June 2023

Hotel Project Sonoma
2023 Recirculated Draft EIR

City of Sonoma

SCH # 2015062041

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Appendices

Please see the City's website for the appendix: https://www.sonomacity.org/hotel-project-sonoma/.

Tables

Exhibits

LIST OF ACRONYMS AND ABBREVIATIONS

°F	Fahrenheit
2020 UWMP	Draft 2020 Urban Water Management Plan
AB	Assembly Bill
ABAG	Association of Bay Area Governments
ACMs	Asbestos-Containing Materials
ADT	average daily traffic
AEP	annual exceedance probability
AF	acre-feet
AFY	acre-feet per year
Alquist-Priolo Act	Alquist-Priolo Earthquake Fault Zoning Act
ALTA	Alta Archaeological Consulting
APN	Assessor's Parcel Numbers
AQI	Air Quality Index
ATCM	Airborne Toxic Control Measure
BAAQMD	Bay Area Air Quality Management District
Basin ID 2-2.02	Napa-Sonoma Valley Groundwater Basin, Sonoma Valley Plain Groundwater Subbasin
Basin Plan	Water Quality Control Plan for the San Francisco Bay Basin
BERD	Built Environment Resource Directory
BMPs	Best Management Practices
C	Commercial
CA2020	Climate Action 2020 and Beyond
CAA	Clean Air Act
CAAA	federal Clean Air Act Amendments of 1990
CAAQS	California Ambient Air Quality Standard
CAL FIRE	California Department of Forestry and Fire Protection
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CALGreen	California Green Building Standards Code
California Register	California Register of Historical Resources
CalRecycle	California Integrated Waste Management Board
Caltrans	California Department of Transportation
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
Carl Moyer Program	Carl Moyer Memorial Air Quality Standards Attainment Program
CASGEM	California Statewide Groundwater Elevation Monitoring
CBC	California Building Standards Code
CCAA	California Clean Air Act
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission

CEMC	Chevron Environmental Management Company
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CESA	California Endangered Species Act
CFCs	Chlorofluorocarbons
CFR	Code of Federal Regulations
CGS	California Geological Survey
CH_4	methane
CHABA	Committee of Hearing, Bio Acoustics, and Bio Mechanics
CHBC	California Historical Building Code
CHHSLs	California Human Health Screening Levels
City	City of Sonoma
City General Plan	City of Sonoma 2020 General Plan
CIWMA	California Integrated Waste Management Act
CNEL	Community Noise Equivalent Level
CO	carbon monoxide
CO_2	carbon dioxide
COCs	constituents of concern
Construction General Permit	General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities Order 2009-009-DWQ as amended by Order 2012-0006-DWQ
CRHR	California Register of Historical Resources
CTP	Comprehensive Transportation Plan
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
dB	decibels
dBA	A-weighted decibels
dBA/DD	A-weighted decibels per doubling of distance
DDT	dichlorodiphenyltrichloroethane
DEIR	Draft Environmental Impact Report
DOC	California Department of Conservation
DPF	Diesel Particulate Filters
DPM	diesel particulate matter
DPR	California Department of Parks and Recreation
DTSC	Department of Toxic Substances Control
DWR	California Department of Water Resources
EIR	Environmental Impact Report
EKI	EKI Environment & Water
EPA	U.S. Environmental Protection Agency
ESA	federal Endangered Special Act
ESDs	Equivalent Single Family Dwellings
ESLs	