant would be developed in the northeast portion of the project site, south of De Portola Road. It would be approximately 43 feet in height and house equipment serving the energy needs of the hospital. The central utility plant would operate 24 hours per day, year-round (8,760 hours/year), with lower demand

at night relative to during the day. Four natural gas-fueled boilers, four electric chillers, and pumps would be enclosed inside of the utility plant; four cooling towers would be located next to the plant and not enclosed within it. In addition, air handling units would be located on the hospital roof. This analysis evaluates the central utility plant (enclosed and not enclosed equipment) as one single stationary noise source and the air handlers as a separate noise source because of their separate locations.

### **Central Utility Plant**

To model noise levels associated with the utility plant, reference noise levels for anticipated stationary equipment (e.g., generators, ventilation fans, pumps) were used to estimate combined hourly noise levels associated with stationary equipment at a reference distance of 50 feet from the source. Then using the estimated hourly noise levels, 24-hour CNEL values were calculated. Typical attenuation rates were applied to these reference levels to determine noise levels at nearby sensitive receptors. Specifically, for equipment enclosed within the utility plant (boilers, chillers) noise levels from four generators were combined to represent the natural gas boilers. In addition, for each chiller, one fan and one pump were combined. Because the boilers and chillers would be enclosed, a 10-dB reduction, assuming the lower end of possible noise reduction achievable from absorptive acoustic barriers or partial enclosures, was applied to this equipment to obtain an adjusted exterior noise level (Hoover Keith 2000: 10-13). Adjusted exterior noise levels from the enclosed equipment were combined with modeled noise from the cooling towers that would not be enclosed, which included one fan and one pump for each tower. Based on this modeling approach, the modeled reference noise levels for the utility plant, at 50 feet from the source, applied in this analysis is 91.5 dBA  $L_{eq}$ . Using this modeled noise level, 24-hour CNEL values were calculated based on typical attenuation rates to determine changes in existing noise levels at nearby sensitive receptors. See Appendix F for detailed calculation sheets. A summary of modeled noise levels from the proposed central utility plant at nearby receptors is included below in Table 3.10-18.

**Table 3.10-18 Estimated Combined Noise Levels of Utility Plant Operations at Sensitive Receivers**

Noise-Sensitive Receptor	Existing (dBA, CNEL)	Existing Plus Project (dBA, CNEL)	Change (dBA)
31450 De Portola Road (Single Family Residential)	60.8	77.0	+17
44153 Margarita Road (Madera Vista Apartments/Multi-Family Residential)	55.5	80.0	+25
30955 De Portola Road (Single Family Residential)	60.8	73.8	+13

Notes: dBA= A-weighted decibel; CNEL= 24-hour community equivalent noise level.

Source: Modeling conducted by Ascent Environmental, Inc., 2022.

Based on the modeling conducted, 24-hour CNEL noise levels at all nearby receptors would exceed applicable City exterior noise standards (i.e., 65 dBA CNEL for single-family homes, 70 dBA CNEL for multi-family homes), and would result in substantial increases (i.e., more than 5 dBA increase where existing noise levels are less than 60 dBA and a more than 3 dBA increase where existing noise levels are between 60 and 65 dBA) in noise. In all cases, 24-hour noise levels would increase by more than 10-dB which is perceived by receptors as a doubling in sound. Thus, receptors exposed to noise increases from the utility plant would perceive a noticeable increase in exterior noise levels. Specifically, residential units within the Madera Vista Apartments, directly to the east of the proposed central utility plant location and the closest sensitive receptors, would perceive the greatest increase in noise as noise levels from stationary sources such as the utility plant decrease at a rate, generally, of 6 dB per each doubling of distance from the source. Further, as shown above in Table 3.18-17 along nearby roadways (e.g., Temecula Parkway, Margarita Road) existing noise levels range from 65 to 75 dBA CNEL, thus, the existing noise environment near roadways in the project vicinity are similar to noise levels that the central utility plant would generate. Due to the logarithmic nature of noise, when two similar noise levels are added together, only slight increases (i.e., imperceptible) in noise occur. Therefore, at locations where existing noise levels are similar or louder than noise that the central utility plant would generate, noise increases would not be perceptible. Specifically, noise at other nearby receptor locations, such as the receptors at 31602 Calle Los Padres Road, would not perceive increases in noise from the Central Utility Plant as noise ambient noise levels from Temecula Parkway would dominate the noise environment at this location. It should be

further noted that noise levels at interiors of buildings would be anticipated to be 15-25 dBA lower depending on the condition of the structures and whether or not windows were open.

### Air Handler/HVAC Systems

In addition to the noise generated by the proposed central utility plant, individual air handlers would be located on the roofs of project buildings throughout the site. Actual equipment location and equipment size/manufacture is not available at this time; however, noise levels commonly associated with air conditioning systems can reach levels of up to 78 dB at 3 feet (Lennox 2018). Applying this reference noise level as an hourly average ( $L_{eq}$ ) and assuming a 50 percent usage range, would result in a 75 dBA  $L_{eq}$  at 3 feet from the source. HVAC units already exist and are part of the ambient noise environment at the project site and in the project vicinity. In addition, based on the proposed site plan, the buildings on the southern edge of the site (Medical Office Buildings, Behavioral Health Building), are the only buildings located close to sensitive receptors and are in an area of the site where no stationary noise sources currently exist, thus, new HVAC units in this area could result in long-term permanent increases in noise. However, at this location, Temecula Parkway/SR 79 is a major noise source in the area and is located directly between the proposed buildings at this location and the existing residential neighborhood south of SR 79.

Existing noise exposure at these receptors from Temecula Parkway is 72.7 dBA CNEL (Table 3.10-9 Temecula Parkway between Dona Lynora and Country Glen Way). Considering the HVAC reference level of 75 dBA  $L_{eq}$  and the fact that the individual air handlers/HVAC units for the medical office buildings would operate intermittently throughout the business day, 24-hour CNEL noise levels associated with the HVAC units would be lower than existing noise levels at this location. Considering logarithmic properties of noise, when combining a lower noise levels with a higher one, the higher level still remains as the dominant noise source, especially in this case where Temecula Parkway is the dominant noise source at the existing receptors. For these reasons, the addition of HVAC units would not result in long-term permanent increases in noise at nearby receptors.

### Summary

The proposed central utility plant would include new stationary sources (i.e., boilers, air chillers, cooling towers). Based on the modeling conducted, 24-hour CNEL noise levels at all nearby receptors would exceed applicable City exterior noise standards (i.e., 65 dBA CNEL for single-family homes, 70 dBA CNEL for multi-family homes), and would result in substantial increases (i.e., more than 5 dBA increase where existing noise levels are less than 60 dBA, a more than 3 dBA increase where existing noise levels are between 60 and 65 dBA, and a 1.5 dB increase where existing levels exceed 65 dBA) in noise. In addition, new HVAC units would be installed on the roofs of new project buildings. However, HVAC units are typical noise sources in urban areas and already exist in the project area. Further, existing noise sources (i.e., Temecula Parkway) would continue to dominate the ambient noise environment as HVAC units are intermittent noise sources that would not result in a substantial increase in noise. Nonetheless, because the proposed central utility plant would result in a substantial increase in noise and in noise levels that exceed applicable City exterior noise standards at two nearby single family residences and at units within the Madera Vista Apartments, this impact would be **potentially significant**.

## **Mitigation Measures**

### **Mitigation Measure 3.10-2: Reduce Operational Noise from the Central Utility Plant**

Prior to approval of final plans for the proposed central utility plant, the applicant shall hire a qualified acoustical specialist to prepare a noise minimization plan for the central utility plant. This plan shall identify design strategies and noise attenuation features that the project will implement to ensure that operation of the central utility plant does not result in exterior noise levels that exceed the following standards:

- ▶ 65 dBA CNEL for low-density residential, (single-family residences along De Portola Road);
- ▶ 70 dBA CNEL for medium-density residential (residential uses along Margarita Road);
- ▶ an increase of 5 dB or higher where existing levels are less than 60 dBA CNEL;

- ▶ an increase of 3 dBA or higher where existing levels are between 60 and 65 dBA CNEL; or
- ▶ an increase of 1.5 dB or higher where existing levels are higher than 65 dBA CNEL.

The noise minimization plan shall include noise measurements characterizing existing noise levels at the time preparing of the plan is commenced, and/or modeling of noise levels generated by the central utility plant, as-needed, to demonstrate compliance with the above standards. This plan also shall demonstrate how one or more of the following measures (or other measures demonstrated to be equally effective) shall be implemented to achieve the required standards.

- ▶ Design the central utility plant such that the structure itself is between the onsite noise sources (e.g., chillers, cooling towers) and the offsite receptors, serving as a noise barrier protecting off-site receptors from noise generated by on-site operational equipment. If the structure can completely block the line-of-sight from the source to the receiver, noise levels could potentially be inaudible at offsite locations.
- ▶ Enclose the area and individual sources where operational equipment would operate with noise barriers / walls, such that the noise barrier completely blocks the line-of-sight between the source and offsite receptors. Generally, a barrier that breaks the line of sight between a source and a receiver will result in at least 5 dB but can readily achieve a 10 dB reduction and taller barriers provide increased noise reduction.
- ▶ Install equipment with pre-installed acoustical reduction technology (e.g., louvers, baffles) to reduce individual equipment noise to the extent technologically feasible.
- ▶ Prior to final building inspection and operation of the new central utility plant, a noise test shall be conducted by a qualified acoustical professional, to demonstrate compliance with the City of Temecula's residential noise standards (i.e., 65 dBA CNEL for low density residential and 70 dBA CNEL for medium and high density residential) at all nearby and affected residential land uses. If noise standards are not met, the City shall not grant rights to operate the facility until it can be demonstrated that noise standards would be in compliance.

Measures identified in the noise minimization plan shall be incorporated into the project design as-needed to achieve the noise standards set forth in this measure. Prior to approval of future development plans implementing the proposed project, the City's Community Development Director is responsible for verifying that the noise minimization plan has been prepared in compliance with this measure and measures needed to achieve compliance with the noise standards set forth in this measure are included in the site plan.

#### Significance after Mitigation

Implementation of Mitigation Measure 3.10-2 would require preparation of noise minimization plan demonstrating that operation of the central utility plant would not result in substantial increases in exterior noise levels at sensitive receptors, including the two adjacent single-family residences and units located at the Madera Vista Apartments. Measures identified in the noise minimization plan as necessary to achieve exterior noise level standards are required to be incorporated into the proposed project. As a result, this impact would be **less than significant with mitigation**.

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## 3.11 POPULATION, EMPLOYMENT, AND HOUSING

This section describes the existing population, housing, and employment conditions on the project site and in the City. Descriptions and analysis in this section are based on information from the City of Temecula General Plan, the California Department of Finance (DOF), and the Southern California Association of Governments (SCAG). The analysis includes a description of the methods used for assessment, as well as the potential direct and indirect impacts of project implementation.

No comments related to population, employment, or housing were received in response to the NOP.

### 3.11.1 Regulatory Setting

#### FEDERAL

There are no federal plans, policies, regulations, or laws related to population, employment, and housing that are applicable to the project.

#### STATE

There are no State plans, policies, regulations, or laws related to population, employment, and housing that are applicable to the project.

#### LOCAL

##### **Southern California Association of Governments' Connect SoCal - The 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy**

The Southern California Association of Governments (SCAG) is the largest Metropolitan Planning Organization (MPO) in the country, encompassing six counties (Imperial, Los Angeles, Orange, Riverside, San Bernadino, and Ventura), and 191 cities in an area covering more than 38,000 square miles. On September 3, 2020, SCAG's Regional Council approved and adopted Connect SoCal (2020 – 2045 Regional Transportation Plan/Sustainable Communities Strategy), which sets forth transportation improvements and strategies, and a regional land use pattern to accommodate forecasted population, housing, and employment growth. The growth assumptions and regional land use pattern of the adopted Connect SoCal are based in part on the land use designations of the City's adopted General Plan (SCAG 2020a).

##### **City of Temecula General Plan**

The *City of Temecula General Plan* (City of Temecula 2005) includes the following population, employment, and housing-related policies that are applicable to the proposed project:

##### Land Use Element

- ▶ **Policy 1.4:** Support development of light industrial, clean manufacturing, technology, biomedical, research and development, and office uses to diversify Temecula's economic base.
- ▶ **Policy 1.8:** Encourage future development of a community hospital and related services, as well as a community college, major college or university.

##### Economic Development Element

- ▶ **Policy 1.2:** Encourage the growth and expansion of industry by providing high quality municipal services, facilities, and economic development assistance.

- ▶ **Policy 1.6:** Develop and maintain strategic partnerships with the Chamber of Commerce, the Economic Development Corporation, and other organizations that encourage the establishment of high-paying jobs in the area.
- ▶ **Policy 3.2:** Encourage the growth or relocation of industries that generate local tax and employment advantages.
- ▶ **Policy 5.3:** Monitor and maintain the supply of diverse housing types and price ranges in relation to the supply of jobs to balance area-wide jobs, households, worker earnings and housing expenses throughout the City.

#### Growth Management/Public Facilities Element

- ▶ **Policy 2.5:** Encourage new development that helps create and maintain a balance between jobs and housing opportunities.

## 3.11.2 Environmental Setting

### POPULATION

The City of Temecula (City) is located in Riverside County, which includes 28 incorporated cities and unincorporated areas. With access to both Orange and Los Angeles Counties to the west, and San Diego County to the south, the City has experienced rapid population growth since its incorporation in 1989. According to the California Department of Finance (DOF), the City's total population has increased from 25,300 in January 1990 to approximately 109,925 residents as of January 1, 2022 (DOF 1990, 2022a). In January 2008, when the 2008 EIR was certified, the City's population was approximately 95,332 residents (DOF 2012). By 2045, the City's population is estimated to increase to 138,400 residents (SCAG 2020b).

### HOUSING

The U.S. Census Bureau defines a housing unit as a house, an apartment, a group of rooms, or a single room occupied or intended for occupancy as separate living quarters. For the purpose of population surveys in the decennial census, individuals are counted at their "usual residence." "Usual" is defined as the place where the person lives and sleeps most of the time, or the place he or she considers to be his or her usual residence (U.S. Census Bureau 2021).

According to the California Department of Finance, there were a total of 37,420 housing units in the City as of January 1, 2022, with an average household size of 3.04 persons per unit. For comparison, the average household size is 3.10 persons per unit in Riverside County. Approximately 82 percent of housing units in the City were attached and detached single-family houses, compared to 75 percent of housing units countywide (DOF 2022b). Multi-family housing units made up approximately 17.5 percent of the total units, while mobile homes accounted for the remaining 0.5 percent. By 2045, the total number of housing units in the City is estimated to increase to 46,400 units (SCAG 2020b).

### EMPLOYMENT

According to SCAG's Profile of the City of Temecula, there were a total of 56,995 jobs in the City in 2017 (the latest year for which this information is available), which represents 7.5 percent of the total jobs in Riverside County. Of the four largest job sectors in the City, approximately 17 percent of jobs were in retail, 17 percent were in education, 14.2 percent were in leisure hospitality, and 10.3 percent were in professional management (SCAG 2019). Between 2007 and 2017, there were changes in the share of jobs by sector in the City. During this time, the share of education jobs increased from 13 percent to 17 percent, while the share of construction jobs declined from 9.1 percent to 5.3 percent. According to SCAG, projected employment in the City for 2045 is anticipated to be 71,600 jobs, which is an increase of 14,605 jobs from 2017 (SCAG 2020b). As of May 20, 2022, the unemployment rate in the City was 2.9 percent (EDD 2022). The existing hospital facility employs 1,500 workers, with an average of 750 employees on-site during a 24-hour period (Smith, pers. comm., 2022).

### 3.11.3 Environmental Impacts and Mitigation Measures

#### METHODOLOGY

Impacts on population and housing were assessed by reviewing existing and anticipated population and housing projections for the City of Temecula prepared by the DOF and SCAG. The project's impacts were evaluated by determining their consistency with these estimates and projections. Population and employment growth, as an economic or social change, is not considered a significant effect on the environment (pursuant to State CEQA Guidelines Section 15131). Growth that is consistent with planning documents that have undergone separate environmental evaluation would generally result in similar potential for environmental impacts and the requisite demand for infrastructure would typically be incorporated into the plans of the respective utilities. However, where growth could lead to physical changes, the potential for effects is evaluated. For further discussion of growth-inducing effects, see Chapter 6, "Other CEQA Considerations."

#### THRESHOLDS OF SIGNIFICANCE

A population, employment, and housing impact is considered significant if implementation of the project would:

- ▶ induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure); and/or
- ▶ displace substantial numbers of existing people or homes, necessitating the construction of replacement housing elsewhere.

#### ISSUES NOT DISCUSSED FURTHER

The proposed project involves development of additional hospital facilities and associated structures on the remaining undeveloped portions of the existing Temecula Valley Hospital site. There are no existing people or housing units on the project site. As such, the proposed project would not result in displacement of substantial numbers of existing people or housing that would necessitate the construction of replacement housing elsewhere. Therefore, this impact is not discussed further in this Draft SEIR.

#### ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

##### Impact 3.11-1: Directly or Indirectly Induce Substantial Unplanned Population Growth

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The proposed project would increase the number of jobs on the project site relative to the existing operating hospital, which could increase demand for housing in the project area and the surrounding region. However, job growth from the adopted master plan is accounted for in the most recent population, housing, and employment projections for the City and surrounding areas, and in regional and local plans to accommodate such growth, including the City of Temecula General Plan and the SCAG Connect SoCal plan. In addition, existing infrastructure systems are adequate to serve the proposed project, and it would not include any expansions or upgrades to existing infrastructure systems with excess capacities that could support new development beyond currently planned levels. For these reasons, the proposed project would not directly or indirectly induce population growth beyond the levels accounted for in local and regional growth projections. This impact would be **less than significant**.

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The proposed project, an update to the Temecula Valley Hospital Master Plan, consists of revisions to the currently approved Temecula Valley Hospital project. Phase I development of the hospital was completed in 2011, and the hospital began operating in 2013. The purposes of the proposed project include increasing the size of the existing hospital and emergency department to accommodate a greater number of patients as a result of forecasted regional population growth and providing a variety of inpatient and outpatient medical services, including behavioral health service, to meet demand for these services. Specifically, the project involves expanding the emergency department

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and constructing a behavioral health building, two additional hospital towers, two medical office buildings, a utility plant, surface parking lots, and a four-story parking structure. In addition, the helipad would be relocated from its interim location on the project site to the roof of the proposed parking structure. The hospital building and other buildings constructed during Phase I would be maintained in place.

The proposed changes to the hospital master plan would increase the number of employees on the project site relative to the existing hospital. During an average 24-hour period, there would be an additional 675 employees on the project site relative to existing conditions. This increase in jobs could increase demand for housing in the project area and surrounding region. However, the General Plan land use designation for the project site allows medical uses and includes the existing operating hospital. Because the master plan approval occurred in 2008, they have been accounted for in the most recent population, housing, and employment projections for the City and surrounding areas, and in regional and local plans to accommodate such growth. For example, the City of Temecula is forecasted to add approximately 9,000 additional housing units from 2022 to 2045, and add over 14,000 jobs by 2045 relative to 2017 levels. The City's General Plan includes capacity to accommodate development of these housing units and employment-generating land uses. Therefore, the incremental increase in employment opportunities resulting from the proposed project would not substantially induce unplanned growth.

Additionally, the proposed project is in an area of the City that is fully served by urban infrastructure, with transportation, water, sewer, and stormwater facilities currently in place to serve the project. The proposed project does not include any expansions or upgrades to existing infrastructure systems with excess capacities that could support new development beyond currently planned levels; the capacities of existing infrastructure systems are adequate to serve the demands of the proposed project. The project does not include any new or expanded infrastructure that could induce further growth beyond the levels accounted for in existing plans. For these reasons, the proposed project would not directly or indirectly induce substantial unplanned population growth. This impact would be **less than significant**.

### **Mitigation Measures**

No mitigation is required for this impact.

## 3.12 PUBLIC SERVICES

This section provides an overview of existing fire protection and law enforcement services in the project area and evaluates whether the proposed project would increase demand for these services such that the construction of new or expanded fire protection or law enforcement facilities, which could result in adverse environmental effects, would be required to maintain acceptable levels of service. Utility systems, including water supply, wastewater treatment, stormwater management, solid waste, electricity, and natural gas, are addressed in Section 3.13, "Utilities and Service Systems."

No comments related to demand for fire protection or law enforcement services were submitted in response to the notice of preparation.

### 3.12.1 Regulatory Setting

#### FEDERAL

No federal plans, policies, regulations, or laws are applicable to the provision of fire protection or law enforcement services for the proposed project.

#### STATE

##### California Fire Code

The California Fire Code (CFC), Part 9 of Title 24 of the California Code of Regulations, which incorporates by adoption the International Fire Code, contains regulations related to construction, maintenance, and use of buildings. Topics addressed in the CFC include fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, hazardous materials storage and use, provisions intended to protect and assist fire responders, industrial processes, and many other general and specialized fire-safety requirements for new and existing buildings and the surrounding premises. The CFC contains specialized technical regulations related to fire and life safety. The CFC is part of the California Building Standards Code, which is described below.

##### California Health and Safety Code

State fire regulations are set forth in Sections 13000 et seq. of the California Health and Safety Code, which includes regulations for building standards (as set forth in the California Building Standards Code), fire protection and notification systems, fire protection devices such as extinguishers, smoke alarms, high-rise building and childcare facility standards, and fire-suppression training.

##### California Building Standards Code (Title 24)

New buildings in California are regulated by State Building Energy Efficiency Standards contained in the California Code of Regulations, Title 24, Part 2, Chapter 2-53. Title 24 applies to all new construction of both residential and nonresidential buildings. The 2019 California Building Standards Code went into effect January 1, 2020; the 2022 California Building Standards Code will take effect January 1, 2023.

#### LOCAL

##### Temecula Municipal Code

Chapter 15.06 of the Municipal Code requires the payment of public facilities development impact fees, which include fire protection and law enforcement facilities. Nonresidential development is specifically addressed in Section 15.06.030 Nonresidential Public Facilities Development Impact Fee Required. Fees shall be paid prior to issuance of a

building permit and in the amount required by the City pursuant to Resolution No. 03-63. The fees are used to maintain service levels as new development occurs in the City.

Chapter 15.16 of the Municipal Code is the City's Fire Code, which sets forth regulations related to construction, maintenance and use of buildings in the City. The City's Fire Code is based on the CFC, 2019 edition, with specified amendments, additional and deletions adopted by the City, as specified in Code Section 15.16.020 Amendments.

### City of Temecula General Plan

The City's General Plan, Growth Management/Public Facilities Element, establishes goals and policies addressing the provision of fire protection and law enforcement services. The following goals and policies for fire protection and law enforcement services are relevant to the proposed project.

**GOAL 3:** Effective and cost-efficient police, fire and emergency medical services within the City.

- ▶ **Policy 3.1:** Evaluate police protection services for adequate facilities, staffing, and equipment based on changes in population and development and to ensure an adequate response time for emergencies. Strive to provide a minimum of one full-time officer per 1,000 residents for police protection services.
- ▶ **Policy 3.2:** Require new development to address fire and police protection proactively through all-weather access, street design, orientation of entryways, siting of structures, landscaping, lighting, and other security features. Require illuminated addresses on new construction. Provide facilities, staffing, and equipment necessary to maintain a 5-minute response time for 90 percent of all emergencies.
- ▶ **Policy 3.3:** Discourage the closure of streets that limit or delay access for emergency services.
- ▶ **Policy 3.4:** Coordinate with the County of Riverside to locate and phase new sheriff facilities and fire stations to ensure adequate service levels are maintained.
- ▶ **Policy 3.5:** Promote community awareness regarding crime through the Police Department, public service organizations, and the establishment of citizen-involved programs and patrols.

## 3.12.2 Environmental Setting

### FIRE PROTECTION

The Temecula Fire Department is comprised of 1 Division Chief, 2 Battalion Chiefs and 60 firefighting personnel that serve from the following 5 fire stations located within the City limits (City of Temecula 2022a).

- ▶ Station 12 (Old Town)
- ▶ Station 73 (Enterprise Circle)
- ▶ Station 84 (Pauba)
- ▶ Station 92 (Wolf Creek)
- ▶ Station 95 (Roripaugh Ranch)

The Riverside County Fire Department (RCFD) also provides fire protection services in the City, from the following stations:

- ▶ Station 75 (Bear Creek)
- ▶ Station 83 (French Valley)
- ▶ Station 96 (Glen Oaks)

Between TFD and RCFD there are 8 total stations serving the City. The two closest stations to the project site are Station 92, which is located approximately 2 miles south of the project site at 32211 Wolf Valley Road, and Station 84, which is located approximately 2 miles north of the project site at 30650 Pauba Road.

Plan review and inspection services for development and construction throughout the City is provided by 6 Fire Prevention staff members located at City Hall. There are 3 Administrative staff members that provide support for the implementation and management of the Temecula Fire Department (City of Temecula 2022b). The Temecula Fire Department fire engines are all 4 person staffed paramedic assessment engines which ensures a minimum of 1 Paramedic and 3 EMT level personnel at the scene of all emergencies.

The City utilizes many different types of fire apparatus when responding to emergencies. All engines have one paramedic on board to meet the 4.0 staffing policy adopted by the City, which helps promote faster response times and ensures safety of the firefighters and citizens. A summary of fire engines and other fire apparatus utilized for fire protection is provided below.

- ▶ Fire Engine (Type I): 5 units
- ▶ Fire Engine (Type III): 2 units
- ▶ Type II Urban Search and Rescue (US&R): 1 unit
- ▶ Paramedic Squad: 2 units
- ▶ Ladder Truck: 1 unit
- ▶ Breathing Support: 1 unit

An important requirement for fire suppression is adequate fire flow, which is the amount of water, expressed in gallons per minute, available to control a given fire and the length of time this flow is available. The total fire flow needed to extinguish a structural fire is based on a variety of factors, including building design, internal square footage, construction materials, dominant use, height, number of floors, and distance to adjacent buildings. Minimum requirements for available fire flow at a given building are dependent on standards set in the California Fire Code.

As described in Section 3.7, Hazards and Hazardous Materials, the proposed project is located in a non-very high fire hazard severity zone.

## LAW ENFORCEMENT

### Temecula Police Department

Law enforcement in the City is provided by the Temecula Police Department (TPD), which contracts with the Riverside County Sheriff's Department to provide staff and equipment. The Southwest Temecula Station is the main station serving the City, including the project site. It is located approximately 7 miles north of the project site. The Southwest Station also services unincorporated communities in the vicinity of the City. There are also two substations, the Promenade Mall Substation and Old Town Substation. Officers are assigned to specific beats within the City, all of which respond from the Southwest Station. The TPD employs officers at the rate of about 1 Officer per 1,063 residents (City of Temecula 2022c). The City maintains 112 sworn officers, 17 non-sworn officers Community Service Officers, plus an additional 17 administrative support positions (City of Temecula 2021).

The Old Town Substation is located at 28690 Mercedes Street, Suite B, Temecula, CA 92589, while the Promenade Mall Substation is located at 40820 Winchester Road, Suite 2020, Temecula, CA 92591. These substations provide limited services for residents, including fingerprinting, obtaining copies of reports, filing reports, having tickets signed off, and similar services.

Calls for services are prioritized from 1-4 for the RCSD. Priority 1 calls for service are the highest priority and require an immediate response from the nearest deputy within that specific beat. Priority 2 calls require a quick response and are usually related to a crime involving a threat to a person. Priority 3 calls for service require a quick response once the priority 1 and priority 2 calls are not pending and are typically related to property crime with no threat to persons or the community. Priority 4 calls are past reports of crimes or disturbances with no immediate threat to persons or property. TPD responded to a total of 74,575 calls for service during fiscal year 2020-21 (City of Temecula 2021).

### 3.12.3 Environmental Impacts and Mitigation Measures

#### METHODOLOGY

Impacts on fire protection and law enforcement services that would result from the proposed project were identified by comparing existing service capacity and facilities against future demand associated with proposed project implementation.

#### THRESHOLDS OF SIGNIFICANCE

A public services and recreation impact would be significant if implementation of the proposed project would:

- ▶ Result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection or law enforcement facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives.

#### ISSUES NOT DISCUSSED FURTHER

No issues related to fire protection or law enforcement services have been dismissed from further consideration.

#### ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

##### Impact 3.12-1: Result in Adverse Physical Impacts from New or Physically Altered Fire Protection or Law Enforcement Facilities

The proposed project would nominally increase the amount of development and number of employees present within the City, which could in turn nominally increase the number and type of service calls and other incidents requiring responses from law enforcement or fire protection. It would not increase the residential population of the City, and would be located within the existing service areas of the City's existing law enforcement and fire protection stations. The proposed project's demand for additional services from TPD and TFD, such as additional personnel or equipment, would be met through the mandatory payment of public facilities development impact fees. The proposed project would not increase demand for law enforcement or fire protection facilities such a new or expanded fire station or police station would need to be constructed to maintain adequate service levels in the City. This impact would be **less than significant**.

The proposed project, an update to the Temecula Valley Hospital Master Plan, consists of revisions to the currently approved Temecula Valley Hospital project. Phase I development of the hospital was completed in 2011, and the hospital was opened in 2013. Implementing the proposed project would result in revisions to the remaining phases of hospital development to address anticipated growth in the region. Specifically, the project involves expanding the emergency department and constructing a behavioral health building, two additional hospital towers, two medical office buildings, a utility plant, surface parking lots, and a four-story parking structure. In addition, the helipad would be relocated from its interim location on the project site to the roof of the proposed parking structure. The hospital building and other buildings constructed during Phase I would be maintained in place. As described in Chapter 2, Project Description, there are, on average, approximately 750 employees working at the existing hospital during a 24-hour period. With implementation of the proposed project, the average number of employees on-site during a 24-hour period would increase by approximately 675, resulting in a total of 1,425 employees at the project site, on average, during a 24-hour period.

Existing State regulations, including the CFC, Health and Safety Code, and California Building Standards Code, and the City's General Plan Growth Management/Public Facilities Element, require that future development under the proposed master plan address the latest fire safety standards, including but not limited to fire department access, fire

hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, hazardous materials storage and use, provisions intended to protect and assist fire responders, industrial processes, and many other general and specialized fire-safety requirements for new and existing buildings and the surrounding premises. These regulations would pro-actively lessen demand for fire protection services by requiring the incorporation of these and other fire safety measures within the proposed project. The proposed project is not located within or near a very high fire hazard severity zone, so it would not increase demand for fire protection services related to wildfires.

However, because the proposed project would nominally increase the amount of development and number of employees present within the City, it would in turn nominally increase the potential number and type of fire protection and law enforcement service calls and other incidents for which TPD and TFD need to respond. The ability to respond is influenced in part by the number and type of facilities, stations, staffing levels, and equipment inventories of each agency.

It is the policy of the City, as set forth in policies 3.1 and 3.2 of the General Plan Growth Management/Public Facilities Element, to evaluate the adequacy law enforcement and fire protection services, including facilities, staffing, and equipment, as the City experiences changes in population and development, for the purpose of ensuring that response times for law enforcement and fire protection emergencies remain adequate. Specifically, the City strives to provide a minimum of one full-time officer per 1,000 residents for police protection services, and maintain a 5-minute response time for 90 percent of all fire protection emergencies. In addition, per the Fiscal Year 2021-22 Annual Operating Budget, the City has a law enforcement target to respond to priority 1 calls within 4.5 minutes, on average, and a fire protection target to respond to City emergency incidents within 5 minutes, on average. In addition, the City's Municipal Code would require the project to pay the public facilities development impact fees that the City requires of all nonresidential development, which are used to maintain service levels as new development occurs in the City.

Because the proposed project is nonresidential, it would not increase the residential population of the City, and therefore would not affect the City's performance standard for number of full-time police officers per 1,000 residents (also refer to Section 3.11, Population and Housing, explaining that the proposed project would not result in substantial unplanned population growth in the City). In addition, it is located within an existing, developed area of the City that is already served by existing fire and police stations, so it would not extend the distance that emergency responders would need to travel from existing stations to respond to calls. While the proposed project would incrementally increase demand for services by increasing the amount of development and number of employees present within the City, which could in turn increase the amount or type of personnel or equipment needed to maintain adequate service levels, this increased demand would be adequately addressed by the mandatory public facilities development impact fees that the applicant would be required to pay as each phase of proposed master plan development moves forward. Therefore, the proposed project would incrementally increase demand for law enforcement and fire protection services in the City, but not to a degree that construction of a new or expanded fire protection or law enforcement facility would be required to maintain adequate service levels. This impact would be **less than significant**.

### **Mitigation Measures**

No mitigation is required for this impact.

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## 3.13 TRANSPORTATION

This section describes the applicable federal, State, and local transportation regulations and policies; discusses the existing roadway network and transportation facilities in the vicinity of the proposed project; and analyzes the potential impacts from implementation of the proposed project on transportation. Mitigation measures that would reduce impacts, where applicable, are also discussed. Information contained within this section was provided primarily in the Linscott, Law & Greenspan, Engineers (LLG) *Vehicle Miles Traveled Analysis for the Temecula Valley Hospital Master Plan Project* (VMT Analysis) prepared for the proposed project, which is included as Appendix H of this Draft SEIR and incorporated herein.

Pursuant to Senate Bill (SB) 743, Public Resources Code Section 21099, and California Code of Regulations Section 15064.3(a), generally, vehicle miles traveled (VMT) is the most appropriate measure of transportation impacts and a project's effect on automobile delay shall no longer constitute a significant impact under CEQA. Therefore, the transportation analysis here-in evaluates impacts using VMT and does not include level of service (LOS) analysis.

Comments received regarding transportation in response to the notice of preparation (NOP) included concerns with potential conflicts with bicycle circulation, reducing construction worker commute trip lengths, and a request to include bicycle parking in the proposed project. See Appendix A for all NOP comment letters received.

### 3.13.1 Regulatory Setting

#### FEDERAL

There are no federal regulations, plans, or policies applicable to transportation relevant to the proposed project.

#### STATE

##### California Department of Transportation

The California Department of Transportation (Caltrans) is the State agency responsible for the design, construction, maintenance, and operation of the California State Highway System, as well as the segments of the Interstate Highway System that lie within California. Caltrans District 8 is responsible for the operation and maintenance of Interstate 15 (I-15) in the vicinity of the proposed project site. Caltrans requires a transportation permit for any transport of heavy construction equipment or materials that necessitates the use of oversized vehicles on State highways.

The Caltrans Transportation Impact Study Guide (TISG) was prepared to provide guidance to Caltrans Districts, lead agencies, Tribal governments, developers, and consultants regarding Caltrans review of a land use project or plan's transportation analysis using a VMT metric. This guidance is not binding on public agencies, and it is intended to be a reference and informational document. The TISG replaces the Guide for the Preparation of Traffic Impact Studies and is for use with local land use projects, not for transportation projects on the State Highway System (Caltrans 2020).

##### Senate Bill 743

SB 743, passed in 2013, required the Governor's Office of Planning and Research (OPR) to develop new State CEQA guidelines that address traffic metrics under CEQA. As stated in the legislation, upon adoption of the new guidelines, "automobile delay, as described solely by LOS or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment pursuant to this division, except in locations specifically identified in the guidelines, if any."

OPR published its proposal for the comprehensive updates to the State CEQA Guidelines in November 2017 which included proposed updates related to analyzing transportation impacts pursuant to SB 743. These updates indicated that VMT would be the primary metric used to identify transportation impacts. In December of 2018, OPR published

the most recent version of the *Technical Advisory on Evaluating Transportation Impacts in CEQA* (OPR 2018) which provides guidance for VMT analysis.

In December 2018, OPR and the State Natural Resources Agency submitted the updated CEQA Guidelines to the Office of Screencheck Law for final approval to implement SB 743. The Office of Screencheck Law subsequently approved the updated CEQA Guidelines, and local agencies had an opt-in period until July 1, 2020 to implement the updated guidelines. As of July 1, 2020, Section 15064.3 of the updated CEQA Guidelines applies statewide.

## REGIONAL

### Southern California Association of Governments

The Southern California Association of Governments (SCAG) is an association that includes the Counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura, as well as 191 cities, including the City of Temecula. As a metropolitan planning organization, SCAG is required to prepare a long-range transportation plan (the regional transportation plan) for all modes of transportation, including public transit, automobile, bicycle, and pedestrian, every four years for the six-county area. In addition to preparing the region's long-range transportation plan, SCAG assists in planning for transit, bicycle networks, clean air, and airport land uses.

### Regional Transportation Plan/Sustainable Communities Strategy

SCAG is responsible for preparing the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) and the corresponding Regional Transportation Improvement Program for the six-county region. In response to this requirement, SCAG completed the 2020-2045 RTP/SCS: Connect SoCal (Connect SoCal). The purpose of Connect SoCal is to establish regional access and identify mobility goals; identify present and future transportation needs, deficiencies, and constraints within the transportation system; analyze potential solutions; estimate available funding; and propose investments. On September 3, 2020, SCAG's Regional Council adopted the 2020 update of the RTP/SCS.

### Federal Transportation Improvement Program

SCAG prepares and adopts the Federal Transportation Improvement Program (FTIP) on a biennial basis. The FTIP is a short-term listing of surface transportation projects that receive federal funds, are subject to a federally required action, or are regionally significant. SCAG adopted the Fiscal Year 2020/21-2025/26 FTIP in March 2021. The project listing in the FTIP provides a detailed description for each individual project in Connect SoCal, including those in Riverside County and the City of Temecula.

## LOCAL

### City of Temecula General Plan

City Council updated the City of Temecula General Plan in 2005. The General Plan serves as a blueprint for future development in Temecula (City of Temecula 2005). General Plan policies that are relevant to the transportation impacts analyzed in this document are listed below.

- ▶ **Policy 3.3** Provide a comprehensive system of Class I and/or Class II bicycle lanes to meet the needs of cyclists traveling to and from work and other destinations within the City.
- ▶ **Policy 3.4** Encourage a mix of uses within projects designed to internalize trips, maximize use of parking facilities, and promote a shift from auto use to pedestrian, bicycle, and other alternative modes of travel.
- ▶ **Policy 4.2** Require loading areas and access ways for trucks that minimize or eliminate conflicts with automotive and pedestrian areas to maintain safe and efficient traffic circulation.
- ▶ **Policy 5.1** Promote pedestrian and bicycle safety by adhering to uniform trail standards and practices and communicating safety practices to the public.
- ▶ **Policy 5.2** Minimize potential conflicts between off-street bicycle and equestrian trails and automobile cross traffic.

- ▶ **Policy 5.3** Ensure the accessibility of pedestrian facilities to the elderly and disabled.
- ▶ **Policy 5.4** Provide a comprehensive network of multi-use trails and bikeways between residential areas and commercial/employment activity centers, public institutions, and recreation areas.
- ▶ **Policy 6.2** Require that future roads and improvements to current roads be designed to minimize traffic conflicts which result from curb parking maneuvers, uncontrolled access along heavily traveled roadways, and development of private driveways onto primary residential collector streets.
- ▶ **Policy 6.3** Require that vehicular, pedestrian and bicycle traffic be separated to the maximum extent feasible, especially in areas with high traffic volumes.
- ▶ **Policy 6.5** Work with schools and developers to improve circulation at pick-up/drop off areas and encourage that these facilities be provided on-site.
- ▶ **Policy 7.1** Enforce applicable City parking ordinances and standard design requirements.
- ▶ **Policy 7.5** Require parking for bicycles and other forms of alternative transportation.
- ▶ **Action C-6 Proposed Development** Implement the following procedures and requirements to minimize impacts of proposed development projects on the City's circulation system, and to encourage increased use of alternative transportation:
  - Evaluate development proposals for potential impacts to the transportation and infrastructure system.
  - Require mitigation in the form of physical improvements and/or impact fees for significant impacts prior to or concurrent with project development.
  - Require dedication of adequate right-of-way along new roadways to permit pedestrian and bicycle facilities.
  - Require new development to incorporate design features which facilitate transit service and encourage transit ridership, such as bus pullout areas, covered bus stop facilities, efficient trail systems through projects to transit stops, installation of bike lanes, bikeways, and bicycle parking, and incorporation of pedestrian walkways that pass through subdivision boundary walls, as appropriate.
  - Require new specific plans and other projects to provide an internal system of pathways and trails. Trails should link schools, shopping centers, transit, and other public facilities in residential areas.
  - Require transportation demand management plans to be submitted for preliminary review at the Specific Plan or Development Plan stage of site development and submitted for final approval prior to issuance of building permits.

### City of Temecula Traffic Impact Analysis Guidelines

The purpose of the General Plan consistency Traffic Impact Analysis Guidelines is to provide a standard format and methodology for assessing potential effects on transportation and circulation from proposed development projects, General Plan Amendments, Specific Plans, and changes in Land Use Zoning in the City of Temecula (City of Temecula 2020a: 2). The Traffic Impact Analysis Guidelines establishes the following screening criteria for projects presumed to result in a less than significant VMT impact:

- ▶ **Small Residential and Employment Projects:** Projects generating less than 110 daily vehicle trips (trips are based on the number of vehicle trips after any alternative modes/location-based adjustments are applied) may be presumed to have a less than significant impact absent substantial evidence to the contrary.
- ▶ **Projects Located Near a Major Transit Stop/High Quality Transit Corridor:** Projects located within a half mile of an existing major transit stop or an existing stop along a high-quality transit corridor may be presumed to have a less than significant impact absent substantial evidence to the contrary. This presumption may not be appropriate if the project:
  - Has a Floor Area Ratio of less than 0.75;

- Includes more parking for use by residents, customers, or employees of the project than required by the City; and
  - Replaces affordable residential units with a smaller number of moderate- or high-income residential units.
- ▶ **Projects Located in a VMT Efficient Area:** A VMT efficient area is any area with an average VMT per service population 15 percent below the baseline average for the Western Riverside Council of Governments (WRCOG) region. Land use projects may qualify for the use of VMT efficient area screening if the project can be reasonably expected to generate VMT per service population that is similar to the existing land uses in the VMT efficient area. Projects located within a VMT efficient area may be presumed to have a less than significant impact absent substantial evidence to the contrary.
  - ▶ **Locally Serving Retail Projects.** Local serving retail projects less than 50,000 square feet may be presumed to have a less than significant impact absent substantial evidence to the contrary. Local serving retail generally improves the convenience of shopping close to home and has the effect of reducing vehicle travel.
  - ▶ **Locally Serving Public Facilities:** Public facilities that serve the surrounding community or public facilities that are passive use may be presumed to have a less than significant impact absent substantial evidence to the contrary.
  - ▶ **Redevelopment Projects with Greater VMT Efficiency.** A redevelopment project may be presumed to have a less than significant impact if the proposed project's total project VMT is less than the existing land use's total VMT.
  - ▶ **Affordable Housing:** An affordable housing project may be presumed to have a less than significant impact absent substantial evidence to the contrary.

Projects that do not meet the above screening criteria must include a detailed evaluation of the VMT generated by the project. Any project with a VMT per service population 15 percent below the WRCOG baseline average VMT per service population can be presumed to have a less than significant impact (City of Temecula 2020a: 24).

### City of Temecula Engineering and Construction Manual

The City of Temecula Engineering and Construction Manual sets forth the administrative procedures and technical requirements necessary to implement the provisions of Title 18 entitled "Construction, Grading and Encroachments" of the City of Temecula Municipal Code. The purpose of the manual is to assist users of the Municipal Code by supplementing it with detailed information regarding rules, procedures, interpretations, standard drawings, specifications, requirements, forms and other information applicable to control construction, grading and encroachment within on-site (private) development and public right-of-way in the City of Temecula (City of Temecula 2020b: 1-1).

### City of Temecula Land Development Traffic Control Plan Guidelines and Checklist

The City of Temecula has developed the Land Development Traffic Control Plan Guidelines & Checklist to ensure that all of the basic elements of traffic control are included on the plan and are clear to the reviewers and implementers in the field and to facilitate processing and archiving of the documents. The basic objective of a traffic control plan (TCP) is to permit the contractor to work within the public right of way efficiently, effectively, and causing the least inconvenience to the public while maintaining a safe, uniform flow of traffic. The construction work and the public traveling through the work zone in vehicles, bicycles or as pedestrians must be given equal consideration when developing a traffic control plan (City of Temecula 2021: 1).

### City of Temecula Municipal Code

Chapter 17.24, "Off-street Parking and Loading" of the City of Temecula Municipal Code specifies the number of parking spaces, including bicycle parking, required for specific uses. The portions of Chapter 17.24 of the City of Temecula Municipal Code applicable to bicycle parking requirements for this project are as follow:

2. Minimum Bicycle Parking Requirements.
  - a. Bicycle parking facilities shall be provided as follows:

### Bicycle Spaces Provided for Bicycle Parking Facilities Class

Use	Employees & Visitors	Parking Facility Class
All commercial and service uses not otherwise listed	1 bicycle space for every 20 vehicle spaces required	Class I lockers or Class II racks
Dinner restaurants, cocktail lounges	1 bicycle space for every 20 vehicle spaces required	Class I lockers or Class II racks
Industrial	1 bicycle space for every 20 vehicle spaces required	Class I lockers or Class II racks
Retail	1 bicycle space for every 20 vehicle spaces required	Class I lockers or Class II racks

Source: City of Temecula 2022.

- b. The minimum number of bicycle spaces to be provided shall be two employee bicycle spaces and two patron or visitor spaces.
  - c. Where the application of the above table results in the requirement for a fraction of a bicycle parking space, the fraction shall be rounded to the nearest whole number with .5 rounded up to the next whole number.
  - d. Where the application of the above table results in the requirement of fewer than six employee spaces, Class II racks need not be placed within an enclosed lockable area.
3. Design Standards. Bicycle parking facilities shall be installed in a manner which allows adequate spacing for access to the bicycle and the locking device when the facilities are occupied. General space allowances shall include a two-foot width and a six-foot length per bicycle and a five-foot maneuvering space behind the bicycle. The facilities shall be located on a hard, dust-free surface, preferably asphalt or concrete slab. Bicycle parking facilities for visitors shall be located at convenient locations near the main entrance to the use. Bike racks should be located so as to not create an obstruction to pedestrian movement.
  4. Credit for Provisions of Bicycle Parking Spaces. Bicycle parking spaces shall be counted as fulfilling the off-street parking requirements at the rate of three bicycle spaces for one vehicle space. Up to six bicycle parking spaces in addition to the minimum requirement may be provided to reduce off-street parking requirements.

## 3.13.2 Environmental Setting

This section describes the existing environmental setting, which is the baseline scenario upon which project-specific impacts are evaluated. The environmental setting for transportation includes baseline descriptions for roadway, transit, bicycle, and pedestrian facilities.

### ROADWAY SYSTEM

There are several types of roadways in the City which include freeways, urban arterials, principal arterials, major arterials, secondary arterials, modified secondary arterials, limited secondary arterials, collector roadways, rural highways, and local streets. A description of each as described in the General Plan is provided below.

- ▶ **Urban Arterials:** Highways carrying high volumes of regional and local traffic. Priority is given to through traffic flow, and access is generally limited to signalized intersections.
- ▶ **Principal Arterials:** Highways acting as main thoroughfares and providing access to major activity centers and to the regional freeway system. Direct access to adjacent properties is discouraged, except at signalized intersections.
- ▶ **Major Arterials:** Highways that complement the principal system by providing a medium capacity backbone system. Only limited access is provided, typically to commercial properties (i.e. not to residential properties).
- ▶ **Secondary Arterials:** Roadways intended to carry traffic between local streets and principal or major arterials. They are similar to major arterials, with only limited access to adjacent properties.
- ▶ **Modified Secondary Arterials:** Secondary arterials designed to preserve rural character of surrounding areas.

- ▶ **Limited Secondary Arterials:** Secondary arterials that have lower volumes such that four lanes are not needed.
- ▶ **Collector Roadway:** Collector roadways provide property access, and linking properties to secondary, major, and principal arterials.
- ▶ **Rural Highway:** Roadway providing property access and local circulation in rural areas.
- ▶ **Local:** Local Streets are two-lane roadways without medians. Centerline striping is typically not provided, and curbside parking is allowed.

The following roadways provide access to the proposed project site:

- ▶ **Interstate-15 (I-15):** I-15 is a north-south freeway that extends from San Diego County into Riverside County and further north through the states of Nevada, Arizona, Utah, Idaho, and Montana, terminating at the United States/Canada border. In the vicinity of the proposed project site, I-15 generally has eight lanes. Access to the proposed project site is provided via the Temecula Parkway interchange.
- ▶ **Highway 79 (Temecula Parkway):** Highway 79, also known as Temecula Parkway in the vicinity of the project site, is a bi-directional six lane roadway that runs directly south of the project site. Highway 79 runs east-west within the City of Temecula where the proposed project is located and north-south regionally from I-15 to Santa Ysabel. The posted speed limit within the vicinity of the proposed project site is 50 miles per hour (mph). There are pedestrian facilities and Class II bicycle facilities present on either side of Temecula Parkway.
- ▶ **Margarita Road:** Margarita Road is a north-south bi-directional four lane roadway located east of the project site. Margarita Road has a posted speed limit of 40 mph. Margarita Road provides access to the project site via Temecula Parkway and De Portola Road. There are pedestrian facilities on each side of Margarita Road and Class II bicycle facilities are present on Margarita Road in the vicinity of the project site.
- ▶ **De Portola Road:** De Portola Road is an east-west bi-directional roadway providing direct access north of the proposed project site. There are two eastbound travel lanes and one westbound travel lane. The posted speed limit on De Portola Road is 45 mph. Pedestrian facilities are present on the southern side of De Portola Road approximately from Margarita Road to a private access roadway located east of High Desert Medical College. Class II bicycle facilities are present on both sides of the roadway.
- ▶ **Dona Lynora:** Dona Lynora is a bi-directional north-south two-lane roadway providing direct access to the project site from Temecula Parkway. There are pedestrian facilities on the west side of Dona Lynora and there are no bicycle facilities present.

## TRANSIT SYSTEM

The Riverside Transit Agency (RTA) provides fixed route bus service within the City of Temecula. Bus Route 24 services the vicinity of the project site running from Temecula Valley Hospital, north to the Promenade Mall. Bus Route 24 operates from approximately 6:30 a.m. to 8:00 p.m. Monday through Friday and approximately 7:40 a.m. to 7:15 p.m. on Saturdays and Sundays. The nearest bus stop is located directly south of the project site on Temecula Parkway. Additionally, RTA provides CommuterLink express routes for regional travel and origin-to-destination Dial-A-Ride transportation services for seniors and persons with disabilities.

## BICYCLE SYSTEM

The bicycle and pedestrian transportation system in the City of Temecula is composed of bikeways and trails. The Multi-Use Trails and Bikeways Master Plan (City of Temecula 2016) classifies bicycle facilities into the following five types:

- ▶ **Natural Surface (Non-Motorized Multi-Use) Trail:** Route separated from roadways for pedestrian, bicyclist, equestrian and other non-motorized users. Designation generally refers to unpaved natural surface routes that can vary in width and configuration, depending upon expected types and numbers of users, local topography and design intent.

- ▶ **Multi-Use Path (Class I):** Caltrans-specified, non-motorized route physically separated from vehicular roadways. Minimum 12 feet wide, of which eight feet are paved and two feet graded on each side. Specific horizontal and vertical clearances also apply. Allows all non-motorized uses, but wider cross section recommended if multiple uses are to be accommodated or if higher volumes are expected. Generally does not support equestrian use due to paving, but specific situations vary, especially where parallel natural surface trails are provided.
- ▶ **Bicycle Lane (Class II):** Caltrans-specified, on-street bicycle lane designated by striping and signage with a minimum width of five feet from face of curb or roadway edge where parking occurs, and four feet where parking does not occur. Where parking occurs, buffering is recommended between the bicycle lane and parking lane. Buffering from vehicle traffic is also recommended where width is available.
- ▶ **Bicycle Route (Class III):** Caltrans-specified, on-street bicycle route designated by signage only, but may include shared lane markings (“Sharrows”) and/or “Bikes May Use Full Lane (“BMUFL”) signs. Usually installed on roadways with low traffic volumes and speed limits of no more than 35 mph.
- ▶ **Cycle Track (Class IV):** Exclusive bicycle facilities separated from vehicular traffic and from walkways. Cycle tracks may be one- or two-way and design treatments demarcate them from adjacent sidewalks, travel or parking lanes. Their physical separation from roadways may employ parked vehicles, planting areas, bollards, raised lanes or a combination of these elements. These treatments reduce the risk of conflicts between cyclists, pedestrians and parked and moving vehicles. (City of Temecula 2016: 6-8).

As of 2016, the City’s bicycle system was comprised of 7.6 miles of Class I, 55.8 miles of Class II, and 2.9 miles of Class III bicycle facilities as well as 9.4 miles of urban trails and 14.9 miles of natural surface trails (City of Temecula 2016: 20).

## PEDESTRIAN SYSTEM

Pedestrian facilities include sidewalks, crosswalks, and pedestrian signals that are meant to provide safe and convenient routes for pedestrians to access destinations such as businesses, public transportation, and recreation facilities.

### 3.13.3 Environmental Impacts and Mitigation Measures

This section describes the analysis techniques, assumptions, thresholds, and results used to identify potential significant impacts of the proposed project on the transportation system. Transportation impacts are described and assessed, and mitigation measures are recommended for impacts identified as significant or potentially significant.

## METHODOLOGY

State CEQA Guidelines Section 15064.3 was added December 28, 2018, to address the determination of significance for transportation impacts. The new guideline requires that the analysis is based on VMT instead of traffic congestion and measures of automobile delay (such as LOS). The change in the focus of transportation analysis is the result of legislation (SB 743) and is intended to shift the emphasis from congestion to, among other things, reducing greenhouse gas emissions, promoting a diversity of land uses, and developing multimodal transportation networks. Pursuant to CEQA Guidelines Section 15064.3(c), this change in analysis took effect July 1, 2020. Therefore, VMT is included in the analysis of this Draft SEIR.

The City’s Traffic Impact Analysis Guidelines requires projects not screened from a full VMT analysis to calculate project generated VMT using the Riverside County Model (RIVCOM) to determine if the project would result in a significant VMT impact. The VMT analysis conducted compared the total VMT per service population baseline and baseline-plus-project conditions. The project would be presumed to result in a less than significant VMT impact if the VMT per service population of the project is 15 percent below the WRCOG baseline average VMT per service population.

The City of Temecula adopted the Traffic Impact Analysis Guidelines in September 2020. Therefore, the VMT analysis here-in primarily relies on the guidance provided in the City of Temecula Traffic Impact Analysis Guidelines and CEQA Guidelines Section 15064.3. As previously described LLG prepared the project VMT Analysis analyzing potential impacts to the transportation system. See Appendix H for a detailed description of VMT Analysis methodology.

## THRESHOLDS OF SIGNIFICANCE

The significance criteria used to evaluate the proposed project impacts to transportation under CEQA are based on Appendix G of the CEQA Guidelines. A transportation impact would be significant if implementation of the proposed project would:

- ▶ conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities;
- ▶ conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b);
- ▶ substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); or
- ▶ result in inadequate emergency access.

## ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

### Impact 3.13-1: Conflict with a Program, Plan, Ordinance or Policy Addressing the Circulation System, Including Transit, Roadway, Bicycle and Pedestrian Facilities

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The proposed project would not alter or conflict with any existing or planned bicycle, pedestrian, or transit facilities. Additionally, there are no existing, planned, or programmed bicycle, pedestrian, or transit facilities located in the immediate vicinity of the proposed project site. The project would include internal pathways and circulation for pedestrians navigating the proposed project site. Additionally, the proposed project would construct transit stop improvements on Temecula Parkway where Bus Route 24 currently stops. For these reasons, the proposed project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, and the impact would be **less than significant**.

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The proposed project, an update to the Temecula Valley Hospital Master Plan, consists of revisions to the currently approved Temecula Valley Hospital project. Phase I development of the hospital was completed in 2011, and the hospital was opened in 2013. Implementing the proposed project would result in revisions to the remaining phases of hospital development to address anticipated growth in the region. Specifically, the project involves expanding the emergency department and constructing a behavioral health building, two additional hospital towers, two medical office buildings, a utility plant, surface parking lots, and a four-story parking structure. In addition, the helipad would be relocated from its interim location on the project site to the roof of the proposed parking structure. The hospital building and other buildings constructed during Phase I would be maintained in place.

As detailed in Chapter 2, "Project Description," the proposed project would maintain existing on-site access roads and extend the internal on-site circulation in the western portion of the project site, with new access roads that connect to Dona Lynora. The proposed project would utilize the project site's existing points of ingress and egress with De Portola Road and Temecula Parkway; no new access points would be developed. A discussion of the impacts regarding potential conflicts with existing or planned facilities or conflicts with a program, plan, ordinance, or policy addressing pedestrian and bicycle facilities and transit service follows.

#### Bicycle and Pedestrian Facilities

The proposed project would provide and maintain an internal circulation network with sidewalks on both sides of all roadways throughout the project site to provide pedestrians connections between the proposed project's vehicle parking areas and buildings. Additionally, Chapter 17.24, "Off-street Parking and Loading" of the City of Temecula

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Municipal Code specifies the number of bicycle parking spaces required for specific land uses. Therefore, as part of final design the project would be required to provide bicycle parking consistent with requirements specified with the City of Temecula Municipal Code.

As described in the Environmental Setting section, above, Class II bicycle facilities currently exist along De Portola Road, Margarita Road, and Temecula Parkway, and will remain. There are no future bicycle facilities proposed in the immediate vicinity of the project site (City of Temecula 2016: 57). Additionally, the proposed project would not conflict with or alter any existing pedestrian or bicycle facilities as physical changes during construction and operations would be contained within the boundaries of the existing project site.

### Transit Services

The proposed project would not change the existing bus turnout on the northern side of Temecula Parkway served by Bus Route 24. Additionally, the proposed project would not alter or degrade any other existing transit facilities in the area. The RTA's Fiscal Year 2023-2025 Short Range Transit Plan does not include any planned or programmed service changes in the vicinity of the proposed project.

### Summary

The proposed project would not degrade any existing bicycle, pedestrian, or transit facilities, and there are no planned or programmed improvements in the vicinity of the project site with which the project could conflict. This impact would be **less than significant**.

### Mitigation Measures

No mitigation is required for this impact.

## **Impact 3.13-2: Conflict or be Inconsistent with CEQA Guidelines Section 15064.3(b)**

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The proposed project would result in a higher rate of vehicle miles traveled (VMT) than the threshold amount of VMT set forth in the City's Traffic Impact Analysis Guidelines; the proposed project's VMT rate of 38.4 miles per employee (i.e., service population) would be approximately 31 percent higher than the threshold VMT amount of 29.4 miles per employee. This impact would be **potentially significant**.

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The proposed project would build out the project site with various healthcare facilities increasing the services offered to patients in the region including expanding the existing hospital building. The following discussion describes the impact related to construction and operational VMT generated by the proposed project.

### Construction VMT

Construction activities would be temporary and intermittent in nature; and thus, would not result in long-term increases in vehicular trips. Additionally, the VMT of construction workers is not newly generated; instead, it is redistributed throughout the regional roadway network based on the different work sites in which workers travel to each day. Therefore, construction workers would not generate new VMT each day, they would only redistribute it. Therefore, construction activities are not expected to result in a significant VMT increase.

### Operational VMT

The proposed project does not meet any of the screening criteria established in the City's Traffic Impact Analysis Guidelines. As detailed above, projects that are not screened out must perform a VMT analysis to determine the project's expected level of impact. Any project with a VMT per service population 15 percent above the WRCOG baseline average VMT per service population would result in a significant impact.

Consistent with the City's Traffic Impact Analysis Guidelines, the RIVCOM model was used to determine proposed project generated VMT per service population. For the proposed project, the service population is equivalent to the number of additional employees anticipated to be on the project site during an average 24-hour period. The result of the modeling is shown in Table 3.13-1, and modeling details are provided in Appendix H. As shown in Table 3.13-1, the proposed project's baseline average VMT per service population of 38.4 miles per employee would be 31 percent higher than the City's threshold of 29.4 miles per service population.

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**Table 3.13-1 Temecula Valley Hospital Master Plan Project VMT**

Description	Proposed Project	WRCOG	Threshold <sup>1</sup>	Difference
Total Daily VMT	25,950	85,167,796	—	—
Service Population	675	2,460,291	—	—
VMT per Service Population <sup>2</sup>	38.4	34.6	29.4	31 percent higher

Notes: WRCOG = Western Riverside Council of Governments; VMT = vehicle miles travelled

<sup>1</sup> 15 percent below WRCOG VMT per Service Population

<sup>2</sup> Total VMT divided by Service Population

<sup>3</sup> Comparison between project VMT per service population and VMT per service population threshold (i.e., 15 percent below WRCOG VMT per service population)

Source: Appendix H.

### **Summary**

Construction personnel would not generate new trips, rather, trips associated with the commute of construction workers in the region would be redistributed to the project site during proposed project construction activities. However, operational VMT resulting from the proposed project would exceed the City's 15 percent below WRCOG baseline average VMT per service population threshold. Therefore, the impact would be **potentially significant**.

### **Mitigation Measures**

#### **Mitigation 3.13-1: Implement a Voluntary Commute Trip Reduction Program**

Prior to the issuance of building permits, the project applicant shall develop a voluntary commute trip reduction program for employees (program), subject to approval by the City's Community Development Director. Commute trip reduction programs discourage single-occupancy vehicle trips and encourage alternative modes of transportation such as carpooling, taking transit, walking, and biking, thereby reducing VMT and greenhouse gas emissions. This program shall provide substantial evidence demonstrating a minimum 4 percent reduction in the proposed project's rate of VMT (i.e., VMT per service population), as compared to the proposed VMT rate evaluated in the SEIR. The program shall evaluate how the minimum VMT reduction standard will be achieved through implementation of the following measures, or equally effective measures: employer-provided services, infrastructure, and incentives for alternative modes such as ridesharing, discounted transit, bicycling, vanpool, and guaranteed ride home and information, coordination, and marketing for said services, infrastructure, and incentives.

#### **Mitigation 3.13-2: Implement No-Cost Transit Pass Program for Employees**

Prior to the approval of future development applications, the project applicant shall develop a program to provide transit passes at no-cost to employees on an ongoing basis. The transit passes shall be made available at no-cost to all employees of the project during its operational phase. Reducing the out-of-pocket cost for transit improves the competitiveness of transit versus single-occupancy vehicles; thus, increasing the total number of transit trips and decreasing vehicle trips. This decrease in vehicle trips results in reduced VMT and lower GHG emissions (CAPCOA 2021: 95). Given that 100 percent of employees would be eligible for such a program, the VMT reduction depends on the percentage of subsidy provided by the employer (Appendix H). The transit pass program for all employees would provide a VMT reduction of up to 0.24 percent for the proposed project.

#### **Mitigation 3.13-3: Provide End-of-Trip Bicycle Facilities**

In addition to the bicycle parking required by the City of Temecula Municipal Code, the project shall provide end-of-trip bicycle facilities, including installation and maintenance, for employee use. End-of-trip facilities include bike parking, bike lockers, showers, personal lockers, onsite bicycle repair station, signage on or near secure parking and personal lockers with information about how to reserve or obtain access to these amenities. The location and type of these facilities shall be identified in future development applications prior to their approval by the City. The provision and maintenance of secure bike parking and related facilities encourage commuting by bicycle, thereby reducing

VMT and GHG emissions. End-of-trip facilities should be installed at a size proportional to the number of commuting bicyclists and regularly maintained.

Providing end-of-trip bicycle facilities would provide a VMT reduction of up to 0.3 percent for the proposed project.

### **Significance after Mitigation**

As shown in Appendix H, implementation of Mitigation Measure 3.13-1, 3.13-2, and 3.13-3 would lower the proposed project's rate of VMT per employee by approximately 4.5 percent by decreasing the number of single-occupancy vehicle trips generated by employees of the proposed project and increasing the number of trips completed by other modes of travel, including walking, biking, public transit, carpooling, vanpooling, and teleworking. However, with implementation of these measures the proposed project would generate VMT at a rate approximately 26 percent higher than the City's threshold amount. Therefore, the impact of the proposed project's operational VMT would be **significant and unavoidable**.

### **Impact 3.13-3: Substantially Increase Hazards Because of a Geometric Design Feature or Incompatible Uses**

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The proposed project would be required to comply with City safety standards during construction activities. Additionally, the proposed project is subject to review by City staff to ensure appropriate traffic handling during construction, and that design standards are met to minimize any potential hazards related to the transportation circulation network. Proposed project construction activities and permanent improvements would occur within the existing boundaries of the project site. For these reasons, the proposed project would not substantially increase hazards due to a design feature or incompatible uses, and the impact would be **less than significant**.

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As detailed in Chapter 2, "Project Description," the proposed project involves the development of a Behavioral Health Building, expansion to the existing hospital building emergency department, two hospital towers, two medical office buildings, a utility plant, and a four-story parking structure. Primary site access is provided from Temecula Parkway, at the intersection of County Glen Way. There is a secondary site access from the north via De Portola Road. A discussion of the impacts regarding transportation hazards related to the proposed project construction and operations follows.

### **Construction**

As detailed in Chapter 2, "Project Description," construction would occur in three phases beginning in January 2023. Construction activities would take place between the hours of 7:00 am and 6:30 pm Monday through Saturday and prohibited on Sundays and nationally recognized holidays. Construction staging would occur on the project site. Additionally, the project applicant would be required to obtain encroachment permits as detailed in Chapter 18.12 of the City's Municipal Code.

The project applicant would be required to submit a TCP as part of the encroachment permit application process for all work performed within the public right-of-way (City of Temecula 2021; City of Temecula 2020b: 12-4). The TCP must clearly depict the exact sequence of the construction operations, the construction to be performed, and the traveled way that will be utilized by all movements of traffic during each phase of construction. Multiple phases of construction will require a separate TCP for each different construction phase or stage operation. The project applicant would need to comply with the requirements outlined in the Land Development Traffic Control Plan Guidelines and Checklist as well as the Land Development Traffic Control Plan General Notes document. Additionally, the proposed project would be subject to review and approval by the City ensuring construction-related hazards in relation to the transportation network (i.e., pedestrians, bicyclists, and vehicles) are minimized to the greatest extent feasible.

### **Operations**

As detailed in Chapter 2, "Project Description," the existing backbone of the on-site circulation system would be maintained. During Phase II construction, the internal circulation network would be extended in the western portion of the project site, with new access roads that connect to Dona Lynora. As stated above, future planning applications

under the proposed master plan update would be subject to review by the City; thus ensuring compliance with all applicable design and safety standards. As established in Section 17.22.204 of the City's Municipal Code (within Article X, "Temecula Hospital Planned Development Overlay District-9"), planning applications are required to follow the rules and regulations within the development code, citywide design guidelines, approval requirements, and any other relevant rule, regulation, or standard that is in effect at the time the application is deemed complete. City Municipal Code Section 17.24.050 provides minimum standards for off-street parking and loading. Additionally, Section 15-10 of the City Engineering and Construction Manual identifies design standards for driveways and access points.

### **Summary**

Construction would comply with all applicable City standards, including the need to prepare and gain approval of a TCP prior to commencing work, as to not degrade safety and minimize potential disturbance to the transportation network. Additionally, all access and internal roadway related improvements associated with the proposed project would be constructed in accordance with applicable City design and safety standards, and permit requirements. For these reasons, the proposed project would not substantially increase hazards due to geometric design features or incompatible uses. This impact would be **less than significant**.

### **Mitigation Measures**

No mitigation is required for this impact.

### **Impact 3.13-4: Result in Inadequate Emergency Access**

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The proposed project would be required to meet the City's design standards and comply with the California Fire Code which include width requirements to allow for emergency vehicles to access and navigate the surrounding transportation network. The project is subject to City staff and applicable emergency service agency review to ensure all relevant standards are met during construction and operation. Additionally, provisions set forth in the California Fire Code, as adopted by the City, must be followed which include allowing for continuous emergency access during construction and requiring that particular design standards are followed to guarantee the project would remain in compliance in case of an event where emergency personnel would need to respond. For these reasons, the project would not result in inadequate emergency access, and the impact would be **less than significant**.

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As discussed in Impact 3.13-3 above, all improvements related to the proposed project would meet City design standards. Emergency access to the project would be subject to review by the City and responsible emergency service agencies. The project would also be required to follow the provisions set forth in the 2019 California Fire Code adopted by reference in Chapter 15 of the City's Municipal Code. Section 3310.1 of the 2019 California Fire Code identifies minimum requirements to provide required emergency access during construction activities. Section 15.16.020 of the Municipal Code contains amendments to the California Fire Code addressing design standards for fire apparatus access roads, loading areas, and passenger drop-off areas. As detailed in Impact 3.14-3 above, the project applicant would be required to obtain all necessary permits for work permitted within the public right-of-way including preparing and obtaining approval of a TCP which would demonstrate appropriate traffic handling during construction activities for all work that will or may impact the traveling public.

The project would be required to follow all State and City requirements to ensure any potential impacts to emergency vehicles are minimized during construction and maintained during operations. Therefore, the project would not result in inadequate emergency access; thus, the impact would be **less than significant**.

### **Mitigation Measures**

No mitigation is required for this impact.

## 3.14 UTILITIES AND SERVICE SYSTEMS

This section evaluates the availability of existing utility and infrastructure systems (water, wastewater, stormwater, electricity, and natural gas) to serve the proposed project and the impact of the project on these systems. The analysis is based on documents obtained from the project-specific features, data provided in the City of Temecula (City) General Plan, the Rancho California Water District (RCWD) Urban Water Management Plan (UWMP), the Eastern Municipal Water District (EMWD) UWMP, and the California Department of Resources Recycling and Recovery's (CalRecycle) Solid Waste Information System.

### 3.14.1 Regulatory Setting

#### DOMESTIC WATER

##### Federal

###### Safe Drinking Water Act

As mandated by the Safe Drinking Water Act (Public Law 93-523), passed in 1974, the U.S. Environmental Protection Agency (EPA) regulates contaminants of concern to domestic water supply. Such contaminants are defined as those that pose a public health threat or that alter the aesthetic acceptability of the water. These types of contaminants are regulated by EPA primary and secondary maximum contaminant levels (MCLs). MCLs and the process for setting these standards are reviewed every three years. Amendments to the Safe Drinking Water Act enacted in 1986 established an accelerated schedule for setting drinking water MCLs. EPA has delegated responsibility for California's drinking water program to the State Water Resources Control Board Division of Drinking Water (SWRCB-DDW). SWRCB-DDW is accountable to EPA for program implementation and for adoption of standards and regulations that are at least as stringent as those developed by EPA.

##### State

###### California Safe Drinking Water Act

The SWRCB-DDW is responsible for implementing the federal SDWA and its updates, as well as California statutes and regulations related to drinking water. State primary and secondary drinking-water standards are promulgated in California Code of Regulations Title 22, Sections 64431–64501.

The California Safe Drinking Water Act (CA SDWA) was passed in 1976 to build on and strengthen the federal SDWA. The CA SDWA authorizes DDW to protect the public from contaminants in drinking water by establishing maximum contaminant levels (MCLs) that are at least as stringent as those developed by EPA, as required by the federal SDWA.

###### Executive Order B-29-15

Passed on January 17, 2014, Executive Order (EO) B-29-15 mandates the SWRCB to impose restrictions to achieve a statewide 25 percent reduction in potable urban water usage through February 28, 2016. Water reductions are measured as compared to 2013 levels. Areas with high per capita water usage should achieve proportionally greater reductions than those areas with lower per capita water usage. The EO additionally directs the Department of Water Resources (DWR) to work with local agencies to collectively replace 50 million square feet (sf) of lawns and ornamental turf with drought tolerant landscapes.

###### California Water Action Plan

The California Water Action Plan—released by Governor Brown in January 2014—is a roadmap for the first five years, 2014 to 2019, of the State's journey toward sustainable water management. The California Water Action Plan has been developed to meet three broad objectives: more reliable water supplies, the restoration of important species

and habitat, and a more resilient, sustainably managed water resources system (water supply, water quality, flood protection, and environment) that can better withstand inevitable and unforeseen pressures in the coming decades.

### **California Water Plan**

The California Water Plan, last updated in 2013, provides a collaborative planning framework for elected officials, agencies, tribes, water and resource managers, businesses, academia, stakeholders, and the public to develop findings and recommendations and make informed decisions for California's water future. The plan, updated every five years, presents the status and trends of California's water-dependent natural resources; water supplies; and agricultural, urban, and environmental water demands for a range of plausible future scenarios. The California Water Plan also evaluates different combinations of regional and statewide resource management strategies to reduce water demand, increase water supply, reduce flood risk, improve water quality, and enhance environmental and resource stewardship. The evaluations and assessments performed for the plan help identify effective actions and policies for meeting California's resource management objectives in the near term and for several decades to come.

### **Urban Water Management Plan Act**

The UWMP Act was passed in 1983 and codified as California Water Code Sections 10610 through 10657. The Act requires "every urban water supplier providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre feet per year (afy), to prepare and adopt, in accordance with prescribed requirements, an urban water management plan." Urban water suppliers must file these plans with the California Department of Water Resources (DWR) every 5 years describing and evaluating reasonable and practical efficient water uses, reclamation, and conservation activities. As required by the Memorandum of Understanding Regarding Urban Water Conservation in California and Assembly Bill (AB) 11, the 2005 UWMP Act incorporated water conservation initiatives and a Water Shortage Contingency Plan. The DWR released the 2020 Urban Water Management Plans in March of 2021.

### **Water Conservation Act of 2009**

Senate Bill (SB) X7-7, the Water Conservation Act of 2009 creates a framework for future planning and actions by urban (and agricultural) water suppliers to reduce California's water use. The law requires urban water suppliers to reduce statewide per capita water consumption by 20 percent by 2020. Additionally, the State is required to make incremental progress toward this goal by reducing per capita water use by at least 10 percent by December 31, 2015. Each urban retail water supplier was required to develop water use targets and an interim water use target by July 1, 2011. Additionally, each urban retail water supplier was required, by July 2011, to include in their water management plan the baseline daily per capita water use, water use target, interim water use target, and compliance daily per capita water use.

### **California Administrative Code Title 24**

California Administrative Code Title 24 contains the California Building Standards, including the California Plumbing Code (Part 5), which promotes water conservation. Title 20 addresses public utilities and energy and includes appliance efficiency standards that promote water conservation. In addition, several State laws listed below require water-efficient plumbing fixtures in structures:

- ▶ Title 20, California Administrative Code, Section 1604(g) establishes efficiency standards that give the maximum flow rate of all new showerheads, lavatory faucets, sink faucets, and tub spout diverters.
- ▶ Title 20, California Administrative Code Section 1606 prohibits the sale of fixtures that do not comply with established efficiency regulations.
- ▶ Title 24, California Administrative Code, Sections 25352(i) and (j) address pipe insulation requirements, which can reduce water used before hot water reaches equipment or fixtures. Insulation of water-heating systems is also required.
- ▶ Health and Safety Code Section 17921.3 requires low-flush toilets and urinals in virtually all buildings.

### **Section 15155 of the CEQA Guidelines Water Supply Assessment**

Section 15155 of the CEQA Guidelines was updated on July 27, 2007 to include the requirement to develop a water supply assessment (WSA) per SB 610.

A water supply assessment is required if:

- ▶ The project would result in the construction of more than 500 residential units and/or require a water demand equivalent to a 500 dwelling unit project.
- ▶ The project would include a commercial component that would employ more than 1,000 persons or have more than 250,000 sf of floor space.
- ▶ The project would include a hotel or motel, or both, having more than 500 rooms.
- ▶ A proposed residential development would account for an increase of 10 percent or more in the number of the public water system's existing service connections.

### **CALGreen Building Code**

California Code of Regulations Title 24, Part 11, establishes the California Green Building Code or CALGreen. The CALGreen Code was recently updated in 2013 and went into effect January 1, 2014. CALGreen sets forth water efficiency standards (i.e., maximum flow rates) for all new federally regulated plumbing fittings and fixtures.

### **Water Efficient Landscape Ordinance**

In 2015, the State of California approved revisions to the Water Efficient Landscape Ordinance, which promotes efficient water use in new and retrofitted landscapes. The ordinance applies to new landscape projects equal to or greater than 500 sf and rehabilitated landscape project equal to or greater than 2,500 sf. Specific requirements within the ordinance apply to the use of compost, certain plant types (i.e., drought tolerant), mulch, and limitations on the amount of turf that may be provided on-site.

## **Local**

### **Rancho California Water District Water Shortage Contingency Plan**

The RCWD's Water Shortage Contingency Plan was adopted in June of 2006 in accordance with California Water Code Section 10632, which states that water agencies must develop a contingency plan in the event of a drought, water supply reductions, failure of a water distribution system, or regulatory decisions reducing water supplies. The contingency plan must demonstrate the ability of an agency to meet demands under a supply shortage of up to 50 percent. RCWD's defines five stages that correspond with various water use reductions depending on the severity of the water shortage (RCWD 2021b).

On June 10, 2021, the RCWD Board of Directors adopted an updated Water Shortage Contingency Plan. RCDW is currently in Stage 3b of the Water Shortage Contingency Plan and water budget reductions are now in place (RCWD 2022b).

Stage 3b includes the following mandatory outdoor water use restrictions:

- ▶ Irrigating lawns and landscape only between 6:00 p.m. and 9:00 a.m. Customers with weather-based irrigation controllers are exempt from this restriction.
- ▶ No watering of outdoor landscapes during a rainfall event and up to 48 hours after measurable rainfall.
- ▶ Irrigation water may not leave the landscaped area.
- ▶ Using a broom instead of a hose to clean driveways, sidewalks, and other hardscape surfaces.
- ▶ Tuning up irrigation systems by checking for and repairing leaks and damaged sprinklers.
- ▶ Not allowing hoses to run while washing motor vehicles (including autos, trucks, trailers, motor homes, boats, or others).

- ▶ No variances or adjustments for: filling swimming pools, establishing or expanding landscape area, leaks not repaired within 48 hours, or existing outdoor water budgets.

### **City of Temecula General Plan**

The City's General Plan (City of Temecula 2005) establishes goals and policies related to utilities for areas within the City. The following General Plan goals and policies, within the Growth Management/Public Facilities Element, are relevant to the project:

**GOAL 6:** A water and wastewater infrastructure system that supports development in the planning area.

- ▶ **Policy 6.1:** Require landowners to demonstrate that an available water supply and sewer treatment capacity exists or will be provided to serve proposed development, prior to issuance of building permits.

## **WASTEWATER AND STORMWATER**

### **Federal**

#### **Clean Water Act**

The Clean Water Act (CWA) 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 provides the legal framework for several water quality regulations, including the National Pollutant Discharge Elimination System (NPDES), effluent limitations, water quality standards, pretreatment standards, anti-degradation policy, non-point-source discharge programs, and wetlands protection. EPA has delegated the responsibility for administration of portions of the CWA to State and regional agencies. In California, SWRCB administers the NPDES permitting program and is responsible for developing NPDES permitting requirements. The SWRCB works in coordination with the regional water quality control boards (RWQCB) to preserve, protect, enhance, and restore water quality. The City lies within the jurisdiction of the San Diego RWQCB.

#### **National Pollutant Discharge Elimination System**

The NPDES permit program was established under the CWA to regulate municipal and industrial discharges to surface waters of the US. NPDES permit regulations have been established for broad categories of discharges including point source waste discharges and nonpoint sources (nonpoint source discharges are further discussed in Section 3.8, "Hydrology and Water Quality"). Each NPDES permit identifies limits on allowable concentrations and mass loadings of pollutants contained in the discharge. Sections 401 and 402 of the CWA contain general requirements regarding NPDES permits. Section 307 of the CWA describes the factors that EPA must consider in setting effluent limits for priority pollutants.

NPDES permits cover various industrial and municipal discharges, including discharges from storm sewer systems in larger cities, stormwater generated by industrial activity, runoff from construction sites disturbing more than 1 acre, and mining operations. Point source dischargers must obtain a discharge permit from the proper authority (usually a state, sometimes EPA, a Tribe, or a territory). So-called "indirect" point source dischargers are not required to obtain NPDES permits. "Indirect" dischargers send their wastewater into a public sewer system, which carries it to the municipal sewage treatment plant, through which it passes before entering any surface water.

The CWA was amended in 1987 with Section 402(p) requiring NPDES permits for nonpoint source (i.e., stormwater) pollutants in discharges. Stormwater sources are diffuse and originate over a wide area rather than from a definable point. The goal of the NPDES stormwater regulations is to improve the water quality of stormwater discharged to receiving waters to the "maximum extent practicable" using structural and nonstructural best management practices (BMPs). BMPs can include educational measures (e.g., workshops informing the public of what impacts can result when household chemicals are dumped into storm drains), regulatory measures (e.g., local authority of drainage-facility design), public-policy measures (e.g., labeling storm-drain inlets as to impacts of dumping on receiving waters) and structural measures (e.g., filter strips, grass swales, and detention ponds).

## State

### State Water Resources Control Board Statewide General Waste Discharge Requirements for Sanitary Sewer Systems

The Statewide General Waste Discharge Requirements) for Sanitary Sewer Systems (SWRCB Order No 2006-0003-DWQ) applies to sanitary sewer systems that are greater than one-mile-long and collect or convey untreated or partially treated wastewater to a publicly owned treatment facility. The goal of Order No. 2006-0003 is to provide a consistent statewide approach for reducing sanitary sewer overflows (SSOs), accidental releases of untreated or partially treated wastewater from sanitary sewer systems, by requiring that:

1. In the event of an SSO, all feasible steps must be taken to control the released volume and prevent untreated wastewater from entering storm drains, creeks, etc.
2. If an SSO occurs, it must be reported to the SWRCB using an online reporting system developed by the SWRCB.
3. All publicly owned collection system agencies with more than one mile of sewer pipe in the State must develop a Sewer System Management Plan (SSMP), which must be updated every 5 years.

The RCWD Board of Directors adopted RCWD's first SSMP in March 2008. RCWD updated and adopted the SSMP in February 2013.

### Regional Municipal Separate Storm Sewer System Permit

The Municipal Stormwater Permitting Program regulates stormwater discharges from municipal separate storm sewer systems (MS4s). Stormwater is runoff from rain or snowmelt that runs off surfaces, such as rooftops, paved streets, highways, or parking lots, and it can carry with it pollutants, such as oil, pesticides, herbicides, sediment, trash, bacteria, and metals. The runoff can then drain directly into a local stream, lake, or bay. Often, the runoff drains into storm drains, which eventually drain untreated stormwater into a local water body.

In November of 2015, the San Diego RWQCB Regional MS4 Permit, or Fifth Term Permit (Order No. R9-2015-0100; NPDES No. CAS0109266) was adopted and uniformly regulates all three counties within the San Diego Region to maximize efficiency. The Regional MS4 Permit focuses less on completing specific actions and more on reaching goals and desired outcomes towards the improvement of water quality. The Regional MS4 Permit expired on June 27, 2018 but remains in effect under an administrative extension until it is reissued by the San Diego RWQCB. The Regional MS4 Permit requires a minimum set of BMPs for all development projects (regardless of project type or size), during the planning process (i.e., prior to project approval and issuance of local permits), including unpaved roads and flood management projects. The Regional MS4 Permit also requires certain Low Impact Development BMPs for all development projects, including conservation of natural areas and minimization of soil compaction. In addition, the Regional MS4 Permit includes additional specific requirements for Priority Development Projects. Further, Order No. R9-2017-0077 has been issued, which requires the submittal of reports pertaining to the control of trash in discharges from Phase I MS4s to ocean waters, inland surface waters, enclosed bays, and estuaries in the region.

## Local

### City of Temecula Stormwater Ordinance

The City adopted the Stormwater and Urban Runoff Management and Discharge Controls Ordinance with the purpose and intent of protecting the water quality of City watercourses, water bodies, groundwater, and wetlands in a manner pursuant to and consistent with the federal CWA to ensure the future health, safety, and general welfare of the citizens of the City by:

- ▶ Regulating non-stormwater urban runoff to the storm drain system;
- ▶ Reducing pollutants in stormwater to the maximum extent practicable;
- ▶ Establishing requirements for development projects for permanent water quality control measures;
- ▶ Establishing requirements to reduce pollutant discharges from construction sites;
- ▶ Establishing requirements to reduce pollutants in runoff from existing development; and

- ▶ Prohibiting illicit connections and illegal discharges to the storm drain system.

New development and modifications to existing development is required to be designed to control pollutants in stormwater and urban runoff so as to prevent any deterioration of water quality that would impair subsequent or competing uses of the receiving waters. The City Engineer approves the BMPs that would be implemented to prevent deterioration and approves the manner of implementation. The ordinance requires a water quality management plan (WQMP) for all new development projects that meet the specified categories listed in the City's MS4 permit and modifications to existing development projects as defined in the MS4 permit.

### **City of Temecula General Plan**

The City's General Plan establishes goals and policies related to utilities for areas within the City. The following General Plan goals and policies, within the Growth Management/Public Facilities Element, are relevant to the project:

**GOAL 6:** A water and wastewater infrastructure system that supports development in the planning area.

- ▶ **Policy 6.1:** Require landowners to demonstrate that an available water supply and sewer treatment capacity exists or will be provided to serve proposed development, prior to issuance of building permits.
- ▶ **Policy 6.2:** Require landowners, prior to issuance of building permits, to demonstrate that adequate wastewater capacity exists to serve proposed development.

## **SOLID WASTE**

### **Federal**

No federal plans, policies, regulations, or laws are applicable to solid waste for the project.

### **State**

#### **Solid Waste Management and Resource Recovery Act of 1972**

The Solid Waste Management and Resource Recovery Act of 1972 is the legislation that addresses solid waste. The California Integrated Waste Management Board (CIWMB), which was created by this act, was given broad authority related to solid waste handling, disposal, and reclamation. Under this act, the CIWMB initially: (1) created a State-solid waste management and resource recovery policy; (2) developed minimum standards for solid waste handling and disposal; and (3) approved county Solid Waste Management Plans. The CIWMB was responsible for enforcing the legal provisions dealing with solid waste management and disposal for protecting the environment and public health and safety.

#### **California Integrated Waste Management Act**

In 1989, the Legislature adopted the California Integrated Waste Management Act of 1989 (AB 939) to "reduce, recycle, and re-use solid waste generated in the State to the maximum extent feasible." The term "integrated waste management" refers to the use of a variety of waste management practices to safely and effectively handle the municipal solid waste stream with the least adverse impact on human health and the environment. AB 939 establishes a waste management hierarchy as follows:

- ▶ source reduction,
- ▶ recycling,
- ▶ composting,
- ▶ transformation, and
- ▶ disposal.

The law also requires that each county prepare a new Integrated Waste Management Plan and each city prepare a Source Reduction and Recycling Element (SRRE) by July 1, 1991. The SRRE is required to identify how each jurisdiction will meet the mandatory State waste diversion goal of 50 percent by the year 2000. AB 939 mandated that

California's 450 jurisdictions (i.e., cities, counties, and regional waste management compacts) implement waste management programs aimed at a 25 percent diversion rate by 1995 and a 50 percent diversion rate by 2000. If the 50 percent goal was not met by the end of 2000, the jurisdiction was required to submit a petition for a goal extension to CalRecycle. SB 2202 made a number of changes to the municipal solid waste diversion requirements under AB 939. These changes included a revision to the statutory requirement for 50 percent diversion of solid waste to clarify that local governments shall continue to divert 50 percent of all solid waste on and after January 1, 2000. Title 14 of the California Code of Regulations, Division 7, Section 17200, et seq., California Integrated Waste Management Board, includes additional regulations to further implement standards for solid waste management.

#### **California State Assembly Bill 341**

With the passage of AB 341, the governor and the legislature established a policy goal for the State that a minimum of 75 percent of solid waste must be reduced, recycled, or composted by the year 2020. Since the passage of AB 939 in 1989, State diversion rates are now equivalent to 65 percent. The statewide recycling rate is 50 percent, and the beverage container recycling rate is 80 percent. The State provided strategies to achieve its new 75 percent goal, including moving organics out of the landfill and expanding recycling/ manufacturing infrastructure.

#### **California State Senate Bill 1383**

Regulations enacted under 1383 required a 50% reduction in organic waste disposal by 2020, and require a 75% reduction in landfilled organic waste (relative to 2014 levels) and 20% increase in recovery of currently disposed edible food by 2025. The intent of the law is to decrease greenhouse gas emissions by reducing the amount of organic material disposed of in landfills. Beginning January 1, 2022, residences and businesses are required to sort and separately collect food scraps, yard debris, and food-soiled paper from trash and recycling and subscribe to an organics waste collection service. Local jurisdictions are required to take enforcement actions against noncompliant entities beginning January 1, 2024.

#### **Medical Waste Management Act**

The Medical Waste Management Act (California Health and Safety Code Sections 117600-118360) is implemented by the Medical Waste Management Program in the Environmental Management Branch of the California Department of Public Health. It regulates the generation, handling, treatment, and disposal of medical waste.

## **Local**

#### **Temecula Municipal Code: Title 8, Chapter 8.20**

Chapter 8.20 of Title 8 of the Temecula Municipal Code discusses various topics pertaining to waste management in the City, including integrated waste management and collection details, fees and licenses, unlawful dumping, cleanup responsibility and violations.

#### **City of Temecula General Plan**

The City's General Plan establishes goals and policies related to utilities for areas within the City. The following General Plan goals and policies, within the Growth Management/Public Facilities Element, are relevant to the project:

**GOAL 8:** A solid waste management system providing safe and efficient collection, transportation, recovery and disposal of waste.

- ▶ **Policy 8.1:** Coordinate with the County of Riverside to provide and expand solid waste collection, storage, transportation, recovery, and disposal services to meet the needs of the City.

## **GROUNDWATER**

### **Federal**

No federal plans, policies, regulations, or laws are applicable to groundwater for the project.

## State

### California Sustainable Groundwater Management Act

The Groundwater Management Act was first introduced in 1992 as Assembly Bill (AB) 3030 and has since been modified by SB 1938 in 2002, AB 359 in 2011, and the Sustainable Groundwater Management Act (SGMA) (SB 1168, SB 1319, and AB 1739) in 2014. The intent of the acts is to encourage local agencies to work cooperatively to manage groundwater resources within their jurisdictions and to provide a methodology for developing a groundwater management plan.

SGMA became law on January 1, 2015 and applies to all groundwater basins in the State (Water Code Section 10720.3). By enacting the SGMA, the legislature intended to provide local agencies with the authority and the technical and financial assistance necessary to sustainably manage groundwater within their jurisdiction (Water Code Section 10720.1).

The goal of SGMA is sustainable groundwater management, which is defined as the management and use of groundwater in a manner that can be maintained during the planning and implementation horizon without causing undesirable results. SGMA's criteria for undesirable results within a groundwater basin are listed below:

1. Chronic lowering of groundwater levels indicating a significant and unreasonable depletion of supply if continued over the planning and implementation horizon. Overdraft during a period of drought is not sufficient to establish a chronic lowering of groundwater levels if extractions and recharge are managed as necessary to ensure that reductions in groundwater levels or storage during a period of drought are offset by increases in groundwater levels or storage during other periods.
2. Significant and unreasonable reduction of groundwater storage.
3. Significant and unreasonable seawater intrusion.
4. Significant and unreasonable degraded water quality, including the migration of contamination plumes that impair water supplies.
5. Significant and unreasonable land subsidence that substantially interferes with surface land uses.
6. Depletions of interconnected surface water that have significant and unreasonable adverse impacts on beneficial uses of the surface water.

SGMA provides authority for agencies to develop and implement groundwater sustainability plans or alternative plans that demonstrate the basin is being managed sustainably. Since the Temecula Valley Groundwater Basin is adjudicated, it is exempt from SGMA. However, the Santa Margarita Watermaster has groundwater management and monitoring programs in place to best implement the goals and objectives of SGMA.

## Local

No local plans, policies, regulations, or laws are applicable to groundwater for the project.

### 3.14.2 Environmental Setting

Public utilities in the project area are provided by various entities, as identified in Table 3.14-1 and discussed in detail below.

**Table 3.14-1 Utilities Providers for the Project Area**

Utility	Agency/Provider
Water Supply	RCWD
Wastewater Collection and Conveyance	EMWD
Wastewater Treatment	EMWD The Santa Rosa Regional Resources Authority
Stormwater Conveyance	City of Temecula
Solid Waste Collection <sup>1</sup>	CR&R Inc.
Electrical Service	Southern California Edison
Natural Gas	Southern California Gas Company

Notes: <sup>1</sup> Discussed in Section 3.12, "Public Services."

Source: Data compiled by Ascent Environmental in 2022.

## WATER SUPPLY

RCWD currently provides water for urban and agricultural uses in the project area. The RCWD's service area encompasses approximately 155 square miles and includes the City, portions of the City of Murrieta, and unincorporated areas of southwestern Riverside County. The RCWD currently has 45,586 service connections with 950 miles of water mains, 39 storage reservoirs, four storage reservoirs (recycled water), five wet weather storage ponds (recycled water), one surface reservoir (Vail Lake), 48 groundwater wells (active wells), and provides water to approximately 155,000 people (RCWD 2021a).

RCWD water consists of local groundwater from the Temecula Valley Groundwater Basin; imported water from the State Water Project (SWP) and Colorado River water from the Metropolitan Water District of Southern California (MWD) via EMWD and Western Municipal Water District (WMWD); and recycled water from RCWD and EMWD. Historically, groundwater has supplied between 25 and 40 percent of RCWD's total water supply and imported water has supplied between 60 to 70 percent. In 2020, recycled water comprised approximately 7 percent of RCWD's water supply portfolio. Current and planned improvements will increase the use of recycled water (RCWD 2021a).

Vail Lake (surface reservoir) is used to help recharge groundwater by using infiltration basins downstream from Vail Lake release. Highly treated wastewater (recycled water) is obtained from the Santa Rosa Water Reclamation Facility (WRF) and the Temecula Valley WRF. Well water and imported water are utilized for residential, commercial, landscape irrigation, and agricultural uses. Recycled water is used to irrigate golf courses and larger landscaped areas (RCWD 2021a).

Based on RCWD's most recent 2020 UWMP, RCWD is anticipating that it has adequate water supplies in average, single-dry-year, and multiple-dry-year conditions through 2045. The water demand shown in Table 3.14-2 is a combination of residential, commercial, institutional, and industrial uses and is based on local land use plans and anticipated growth within the RCWD service area. As shown in Table 3.14-2, water supplies are anticipated to exceed water demands for all years projected. Currently, there are 53 active potable water connections for institutional uses (e.g., the existing Temecula Valley Hospital) within the RCWD service area, with an annual water demand of 263 afy, which equates to approximately 0.5 percent of the district's current water deliveries (RCWD 2021a).

Water is provided to the site currently via an existing water line along De Portola Road.

**Table 3.14-2 Rancho California Water District Current and Planned Water Supply and Demand Comparison**

	2025 (afy)	2030 (afy)	2035 (afy)	2040 (afy)	2045 (afy)
<b>Average Year</b>					
Water Demand	69,763	72,915	74,597	76,706	78,879
Average Year Water Supplies	80,275	83,554	85,328	87,552	89,824
<i>Surplus (+)/Deficit (-)</i>	<i>10,512</i>	<i>10,639</i>	<i>10,731</i>	<i>10,846</i>	<i>10,945</i>
<b>Single Dry-Year Conditions</b>					
Water Demand	72,799	76,100	77,858	80,063	82,336
Single Dry-Year Water Supplies	80,275	83,554	85,328	87,552	89,824
<i>Surplus (+)/Deficit (-)</i>	<i>7,476</i>	<i>7,474</i>	<i>7,470</i>	<i>7,489</i>	<i>7,488</i>
<b>Multiple Dry-Year Conditions</b>					
Water Demand	72,799	76,100	77,858	80,063	82,336
Multiple Dry-Year Water Supplies <sup>1</sup>	72,983	76,211	77,973	80,184	82,444
<i>Surplus (+)/Deficit (-)</i>	<i>184</i>	<i>111</i>	<i>115</i>	<i>121</i>	<i>108</i>

Note: afy = acre-feet/year

1 Reflects anticipated supply and demand conditions within the fifth year of a multi-year drought.

Source: RCWD 2021a.

**Imported Water**

Imported water is water that originated from outside of the Santa Margarita River Watershed, where the project is located (generally water from the Colorado River and the SWP). Imported water is acquired from the member agencies of MWD. For RCWD, its member agencies are WMWD for the Santa Rosa Division and EMWD for the Rancho Division. Imported water provided to RCWD is from MWD’s Lake Skinner Reservoir and Water Treatment Facility, with back-up storage provided by Diamond Valley Lake. Imported treated water flow rates vary seasonally at RCWD’s turnouts. During winter months when demand is typically lower, RCWD relies mostly on local groundwater resources. During these periods, RCWD may turn off all the imported water turnouts. As demands increase throughout the year, groundwater sources are augmented with imported water supplies to meet daily demand variations (RCWD 2021a).

**Groundwater Supply**

RCWD receives groundwater from the Temecula Valley Groundwater Basin (Basin 9-005), as identified in California’s Groundwater Bulletin 118. The Temecula Valley Groundwater Basin underlies several valleys in southwestern Riverside County and a portion of northern San Diego County, within the Santa Margarita River Watershed. RCWD overlies two major aquifers, the Temecula and the Pauba. In addition to RCWD, other agencies pump from the basins including WMWD, Pechanga Band of Luiseño Mission Indians (Pechanga), and other private pumpers. Accounting for these users, the total natural yield available to RCWD varies, and is estimated to average approximately 25,000 afy during average year conditions (RCWD 2021a).

**Recycled Water**

Recycled water is municipal wastewater that is purified for beneficial reuse. Higher value uses of recycled water include landscape or agricultural irrigation, commercial and industrial applications, groundwater recharge, seawater intrusion barrier, and other uses such as street sweeping and dust control. Recycled water used by the RCWD is produced at the Santa Rosa Regional Resources Authority’s (SRRRA) SRWRF or purchased from EMWD’s Temecula Valley WRF (RCWD 2021a). The SRRRA is constituted of 3 member agencies including WMWD, Elsinore Valley Municipal Water District (EVMWD), and RCWD, all of which generate wastewater that is ultimately treated at the SRWRF. Both the SRWRF and Temecula Valley WRF produce disinfected tertiary recycled water meeting the State of California Title 22 regulations for such uses as recreational impoundments and surface irrigation for landscaping, golf courses, agriculture, parks and playgrounds, as well as certain industrial processes (RCWD 2021a).

Wastewater is considered a reliable and drought-resistant water source and, if recycled, will reduce the RCWD's reliance on potable water supplies. Current and planned improvements will increase the use of recycled water. Steps being taken include implementing a Recycled Water Accelerated Retrofit Program; which provides significant incentives to qualified participants who wish to retrofit their irrigation systems for recycled water use. The Program is designed to advance recycled water retrofit projects to achieve potable water offsets, and incorporates streamlined business processes, technical support, and financing mechanisms to expedite the permitting, design, and construction of retrofit sites; objectives within the Strategic Plan, Mandatory Recycled Water Use Policy; water supply assessments; rate incentives, financing policies; and public education (RCWD 2021a).

As growth continues within the RCWD service area, it is reasonable to assume that reliability of the resource and the RCWD's Recycled Water Use Policy will continue to play a part in recycled water use expansion (RCWD 2021a).

## WASTEWATER AND STORMWATER

Within the project area, EMWD provides both water service as a wholesale provider to RCWD and wastewater services to the project site. As described previously, EMWD also sells recycled water to RCWD (EMWD 2021a). EMWD is located in western Riverside County and includes a 555 square-mile service area that serves seven incorporated cities and unincorporated areas of Riverside County. EMWD provides wastewater services to approximately 239,000 customers within its service area and currently treats approximately 43 million gallons per day of wastewater through 1,813 miles of sewer pipelines (EMWD 2022).

EMWD has four sources of water supply: imported water from Metropolitan Water District of Southern California; local groundwater; desalinated groundwater; and recycled water. Delivery points for each source of water are located throughout the EMWD service area. EMWD operates four active WRFs: San Jacinto, Moreno Valley, Temecula Valley, and Perris Valley. All of EMWD's WRFs produce tertiary effluent, suitable for all Department of Health Services permitted uses. The four WRFs have a combined capacity of 81,300 AFY (EMWD 2022).

### Wastewater Treatment and Disposal

Wastewater generated at the project site is collected on-site and routed to existing infrastructure/piping within Temecula Parkway prior to treatment at the Temecula Valley WRF, located at 42565 Avenida Alvarado, in Temecula. The Temecula Valley WRF is 95-acres in size and has a treatment capacity of 20,800 afy (EMWD 2021b). The Temecula Valley WRF treats wastewater from a service area that includes the "Golden Triangle" region between Interstates 15 and 215, the Murrieta Hot Springs area, and portions of the Rancho Division of the District. The Temecula Valley WRF also receives and treats wastewater generated within WMWD and EVMWD service areas (RCWD 2021a). Average daily flows to the Temecula Valley WRF are approximately 14 million gallons per day (mgd), whereas the facility has a capacity to treat 23 mgd (EMWD 2021b). The total wastewater treated at the Temecula Valley WRF in 2020 was 15,942 AFY (RCWD 2021a). Effluent from Temecula Valley WRF is conveyed to on-site storage ponds prior to distribution. There are 225 million gallons (MG) of temporary onsite storage capacity. When additional storage is required, recycled water is conveyed to 485 MG storage ponds located 10 miles north in Winchester, providing recycled water supply for irrigation users along the way. When the ponds are full or there is not enough demand, the effluent is discharged to Temescal Creek, a tributary of the Santa Ana River, for ultimate disposal to the Pacific Ocean (RCWD 2021a).

### Stormwater

The existing project site has two major drainage basins that split the drainage into east and west sides. On the eastern side runoff is contained onsite where various curb inlets and grates collect water at low points; water then flows via pipes to an existing interim detention/sedimentation basin that flows southeast into an existing concrete drainage channel on Temecula Parkway. Water from offsite does not surface onto the site but pipe flows directly to the channel. The west side drains northwest to a connection at Dona Lynora Drive, north of Rancho Pueblo Road. The developed portion of the western side flows overland via curb cuts to sand filters and pipes while the undeveloped portion flows overland to a pipe. Existing onsite drainage infrastructure includes vegetative strips, sand filters, biofiltration swales, bioretention/rain gardens, modular wetland systems, detention basins/settling basins, and infiltration basins to treat stormwater.

## ENERGY

### Electricity

Southern California Edison (SCE) supplies electricity to the project site via underground and overhead lines. SCE is an investor-owned utility (IOU) regulated by the California Public Utilities Commission (CPUC). The hierarchy of establishing electrical power lines from generation stations to customers is as follows: transmission line; subtransmission line; and service line (City of Temecula 2005). At the project site, electricity is provided via existing overhead 12 kilovolt lines located west of the existing main entrance to the project site along Temecula Parkway.

### Natural Gas

The project site is provided with natural gas by the Southern California Gas Company (SoCalGas) via existing infrastructure within De Portola Road. SoCalGas is an IOU regulated by the CPUC. Generally and including the project site, natural gas is provided via plastic and steel underground lines, which are located throughout the City.

## SOLID WASTE

The City contracts with CR&R Waste and Recycling Services for solid waste collection and disposal services (City of Temecula 2022). Household waste is transported to a processing center in Stanton, CA, and commercial/industrial waste is transported to the Perris Transfer Station/Materials Recovery Facility (TS/MRF), located at 1706 Goetz Road (CR&R Inc 2022a; 2022b). The City's solid waste is hauled to both the El Sobrante and Badlands Landfills in Riverside County (City of Temecula 2005). The closest landfill to the project site is the El Sobrante Landfill, located east of I-15 and Temescal Canyon Road at 10910 Dawson Canyon Road, 30 miles northwest of the project site. As of 2018, the year for which the most recent information is available, the remaining capacity of this landfill was 143,977,170 tons with an estimated cease operation date of 2051. The maximum daily disposal rate (i.e., throughput) is 16,054 tons/day, which has not been exceeded (CalRecycle 2022a). The Badlands Landfill, located at 31125 Ironwood Avenue in Moreno Valley, is approximately 32 miles north from the project site. As of 2020, the year for which the most recent information is available, the remaining capacity of this landfill was 7,800,000 cubic yards with an estimated cease operation date of 2026. The maximum daily disposal rate (i.e., throughput) is 4,800 tons/day (CalRecycle 2022b).

The City provides curbside recycling services and green waste services. Recyclable materials are collected and transported to the Perris TS/MRF for processing. Garden materials are hauled to a separate facility for composting, and the remaining waste is hauled to the El Sobrante and Badlands Landfills (City of Temecula 2005). The TS/MRF and the El Sobrante Landfill are open to the public for personal delivery; both accept electronic waste (e-waste) and appliances.

## 3.14.3 Environmental Impacts and Mitigation Measures

### ANALYSIS METHODOLOGY

#### Water Supply

CEQA Guidelines Section 15155 requires preparation of a WSA when a project is of sufficient size to be defined as a "water-demand project." Generally and as noted above, a water supply assessment is considered to be required if the overall demand of a project would be equivalent to or exceed the demand of 500 dwelling units. This threshold is also considered to be a benchmark for a potential substantial increase in water demands and the need to evaluate potential alternative water supplies for a given project. There are other parameters identified in CEQA Guidelines Section 15155 but none are directly analogous to the proposed project. Using the potential water demand of 500 dwelling units as the benchmark and based on demand factors provided in the RCWD 2020 UWMP, Table 3.14-3 evaluates the potential demand of the proposed project compared to the demand of 500 dwelling units within the RCWD service area.

**Table 3.14-3 Potential Water Demand of the Project**

Land Use Type	Demand Factor	Units	Projected Demand
Multi-Family Residential	210 gpd/unit	500 dwelling units	105,000 gpd
Project	1,585 gpd/acre	35.31 acres	55,967 gpd
Difference in Demand			49,033 gpd
WSA Required?			No

Notes: gpd = gallons per day

Source: Demand factors derived from RCWD 2020 UWMP (RCWD 2021a); Data compiled by Ascent Environmental in 2022.

Based on information provided in Table 3.14-3, a WSA is not required for the proposed project. As a result, the potential potable water demands of the proposed project are compared against information provided in the RCWD 2020 UWMP to determine whether adequate water supplies are available to accommodate the proposed project.

### Capacity of Existing Utility Conveyance and Treatment Facilities

The analysis of water and sewer infrastructure capacity focuses on the magnitude of the change in demand for water supplies and wastewater treatment from buildout of the proposed project, based on the projected increase in water demand and wastewater generation above existing conditions. From the estimated increase in water demand and wastewater generation, an analysis of whether any infrastructure improvements, beyond those proposed as part of the proposed project, would be necessary to provide adequate utility service to the project site is provided. Impacts would be significant if buildout of the proposed project would result in the need for construction of water facilities or wastewater facilities that could result in a significant impact on the environment. Additionally, if the proposed project would require the relocation of existing utility lines, including water, wastewater, stormwater, electricity, natural gas, or telecommunications, the potential for new/different significant environmental impacts beyond that identified as part of the proposed project are evaluated.

### Solid Waste Disposal Capacity

The evaluation of the sufficiency of regional solid waste disposal capacity includes an assessment of solid waste generated during both construction and operation of the proposed project. The analysis identifies the anticipated amount of non-hazardous construction debris and operational solid waste that would be generated from implementation of the proposed project and the amount that would be disposed of in landfills after compliance with recycling/diversion requirements. As noted in Chapter 2, "Project Description," this would include the export/disposal of approximately 18,000 cubic yards of soil material during construction, in addition to solid waste generated as a result of building construction and finishing. Solid waste generation during operation is evaluated based on publicly available waste generation rates per hospital bed (i.e., 16 pounds/day per hospital bed) and for office development (i.e., 6 pounds/1,000 SF/day) from CalRecycle (CalRecycle 2022c). The results (i.e., solid waste after recycling/diversion) are compared with the available capacity of the landfill serving the Project areas to assess the significance of the Project's solid waste generation during construction and at buildout. Impacts would be considered significant if the Project would result in a substantial increase in solid waste that would affect landfill capacity, such that a new or expanded landfill facility would be required; the development of which could result in an impact on the environment.

## THRESHOLDS OF SIGNIFICANCE

A utilities and service systems impact would be significant if implementation of the proposed project would:

- ▶ require or result in the relocation or construction of new or expanded water, or wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects;
- ▶ not have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years;

- ▶ result in a determination by the wastewater treatment provider that serves or may serve the project that it does not have adequate capacity to serve the project's projected demand, in addition to the provider's existing commitments;
- ▶ generate solid waste in excess of State or local standards or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals; or
- ▶ conflict with federal, State, and local management and reduction statutes and regulations related to solid waste.

## ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

### Impact 3.14-1: Water Supply Availability

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Implementation of the proposed project would result in a net increase in water demand at the project site. However, Rancho California Water District has available water supplies to accommodate the increased demand without the need for new or expanded entitlements. This impact would be **less than significant**.

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The proposed project, an update to the Temecula Valley Hospital Master Plan, consists of revisions to the currently approved Temecula Valley Hospital project. Phase I development of the hospital was completed in 2011, and the hospital was opened in 2013. Implementing the proposed project would result in revisions to the remaining phases of hospital development to address anticipated growth in the region. Specifically, the project involves expanding the emergency department and constructing a behavioral health building, two additional hospital towers, two medical office buildings, a utility plant, surface parking lots, and a four-story parking structure. In addition, the helipad would be relocated from its interim location on the project site to the roof of the proposed parking structure. The hospital building and other buildings constructed during Phase I would be maintained in place.

As shown above in Table 3.14-2, total water demand (under average year conditions) within the RCWD service area in 2025 is projected to be 69,763 afy while available supplies, based on water rights, are 80,275 afy. In 2045, total water demand would increase to 78,879 afy while available supplies of 89,824 afy are anticipated to be available. Under the proposed project, on-site development may increase water demand at the site to up to 49,033 gpd (approximately 55 afy) on average. However, a portion of this water demand is already occurring (approximately 25 percent or 14 afy based on the percentage of existing beds versus total potential with the project). The projected increase in water demand at the project site is anticipated to be approximately 41 afy. Based on the projected surplus water supplies available to RCWD through 2045 under average, single dry-year, and multiple dry-year conditions, as shown in Table 3.14-2 above, and taking into consideration the incremental increase in water demand anticipated with the project, implementation of the project would not result in a net increase in demands such that RCWD would not have adequate water supplies available to meet demands. It should also be noted that the projected future needs shown in Table 3.14-2 reflect current land use plans within the RCWD service area, which already include the previously approved master plan on the project site. Further, as noted above, the proposed project is not of sufficient size (i.e., high water demand) such that a stand-alone WSA would be required. Therefore, in light of the presence of adequate and available water supplies to the project and the limited water demands associated with project implementation, this impact would be **less than significant**.

### Mitigation Measures

No mitigation is required for this impact.

### **Impact 3.14-2: Require or Result in the Relocation or Construction of New or Expanded Utility Infrastructure, Including Additional Wastewater Treatment Capacity, the Construction of Which Could Cause Significant Environmental Impacts**

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The proposed project would not require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. This impact would be **less than significant**.

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#### **Water Infrastructure**

For an assessment of available water supplies to the project site, refer to Impact 3.14-1, above. On-site water infrastructure would be designed to provide adequate potable water, including to fulfill fireflow requirements for new/modified on-site structures, and based on preliminary engineering, no off-site improvements to existing water mains/connections are needed to serve the proposed project. Additionally, the project would include the provision of aboveground water storage tanks to maintain adequate water pressure for proposed structures (e.g., the proposed patient tower and Behavioral Health building identified in Chapter 2, "Project Description"). As a result, adequate water infrastructure is present to accommodate the proposed project, and no new or expanded infrastructure that could have significant environmental impacts would be necessary.

#### **Wastewater Infrastructure**

As noted above, wastewater generated at the project site is currently collected via existing infrastructure/piping and routed to the Temecula Valley WRF, located at 42565 Avenida Alvarado, for treatment/disposal. As of 2021, average daily wastewater flows to the Temecula Valley WRF are approximately 14 million gallons per day (mgd), whereas the facility has a capacity to treat 23 mgd (EMWD 2021b). With the additional development proposed at the project site, on-site wastewater generation would increase by approximately 0.032 mgd (36 afy), assuming that the anticipated additional water demand (0.037 mgd or 41 afy) is roughly equivalent to 1.15 times wastewater generation. Based on the anticipated wastewater generated by the proposed project, the Temecula Valley WRF would have adequate capacity to accommodate the proposed project without the need for expansion or alternative means of wastewater treatment. Further, the proposed project would include an underground storage tank with up to 80,000 gallons of capacity, pursuant to California Plumbing Code. On-site wastewater collection infrastructure would be designed to accommodate the anticipated flows from new/modified on-site structures, and based on preliminary engineering, no off-site improvements to existing sewer mains/connections are necessary to serve the proposed project. As a result, adequate wastewater collection and treatment infrastructure is present to accommodate the project, as currently proposed, and no new/expanded infrastructure that could have significant environmental impacts would be necessary.

#### **Stormwater Infrastructure**

As noted in Section 3.8, "Hydrology and Water Quality," implementation of the proposed project would increase the amount of impervious surface area on the project site relative to existing conditions. All on-site construction would be required to comply with the development planning requirements of the San Diego RWQCB MS4 General Construction Permit (2009-0009-DWQ, as amended by 2010-0014-DWQ and 2012-0006-DWQ) and the City of Temecula Stormwater Ordinance. The future development under the proposed project would also be required to generate a project-specific WQMP, as required by the City of Temecula Stormwater Ordinance and as specified in the City's Jurisdictional Runoff Management Plan. The implementation of the specific drainage features within the WQMP would ensure that future development projects would meet the City's MS4 Permit and Stormwater Ordinance requirements.

As a part of the WQMP, future development would be required to incorporate and maintain BMPs as part of project design, including measures to reduce increases in runoff through biofiltration basins, vegetative strips, bioswales, rain gardens and detention ponds for protection. Under the proposed project, all flows from future buildings and parking lots would be routed to the on-site biofiltration basins; non-structural improvements such as rain barrels and tree wells would also be installed as needed to comply with applicable pollutant control and hydromodification

requirements. Water quality improvements installed on the east side during Phase I, where the existing hospital building and storage building are located, would remain; whereas new water quality improvements would be focused on the existing, undeveloped west side of the project site, and where new development and reconfigurations are proposed on the east side. In general, existing on-site stormwater infrastructure would be modified or expanded to accommodate the proposed project such that additional off-site stormwater infrastructure would not be required.

In the southeast portion of the project site, the existing open-air infiltration pond/basin would be converted into underground infiltration chambers and additional modular wetland systems would be installed. Several existing in-ground systems at the northwesterly-draining subbasin would be removed and reinstalled to accommodate the newly proposed layout of the project (see Figure 2-7, Proposed Site Plan). Additional vegetative strips, sand filters, modular wetland systems, and bioretention/rain garden systems would be installed throughout the project site to treat stormwater as intended under the WQMP approvals for the currently approved project. As a result, additional stormwater infrastructure would not be necessary beyond what is proposed as part of the project (both on-site and off-site) and evaluated throughout this Draft SEIR.

### **Electricity, Natural Gas, and Telecommunications Infrastructure**

As future development under the proposed project would occur within the project site, the demand for electricity, natural gas and telecommunications would increase. However, future development of the proposed project would not require or result in the relocation or construction of new or expanded electricity, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. See Section 3.4, "Energy," of this Draft SEIR, for analysis impacts related to the proposed project's usage of energy. Extensions for electrical and gas service to new developments are governed by rules established by the CPUC, which regulates investor-owned telecommunications, gas, electric and water companies as well as transportation services such as household goods movers, airport shuttles, limousines and tour buses. CPUC also oversees the safety of electric transmission lines, gas pipelines and railroads (City of Temecula 2005).

### **Conclusion**

Based on the foregoing, the proposed project would not require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. This impact would be **less than significant**.

### **Mitigation Measures**

No mitigation is required for this impact.

## **Impact 3.14-3: Solid Waste Generation Relative to State and Local Standards and Local Facility Capacity and Compliance with Solid Waste Statutes and Regulations**

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Implementation of the proposed project generate additional solid waste that would be hauled via private permitted contractor to a permitted landfill for disposal. There is substantial remaining capacity in the landfills serving local solid waste haulers. Therefore, because the project would not generate solid waste in excess of State or local standards or in excess of the capacity of the local infrastructure, negatively impact the provisions of solid waste services, or impact the attainment of solid waste reduction goals, this impact would be **less than significant**.

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### **Construction**

Construction of future development of the project has the potential to generate solid waste, including cardboard, metals, plastics, concrete and other building materials. Construction for some development would also involve earthwork, which can produce waste pavement scraps and soil piles. As stated in Chapter 2, "Project Description," implementation of the proposed project would increase the total building footprint on the project site by 544,600 sf relative to existing conditions, to a total building area of 756,121 sf.

An average estimate of overall construction waste from non-residential development is 4.34 pounds per square foot (EPA 2003). Using this estimate, the proposed project could result in an additional 1,182 tons of solid waste from

construction. In addition to the anticipated 18,000 cubic yards (25,200 tons), total solid waste requiring off-site disposal would be 26,382 tons that would be disposed of in increments over a period of approximately 15 years.

Solid waste generated during construction activities would be recycled to the maximum extent practicable and all remaining waste would likely be disposed of at the El Sobrante Sanitary Landfill. Because no demolition is required, construction waste requiring disposal is anticipated to be minimal after recycling is implemented. As noted above, the remaining capacity of this landfill was 143,977,170 tons with an estimated cease operation date of 2051, and the maximum daily throughput for the facility has not been reached in 2022 (CalRecycle 2022a).

Solid waste disposed of during construction activities for the proposed development would represent less than 0.02 percent of the remaining capacity (in tons) of the El Sobrante Landfill. In addition, the on-site soils that are anticipated for off-site disposal may be used for alternative means (e.g., land cover, etc) such that landfill disposal capacity would not be affected. Nonetheless, considering the small percentage of the total remaining capacity that project solid waste would use, the fact that waste would be generated and disposed of over a period of approximately 15 years, and that the landfill has enough remaining capacity to stay open until 2051, the existing landfill would have adequate capacity to accept all project construction waste.

### Operation

The operation of the proposed project would result in increased generation of solid waste, including waste streams from the new hospital towers, behavioral health building, and medical office buildings. There would not be an unplanned increase in residential population in the project area as a result of the proposed project (see Section 3.11, "Population and Housing").

The proposed project consists of revisions to the approved master plan, which would require a Major Modification and Planned Development Overlay Amendment. The proposed project would accommodate 564 beds across four buildings, which is 424 beds more than under existing conditions. It would also result in 160,000 sf of additional medical office building development.

Based on daily waste generation rates of 16 pounds/day/hospital bed and 6 pounds/day/1,000 sf, the proposed project would be expected to generate 9,984 pounds/day (3.9 tons/day) more than existing conditions. Total on-site waste generation at the project site (Phase I facilities plus the proposed project) would be 9,024 pounds/day (4.99 tons/day) of solid waste per day upon full buildout. As mentioned above, the daily disposal rate for the El Sobrante Sanitary Landfill is 16,054 tons/day, which has not been exceeded in 2022 (CalRecycle 2022a). The additional solid waste disposed of during operation activities as a result of the proposed modifications would represent approximately 0.01 percent of the maximum daily disposal rate (in tons) and the total solid waste disposed of during operation activities for future development of the project would represent 0.03 percent of the maximum daily disposal rate (in tons). As such and taking into consideration the demonstrated additional daily throughput capacity of the landfill, the existing capacity of the El Sobrante Sanitary Landfill is anticipated to be sufficient to accommodate solid waste generation from project implementation.

In addition, development of the future phases of the proposed project would comply with applicable regulations related to solid waste, including those pertaining to waste reduction and recycling, which would further reduce the daily solid waste generated at the project site. While the proposed project would increase the amount of medical waste generated, the handling, treatment, and disposal of these waste streams would be conducted in compliance with the Medical Waste Management Act and the State's Medical Waste Management Program. As solid waste collection from the project site would be managed by CR&R, which is in compliance with federal, State, and local statutes and regulations, the future development of the project would be consistent with respective regulatory measures.

The City is required to maintain a 50 percent diversion rate as mandated by the State via the California Integrated Waste Management Act for all solid waste. The project is subject to this diversion rate for solid waste generated by the project. As such, the solid waste generated by the project would place a minimal burden on the City's required diversion rate. The increase would not require additional landfill capacity. Because the landfill would have sufficient

permitted capacity (through 2051), the project is not anticipated to cause an adverse impact to either solid waste collection service or the landfill disposal system.

### **Conclusion**

Based on the foregoing, adequate landfill capacity is anticipated to be available to accommodate waste generated by construction and operation of the proposed project, and the project would not conflict with solid waste regulations. This impact would be **less than significant**.

### **Mitigation Measures**

No mitigation is required for this impact.

## 4 ALTERNATIVES

### 4.1 INTRODUCTION

The California Code of Regulations (CCR) Section 15126.6(a) (State CEQA Guidelines) requires EIRs to describe "... a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather, it must consider a range of potentially feasible alternatives that will avoid or substantially lessen the significant adverse impacts of a project, and foster informed decision making and public participation. An EIR is not required to consider alternatives that are infeasible. The lead agency is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason." This section of the State CEQA Guidelines also provides guidance regarding what the alternatives analysis should consider. Subsection (b) further states the purpose of the alternatives analysis is as follows:

Because an EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment (Public Resources Code [PRC] Section 21002.1), the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly.

The State CEQA Guidelines require that the EIR include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project. If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative must be discussed, but in less detail than the significant effects of the project as proposed (CCR Section 15126.6[d]).

The State CEQA Guidelines further require that the "no project" alternative be considered (CCR Section 15126.6[e]). The purpose of describing and analyzing a no project alternative is to allow decision makers to compare the impacts of approving a proposed project with the impacts of not approving the proposed project. If the no project alternative is the environmentally superior alternative, CEQA requires that the EIR "...shall also identify an environmentally superior alternative among the other alternatives." (CCR Section 15126[e][2]).

In defining "feasibility" (e.g., "... feasibly attain most of the basic objectives of the project ..."), CCR Section 15126.6(f)(1) states, in part:

Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent). No one of these factors establishes a fixed limit on the scope of reasonable alternatives.

In determining what alternatives should be considered in the EIR, it is important to consider the objectives of the project, the project's significant effects, and unique project considerations. These factors are crucial to the development of alternatives that meet the criteria specified in Section 15126.6(a). Although, as noted above, EIRs must contain a discussion of "potentially feasible" alternatives, the ultimate determination as to whether an alternative is feasible or infeasible is made by the lead agency's decision-making body, here the City Council. (See PRC Sections 21081.5, 21081[a] [3].)

## 4.2 CONSIDERATIONS FOR SELECTION OF ALTERNATIVES

### 4.2.1 Project Objectives

#### CITY'S OBJECTIVES (2006 EIR)

The City's objectives for the currently approved project, as listed in the 2006 EIR, are to:

- ▶ Provide for superior, easily accessible emergency medical services within the City of Temecula;
- ▶ Provide for a regional hospital campus including a hospital facility, medical offices, cancer center and fitness rehabilitation center designed to be an operationally efficient state-of-the-art facility;
- ▶ Encourage future development of a regional hospital and related services;
- ▶ Support development of biomedical, research, and office facilities to diversify Temecula's employment base;
- ▶ Ensure the compatibility of development on the subject site with surrounding uses in terms of the size and configuration of buildings, use of materials and landscaping, the location of access routes, noise impacts, traffic impacts, and other environmental conditions; and
- ▶ Incorporate buffers that minimize the impacts of noise, light, visibility of activity, and vehicular traffic on surrounding residential uses.

#### APPLICANT OBJECTIVES (2006 EIR)

The objectives of UHS for the currently approved project, as listed in the 2006 EIR, are to:

- ▶ Provide high-quality health services to the residents of Temecula and surrounding communities;
- ▶ Provide a regional hospital facility that includes standard hospital services, with outpatient care, rehabilitation, and medical offices;
- ▶ Provide a regional hospital facility designed to be an operationally efficient, state-of-the-art facility that meets the needs of the region and hospital doctors; and
- ▶ Provide medical offices, a cancer center and fitness rehabilitation center adjacent to the hospital facility to meet the needs of doctors and patients who need ready access to the hospital for medical procedures.

#### PROPOSED PROJECT OBJECTIVES

Alternatives were developed as alternate means of achieving most of the basic objectives of the proposed project. As described in Chapter 2, Project Description, these basic objectives are to:

- ▶ Increase the size of the originally proposed hospital and emergency department to accommodate a growing regional population and number of patients;
- ▶ Provide a mix of medical facilities to meet the demand for a variety of inpatient and outpatient medical services, including behavioral health services;
- ▶ Support development of biomedical, research, and office facilities to diversify Temecula's employment base;
- ▶ Provide medical office space adjacent to the hospital facility to meet the needs of doctors and patients who need ready access to the hospital for medical procedures; and
- ▶ Relocate the existing helipad to a central location and change the helicopter flight approach/departure path to minimize helicopter noise impacts on surrounding sensitive land uses.

## 4.2.2 Significant Environmental Impacts of the Proposed Project

Sections 3.1 through 3.14 of this Draft SEIR address the environmental impacts of implementation of the proposed project. Potentially feasible alternatives were developed with consideration of avoiding or lessening the significant, and potentially significant, adverse impacts of the project, as identified in Chapter 3 of this Draft SEIR and summarized below. If an environmental topic analyzed in this Draft SEIR is not listed below, it is because no significant impacts were identified.

### Air Quality

- ▶ **Impact 3.2-2: Generate construction emissions in exceedance of SCAQMD's regional mass emission thresholds** (significant and unavoidable)

### Cultural and Tribal Cultural Resources

- ▶ **Impact 3.3-1: Cause a Substantial Adverse Change in the Significance of Unique Archaeological Resources** (less than significant with mitigation)
- ▶ **Impact 3.3-2: Cause a Substantial Adverse Change in the Significance of a Tribal Cultural Resource** (less than significant with mitigation)

### Geology and Soils

- ▶ **Impact 3.5-4: Directly or Indirectly Destroy a Unique Paleontological Resource or Site or Unique Geologic Feature** (less than significant with mitigation)

### Greenhouse Gas Emissions

- ▶ **Impact 3.6-1: Generate Greenhouse Gas Emissions, Either Directly or Indirectly, That May Have a Significant Impact on the Environment** (significant and unavoidable)
- ▶ **Impact 3.6-2: Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases or Conflict with State GHG Reduction Goals** (significant and unavoidable)

### Hazards and Hazardous Materials

- ▶ **Impact 3.7-2: Create a Significant Hazard to the Public or the Environment through Reasonably Foreseeable Upset and/or Accident Conditions Involving the Release of Hazardous Materials into the Environment** (less than significant with mitigation)

### Noise

- ▶ **Impact 3.10-1: Exposure of Existing Sensitive Receptors to Short-Term Construction Noise** (significant and unavoidable)
- ▶ **Impact 3.10-3: Exposure of Existing Sensitive Receptors to Operational Helicopter Noise** (significant and unavoidable)
- ▶ **Impact 3.10-6: Generate Substantial Long-term Stationary Noise Level Increases** (less than significant with mitigation)

### Transportation

- ▶ **Impact 3.13-2: Conflict or be Inconsistent with CEQA Guidelines Section 15064.3(b)** (significant and unavoidable)

## 4.3 ALTERNATIVES CONSIDERED BUT REJECTED

As described above, State CEQA Guidelines Section 15126.6(c) provides that the range of potential alternatives for the project shall include those that could feasibly accomplish most of the basic objectives of the project, and could avoid or substantially lessen one or more of the significant effects. Alternatives that fail to meet the fundamental project

purpose need not be addressed in detail in an EIR. (*In re Bay-Delta Programmatic Environmental Impact Report Coordinated Proceedings* (2008) 43 Cal.4th 1143, 1165-1167.)

In determining what alternatives should be considered in the EIR, it is important to acknowledge the objectives of the project, the project's significant effects, and unique project considerations. These factors are crucial to the development of alternatives that meet the criteria specified in Section 15126.6(a). Although, as noted above, EIRs must contain a discussion of "potentially feasible" alternatives, the ultimate determination as to whether an alternative is feasible or infeasible is made by lead agency decision-maker(s). (See Pub. Resources Code, § 21081(a)(3).) At the time of action on the project, the decision-maker(s) may consider evidence beyond that found in this EIR in addressing such determinations. The decision-maker(s), for example, may conclude that a particular alternative is infeasible (i.e., undesirable) from a policy standpoint, and may reject an alternative on that basis provided that the decision-maker(s) adopts a finding, supported by substantial evidence, to that effect, and provided that such a finding reflects a reasonable balancing of the relevant economic, environmental, social, and other considerations supported by substantial evidence. (*City of Del Mar v. City of San Diego* (1982) 133 Cal.App.3d 401, 417; *California Native Plant Society v. City of Santa Cruz* (2009) 177 Cal.App.4th 957, 998.)

The EIR should also identify any alternatives that were considered by the lead agency, but were rejected during the planning or scoping process and briefly explain the reasons underlying the lead agency's determination. The following alternative was considered by the City but is not evaluated further in this Draft SEIR.

### 4.3.1 Alternative Location

When a lead agency considers alternatives to a project, "the key question and first step" is whether "putting the project in another location" would avoid or substantially lessen the project's significant impacts (CEQA Guidelines Section 15126.6[f][2][A]). If no feasible alternative locations exist, the lead agency must disclose the reasons for this conclusion in the EIR.

No feasible alternative locations exist for the proposed project for the following reasons. The proposed project involves revisions to an existing master plan for Temecula Valley Hospital, the first phase of which involved construction of an existing hospital building that has been operating since 2013. The first phase also included mass grading of the project and installation of backbone infrastructure, including utilities, onsite access roads, and surface parking areas. The proposed revisions to the approved master plan include expanding the emergency department of the existing hospital building, providing additional hospital towers, and providing medical office buildings that complement the existing hospital facility. It would not be economically feasible for the applicant to put the proposed project in another location because doing so would require the applicant to pay for the tremendous cost of providing a comparable hospital facility and associated backbone infrastructure on a new site, and abandon the existing hospital and project site. Abandoning the existing hospital and project site would also result in potentially substantial detrimental effects to the City, including loss of healthcare services for residents.

## 4.4 ALTERNATIVES SELECTED FOR DETAILED ANALYSIS

The following alternatives evaluated in detail in this Draft SEIR.

- ▶ **Alternative 1: No Project–No Future Development**
- ▶ **Alternative 2: No Project–Approved Master Plan Buildout**
- ▶ **Alternative 3: No Medical Office Development**

Descriptions of these alternatives are provided in Sections 4.4.1 through 4.4.3, and the major components of the alternatives selected for detailed analysis in this Draft SEIR are summarized in Table 4-1.

**Table 4-1 Summary of Alternatives Selected for Detailed Analysis**

Components	Proposed Project	Alternative 1: No Project-No Future Development	Alternative 2: No Project-Approved Master Plan Buildout	Alternative 3: No Medical Office Building Development
Hospital Towers	Two new, 125,000 SF, 5-story towers (250,000 SF total)	Not included	One new, 6-story hospital tower (170,855 SF)	Same as proposed project
Emergency Department Expansion	20,000 SF expansion of existing hospital's emergency department	Not included	Not included	Same as proposed project
Medical Office Buildings	Two new, 80,000 SF medical office buildings; one 3-story, the other 4-story (160,000 SF total)	Not included	Two new medical office buildings; one 80,000 SF, 3-story; one 60,000 SF, 4-story (140,000 SF total)	Not included
Cancer Center	Not included	Not included (same as proposed project)	Not included (same as proposed project)	Not included (same as proposed project)
Fitness Rehabilitation Center	Not included	Not included (same as proposed project)	Not included (same as proposed project)	Not included (same as proposed project)
Behavioral Health Building	New, 102,000 SF, 4-story building	Not included	Not Included	Same as proposed project
Helipad Location	Roof of 4-story parking structure in center portion of project site	No change to existing helipad location	Roof of 6-story hospital tower in southeast portion of project site	Same as proposed project
Helicopter Flight Path Alignment	East-west arrival/departure alignment	No change to existing northeast-southwest arrival/departure alignment	Northeast-southwest helicopter arrival/departure alignment	Same as proposed project
Facilities Plant	New 14,000-SF utility plant	Not included	Provided along eastern edge of existing hospital	Same as proposed project

Source: compiled by Ascent Environmental, 2022.

#### 4.4.1 Alternative 1: No Project-No Future Development

CEQA requires a "no project" alternative to be evaluated in an EIR. Alternative 1, No Project–No Future Development, assumes that the proposed project would not be approved and that no new development would occur on the project site in the future; the existing physical conditions of the project site would not change.

Under this alternative the project site would not be developed in accordance with the approved master plan or as contemplated by the proposed project. Specifically, the existing hospital facility would continue to be operated, and other existing physical elements of the project site would remain the same, including the existing paved surface parking lots, internal access roads, modular offices/storage facilities, ambulance parking, and service yard. The helipad would remain in its interim location in the northwest portion of the project site and the helicopter flight path would retain its existing northeast-southwest arrival/departure alignment.

#### 4.4.2 Alternative 2: No Project-Approved Master Plan Buildout

Alternative 2, No Project–No Future Development, assumes that the proposed project would not be approved and that the project site would be developed in accordance with the approved master plan.

Under this alternative, the existing hospital facility would continue to operate, and the following new development would occur on the project. Alternative 2 would expand the capacity of the existing hospital by providing one additional 6-story hospital tower (170,855 SF). Approximately 140,000 SF of medical office space would be provided,

including one 80,000 SF, 4-story building and one 60,000 SF, 3-story building. A 10,000 SF, 1-story cancer center and 8,000 SF, 1-story fitness center also would be developed. Hospital-supportive infrastructure would be provided along the eastern edge of the hospital, including cooling tower, generators, transformers, fuel tank, and a bulk oxygen storage area. A new permanent helipad location would be provided atop the 6-story hospital tower (second tower) located in the southeast portion of the project site. Helicopters utilizing the helipad follow a northeast-southwest helicopter arrival/departure alignment.

Alternative 2 would result in approximately 184,961 SF less total building area than the proposed project. It would also result in 244 fewer patient beds, and 470 fewer parking spaces. As result, this alternative would result in less overall construction activity (e.g., ground disturbance, on-site use of construction equipment and vehicles, application of coatings, frequency of materials deliveries to and from the project site) relative to the proposed project.

### 4.4.3 Alternative 3: No Medical Office Development

Alternative 3, No Medical Office Development, assumes that the project site would be developed the same as the proposed project, except that no medical office buildings would be provided. Specifically, this alternative would not provide the 160,000 SF of medical office space that is included in the proposed project (two 80,000 SF, 4-story buildings). Alternative 3 would also provide proportionately fewer surface parking spaces than the proposed project to account for the lower parking demand from not developing 160,000 SF of medical office building space. Because it involves less total development, this alternative would result in less overall construction activity (e.g., ground disturbance, on-site use of construction equipment and vehicles, frequency of materials deliveries to and from the project site) relative to the proposed project.

Alternative 3 was developed to lessen the significant GHG emissions and vehicle miles traveled (VMT) impacts of the proposed project. The medical office buildings have the highest vehicle trip generation rate of the uses including the proposed project, at 31.86 daily vehicle trips per 1,000 square feet of building area (Draft SEIR Appendix H). This rate is approximately three times greater than for the hospital towers (10.77 daily vehicle trips per 1,000 square feet of building area). Omitting the medical office buildings from the proposed project would substantially lessen the VMT generated by the proposed project by removing the highest trip generating use from the proposed project; it would substantially lessen GHG emissions resulting from vehicle trips, as well as from medical office building energy use, solid waste generation, and construction.

Table 4-2 shows that Alternative 2, No Project-Approved Master Plan Buildout, and Alternative 3, Reduction Medical Office Development, partially or fully meet most of the basic objectives of the proposed project. Alternative 1, No Project-No Future Development, would not meet most of the basic objectives.

**Table 4-2 Ability of Alternatives Considered in Detail in this SEIR to Meet Basic Project Objectives**

Project Objectives	Proposed Project	Alternative 1: No Project-No Future Development	Alternative 2: No Project-Approved Master Plan Buildout	Alternative 3: No Medical Office Development
<b>Increase the size of the originally proposed hospital and emergency department to accommodate a growing regional population and number of patients</b>	Yes; the proposed project would provide a 20,000 square foot expansion of the existing emergency department and two additional 5-story hospital towers, totaling 250,000 SF.	No; this alternative would not accommodate growing population and patient demand because it would not increase the size of the hospital, including the emergency department.	Yes, but to a lesser extent than the proposed project; this alternative would provide one additional 6-story hospital tower (170,855 SF) but would not expand the existing emergency department.	Yes; this alternative would increase the size of the hospital and emergency department same as the proposed project.
<b>Provide a mix of medical facilities to meet the demand for a variety of inpatient and outpatient medical services, including behavioral health services</b>	Yes; the proposed project would provide 160,000 SF of medical office space to accommodate demand for inpatient and outpatient medical services, and a 102,000 SF Behavioral	No; this alternative would provide facilities to meet demand for any inpatient or outpatient medical services, including behavioral health services.	Yes, but to lesser extent than the proposed project; this alternative would provide 140,000 SF of medical office space, which is similar to the 160,000 SF provided by the proposed project, but would	Yes, but to lesser extent than the proposed project; this alternative would meet demand for behavioral health services but would not provide any medical office space

Project Objectives	Proposed Project	Alternative 1: No Project- No Future Development	Alternative 2: No Project- Approved Master Plan Buildout	Alternative 3: No Medical Office Development
	Health Building to provide behavioral health services.		not provide any behavioral health services.	for other types of medical services.
<b>Support development of biomedical, research, and office facilities to diversify Temecula’s employment base</b>	Yes; the proposed project would provide 160,000 SF of medical office space, which would allow for development of biomedical, research, and office facilities that would diversify the City’s employment base.	No; this alternative would not provide the medical office space needed to support the development of biomedical, research, and office facilities that would diversify the City’s employment base.	Yes; this alternative would provide 140,000 SF of medical office space, which is similar to the 160,000 SF provided by the proposed project.	No; this alternative would not provide medical office buildings for development of biomedical, research, and office facilities that diversify the City’s employment base.
<b>Provide medical office space adjacent to the hospital facility to meet the needs of doctors and patients who need ready access to the hospital for medical procedures</b>	Yes; the proposed project would provide 160,000 SF of medical office space adjacent to the hospital facility, which provide doctors and patients with ready access to the hospital for medical procedures.	No; this alternative would not provide the medical office space adjacent to the hospital needed to provide doctors and patients with ready access to the hospital for medical procedures.	Yes; this alternative would provide 140,000 SF of medical office space adjacent to the hospital facility, which is similar to the 160,000 SF provided by the proposed project.	No; this alternative would not provide doctors and patients with ready access to the hospital for medical procedures because it would not include any medical office space.
<b>Relocate the existing helipad to a central location and change the helicopter flight approach/departure path to minimize helicopter noise impacts on surrounding sensitive land uses.</b>	Yes; the proposed project would relocate the helipad to a central location on the roof of the proposed parking structure, and change the helicopter flight approach/departure path to an east-west alignment that minimizes noise impacts on surrounding sensitive land uses.	No; under this alternative the helipad would remain at its interim location in the northwest portion of the project site and the helicopter noise impacts on surrounding land uses would not change because the helicopter flight path would retain its northeast-southwest alignment.	No; this alternative would not relocate the helipad to the central location and would have greater helicopter noise impacts on surrounding sensitive land uses.	Yes; this alternative would relocate the existing helipad to a central location on the roof of the proposed parking structure, and change the helicopter flight approach/ departure path to an east-west alignment that minimizes noise impacts on surrounding sensitive land uses, same as the proposed project.

Source: compiled by Ascent Environmental, 2022.

## 4.5 COMPARATIVE ANALYSIS OF ALTERNATIVES

Table 4-3 provides a list of impacts and their significance for Alternatives 1, 2, and 3, and compares each alternative’s impacts to those of the proposed project. Each environmental impact evaluated in Chapter 3 of this Draft SEIR for the proposed project is included in the table. The significance determination identified for the proposed project in this Draft SEIR is provided in bold type; comparison of the alternative’s impact to the impact of proposed project is provided in parentheses (i.e., decreased, increased, same). The environmentally superior alternative is identified in Section 4.6.

Note that there are instances in which the significance determination for a given impact are the same for the proposed project and an alternative, but the alternative decreases or increases the degree of impact without resulting in a different significance determination than the proposed project.

**Table 4-3 Comparison of Environmental Effects of Alternatives 1, 2, and 3 to the Proposed Project**

Environmental Topic	Alternative 1: No Project – No Future Development	Alternative 2: No Project – Approved Master Plan Buildout	Alternative 3: No Medical Office Development
Aesthetics	<p><b>Less than significant impact (decreased)</b> – Alternative 1 would result in no impact due to conflicts with applicable zoning or regulations governing scenic quality (Impact 3.1-1) or creation of new sources of substantial light or glare which would adversely affect day or nighttime views in the area (Impact 3.1-2) because it would not result in any future development on the project site. Impacts are decreased compared to the proposed project, which would result in future development that would change the aesthetic conditions of the project site and involve new sources of lighting and glare.</p>	<p><b>Less than significant impact (decreased)</b> – Alternative 2 would result in less than significant impacts (Impacts 3.1-1 and 3.1-2) because the City would require future development to comply with applicable zoning and other regulations governing scenic quality and existing regulations would prevent new sources of light and glare from being substantial enough to adversely affect day or nighttime views. Impacts are decreased compared to the proposed project because Alternative 2 would result in a small reduction in the amount of new development on the project site (e.g., less building area, lower building heights) and create fewer new sources of light and glare.</p>	<p><b>Less than significant impact (decreased)</b> – Alternative 3 would result in less than significant impacts (Impacts 3.1-1 and 3.1-2) because the City would require future development to comply with applicable zoning and other regulations governing scenic quality and existing regulations would prevent new sources of light and glare from being substantial enough to adversely affect day or nighttime views. Impacts would be decreased compared to the proposed project because Alternative 3 would result in a small reduction in the amount of new development on the project site (e.g., medical office buildings would not be developed) and create fewer new sources of lighting and glare.</p>
Air Quality	<p><b>Significant impact (decreased)</b> – Alternative 1 would result in no impact related to construction emissions exceeding SCAQMD thresholds (Impact 3.2-2) because it would not result in any future development on the project site and therefore no construction air pollutant emissions. Operational emissions would not exceed SCAQMD thresholds under the proposed project or under this alternative. The impact is decreased compared to the proposed project.</p>	<p><b>Significant impact (decreased)</b> – Alternative 2 would result in a significant impact due to construction emissions of ROG and NOx exceeding SCAQMD thresholds (Impact 3.2-2). Operational emissions would not exceed SCAQMD thresholds under the proposed project or under this alternative. Impacts are decreased compared to the proposed project because Alternative 2 would result in approximately 184,961 SF less total building area, less area subject to ground-disturbance, reduced application of coatings for buildings and parking areas (470 fewer parking spaces), and therefore lower maximum daily emissions than the proposed project.</p>	<p><b>Significant impact (decreased)</b> – Alternative 3 would result in a significant impact due to construction emissions of ROG and NOx exceeding SCAQMD thresholds (Impact 3.2-2). Operational emissions would not exceed SCAQMD thresholds under the proposed project or under this alternative. Impacts are decreased compared to the proposed project because Alternative 3 would result in a small reduction in the area of the project site subject to ground disturbing activities, due to its relatively smaller building footprint (e.g., no medical office buildings), and therefore lower maximum daily emissions than the proposed project.</p>

Environmental Topic	Alternative 1: No Project – No Future Development	Alternative 2: No Project – Approved Master Plan Buildout	Alternative 3: No Medical Office Development
	<p><b>Less than significant impact (decreased)</b> – Alternative 1 would result in no impacts due to conflict with an applicable air quality plan (Impact 3.2-1), exposure of sensitive receptors to substantial pollutant concentrations (Impact 3.2-3) or other emissions (such as those leading to odors) adversely affecting a substantial number of people (Impact 3.2-4) because it would not result in any future development on the project site and therefore no construction or operational air pollutant emissions. This impact is decreased compared to the proposed project.</p>	<p><b>Less than significant impact (decreased)</b> – Alternative 2 would result in less than significant impacts due to conflict with an applicable air quality plan (Impact 3.2-1), exposure of sensitive receptors to substantial pollutant concentrations (Impact 3.2-3) or other emissions (such as those leading to odors) adversely affecting a substantial number of people (Impact 3.2-4) because it would be consistent with the City’s General Plan land use designation, its construction and operational emissions would not contribute to an existing air quality standard violation or cause a new one, and its distinguishing characteristics from the proposed project (e.g., cancer center, fitness center; helipad location) would not result in generation of other emissions or odors that would adversely affect substantial numbers of people. Impacts are decreased compared to the proposed project because Alternative 2 would result in a small reduction in the area of the project site subject to ground disturbing activities, due to its relatively smaller building footprint (e.g., one less new hospital tower compared to the proposed project, no behavioral health building), and associated smaller number of on-site employees and corresponding vehicle trips and emissions.</p>	<p><b>Less than significant impact (decreased)</b> – Alternative 3 would result in no impacts due to conflict with an applicable air quality plan (Impact 3.2-1), exposure of sensitive receptors to substantial pollutant concentrations (Impact 3.2-3) or other emissions (such as those leading to odors) adversely affecting a substantial number of people (Impact 3.2-4) because it would be consistent with the City’s General Plan land use designation, its construction and operational emissions would not contribute to an existing air quality standard violation or cause a new one, and its distinguishing characteristics (e.g., cancer center, fitness center; helipad location) would not result in generation of other emissions or odors that would adversely affect substantial numbers of people. Impacts are decreased compared to the proposed project because Alternative 2 would result in a small reduction in the area of the project site subject to ground disturbing activities, due to its relatively smaller building footprint (e.g., no medical office buildings), and associated smaller number of on-site employees and corresponding vehicle trips and emissions.</p>
<p><b>Cultural and Tribal Cultural Resources</b></p>	<p><b>Significant impact (decreased)</b> – Alternative 1 would result in no impact from substantial adverse changes in the significance of a unique archaeological resources (Impact 3.3-1) or tribal cultural resource (Impact 3.3-2) because it would not result in any future development on the project site. Impacts are decreased compared to the proposed project because this alternative would not involve no ground disturbing activities during which archaeological or tribal cultural resources or human remains could be encountered.</p>	<p><b>Significant impact (decreased)</b> – Alternative 2 would result in significant impacts (Impacts 3.3-1 and 3.3-2) because construction would involve ground disturbing activities during which previously unknown unique archaeological resources and tribal cultural resources could be encountered. Impacts are decreased compared to the proposed project because Alternative 2 would result in a small reduction in the area of the project site subject to ground disturbing activities, due to its relatively smaller building footprint (e.g., one less new hospital tower compared to the proposed project, no behavioral health building).</p>	<p><b>Significant impact (decreased)</b> – Alternative 3 would result in significant impacts (Impacts 3.3-1 and 3.3-2) because construction would involve ground disturbing activities during which previously unknown unique archaeological resources and tribal cultural resources could be encountered. Impacts are decreased compared to the proposed project because Alternative 3 would result in a small reduction in the area of the project site subject to ground disturbing activities, due to its relatively smaller building footprint (e.g., no medical office buildings).</p>

Environmental Topic	Alternative 1: No Project – No Future Development	Alternative 2: No Project – Approved Master Plan Buildout	Alternative 3: No Medical Office Development
	<p><b>Less than significant impact (decreased)</b> – Alternative 1 would result in no impact from disturbing human remains (Impact 3.3-3) because it would not result in any future development on the project site. Impacts are decreased compared to the proposed project because this alternative would not involve ground disturbing activities during which human remains could be encountered.</p>	<p><b>Less than significant impact (decreased)</b> – Alternative 2 would result in a less than significant impact (Impact 3.3-3) because previously unknown human remains, if encountered during construction ground disturbing activities, would be protected from adverse effects through compliance with the procedures set forth by existing laws and regulations. Impacts are decreased compared to the proposed project because Alternative 2 would result in a small reduction in the area of the project site subject to ground disturbing activities, due to its relatively smaller building footprint (e.g., one less new hospital tower compared to the proposed project, no behavioral health building).</p>	<p><b>Less than significant impact (decreased)</b> – Alternative 3 would result in a less than significant impact (Impact 3.3-3) because previously unknown human remains, if encountered during construction ground disturbing activities, would be protected from adverse effects through compliance with the procedures set forth by existing laws and regulations. Impacts are decreased compared to the proposed project because Alternative 3 would result in a small reduction in the area of the project site subject to ground disturbing activities, due to its relatively smaller building footprint (e.g., no medical office buildings).</p>
<p><b>Energy</b></p>	<p><b>Less than significant impact (decreased)</b> – Alternative 1 would result in no impacts due to un wasteful, inefficient, or unnecessary energy consumption (Impact 3.4-1) or conflicts with state or local plans for renewable energy or energy efficiency (Impact 3.4-2) because it would not result in any future development on the project site and therefore it would not involve construction or operational energy consumption. This impact is decreased compared to the proposed project.</p>	<p><b>Less than significant impact (decreased)</b> – Alternative 2 would result in less than significant impacts due to un wasteful, inefficient, or unnecessary energy consumption (Impact 3.4-1) and conflicts with state or local plans for renewable energy or energy efficiency (Impact 3.4-2). This impact is decreased compared to the proposed project because Alternative 2 would result in a small reduction in the area of the project site subject to ground disturbing activities, due to its relatively smaller building footprint (e.g., one less new hospital tower compared to the proposed project, no behavioral health building) and associated reduction in construction related and operational building energy use, and the smaller number of on-site employees and corresponding lower vehicle trips and operational transportation energy consumption.</p>	<p><b>Less than significant impact (decreased)</b> – Alternative 3 would result in less than significant impacts due to un wasteful, inefficient, or unnecessary energy consumption (Impact 3.4-1) and conflicts with state or local plans for renewable energy or energy efficiency (Impact 3.4-2). This impact is decreased compared to the proposed project because Alternative 3 would result in a small reduction in the area of the project site subject to ground disturbing activities, due to its relatively smaller building footprint (e.g., no medical office buildings) and associated reduction in construction related and operational building energy use, and the smaller number of on-site employees and corresponding lower vehicle trips and operational transportation energy consumption.</p>

Environmental Topic	Alternative 1: No Project – No Future Development	Alternative 2: No Project – Approved Master Plan Buildout	Alternative 3: No Medical Office Development
<p><b>Geology and Soils</b></p>	<p><b>Less than significant impact (decreased)</b> – Alternative 1 would result in no impact from adverse effects involving seismic ground-shaking or seismic-related ground failure (Impact 3.5-1), substantial soil erosion (Impact 3.5-2), or unstable geologic units or soils (Impact 3.5-3) because it would not result in any future development on the project site. Impacts are decreased compared to the proposed project because this alternative would not result in any potential for adverse effects related to geologic or soils conditions.</p>	<p><b>Less than significant impact (same<sup>1</sup>)</b> – Alternative 2 would result in less than significant impacts (Impacts 3.5.-1, 3.5.-2, and 3.5-3) because existing laws and regulations prevent adverse effects during construction and operations related to seismic activity, soil erosion, and unstable geologic units or soils. Impacts under this alternative are the same as the proposed project because the level of protection against adverse effects provided by existing laws and regulations would apply equally to the types of uses and facilities developed under each.</p>	<p><b>Less than significant impact (same)</b> – Alternative 2 would result in less than significant impacts (Impacts 3.5.-1, 3.5.-2, and 3.5-3) because existing laws and regulations prevent adverse effects during construction and operations related to seismic activity, soil erosion, and unstable geologic units or soils. Impacts under this alternative are the same as the proposed project because the level of protection against adverse effects provided by existing laws and regulations would apply equally to the types of uses and facilities developed under each.</p>
	<p><b>Significant impact (decreased)</b> – Alternative 1 would result in no impact from directly or indirectly destroying a unique paleontological resources (Impact 3.5-4) because it would not result in any future development on the project site. Impacts are decreased compared to the proposed project because this alternative would not involve any ground disturbing activities during which unique paleontological resources could be encountered.</p>	<p><b>Significant impact (decreased)</b> – Alternative 2 would result in a significant impact (Impact 3.5-4) because construction would involve ground disturbing activities during which previously unknown unique paleontological resources could be encountered. Impacts are decreased compared to the proposed project because Alternative 2 would result in a small reduction in the area of the project site subject to ground disturbing activities, due to its relatively smaller building footprint (e.g., one less new hospital tower compared to the proposed project, no behavioral health building).</p>	<p><b>Significant impact (decreased)</b> – Alternative 3 would result in a significant impact (Impact 3.5-4) because construction would involve ground disturbing activities during which previously unknown unique paleontological resources could be encountered. Impacts are decreased compared to the proposed project because Alternative 3 would result in a small reduction in the area of the project site subject to ground disturbing activities, due to its relatively smaller building footprint (e.g., no medical office buildings).</p>
<p><b>Greenhouse Gas Emissions</b></p>	<p><b>Significant impact (decreased)</b> – Alternative 1 would result in no impacts due to the generation of greenhouse gas emissions and conflicts with plans, policies and regulations adopted for the purpose of reducing GHG emissions (Impact 3.6-1) because it would not result in any future development on the project site and therefore it would not generate GHG emissions. This impact is decreased compared to the proposed project.</p>	<p><b>Significant impact (decreased)</b> – Alternative 2 would result in a significant impact because it would directly and indirectly generate a substantial increase in GHG emissions that would have a significant impact on the environment and conflicts with plans, policies and regulations adopted for the purpose of reducing GHG emissions (Impact 3.6-1). The impact is decreased compared to the proposed project because Alternative 2 would result in a small reduction in the area of the project site subject to ground disturbing activities, due to its relatively smaller building footprint (e.g., one less new hospital tower compared to the proposed project, no behavioral health building) and associated reduction in building energy use and corresponding GHG emissions, and the smaller number of on-site employees and corresponding lower vehicle trips and GHG emissions.</p>	<p><b>Significant impact (decreased)</b> – Alternative 3 would result in a significant impact because it would directly and indirectly generate a substantial increase in GHG emissions that would have a significant impact on the environment and conflicts with plans, policies and regulations adopted for the purpose of reducing GHG emissions (Impact 3.6-1). The impact is decreased compared to the proposed project because Alternative 2 would result in a small reduction in the area of the project site subject to ground disturbing activities, due to its relatively smaller building footprint (e.g., no medical office buildings) and associated reduction in building energy use and corresponding GHG emissions, and the smaller number of on-site employees and corresponding lower vehicle trips and GHG emissions.</p>

Environmental Topic	Alternative 1: No Project – No Future Development	Alternative 2: No Project – Approved Master Plan Buildout	Alternative 3: No Medical Office Development
<p><b>Hazards and Hazardous Materials</b></p>	<p><b>Less than significant impact (decreased)</b> – Alternative 1 would result in no impact from the routine transport, use, or disposal of hazardous materials (Impact 3.7-1), being located on a list of hazardous materials sites (Impact 3.7-3), or impairing or physically interfering with an adopted emergency response or evacuation plan (Impact 3.7-4) because it would not result in any future development on the project site. Impacts are decreased under this alternative because it would not change existing uses of hazardous materials at the project site and would not involve any temporary or permanent activities or improvements that could affect implementation of emergency plans.</p>	<p><b>Less than significant impact (same)</b> – Alternative 2 would result in less than significant impacts because existing laws and regulations require the safe transport, use, and disposal of hazardous materials (Impact 3.7-1), the project site is located on a list of hazardous materials sites (Impact 3.7-3), and the approved master plan does not involve any physical elements or other characteristics that could impair or physically interfere with implementation of an adopted emergency response or evacuation plan (Impact 3.7-4). Impacts under this alternative are the same as the proposed project because the level of protection against adverse effects from using hazardous materials provided by existing laws and regulations would apply equally to both, the project site is not located on a list of hazardous materials sites, and the distinguishing characteristics of Alternative 2 (e.g., cancer center, fitness center; helipad location) would not have a different effect on emergency response or evacuation than the proposed project.</p>	<p><b>Less than significant impact (same)</b> – Alternative 3 would result in less than significant impacts because existing laws and regulations require the safe transport, use, and disposal of hazardous materials (Impact 3.7-1), the project site is located on a list of hazardous materials sites (Impact 3.7-3), and the approved master plan does not involve any physical elements or other characteristics that could impair or physically interfere with implementation of an adopted emergency response or evacuation plan (Impact 3.7-4). Impacts under this alternative are the same as the proposed project because the level of protection against adverse effects from using hazardous materials provided by existing laws and regulations would apply equally to both, the project site is not located on a list of hazardous materials sites, and the distinguishing characteristics of Alternative 3 (e.g., no medical office buildings) would not have a different effect on emergency response or evacuation than the proposed project.</p>
	<p><b>Significant impact (decreased)</b> – Alternative 1 would result in no impact from upset or accident conditions involving release of hazardous materials into the environment (Impact 3.7-2) because it would not result in any future development on the project site. Impacts are decreased compared to the proposed project because this alternative would not involve any ground-disturbing activities during which contaminated soil or groundwater could potentially be encountered.</p>	<p><b>Significant impact (decreased)</b> – Alternative 2 would result in a significant impact (Impact 3.7-2) because construction would involve ground disturbing activities during which contaminated soil or groundwater could potentially be encountered. Impacts are decreased compared to the proposed project because Alternative 2 would result in a small reduction in the area of the project site subject to ground disturbing activities, due to its relatively smaller building footprint (e.g., one less new hospital tower compared to the proposed project, no behavioral health building).</p>	<p><b>Significant impact (decreased)</b> – Alternative 3 would result in a significant impact (Impact 3.7-2) because construction would involve ground disturbing activities during which contaminated soil or groundwater could potentially be encountered. Impacts are decreased compared to the proposed project because Alternative 3 would result in a small reduction in the area of the project site subject to ground disturbing activities, due to its relatively smaller building footprint (e.g., no medical office buildings).</p>

Environmental Topic	Alternative 1: No Project – No Future Development	Alternative 2: No Project – Approved Master Plan Buildout	Alternative 3: No Medical Office Development
<p><b>Hydrology and Water Quality</b></p>	<p><b>Less than significant impact (decreased)</b> – Alternative 1 would result in no impact from violation of water quality standards or waste discharge requirements (Impact 3.8-1), decreases in groundwater supplies or interference with groundwater recharge (Impact 3.8-2), altering existing drainage patterns (Impact 3.8-3) or conflict with or obstructing a water quality control or sustainable groundwater management plan (Impact 3.8-4) because it would not result in any future development on the project site. Impacts are decreased compared to the proposed project under this alternative because it would change the existing conditions of the project site, including the amount of impervious surface area, drainage patterns, type or amount of water pollutant sources, or demand for water supply sourced from groundwater.</p>	<p><b>Less than significant impact (increased)</b> – Alternative 2 would result in less than significant impacts (Impacts 3.8-1, 3.8-2, 3.8-3, and 3.8-4) because the changes in drainage patterns, including runoff volume and water quality, resulting from increases in impervious surface areas would be addressed through compliance with laws and regulations requiring use of best management practices (BMPs) during construction activities and long-term operation of the developed facilities and uses. Impacts under this alternative are increased compared to the proposed project because it would result in a slightly greater increase in coverage of the project site with impervious surfaces (1,067,603 SF increase under Alternative 2 and 1,020,439 SF under the proposed project) (Appendix E).</p>	<p><b>Less than significant impact (decreased)</b> – Alternative 3 would result in less than significant impacts (Impacts 3.8-1, 3.8-2, 3.8-3, and 3.8-4) because the changes in drainage patterns, including runoff volume and water quality, resulting from increases in impervious surface areas would be addressed through compliance with laws and regulations requiring use of best management practices (BMPs) during construction activities and long-term operation of the developed facilities and uses. Impacts under this alternative are decreased compared to the proposed project because it would result in a smaller increase in impervious surface area on the project site (e.g., less overall building footprint because no medical office buildings would be developed and less surface parking areas would be provided).</p>
<p><b>Land Use and Planning</b></p>	<p><b>Less than significant impact (decreased)</b> – Alternative 1 would result in no impact from physically dividing an established community (Impact 3.9-1) or conflicts with land use plans, policies, or regulations adopted for purpose of avoiding or mitigation an environmental effect (Impact 3.9-2), because it would not result in any future development on the project site. Impacts are the same as the proposed project under this alternative because it would not result in any changes to existing physical conditions on the project site or surrounding area that could divide the community or conflict with any plan, policies, or regulations.</p>	<p><b>Less than significant impact (same)</b> – Alternative 2 would result in less than significant impacts (Impacts 3.9-1 and 3.9-2) because it would not involve improvements or activities that could physically divided the community and would be consistent with the General Plan, zoning, and other land use regulations. Impacts are the same as the proposed project under this alternative because its distinguishing characteristics (e.g., cancer center, fitness center; helipad location) would not have different land use and planning effects than the proposed project.</p>	<p><b>Less than significant impact (same)</b> – Alternative 3 would result in less than significant impacts (Impacts 3.9-1 and 3.9-2) because it would not involve improvements or activities that could physically divided the community and would be consistent with the General Plan, zoning, and other land use regulations. Impacts are the same as the proposed project under this alternative because its distinguishing characteristics (e.g., no medical office buildings) would not have different land use and planning effects than the proposed project.</p>

Environmental Topic	Alternative 1: No Project – No Future Development	Alternative 2: No Project – Approved Master Plan Buildout	Alternative 3: No Medical Office Development
	<p><b>Significant impact (decreased)</b> – Alternative 1 would result in no impact from exposure of existing sensitive receptors to construction noise (Impact 3.10-1) because it would not result in any future development on the project site. Impacts are decreased compared to the proposed project.</p>	<p><b>Significant impact (decreased)</b> – Alternative 2 would result in a significant impact from exposure of existing sensitive receptors to construction noise (Impact 3.10-1) due to the proximity of construction activity to sensitive receptors. This impact is decreased compared to the proposed project because this alternative would involve a small reduction in the amount of noise-generating construction activity due to less overall ground disturbance and less overall development (e.g., one less new hospital tower compared to the proposed project, no behavioral health building).</p>	<p><b>Significant impact (decreased)</b> – Alternative 3 would result in a significant impact from exposure of existing sensitive receptors to construction noise (Impact 3.10-1) due to the proximity of construction activity to sensitive receptors. This impact is decreased compared to the proposed project because this alternative would involve a reduction in the amount of noise-generating construction activity due to less overall ground disturbance and less overall development (e.g., no new medical office buildings).</p>
Noise	<p><b>Significant impact (increased)</b> – Alternative 1 would continue to result in a significant impact from exposure of existing sensitive receptors to helicopter noise (Impact 3.10-3) because the existing frequency and location of helicopter flights would continue. This impact would be increased compared to the proposed project because the arrival/departure path of this alternative would result in helicopter flights occurring over a greater number of residential sensitive receptors in the city.</p>	<p><b>Significant impact (increased)</b> – Alternative 2 would result in a significant impact from exposure of existing sensitive receptors to helicopter noise (Impact 3.10-3) because its permanent helipad location and proposed flight path would expose sensitive receptors to single event noise levels (from emergency helicopter flights) exceeding the City’s noise standards for residential land uses. This impact would be increased compared to the proposed project because the arrival/departure path of this alternative would result in helicopter flights occurring over a greater number of residential sensitive receptors in the city.</p>	<p><b>Significant impact (same)</b> – Alternative 3 would result in a significant impact from exposure of existing sensitive receptors to helicopter noise (Impact 3.10-3) because its permanent helipad location and proposed flight path would expose sensitive receptors to single event noise levels (from emergency helicopter flights) exceeding the City’s noise standards for residential land uses. This impact would be the same as the proposed project because the helipad location and flight path would be the same as the proposed project.</p>
	<p><b>Significant impact (decreased)</b> – Alternative 1 would result in no impact from generation of substantial long-term stationary noise level increases (Impact 3.10-6) because it would not result in any future development on the project site. Impacts are decreased compared to the proposed project.</p>	<p><b>Significant impact (decreased)</b> – Alternative 2 would result in a significant impact from generation of substantial long-term stationary noise level increases (Impact 3.10-6) due to the proximity of stationary hospital utility infrastructure (e.g., boilers, chillers, generators) to existing sensitive receptors. This impact would be decreased compared to the proposed project because this alternative would require operation of less stationary hospital infrastructure to serve the hospital (because one less hospital tower would be developed).</p>	<p><b>Significant impact (same)</b> – Alternative 3 would result in a significant impact from generation of substantial long-term stationary noise level increases (Impact 3.10-6) due to the proximity of the central utility plant to existing sensitive receptors. This impact is the same as the proposed project because the central utility plant would include the same equipment in the same location.</p>

Environmental Topic	Alternative 1: No Project – No Future Development	Alternative 2: No Project – Approved Master Plan Buildout	Alternative 3: No Medical Office Development
	<p><b>Less than significant impact (decreased)</b> – Alternative 1 would result in no impact from exposure of sensitive receptors to construction vibration (Impact 3.10-2) or substantial noise levels from parking structure vehicle activity (Impact 3.10-4) or substantial increases in long-term traffic noise levels (Impact 3.10-5) because it would not result in any future development on the project site. Impacts are decreased compared to the proposed project.</p>	<p><b>Less than significant impact (decreased)</b> – Alternative 2 would result less than significant impacts from exposure of sensitive receptors to construction vibration (Impact 3.10-2) or substantial noise levels from parking lot vehicle activity (Impact 3.10-4) or substantial increases in long-term traffic noise levels (Impact 3.10-5) because it would not involve use of construction equipment or techniques in a location that could subject nearby buildings and residences to vibration levels that exceed thresholds for structural damage or human annoyance, and it would not result in sufficient levels of vehicle activity within parking lots or along roadways in the city such that noise standards would be exceeded. Impacts are decreased compared to the proposed project under this alternative because it would involve a small reduction in the amount of vibration-generating construction activity due to less overall ground disturbance and less overall development, and would generate fewer vehicle trips (within on-site parking areas and along roadways in the city) due to development of a relatively smaller building footprint (e.g., one less new hospital tower compared to the proposed project, no behavioral health building) and smaller number of on-site employees.</p>	<p><b>Less than significant impact (decreased)</b> – Alternative 3 would result less than significant impacts from exposure of sensitive receptors to construction vibration (Impact 3.10-2) or substantial noise levels from parking lot vehicle activity (Impact 3.10-4) or substantial increases in long-term traffic noise levels (Impact 3.10-5) because it would not involve use of construction equipment or techniques in a location that could subject nearby buildings and residences to vibration levels that exceed thresholds for structural damage or human annoyance, and it would not result in sufficient levels of vehicle activity within parking lots or along roadways in the city such that noise standards would be exceeded. Impacts are decreased compared to the proposed project under this alternative because it would involve a small reduction in the amount of vibration-generating construction activity due to less overall ground disturbance and less overall development, and would generate fewer vehicle trips (within on-site parking areas and along roadways in the city) due to development of a relatively smaller building footprint (e.g., no medical office buildings) and smaller number of on-site employees.</p>
<p><b>Population and Housing</b></p>	<p><b>Less than significant impact (decreased)</b> – Alternative 1 would result in no impact from inducing unplanned population growth (Impact 3.11-1) because it would not result in any future development on the project site. Impacts are decreased compared to the proposed project under this alternative because it would not result in any changes to existing physical conditions on the project site or surrounding are that could induce unplanned growth.</p>	<p><b>Less than significant impact (decreased)</b> - Alternative 2 would result in a less than significant impact (Impact 3.11-1) because development of the proposed uses and facilities would occur in response to regional demand and additional employment generated by this alternative is accounted for in the most recent growth projections and local and regional plans to accommodate growth. The impact is decreased compared to the proposed project under this alternative because it would generate slightly less additional employment than the proposed project (e.g. due to less overall employment-generating uses, including one fewer hospital tower and no behavioral health building).</p>	<p><b>Less than significant impact (decreased)</b> - Alternative 3 would result in a less than significant impact (Impact 3.11-1) because development of the proposed uses and facilities would occur in response to regional demand and additional employment generated by this alternative is accounted for in the most recent growth projections and local and regional plans to accommodate growth. The impact is decreased compared to the proposed project under this alternative because it would generate slightly less additional employment than the proposed project (e.g. due to less employment-generating medical office buildings).</p>

Environmental Topic	Alternative 1: No Project – No Future Development	Alternative 2: No Project – Approved Master Plan Buildout	Alternative 3: No Medical Office Development
<b>Public Services</b>	<p><b>Less than significant impact (decreased)</b> – Alternative 1 would result in no impact from the construction of new or expanded fire protection or law enforcement facilities (Impact 3.12-1) because it would not result in any future development on the project site. Impacts are decreased compared to the proposed project under this alternative because it would not result in any new people, development, or other activities on the project site that would increase demand for fire protection or law enforcement services.</p>	<p><b>Less than significant impact (decreased)</b> – Alternative 2 would result in a less than significant impact related to provision of fire protection and law enforcement services (Impact 3.12-1) because it would not increase demand for these services such that new or expanded fire protection or law enforcement facilities would need to be constructed to maintain adequate service in the project, city, or surrounding region. The impact is decreased compared to the proposed project under this alternative because it would result in less overall new development and slightly less additional employees on the project site (e.g., one fewer hospital tower, no behavioral health building).</p>	<p><b>Less than significant impact (decreased)</b> – Alternative 3 would result in a less than significant impact related to provision of fire protection and law enforcement services (Impact 3.12-1) because it would not increase demand for these services such that new or expanded fire protection or law enforcement facilities would need to be constructed to maintain adequate service in the project, city, or surrounding region. The impact is decreased compared to the proposed project under this alternative because it would result in less overall new development and slightly less additional employees on the project site (e.g., no medical office buildings).</p>
	<p><b>Significant impact (decreased)</b> – Alternative 1 would result in no impacts due to conflicts with CEQA Guidelines Section 15064.3(b) (Impact 3.13-2) because it would not result in any future development on the project site and therefore it would not generate any increase in vehicle miles traveled. This impact is decreased compared to the proposed project.</p>	<p><b>Significant impact (decreased)</b> – Alternative 2 would result in a significant impact because it would generate a rate of vehicle miles traveled per employee that would exceed the City’s threshold and therefore conflict with CEQA Guidelines Section 15064.3(b) (Impact 3.13-2). The impact is decreased compared to the proposed project because Alternative 2 would generate fewer vehicle trips and less total vehicle miles traveled due to development of a relatively smaller building footprint (e.g., one less new hospital tower compared to the proposed project, no behavioral health building) and smaller number of on-site employees.</p>	<p><b>Significant impact (decreased)</b> – Alternative 3 would result in a significant impact because it would generate a rate of vehicle miles traveled per employee that would exceed the City’s threshold and therefore conflict with CEQA Guidelines Section 15064.3(b) (Impact 3.13-2). The impact is decreased compared to the proposed project because Alternative 3 would generate fewer vehicle trips and less total vehicle miles traveled due to development of a relatively smaller building footprint (e.g., no medical office buildings) and smaller number of on-site employees.</p>
<b>Transportation</b>	<p><b>Less than significant impact (decreased)</b> – Alternative 1 would result in no impacts from conflicts with transit, roadway, bicycle, or pedestrian facilities (Impact 3.13-1), increases in hazards due to design features or incompatible uses (Impact 3.13-3), or inadequate emergency access because it would not result in any future development on the project site or physical improvements in the project area. Impacts are decreased compared to the proposed project</p>	<p><b>Less than significant impact (same)</b> – Alternative 2 would result in less than significant impacts from conflicts with transit, roadway, bicycle, or pedestrian facilities (Impact 3.13-1), increases in hazards due to design features or incompatible uses (Impact 3.13-3), or inadequate emergency access (Impact 3.13-4) because future development would occur within the limits of the project site, it would not include physical improvements to or affect the existing circulation system or emergency access routes. Impacts are the same as the proposed project under this alternative because its distinguishing characteristics (e.g., cancer center, fitness center; helipad location) would not have different transportation impacts than the proposed project.</p>	<p><b>Less than significant impact (same)</b> – Alternative 3 would result in less than significant impacts from conflicts with transit, roadway, bicycle, or pedestrian facilities (Impact 3.13-1), increases in hazards due to design features or incompatible uses (Impact 3.13-3), or inadequate emergency access (Impact 3.13-4) because future development would occur within the limits of the project site, it would not include physical improvements to or affect the existing circulation system or emergency access routes. Impacts are the same as the proposed project under this alternative because its distinguishing characteristics (e.g., no medical office buildings) would not have different transportation impacts than the proposed project.</p>

Environmental Topic	Alternative 1: No Project – No Future Development	Alternative 2: No Project – Approved Master Plan Buildout	Alternative 3: No Medical Office Development
<p><b>Utilities and Service Systems</b></p>	<p><b>Less than significant impact (decreased)</b> – Alternative 1 would result in no impact related to water supply availability (Impact 3.14-1), utility infrastructure capacity (Impact 3.14-2), or capacity of solid waste facilities and compliance with standards addressing the generation, disposal, and diversion of solid waste (Impact 3.14-3) because it would not result in any future development on the project site. Impacts are decreased compared to the proposed project under this alternative because it would not result in any new people, development, or other activities on the project site that would increase demand for water supply, or for water, wastewater, stormwater, electric, telecommunication, natural gas, or solid waste infrastructure.</p>	<p><b>Less than significant impact (decreased)</b> – Alternative 2 would result in less than significant impacts (Impacts 3.14-1, 3.14-2, and 3.14-3) because there are adequate water supplies available to serve this alternative during normal, single-dry, and multiple dry year scenarios, and because the capacities of existing utility systems, including water, wastewater, stormwater, electric, telecommunication, natural gas, and solid waste, are adequate to meet the demand from this alternative. Impacts are decreased compared to the proposed project under this alternative because the less overall development and fewer number of additional employees would result in a small increase in demand for water supply and utility infrastructure systems (e.g., one fewer hospital tower, no behavioral health building).</p>	<p><b>Less than significant impact (decreased)</b> – Alternative 3 would result in less than significant impacts (Impacts 3.14-1, 3.14-2, and 3.14-3) because there are adequate water supplies available to serve this alternative during normal, single-dry, and multiple dry year scenarios, and because the capacities of existing utility systems, including water, wastewater, stormwater, electric, telecommunication, natural gas, and solid waste, are adequate to meet the demand from this alternative. Impacts are decreased compared to the proposed project under this alternative because the less overall development and fewer number of additional employees would result in a small increase in demand for water supply and utility infrastructure systems (e.g., no medical office buildings).</p>

1. For purposes of Table 4-3, “same” means same or similar impact.

## 4.6 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Because the No Project–No Development Alternative would avoid all significant impacts resulting from construction and operation of the proposed project (except for helicopter noise impacts, which are greater under this alternative), it is the environmentally superior alternative. However, the No Project–No Development Alternative would not meet the objectives the project as presented above in Section 5.2.

When the environmentally superior alternative is the No Project Alternative, the State CEQA Guidelines (Section 15126[d][2]) require selection of an environmentally superior alternative from among the other action alternatives evaluated. As demonstrated by the comparative analysis of alternatives presented in Table 4-3, Alternative 3: No Medical Office Development, would be the environmentally superior action alternative because although it would not completely avoid any significant impacts of the proposed project, it would decrease the amount of adverse physical environmental change for seven significant impacts of the proposed project, and it would not increase the amount of adverse physical change for any of the proposed project’s significant impacts. Alternative 3: No Medical Office Development would meet many but not all of the basic objectives of the proposed project as shown in Table 4-1.

# 5 CUMULATIVE IMPACTS

## 5.1 INTRODUCTION TO THE CUMULATIVE ANALYSIS

This draft subsequent environmental impact report (Draft SEIR) provides an analysis of cumulative impacts of the proposed project taken together with other past, present, and probable future projects producing related impacts, as required by Section 15130 of the California Environmental Quality Act Guidelines (State CEQA Guidelines). The goal of such an exercise is twofold: first, to determine whether the overall long-term impacts of all such projects would be cumulatively significant; and second, to determine whether the incremental contribution to any such cumulatively significant impacts by the project would be “cumulatively considerable” (and thus significant). (See State CEQA Guidelines Sections 15130[a]–[b], Section 15355[b], Section 15064[h], and Section 15065[c]; and *Communities for a Better Environment v. California Resources Agency* [2002] 103 Cal. App. 4th 98, 120.) In other words, the required analysis intends first to create the context in which to assess cumulative impacts, viewed on a geographic scale beyond the project itself, and then to determine whether the project’s incremental contribution to any significant cumulative impacts from all projects is itself significant (i.e., “cumulatively considerable”).

Cumulative impacts are defined in State CEQA Guidelines Section 15355 as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.” A cumulative impact occurs from “the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time” (State CEQA Guidelines Section 15355[b]).

Consistent with State CEQA Guidelines Section 15130, the discussion of cumulative impacts in this Draft SEIR focuses on significant and potentially significant cumulative impacts. Section 15130(b) of the State CEQA Guidelines provides, in part, the following:

[t]he discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The discussion should be guided by the standards of practicality and reasonableness, and should focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact.

## 5.2 CUMULATIVE SETTING

### 5.2.1 Geographic Scope

The geographic area that could be affected by the proposed project and is appropriate for a cumulative impact analysis varies depending on the environmental resource topic, as presented in Table 5-1.

**Table 5-1 Geographic Scope of Cumulative Impacts**

Resource Topic	Geographic Area
Aesthetics	Areas surrounding the project site and from which the project site is visible
Air Quality	South Coast Air Basin (all of Orange County and non-desert portions of Los Angeles, Riverside, and San Bernardino counties)
Cultural and Tribal Cultural Resources	Ranges from local to regional depending on the specific cultural or tribal cultural resource
Energy	Riverside County
Geology and Soils	City of Temecula (primarily localized)
Greenhouse Gas Emissions	California/Global
Hazards and Hazardous Materials	Localized for hazardous materials; regional for wildland fires.
Hydrology and Water Quality	Temecula Valley Groundwater Basin and Santa Margarita Watershed
Land Use and Planning	City of Temecula (primarily localized)
Noise and Vibration	City of Temecula (primarily localized)
Population and Housing	Riverside County
Public Services	Service areas of the Temecula Fire and Police Departments
Transportation	Riverside County
Utilities and Service Systems	Rancho California Water District (City of Temecula and portions of the City of Murrieta and unincorporated Riverside County), Eastern Municipal Water District (seven incorporated Cities and unincorporated Riverside County) for wastewater collection and conveyance, the Santa Rosa Regional Resources Authority for wastewater treatment (Riverside County), Southern California Edison for electrical service (greater Southern California region), Southern California Gas Company for natural gas (greater Southern California region), the City of Temecula for stormwater conveyance, and Riverside County for solid waste generation.

Source: compiled by Ascent Environmental in 2022.

## 5.2.2 Cumulative Projects

This analysis considers the impacts of the proposed project in combination with potential environmental effects of other projects in the project area. "Other projects," also referred to as "cumulative projects," includes recently completed projects, projects currently under construction, and future projects currently in development. The list of past, present, and probable future projects producing related impacts is provided in Table 5-2.

In total, the list includes 14 cumulative projects, 12 of which have been approved and built, and two that have been approved but not built. The 14 projects total approximately 250,000 square feet of non-residential development (e.g., medical office buildings, restaurant space, other commercial) and 2,480 residential units of various types, including single-family, multi-family, and independent/assisted living. The locations of cumulative projects are shown on Figure 5-1.

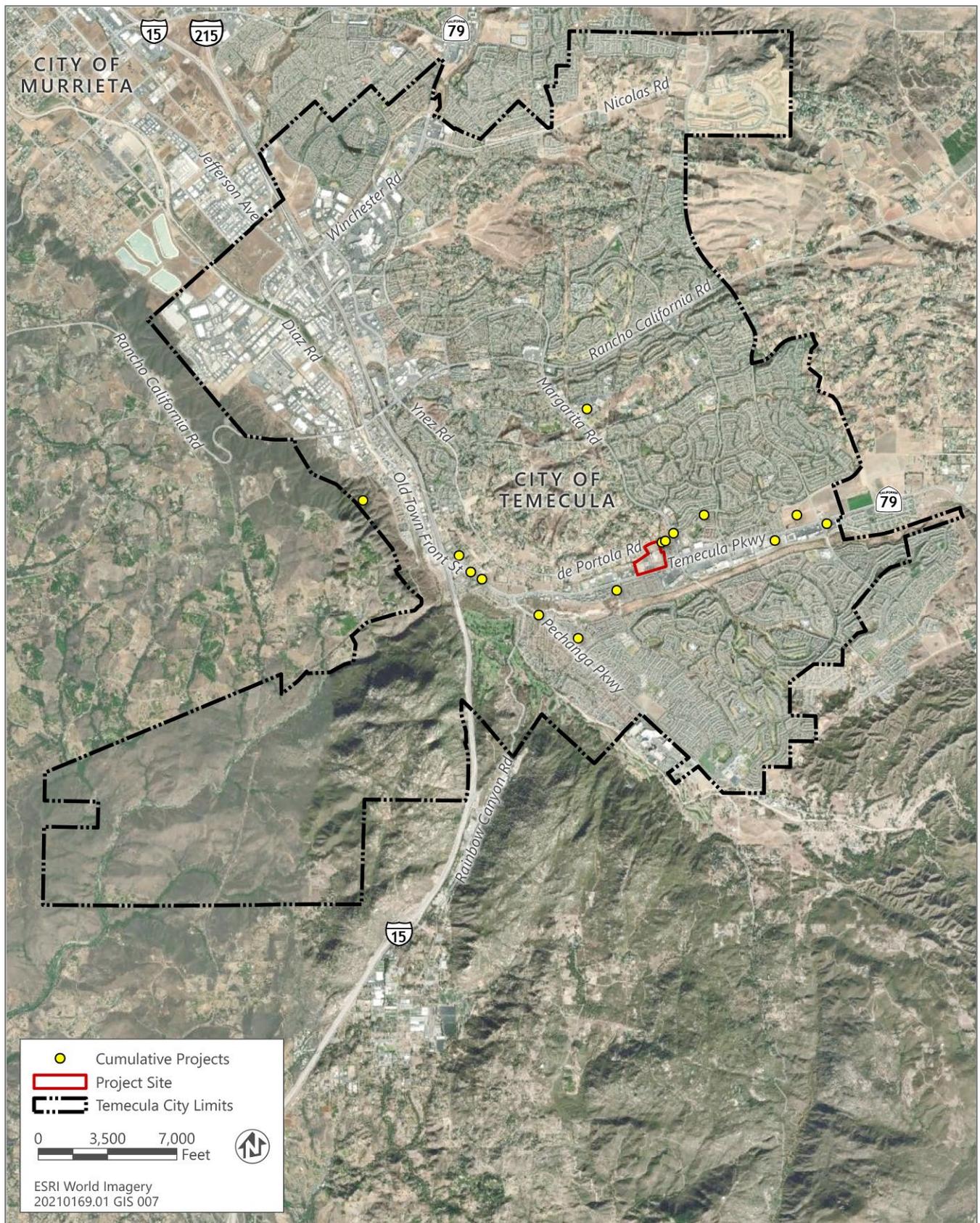
**Table 5-2 Cumulative Project List**

No.	Application Number	Description and Location	Size	Units	Status
1	PA14-0155	Art Gaitan's Mexico Cafe: A Development Plan to allow for the construction of a restaurant on a 2.61 acre vacant lot generally located approximately 1,300 feet south of the Temecula Parkway and Pechanga Parkway intersection east of Pechanga Parkway.	13,375 SF	n/a	Approved and built
2	PA15-1885	Development Plan Application for the construction of an independent living, assisted living, and memory care community generally located on the south side of Rancho Vista Road, approximately 2,500 feet east of Margarita Road.	n/a	317 units	Approved; not built
3	PA14-0087	Paseo Del Sol Tentative Tract Map (No. 36483) for single-family homes and 11 open space lots located at the northwest corner of Temecula Parkway and Butterfield Stage Road (APNs: 959-400-001 / 959-400-002).	n/a	168 single-family residential units	Active; not approved or built
4	PA17-1306	Margarita Medical Professional Office Building: a Development Plan for the construction of a two-story office building on a 1.06 acre lot within the Professional Office (PO) zone, generally located at the northeast corner of Margarita Road and De Portola Road, at 43980 Margarita Road (APN 959-050-014).	18,621 SF	n/a	Approved and built
5	PA15-1904	Development Plan to allow for the construction of a 2-story medical office building on 2.2 acres. The site is generally located on the south side of De Portola Road, approximately 500 feet west of Margarita Road located at 31625 De Portola Road.	25,121 SF	n/a	Approved and built
6	PA14-2796	Development Plan application to allow for the construction and operation of a two story commercial building that would be used for tire retail and repair. The project is located at the southeast corner of Temecula Parkway and Butterfield Stage Road.	11,597 SF	n/a	Approved and built
7	PA14-0107	Development Plan for a medical office building on 2 acres located at 31775 De Portola Road. The site is generally located on the south side of De Portola Road, approximately 500 feet west of Margarita Road.	25,000 SF	n/a	Approved and built
8	PA15-0763	Development Plan for Hope Lutheran Church to allow for the construction and operation of a sanctuary and pre-school on 2.93 acres within the Very Low Residential (VL) zone. The site is located at 29141 Vallejo Avenue.	15,000 SF	n/a	Approved and built
9	PA15-0514	Tentative Parcel Map (No. 36970) for condominium purposes with a Final Map Waiver for Parker Medical Center, which includes a commercial building on a 1.48 acre lot located at 44605 Avenida de Misiones, generally located on the west side of Avenida de Misiones, approximately 800 feet south of Temecula Parkway.	29,603 SF	n/a	Approved and built

No.	Application Number	Description and Location	Size	Units	Status
10	PA14-0159	Adopted Specific Plan referred to as ""Altair,"" on 270 acres in the southwesterly portion of the City of Temecula west of Old Town. The plan includes the four-lane divided Western Bypass, up to 1,750 residential units, an elementary school, a small amount of neighborhood commercial, a clubhouse, civic site, parks, trails, and hillside preservation. The project will also include off-site improvements for public infrastructure including, but not limited to, construction of the Western Bypass Corridor bridge over Murrieta Creek, road widening of Vincent Moraga, construction of Main Street north of Pujol, and off-site sewer, water and dry utility extensions. In addition to the Specific Plan, this project includes a General Plan Amendment, Subdivision Map, Development Agreement, and City-managed EIR, located south of Ridge Park Drive and westerly of Pujol Street.	n/a	1,750 residential units	Approved; not built
11	PA15-1892	Cypress Ridge: Development Plan to allow for the construction of a multi-family development generally located on the northeast corner of Pechanga Parkway and Loma Linda Road.		245 multi-family units	Approved and built
12	PA14-2707	Temecula Gateway Development Plan to allow for the construction of four commercial buildings. The structures will consist of a gas station, a retail/restaurant structure, office/retail structure and drive-thru restaurant structure. The project is generally located on the north west corner of La Paz and Temecula Parkway (APN 922-170-014, 922-170-015, 922-170-013, and 922-170-012).	23,666 SF	n/a	Approved and built
13	PA14-2696	Temecula Health Center Development Plan to allow for the construction of a single-story skilled nursing and memory care center generally located on the southwest corner of De Portola Road and Campanula Way.	67,146 SF	n/a	Approved and built
14	PA16-0090	Development Plan to allow for the construction of a 37,000 square foot LA Fitness facility located on the Temecula Gateway project site. Generally located on the northwest corner of Temecula Parkway and La Paz.	37,000 SF	n/a	Approved and built
15	PA18-1529	A Modification to a previously approved Development Plan (PA15-1572) for an approximately 1,389 square foot drive-thru restaurant and an approximately 6,281 square foot retail building located on the southwest corner of Temecula Parkway and Mahlon Vail Road.	7,670 SF	n/a	Approved and built (drive-thru); Approved (retail)

Notes: PA = planning application; APN = assessor's parcel number; SF = square feet; n/a = not applicable.

Source: Compiled by the City of Temecula in May 2022.



Source: data downloaded from City of Temecula in 2022

Figure 5-1 Cumulative Projects

## 5.2.3 Growth Projections

In addition to the list of cumulative projects identified in Table 5-2, this Draft SEIR also uses regional projections for population, employment, and household growth from 2020 to 2045 to evaluate cumulative environmental effects for topics with a geographic scope that extends beyond the city. These projections are from the adopted Southern California Association of Governments (SCAG) Connect SoCal 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) and adopted San Diego Association of Governments (SANDAG) 2021 Regional Plan and provided in Table 5-3 (SCAG 2020a).

**Table 5-3 Regional Growth Projections**

Type of Growth	County	2020	2045	Increase
Population	Los Angeles	10,407,000	11,674,000	1,267,000
	Orange	3,268,000	3,535,000	267,000
	Riverside	2,493,000	3,252,000	759,000
	San Bernardino	2,250,000	2,815,000	565,000
	<b>Total</b>	<b>18,418,000</b>	<b>21,276,000</b>	<b>2,858,000</b>
Employment	Los Angeles	4,838,000	5,382,000	544,000
	Orange	1,774,000	1,980,000	206,000
	Riverside	823,000	1,103,000	280,000
	San Bernardino	834,000	1,064,000	230,000
	<b>Total</b>	<b>8,269,000</b>	<b>9,529,000</b>	<b>1,260,000</b>
Households	Los Angeles	3,472,000	4,119,000	647,000
	Orange	1,065,000	1,154,000	89,000
	Riverside	785,000	1,086,000	301,000
	San Bernardino	668,000	875,000	207,000
	<b>Total</b>	<b>5,990,000</b>	<b>7,234,000</b>	<b>1,244,000</b>

Source: Connect SoCal 2020-2045 RTP/SCS, Demographics and Growth Forecast Technical Report, Table 13; SCAG 2020b.

## 5.3 ANALYSIS OF CUMULATIVE IMPACTS

The following sections contain a discussion of the cumulative effects anticipated from implementation of the proposed project, together with past, present, and probable future projects, for each of the environmental topics evaluated in Chapter 3 of this Draft SEIR. The analysis conforms with Section 15130(b) of the State CEQA Guidelines, which specifies that the "discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The discussion should be guided by the standards of practicality and reasonableness, and should focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact."

For purposes of this Draft SEIR, the proposed project would result in a significant cumulative effect if:

- ▶ the cumulative effects of related projects (past, current, and probable future projects) are not significant and the incremental impact of implementing the proposed project is substantial enough, when added to the cumulative effects of related projects, to result in a new cumulatively significant impact; or
- ▶ the cumulative effects of related projects (past, current, and probable future projects) are already significant and implementation of the proposed project makes a considerable contribution to the effect. The standards used herein to determine a considerable contribution are that either the impact must be substantial or must exceed an established threshold of significance.

This cumulative analysis assumes that all mitigation measures identified in Chapter 3 to mitigate the proposed project's impacts are adopted and implemented. The analysis herein analyzes whether, after implementation of project-specific mitigation measures that avoid or substantially lessen environmental effects, the residual impacts of the proposed project would cause a cumulatively significant impact or would contribute considerably to existing/anticipated (without the proposed project) cumulatively significant effects. Because mitigation measures for the project's contributions to cumulatively significant impacts would not be different than the project-specific mitigation measures identified in Chapter 3 of this SEIR, no additional mitigation is recommended in this section.

The potential for projects to have a cumulative impact depends on both geographic location and project schedule. Cumulative projects considered in this analysis include those that have recently been completed, are currently being implemented, or are in the planning stages. However, for probable future projects, schedules are often broadly estimated and are subject to change. Although the timing of the probable future projects is likely to fluctuate because of schedule changes or other unknown factors, this analysis of cumulative impacts assumes these projects would be implemented concurrently with implementation of the proposed project.

### 5.3.1 Aesthetics

The area of geographic consideration for cumulative aesthetic impacts includes the areas surrounding the project site from which the project site is visible (for scenic quality and glare) and Riverside County (for lighting). This cumulative impact analysis considers the list of cumulative projects provided in Table 5-2 and the environmental impacts of projected regional growth (Table 5-3) as analyzed in the Final EIR for SCAG's 2020-2045 Connect SoCal RTP/SCS (SCAG 2020b).

## PROPOSED PROJECT IMPACTS

As described in Section 3.1, Aesthetics, conflicts with existing zoning or other regulations governing scenic quality would not occur and new sources of substantial light or glare that would adversely affect day or nighttime views in the area would not be created because the proposed project would comply with existing City requirements that prevent these adverse impacts from occurring, including the required Major Modification and Planned Development Overlay Amendment, which includes design and site review, the City's Design Guidelines for new development, and Municipal Code and Ordinance 655 provisions regulating lighting. FAA regulations also address sources of lighting related to the proposed project's helipad. These impacts of the proposed project are less than significant. The proposed project would result in no impacts related to scenic vistas, scenic resources within a scenic highway, or visual character or quality of public views in a nonurbanized area.

## CUMULATIVE IMPACTS

Implementation of cumulative projects in the areas surrounding the project site from which the project site is visible would not conflict with zoning or other regulations governing scenic quality because consistency with these regulations is required as part of project approval. Similarly, cumulative projects in the City would not create substantial sources of glare affecting daytime views because the City's design review and other design guidelines prevent the use of building materials or other components that could result in a new source of substantial glare capable of adversely affecting daytime views. Therefore, cumulative aesthetic impacts related to scenic quality and creation of substantial sources of glare are less than significant in areas surrounding the project site. The proposed project's incremental impacts related to scenic quality and creation of substantial source of glare would not be cumulatively significant, and the proposed project would not have a considerable contribution such that a new cumulatively significant impact would occur.

Implementation of cumulative projects in the City of Temecula, which includes approximately 250,000 SF of non-residential development, and approximately 2,480 residential units, along with development to accommodate the projected growth in Riverside County from 2020-2045 of approximately 301,000 households and 280,000 jobs, would generate new sources of lighting. This cumulative development in the City of Temecula, and in the other

incorporated cities and unincorporated areas of Riverside County, would be subject to locally adopted regulations and restrictions governing new sources of lighting. However, despite the protective effects of these local regulations and restrictions, it is possible that the combination of new lighting sources from cumulative development, will be substantial enough to adversely affect nighttime views in at least some portions of Riverside County. Therefore, cumulative aesthetic impacts related to creation of substantial sources of lighting are significant. Because the proposed project would comply with the regulations of the City and FAA governing new sources of lighting, it would not adversely affect nighttime views in the area and its incremental contribution to cumulative aesthetic lighting impacts would not be cumulatively considerable.

### 5.3.2 Air Quality

The area of geographic consideration for cumulative air quality impacts includes the South Coast Air Basin (all of Orange County and non-desert portions of Los Angeles, Riverside, and San Bernardino counties). This cumulative impact analysis considers the list of cumulative projects provided in Table 5-2 and the environmental impacts of projected regional growth (Table 5-3) as analyzed in the Final EIR for SCAG's 2020-2045 Connect SoCal RTP/SCS (SCAG 2020b).

## PROPOSED PROJECT IMPACTS

As described in Section 3.2, "Air Quality," construction activities that would occur from implementation of the proposed project would result in VOC and NO<sub>x</sub> emissions that would exceed SCAQMD regional construction-period thresholds, which is a potentially significant impact. Mitigation Measures 3.2-1 through 3.2-3 would require use of low VOC coating, construction equipment with lower emissions, and low emissions trucks to substantially lessen these emissions; VOCs would be reduced below the SCAQMD threshold level with mitigation, while NO<sub>x</sub> emissions would remain above the threshold. This impact would be significant and unavoidable. Proposed project operational emissions would not exceed SCAQMD regional operational thresholds. In addition, the proposed project would not generate substantial localized concentrations of criteria air pollutants, toxic air contaminants, or carbon monoxide, or other emissions including odors, during construction or operations that would adversely affect sensitive receptors. The proposed project also would not conflict with SCAQMD's AQMP.

## CUMULATIVE IMPACTS

Implementation of cumulative projects in the City of Temecula and South Coast Air Basin, which includes approximately 250,000 SF of non-residential development, and approximately 2,480 residential units in the city, along with development to accommodate the projected growth in the South Coast Air Basin from 2020-2045 of approximately 1,244,000 households and 1,260,000 jobs, would involve a substantial amount of construction activity with the potential to exceed SCAQMD regional construction-period thresholds for criteria air pollutants, including VOC and NO<sub>x</sub>. Similar to the proposed project, cumulative development would be required to implement mitigation measures that would avoid or substantially lessen emissions of these pollutants that would otherwise exceed the thresholds. Nonetheless, when multiple construction projects take place concurrently with the proposed project, VOC and NO<sub>x</sub> emissions could exceed the regional construction-period thresholds, which is a cumulatively significant effect. Implementation of Mitigation Measures 3.2-1 through 3.2-3 would reduce the proposed project's incremental VOC emissions to less than cumulatively considerable because they would meet the regional construction-period threshold; incremental emissions of NO<sub>x</sub> would be lower with mitigation but remain cumulatively considerable because they would exceed the regional construction-period threshold with mitigation. Because there are no additional feasible mitigation measures that could further reduce the proposed project's incremental NO<sub>x</sub> emissions, its incremental contribution to this cumulative air quality impact is significant and unavoidable.

Because the AQMP accounts for projected growth in the South Coast Air Basin, cumulative development would not result in a cumulatively significant impact related to conflicts with the AQMP. Therefore, the incremental effects of the proposed project would not combine with the effects of cumulative projects to create a significant cumulative impact.

The proposed project's incremental effects would not be cumulatively significant, and the project's contributions to this air quality impact would not be cumulatively considerable such that a new cumulatively significant impact would occur.

The SCAQMD regional operational-level thresholds for criteria air pollutants, localized significance thresholds (LSTs) for criteria air pollutants, and for carbon monoxide (CO) hotspots are established at levels to prevent cumulative air quality impacts within the South Coast Air Basin. Because cumulative development is likely to result in operational activities that would exceed the regional or LST thresholds for one or more criteria air pollutants, a cumulatively significant impact would occur. Because the proposed project's operational emissions would not exceed the regional or LST thresholds, its incremental effects would not be cumulatively considerable such that a more severe cumulatively significant impact would occur. Cumulative development is not anticipated to result in any CO hotspots; the proposed project's incremental CO emissions not be cumulative considerable such that a new cumulatively significant CO impact would occur.

Implementation of cumulative projects within the city would not have the potential to generate toxic air contaminant (TAC) emissions that would combine with the TAC emissions or other emissions including odors of the proposed project to result in more adverse cumulative effects. This is because construction associated with most of the cumulative projects has already been completed, and the cumulative projects that have not yet been constructed are located over one mile away from the proposed project, which is not in close enough proximity for their combined TAC emissions to result in a more adverse impact (Figure 5-1). The effects of TAC concentrations and other emissions like odors are localized to the project site and adjacent areas. Therefore, the incremental effects of the proposed project would not combine with the effects of cumulative projects to create significant cumulative impact related to TAC emissions or other emissions including odors. The proposed project's incremental effects would not be cumulatively significant, and the project's contributions to these air quality impacts would not be cumulatively considerable such that new cumulatively significant impacts would occur.

### 5.3.3 Cultural and Tribal Cultural Resources

The area of geographic consideration for cumulative cultural and tribal cultural resources impacts ranges from the localized area surrounding the project site to the greater Southern California region (Orange, Los Angeles, Riverside, and San Bernardino counties) depending on the specific type of cultural or tribal cultural resource. This cumulative impact analysis considers the list of cumulative projects provided in Table 5-2 and the environmental impacts of projected regional growth (Table 5-3) identified as analyzed in the Final EIR for SCAG's 2020-2045 Connect SoCal RTP/SCS (SCAG 2020b).

## PROPOSED PROJECT IMPACTS

As described in Section 3.3, Cultural and Tribal Cultural Resources, ground disturbing activities such as grading, grubbing, trenching, or earth-moving could encounter and potentially result in damage to previously undiscovered unique archaeological resources or tribal cultural resources, both of which are considered potentially significant impacts. Mitigation Measures 3.3-1a to 3.3-1c and 3.3-2a and 3.3-2b would reduce the impacts of the proposed project to less significant with mitigation by requiring a qualified archaeologist and a Native American monitor to oversee specified construction activities, implement a worker awareness program, and implement protective measures in the event subsurface archaeological features or tribal cultural resources are encountered. The potential for the proposed project to disturb human remains would be avoided through compliance with existing State regulations governing the proper treatment of previously unknown human remains. The proposed project would result in no impact to historical resources.

## CUMULATIVE IMPACTS

Implementation of cumulative projects in the City of Temecula, which includes approximately 250,000 SF of non-residential development, and approximately 2,480 residential units, along with development to accommodate the

projected growth in Riverside County from 2020-2045 of approximately 301,000 households and 280,000 jobs, would involve a substantial amount of construction-related ground disturbing activity with the potential to result in damage to unique archaeological resources and/or tribal cultural resources. The individual unique archaeological and tribal cultural resources adversely affected by cumulative development in the City and throughout Riverside County could have regional importance, and incremental impacts to such sources could collectively result in greater, more adverse impacts. Similar to the proposed project, cumulative development would be required to implement mitigation measures that would avoid or substantially lessen adverse impacts to unique archaeological resources and tribal cultural resources. Nonetheless, because there are no additional feasible measures to guarantee the permanent loss of known and as yet unknown unique archaeological resources and tribal cultural resources, the impacts of the proposed project would combine with cumulative impacts in the City of Temecula and throughout Riverside County to create cumulatively significant impacts, and the incremental impacts of the proposed project would be cumulatively considerable. Mitigation Measures 3.3-1a to 3.3-1c and 3.3-2a and 3.3-2b would reduce the proposed project's incremental effects, but because there are no additional feasible mitigation measures that could further reduce the proposed project's incremental effects, its incremental contributions to cumulative archaeological and tribal cultural resources impacts are significant and unavoidable.

### 5.3.4 Energy

The area of geographic consideration for cumulative energy impacts includes Riverside County. This cumulative impact analysis considers the list of cumulative projects provided in Table 5-2 and the environmental impacts of projected regional growth (Table 5-3) as analyzed in the Final EIR for SCAG's 2020-2045 Connect SoCal RTP/SCS (SCAG 2020b).

## PROPOSED PROJECT IMPACTS

As described in Section 3.4, Energy, construction and operation of the proposed project would not result in wasteful, inefficient, or unnecessary consumption of energy, and would not conflict with State or local plans for renewable energy or energy efficiency. State laws and regulations requiring efficient use of energy and use of renewable energy, such as the State Building Code, State law requiring electricity procurement from renewable sources, fuel efficient vehicles and construction equipment, would result in efficient use of energy by the proposed project and avoid conflicts with State and local plans. The proposed project would result in less than significant energy impacts.

## CUMULATIVE IMPACTS

Implementation of cumulative projects in the City of Temecula, which includes approximately 250,000 SF of non-residential development, and approximately 2,480 residential units, along with development to accommodate the projected growth in Riverside County from 2020-2045 of approximately 301,000 households and 280,000 jobs, would involve substantial consumption of energy, including electricity, natural gas, gasoline, and diesel. Same as the proposed project, the State's existing legal and regulatory framework would result in efficient energy consumption by cumulative development and avoid conflicts with State and local plans related to renewable energy and energy efficiency. Cumulatively significant energy impacts would not occur. Therefore, the proposed project's incremental effects would not be cumulatively significant, and the project's contributions to these energy impacts would not be cumulatively considerable such that new cumulatively significant impacts would occur.

### 5.3.5 Geology and Soils

The primary area of geographic consideration for cumulative geology and soils impacts includes the City of Temecula, and is primarily limited to the localized area surrounding the project site. However, all of Riverside County is considered for the cumulative analysis of impacts to paleontological resources. This cumulative impact analysis considers the list of cumulative projects provided in Table 5-2.

## PROPOSED PROJECT IMPACTS

As described in Section 3.5, Geology and Soils, impacts related to ground-shaking and seismic-related ground failure, soil erosion, and the stability of the project site's geology and soils are less than significant due to the project's compliance with the mandatory protective requirements of existing laws and regulations, including the California Building Code, Hospital Facilities Seismic Safety Act, General Construction Permit, and City Municipal Code. In addition, any ground disturbance that extends deeper than the mass grading previously completed in 2011 or greater than 10 feet below the ground surface, whichever is less, or ground disturbance within any previously ungraded areas, could encounter and/or damage previously undiscovered unique paleontological resources, which is a potentially significant impact. Mitigation Measure 3.5-4 would reduce the impacts of the proposed project to less significant with mitigation by requiring a qualified paleontologist to monitor specified construction activities, implement a worker training program, and implement protective measures in the event subsurface paleontological resources are encountered. The proposed project would result in no impacts related to fault rupture, landslides, expansive soils, unique geologic features, or the adequacy soils needed to support alternative wastewater disposal systems.

## CUMULATIVE IMPACTS

Implementation of cumulative projects in the City of Temecula, which includes approximately 250,000 SF of non-residential development, and approximately 2,480 residential units, along with development to accommodate the projected growth in Riverside County from 2020-2045 of approximately 301,000 households and 280,000 jobs, would involve a substantial amount of construction-related ground disturbing activity with the potential to result in damage to unique paleontological resources. The individual paleontological resources adversely affected by cumulative development in the City and throughout Riverside County could have regional importance, and incremental impacts to such sources could collectively result in greater, more adverse impacts. Similar to the proposed project, cumulative development would be required to implement mitigation measures that would avoid or substantially lessen adverse impacts to unique paleontological resources. Nonetheless, because there are no feasible measures to guarantee the permanent loss of known and as yet unknown unique paleontological resources, the impacts of the proposed project would combine with cumulative impacts in the City of Temecula and throughout Riverside County to create cumulatively significant impacts, and the incremental impacts of the proposed project would be cumulatively considerable. Mitigation Measure 3.5-4 would reduce the proposed project's incremental effects, but because there are no additional feasible mitigation measures that could further reduce the proposed project's incremental effects on paleontological resources, its incremental contribution to this cumulative paleontological resources impact is significant and unavoidable.

Similar to the proposed project, cumulative projects in the City of Temecula would implement actions required by existing regulations to avoid or substantially lessen adverse effects related to seismic activity, soil erosion, and unstable soils or geologic units. For example, construction of future projects would be subject to applicable codes and regulations and seismic safety requirements and recommendations contained in project-specific geotechnical reports. It is anticipated, therefore, that any potential impacts associated with geologic and soil conditions would be mitigated within the respective sites of these future projects, and would not combine to result in greater, more adverse cumulative impacts. Therefore, the incremental effects of the proposed project related to seismic activity, soil erosion, and unstable soils or geologic units would not combine with the effects of cumulative projects to create a significant cumulative impacts in the city. The proposed project's incremental effects would not be cumulatively significant, and the project's contributions to these geology and soils impacts would not be cumulatively considerable such that a new cumulatively significant impact would occur.

### 5.3.6 Greenhouse Gas Emissions and Climate Change

The primary area of geographic consideration for cumulative greenhouse gas (GHG) emissions impacts includes the State of California.

#### PROPOSED PROJECT IMPACTS

As described in Section 3.6, Greenhouse Gas Emissions and Climate Change, the proposed project would generate annual levels of GHG emissions that could have a significant effect on the environment and conflict with Statewide targets for GHG emissions reductions. Implementation of Mitigation Measures 3.6-1 and 3.6-2 would reduce the level of GHG emissions generated by the proposed project, but not to a less than significant level. This impact is significant and unavoidable.

#### CUMULATIVE IMPACTS

Climate change is an inherently cumulative issue and relates to development throughout California, and, most of all, the world. Therefore, the proposed project impact discussed in Section 3.6, "Greenhouse Gas Emissions," is also the cumulative effect of the proposed project. Same as the proposed project, cumulative development in California would generate annuals levels of GHG emissions that could have a significant effect on the environment and conflicts with Statewide target for GHG emissions reductions, which are cumulatively significant impacts. Implementation of Mitigation Measures 3.6-1 and 3.6-2 would reduce the proposed project's incremental contribution to this cumulatively significant impact, but the proposed project's GHG emissions would remain cumulatively considerable.

Because there are no additional feasible mitigation measures that could further reduce the proposed project's incremental GHG emissions, its incremental contribution to cumulative GHG emissions impacts is significant and unavoidable.

### 5.3.7 Hazards and Hazardous Materials

The area of geographic consideration for cumulative hazards and hazardous materials impacts includes the City of Temecula, and is primarily limited to the localized area surrounding the project site. This cumulative impact analysis considers the list of cumulative projects provided in Table 5-2.

#### PROPOSED PROJECT IMPACTS

As described in Section 3.7, "Hazards and Hazardous Materials," the impact related to routine transport, use, or disposal of hazardous materials would be less than significant because existing federal, State, and local regulations prevent these activities from result in significant hazards to the public or the environment. The impact related to conflicts with an emergency response or evacuation plan would be less than significant because the proposed project would not involve any off-site physical impacts that could temporarily or permanently physical interfere with emergency evacuation or response, and it would comply with existing City standards and requirements for emergency and evacuation access. The proposed project site is not located on a list of hazardous materials sites. Although no detectable concentrations of contaminants (MTBE or VOCs) harmful to human health and the environment have been identified on the project site in the past, it is possible but unlikely that such contamination could be encountered during future ground-disturbing construction activities. This is a potentially significant impact of the proposed that would be reduced to less than significant with implementation of Mitigation Measure 3.7-2, which would require monitoring for and proper removal and disposal of contaminated soils, if any, encountered during ground-disturbing construction activities. The proposed project would no result in no impacts related to using hazardous materials within one-quarter of a school proximity to an airport, or wildland fires.

## CUMULATIVE IMPACTS

Implementation of cumulative projects in the City of Temecula, which includes approximately 250,000 SF of non-residential development, and approximately 2,480 residential units, would involve a substantial amount of construction-related ground disturbing activity, some of which may involve coming into contact with contaminated soil. However, the adverse human health and environmental effects of encountering soil contaminated with MTBE or VOCs are localized and would be limited to the immediate vicinity of the encounter; to the extent contaminated soils are encountered during construction of cumulative projects, the localized nature of this impact means the effects of multiple projects would not combine to create a greater cumulative impacts. In addition, the proposed project would implement Mitigation Measure 3.7-2, which reduce its incremental effects to less than significant. The proposed project's incremental effects would not be cumulatively significant, and the project's contributions to this impact would not be cumulatively considerable such that a new cumulatively significant impact would occur.

Similar to the proposed project, cumulative projects in the City of Temecula would implement actions required by existing regulations to avoid or substantially lessen adverse effects related to the handling and potential release of hazardous materials that could harm human health or the environment. As a result, the incremental effects of the proposed project related to handling of hazardous materials would not combine with the effects of cumulative projects to produce a significant cumulative impact. The proposed project's impacts are not cumulative considerable, and its contributions to these impacts would not be cumulatively considerable such that a new cumulative impact would occur.

### 5.3.8 Hydrology and Water Quality

The area of geographic consideration for cumulative hydrology and water quality impacts includes the Temecula Valley Groundwater Basin (located in southwestern Riverside County) and Santa Margarita Watershed (primarily located in southwestern Riverside County, as well as a portions of Marine Corps Base Camp Pendleton along the Santa Margarita River and a nonurbanized area of northern San Diego County) . This cumulative impact analysis considers the list of cumulative projects provided in Table 5-2 and the environmental impacts of projected regional growth (Table 5-3) identified as analyzed in the Final EIR for SCAG's 2020-2045 Connect SoCal RTP/SCS (SCAG 2020b).

## PROPOSED PROJECT IMPACTS

As described in Section 3.8, Hydrology and Water Quality, impacts related to violation of water quality standards and degradation of water quality, groundwater supplies and recharge, drainage pattern alterations, and water quality and sustainable groundwater management plans would be less than significant. Due to existing permit requirements and water quality regulations the proposed project is required to implement best management practices and other measures during construction activity and as part of project design to avoid adverse impacts to water quality resulting from the project-generated increase in impervious surface area and construction activities, including those that result from substantial on- or off-site erosion. In addition, while the proposed project is located in the Temecula Valley Groundwater Basin, it is not located within one of the Basin's recharge areas, and the Basin is not subject to the State law requiring preparation of a Sustainable Groundwater Management Plan. The proposed project would result in no impacts related to release of a pollutants during a flood, tsunami, or seiche.

## CUMULATIVE IMPACTS

Implementation of cumulative projects in the City of Temecula, which includes approximately 250,000 SF of non-residential development, and approximately 2,480 residential units, along with development to accommodate the projected growth in Riverside County from 2020-2045 of approximately 301,000 households and 280,000 jobs, would result in a substantial increase in impervious surface area and construction activities within the Temecula Valley Groundwater Basin and Santa Margarita Watershed. Same as the proposed project, cumulative projects and

development would be subject to existing regulations and permits protecting water quality, including the National Pollutant Discharge Elimination System (NPDES) and Municipal Separate Storm Sewer System (MS4) permits, which would prevent violations of water quality standards and conflicts with water quality control plans. The incremental effects of the proposed project related to water quality would not combine with cumulative development to produce a cumulatively significant impact because cumulative projects are also required to comply with existing regulations and permits. In addition, the proposed project would not result in incremental effects to groundwater supplies or recharge, so it could not contribute to greater cumulative effects when considered with the effects of cumulative development. Thus, the proposed project's incremental impacts related to water quality and groundwater supplies and recharge would not be cumulatively considerable, and the project would not have a considerable contribution such that a new cumulatively significant impact related to water quality or groundwater supplies and recharge would occur.

### 5.3.9 Land Use and Planning

The area of geographic consideration for cumulative land use and planning impacts is the City of Temecula. This cumulative impact analysis considers the list of cumulative projects provided in Table 5-2.

#### PROPOSED PROJECT IMPACTS

As described in Section 3.9, Land Use and Planning, there would be no impact related to physical division of an established community because the existing hospital is an established part of the city and the proposed project would be confined to the project site and no create any physical barriers. In addition, the proposed project is consistent with the General Plan land use designation for the project site, and therefore would not cause a significant environmental impacts due to a conflict with an adopted land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environment effect.

#### CUMULATIVE IMPACTS

Impacts related to physical division of an established community and conflicts with land use plans, policies, and regulations adopted for the purpose of avoiding or mitigating an environmental effect would generally be project-specific and therefore not have the potential to result in greater cumulative effects. Moreover, the proposed project would not produce incremental land use and planning impacts that could be cumulatively considerable, and the project would not have a considerable contribution such that a new cumulatively significant impact related to land use and planning would occur.

### 5.3.10 Noise

The area of geographic consideration for cumulative noise impacts includes the City of Temecula, and is primarily limited to the localized area surrounding the project site. This cumulative impact analysis considers the list of cumulative projects provided in Table 5-2.

#### PROPOSED PROJECT IMPACTS

As described in Section 3.10, Noise, proposed project construction activities could exceed noise standards at sensitive land uses. Implementation of Mitigation Measures 3.10-1 and 3.10-2 would reduce noise levels at sensitive receptors, but depending on the type and location of construction activity, noise standards could still be exceeded, which is a significant and unavoidable impact. Helicopter noise levels could also exceed noise standards at existing sensitive receptors adjacent to the project site, and could not be feasibly mitigated, because the City is precluded by law from limiting helicopter flights that are for emergency medical purposes. This is also a significant and unavoidable impact. The proposed central utility plant could result in noise levels exceeding standards at sensitive receptors, but

Mitigation Measure 3.10-2 would reduce noise levels at sensitive receptors to comply with applicable standards, which is a less than significant impact with mitigation. The proposed project would not expose sensitive receptors or buildings to adverse levels of construction vibration, adverse noise levels in excess of standards from vehicle activity at the proposed project's parking structure, or adverse noise levels from proposed project generated vehicle trips along roadways in the city.

## CUMULATIVE IMPACTS

Implementation of cumulative projects in the City of Temecula, which includes approximately 250,000 SF of non-residential development, and approximately 2,480 residential units, would involve noise- and vibration-generating construction and operational activities in the city. Cumulative effects of construction noise, vibration, and operational noise are addressed below.

### Construction Noise

Noise dissipates rapidly from its source; however, cumulative impacts from construction-generated noise could result if construction activities of cumulative projects were to take place in close enough proximity to project-generated construction such that noise effects would combine to result in substantial increases in noise at the same sensitive receptors. Several new large developments are planned in the region. See Section 5.2.4, "Related Projects," for a list of reasonably foreseeable projects in the project area. The projects that have not yet been constructed include the 270-acre Altair Specific Plan and the development of a 493,044 square-foot Linfield Senior Living Community. However, the construction of these two developments will not impact the nearby sensitive receivers of the Temecula Valley Hospital due to how far away the other projects will be located (Figure 5-1). For example, the Linfield Senior Living Community will be built south of Rancho Vista Road approximately 2,500 feet east of Margarita Road. When approximating the intersection of Rancho Vista Road and Margarita Road to the nearest sensitive receiver used in the noise section of this Draft SEIR, it can be estimated that the assisted living project will be located about or greater than 1.5 miles away. The Altair Specific Plan is located at least 2 miles west as it is being developed in Old Town Temecula. Construction noise impacts are localized impact which will only impact noise sensitive receivers that are located at most 500 feet away from a project rather than broader impacts like vehicular traffic noise impacts. Therefore, cumulative projects would not result in a cumulatively significant construction noise impact. The proposed project's incremental construction noise levels would not be cumulatively considerable, and the proposed project would not have a considerable contribution such that a new cumulatively significant impact related to construction noise would occur.

### Vibration

Cumulative impacts from construction-generated vibration could result if cumulative project construction activities were to take place very close to other construction activities and cumulatively combine with construction vibration from the project. No new long-term operational vibration sources would result from the proposed project and, thus, this analysis addresses construction vibration.

Vibration associated with construction activities is of primary concern within close proximity (typically within 100 feet) or if nighttime vibration-inducing activities were to occur near sensitive land uses. At increasing distances from the source, vibration levels dissipate rapidly and have less potential to cause disturbance to people or damage to structures. In addition, vibration generated from construction is typically associated with pile-driving activities that only occur during discrete phases of construction and for intermittent and brief periods at a time. For these reasons, even with additional large development projects and plans anticipated for future development, vibration impacts would remain local and would not combine with vibration sources from other construction activities even if construction activities at other future developments were to occur simultaneously with project construction activities. Therefore, cumulative projects would not result in a significant cumulative construction vibration impact. Further, project-generated vibration levels would be below applicable thresholds within the project site. Because vibration levels generated by the cumulative projects would be limited to the vicinity of construction activities for those projects, and because vibration levels of the proposed project would not result in any off-site impacts, the proposed project's incremental construction vibration levels would not be cumulatively considerable, and the proposed project

would not have a considerable contribution such that a new cumulatively significant impact related to construction vibration would occur.

### **Operational Noise (Stationary and Transportation)**

Cumulative noise levels could be affected by operation of stationary equipment and increases in vehicular traffic on roadways in the city resulting from cumulative projects.

Regarding stationary noise increases, the proposed project would result in land use development that typically includes stationary noise sources such as noise from heating, ventilation, and air conditioning (HVAC) units, and a utility plant which includes generators, pumps, chillers, and cooling towers. As discussed in Impact 3.10-6 in Section 3.10, "Noise and Vibration," stationary noise sources would be mitigated to below applicable standards with on-site design features such as equipment enclosures and sound barriers; thus, noise from these sources would not combine with other off-site stationary sources to result in considerable increases in noise. Therefore, the proposed project's incremental stationary noise levels would not be cumulatively considerable, and the proposed project would not have a considerable contribution such that a new cumulatively significant impact would occur.

Traffic generated by cumulative projects would result in additional traffic-related noise on surrounding roadways. In the future cumulative no project scenario, traffic and associated noise levels on existing roadways are anticipated to increase. Based on noise modeling used to evaluate the proposed project in Section 3.10 of this Draft SEIR, existing and existing plus project noise levels would exceed applicable City of Temecula's noise standard of 65 A-weighted decibels (dBA) Community Equivalent Noise Level (CNEL). Thus, without the project there would be a cumulatively significant traffic noise impact. The project's contribution to cumulative traffic increases on existing roads would result in noise increases by less than 1 dB (which is not perceptible by people). Thus, the project's incremental contribution to cumulative traffic noise levels would not be cumulatively considerable, and the proposed project would not have a considerable contribution such that a more severe cumulatively significant impact related to vehicle traffic noise would occur.

## **5.3.11 Population, Employment, and Housing**

The area of geographic consideration for cumulative population, employment, and housing impacts includes all of Riverside County. This cumulative impact analysis considers the list of cumulative projects provided in Table 5-2 and the environmental impacts of projected regional growth (Table 5-3) identified as analyzed in the Final EIR for SCAG's 2020-2045 Connect SoCal RTP/SCS (SCAG 2020b).

### **PROPOSED PROJECT IMPACTS**

As described in Section 3.11, Population, Employment, and Housing, the proposed project could incrementally increase demand for housing and therefore population growth in the project area and surrounding region due to its increase in the number of jobs at the project site, but not beyond the amount of population growth accounted for in the City's General Plan or SCAG's Connect SoCal plan for the Southern California region. In addition, the proposed project would not include any expansions or upgrades to existing infrastructure systems with excess capacities that could support new development beyond currently planned levels. This impact is less than significant. The proposed project would result in no impact related to displacement of substantial numbers of people or housing necessitating the construction of replacement housing.

### **CUMULATIVE IMPACTS**

Implementation of cumulative projects in the City of Temecula includes approximately 250,000 SF of non-residential development, and approximately 2,480 residential units, while development in Riverside County from 2020-2045 would accommodate approximately 301,000 households, 280,000 jobs, and 759,000 people. These increases in development and population are based on the implementation of existing plans to accommodate population growth, including the City of Temecula General Plan, general plans of incorporated cities in Riverside County and for the

unincorporated area, and SCAG's Connect SoCal plan. Therefore, cumulative development would not induce substantial unplanned growth in Riverside County. The proposed project would not produce incremental population and housing impacts that would be cumulatively considerable, and the project would not have a considerable contribution such that a new cumulatively significant impact related to population and housing would occur.

### 5.3.12 Public Services

The area of geographic consideration for cumulative public services impacts includes the City of Temecula. This cumulative impact analysis considers the list of cumulative projects provided in Table 5-2.

#### PROPOSED PROJECT IMPACTS

As described in Section 3.12, Public Services, the proposed project would result in a less than significant impact related to the provision of new or physically altered fire protection or law enforcement facilities because it would not increase the residential population of the city beyond levels already planned for and anticipated, would be located within the existing service areas of the existing fire protection and law enforcement facilities, and would pay public facilities development impact fees to address its incremental effect on demand for service from the Temecula Fire and Police departments, such as additional personnel or equipment. The proposed project would not result in the construction of a new or expanded fire or police station in order for adequate levels of service to be maintained.

#### CUMULATIVE IMPACTS

Implementation of cumulative projects in the City of Temecula, which includes approximately 250,000 SF of non-residential development, and approximately 2,480 residential units, would increase the demand for fire protection and law enforcement services in the city by increasing the size of the population, workforce, and building stock in the city. Same as the proposed project, cumulative projects are required to pay development impact fees to address their demand for increased public services, including fire protection and law enforcement. Of the 14 cumulative projects, 12 have been approved and built, while 2 have been approved but not built. The City has not identified the need for new or expanded fire protection or law enforcement facilities to maintain adequate services as a result of any of the cumulative projects. Therefore, cumulative development would not result in significant environmental impacts from the construction of such new or expanded facilities. The proposed project would not produce incremental public services impacts that would be cumulatively considerable, and the project would not have a considerable contribution such that a new cumulatively significant impact related to public services would occur.

### 5.3.13 Transportation

The area of geographic consideration for cumulative transportation impacts includes all of Riverside County. This cumulative impact analysis considers the list of cumulative projects provided in Table 5-2 and the environmental impacts of projected regional growth (Table 5-3) identified as analyzed in the Final EIR for SCAG's 2020-2045 Connect SoCal RTP/SCS (SCAG 2020b).

#### PROPOSED PROJECT IMPACTS

As described in Section 3.13, Transportation, the proposed project's operation would result in a higher rate of vehicle miles traveled (VMT) than the threshold amount of VMT set forth in the City's Traffic Impact Analysis Guidelines. This impact is significant and unavoidable because while Mitigation Measures 3.13-1 through 3.13-3 would reduce the rate of VMT generated by the proposed project, it would remain above the threshold. Because the proposed project's construction and operations would be limited to the existing project site, the proposed project would not conflict with any existing or planned bicycle, pedestrian, or transit facilities, increase safety hazards from design features or incompatible uses, or interfere with emergency access.

## CUMULATIVE IMPACTS

Implementation of cumulative projects in the City of Temecula includes approximately 250,000 SF of non-residential development, and approximately 2,480 residential units, while development in Riverside County from 2020-2045 would accommodate approximately 301,000 households, 280,000 jobs, and 759,000 people.

The travel demand model used to analyze the proposed project reflects cumulative growth projections for the surrounding areas of Riverside County. Therefore, the proposed project's VMT impact is also the cumulative effect of the proposed project. Same as the proposed project, cumulative development would generate rates of VMT that would exceed the threshold amount of the City and other local jurisdictions in the surrounding region, which is a cumulatively significant VMT impact. Implementation of Mitigation Measures 3.13-1 through 3.13-3 would reduce the proposed project's incremental contribution to this cumulatively significant impact, but the proposed project's rate of VMT would remain cumulatively considerable. Because there are no additional feasible mitigation measures that could further reduce the proposed project's incremental rate of VMT, its incremental contribution to this cumulative VMT impact is significant and unavoidable.

The proposed project would not have adverse incremental effects related to conflicts with existing or planned bicycle, pedestrian, or transit facilities, increases in safety hazards from design features or incompatible uses, or interference with emergency access. The proposed project would not produce incremental impacts that would be cumulatively considerable, and the project would not have a considerable contribution such that new cumulatively significant impacts would occur.

### 5.3.14 Utilities and Service Systems

The area of geographic consideration for cumulative utilities and service systems impacts includes the service areas of Rancho California Water District for water supply (City of Temecula and portions of the City of Murrieta and unincorporated Riverside County), Eastern Municipal Water District, Western Municipal Water District, and Elsinore Valley Municipal Water District for wastewater treatment (all or portions of 11 incorporated cities as well as unincorporated communities in Riverside County), Southern California Edison for electrical service (greater Southern California region), Southern California Gas Company for natural gas (greater Southern California region), the City of Temecula for stormwater conveyance, and Riverside County for telecommunications and solid waste generation. This cumulative impact analysis considers the list of cumulative projects provided in Table 5-2 and the environmental impacts of projected regional growth (Table 5-3) identified as analyzed in the Final EIR for SCAG's 2020-2045 Connect SoCal RTP/SCS (SCAG 2020b).

## PROPOSED PROJECT IMPACTS

As described in Section 3.14, Utilities and Service Systems, impacts related to the availability of water supply, provision of new or expanded utility infrastructure including wastewater capacity and landfill capacity, and compliance with solid waste regulations would be less than significant for the following reasons. For one, RCWD has available water supplies to serve the proposed project during normal, single-, and multiple-dry year scenarios. In addition, utility systems serving the project site, including water supply, wastewater, stormwater, electricity, natural gas, and telecommunications have adequate existing capacity to meet the demands of the proposed project.

## CUMULATIVE IMPACTS

Implementation of cumulative projects in the City of Temecula includes approximately 250,000 SF of non-residential development, and approximately 2,480 residential units, while development in Riverside County from 2020-2045 would accommodate approximately 301,000 households and 280,000 jobs. Development in Southern California counties (Riverside as well as Los Angeles, Orange, San Bernardino) would accommodate approximately 1,244,000 households and 1,260,000 jobs from 2020-2045.

As described in Section 3.14, Utilities and Service Systems, available water supplies in the RCWD service territory are anticipated to exceed water demand out to 2045, in normal, single-, and multiple dry year scenarios; surplus supplies are expected to be available. Increased water demand from cumulative development that occurs in the RCWD service territory is accounted for in their water supply and demand projections. Therefore, cumulative development within RCWD service territory would not result in significant environmental impacts related to water supply availability in the RCWD service territory. The proposed project would not produce incremental water supply availability impacts that would be cumulatively considerable, and the project would not have a considerable contribution such that a new cumulatively significant impact related to water supply availability would occur.

Wastewater generated by the proposed project would be routed to the Temecula Valley Water Reclamation Facility (WRF) for treatment, which currently treats approximately 14 million gallons per day (mgd), has existing capacity to treat 23 mgd, and EMWD plans for it to have an ultimate capacity of 28 mgd. Cumulative development would increase demand for wastewater treatment within Riverside County and ultimately require physical expansion of the Temecula Valley WRF in order to serve cumulative demand; construction of new and/or expanded sewer lines would also be required in locations throughout Riverside County in order to meet demand from cumulative development. The construction of these wastewater improvements could result in significant environmental impacts at the Temecula Valley WRF site and at other locations throughout the county where improvements are required. Therefore, cumulative development in Riverside County would result in a significant cumulative impact associated with provision of new or expanded wastewater treatment and conveyance infrastructure. Because the proposed project would not result in construction of new or expanded wastewater infrastructure that could cause significant environmental effects, the proposed project would not cause related environmental effects that could combine with the effects of cumulative development to result in greater cumulative impacts. Therefore, the proposed project's incremental contribution to cumulative impacts related to construction of such improvements would not be cumulatively considerable.

Cumulative development within the city (for stormwater drainage), Riverside County (telecommunications), and throughout Southern California (for electric power and natural gas) would increase demand on these utility systems, and require the provision of new or expanded infrastructure (e.g., pipelines, retention basins, power lines, underground conduit, electrical substations), the construction of which could cause significant environmental impacts. Because the proposed project would not result in construction of new or expanded infrastructure that could cause significant environmental effects, the proposed project would not cause related environmental effects that could combine with the effects of cumulative development to result in greater cumulative impacts. Therefore, the proposed project's incremental contribution to cumulative impacts related to construction of stormwater, electric, natural gas, and telecommunications improvements would not be cumulatively considerable.

Cumulative development within Riverside County would also increase the amount of solid waste requiring disposal at landfills in the region, including El Sobrante Sanitary Landfill, which would receive solid waste from the proposed project. This landfill has existing capacity to accommodate waste from projected growth through 2051, which is beyond the 2045 horizon of cumulative growth considered in this analysis. Therefore, cumulative development in Riverside County would not result in a significant cumulative impact associated landfill capacity or compliance with solid waste regulations. Therefore, the proposed project's incremental contribution to cumulative impacts related to solid waste would not be cumulatively considerable.

### 5.3.15 Cumulative Impact Summary

As shown in Sections 5.3.1 through 5.3.14, the proposed project's incremental contributions to the following cumulative impacts would be significant and unavoidable:

- ▶ Construction air pollutant emissions (NOx)
- ▶ Archaeological resources
- ▶ Tribal cultural resources
- ▶ Paleontological resources
- ▶ GHG emissions
- ▶ Vehicle miles traveled

## 6 OTHER CEQA CONSIDERATIONS

### 6.1 GROWTH INDUCEMENT

California Environmental Quality Act (CEQA) Section 21100(b)(5) specifies that the growth-inducing impacts of a project must be addressed in an environmental impact report (EIR). Section 15126.2(d) of the State CEQA Guidelines provides the following guidance for assessing growth-inducing impacts of a project:

Discuss the 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. Included in this are projects which would remove obstacles to population growth (a major expansion of a wastewater treatment plant might, for example, allow for more construction in service areas). Increases in the population may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects. Also, discuss the characteristics of some projects which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.

A project can induce growth directly, indirectly, or both. Direct growth inducement would result if a project involved construction of new housing. Indirect growth inducement would result, for instance, if implementing a project resulted in any of the following:

- ▶ substantial new permanent employment opportunities (e.g., commercial, industrial, or governmental enterprises);
- ▶ substantial short-term employment opportunities (e.g., construction employment) that indirectly stimulates the need for additional housing and services to support the new temporary employment demand; and/or
- ▶ removal of an obstacle to additional growth and development, such as removing a constraint on a required public utility or service (e.g., construction of a major sewer line with excess capacity through an undeveloped area).

Growth inducement itself is not an environmental effect but may foreseeably lead to environmental effects. If substantial growth inducement occurs, it can result in secondary environmental effects, such as increased demand for housing, demand for other community and public services and infrastructure capacity, increased traffic and noise, degradation of air or water quality, degradation or loss of plant or animal habitats, conversion of agricultural and open-space land to urban uses, and other effects.

#### 6.1.1 Growth-Inducing Impacts of the Project

The proposed project would increase the number of jobs on the project site relative to the existing operating hospital. During an average 24-hour period, there would be an additional 675 employees on the project site relative to existing conditions. This increase in jobs could increase demand for housing in the project area and surrounding region. However, the General Plan land use designation for the project site allows medical uses and includes the existing operating hospital. Because the master plan approval occurred in 2008, they have been accounted for in the most recent population, housing, and employment projections for the City and surrounding areas, and in regional and local plans to accommodate such growth. For example, the City of Temecula is forecasted to add approximately 9,000 additional housing units from 2022 to 2045, and add over 14,000 jobs by 2045 relative to 2017 levels. The City's General Plan includes capacity to accommodate development of these housing units and employment-generating land uses. Similarly, from 2020 to 2045, Riverside County is projected to add approximately 301,000 households and 280,000 jobs. SCAG's 2020 Connect SoCal Plan includes a land use pattern and transportation investments to accommodate projected levels of growth in the City and throughout Riverside County out to 2045. Therefore, the

proposed project's increase in employment would not induce construction of new housing beyond what is anticipated by existing local and regional plans.

The proposed project would also create temporary opportunities for construction employment, which would correspond with each of three construction phases (Phase II, Phase III, Phase IV). These jobs are expected to be filled by existing construction workers that live in the City or in the surrounding region. Construction activities associated with the proposed project would not result in a substantial increase in temporary employment at the project site such that new housing would need to be constructed to house the construction workforce.

Additionally, the proposed project is in an area of the City that is fully served by urban infrastructure, with transportation, water, sewer, and stormwater facilities currently in place to serve the project. The proposed project does not include any expansions or upgrades to existing infrastructure systems with excess capacities that could support new development beyond currently planned levels; the capacities of existing infrastructure systems are adequate to serve the demands of the proposed project. The project does not include any new or expanded infrastructure that could remove obstacles to and induce further growth beyond the levels accounted for in existing plans.

## 6.2 SIGNIFICANT AND UNAVOIDABLE ADVERSE IMPACTS

The State CEQA Guidelines Section 15126.2(b) requires EIRs to include a discussion of the significant environmental effects that cannot be avoided if the proposed project is implemented. As documented throughout Chapter 3, "Environmental Setting, Impacts, and Mitigation Measures" and Chapter 5, "Cumulative Impacts," of this Draft SEIR, after implementation of the recommended mitigation measures, most of the impacts resulting from the proposed project be less than significant, or would be potentially significant and reduced to a less-than-significant level with the implementation of mitigation measures. The following impacts are considered significant and unavoidable; that is, no feasible mitigation is available to reduce the proposed project's impacts to a less-than-significant level.

### Air Quality

- ▶ Impact 3.2-2: Generate construction emissions in exceedance of SCAQMD's regional mass emission thresholds

### Greenhouse Gas Emissions

- ▶ Impact 3.6-1: Generate Greenhouse Gas Emissions, Either Directly or Indirectly, That May Have a Significant Impact on the Environment or Conflict with State GHG Reduction Goals

### Noise

- ▶ Impact 3.10-1: Exposure of Existing Sensitive Receptors to Short-Term Construction Noise
- ▶ Impact 3.10-3: Exposure of Existing Sensitive Receptors to Operational Helicopter Noise

### Transportation

- ▶ Impact 3.13-2: Conflict or be Inconsistent with CEQA Guidelines Section 15064.3(b)

## 6.3 SIGNIFICANT AND IRREVERSIBLE ENVIRONMENTAL CHANGES

The State CEQA Guidelines requires a discussion of any significant irreversible environmental changes that would be caused by a project. Specifically, the State CEQA Guidelines section 15126.2(c) states:

Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible, since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generation 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 irreversible commitment of limited resources is inherent in any project involving physical development. The proposed project would result in the irreversible and irretrievable commitment of energy and material resources during construction and operation, including the following:

- ▶ conversion of undeveloped land on the project site to urbanized uses, including buildings, internal access roads, and paved parking lots; and
- ▶ irreversible consumption of nonrenewable resources, including:
  - lumber and other related forest products;
  - aggregate, sand, gravel, and concrete;
  - construction materials; steel, copper, lead, and other metals;
  - indoor and outdoor uses of water during construction and operations;
  - fossil fuels (including diesel, gasoline, and natural gas) resulting from construction equipment, building operations (e.g., electric power, space heating and cooling; water heating), and the transport of people (patients, customers, employees) and goods (construction materials, hospital supplies) during construction and operation of the proposed project.

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No references were used in this chapter.

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No references were used in this chapter.

### Chapter 2 Project Description

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### Chapter 3 Environmental Setting, Impacts and Mitigation Measures

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## Chapter 6 Other CEQA Considerations

No references were used in this chapter.

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## 8 LIST OF PREPARERS

### **City of Temecula (Lead Agency)**

Scott Cooper, Senior Planner  
Planning Department  
41000 Main Street  
Temecula, CA 92590

### **Ascent Environmental, Inc. (CEQA Compliance)**

Eric Ruby, Principal  
1230 Columbia Street, Suite 440  
San Diego, CA 92101

### **Linscott, Law and Greenspan, Engineers**

Zawwar Saiyed, P.E., Associate Principal  
2 Executive Circle, Suite 250  
Irvine, CA 92614

### **ASM Affiliates (Cultural Resources)**

Shelby Castells, MA, RPA  
9555 Aero Drive, Suite 206  
San Diego, CA 92123

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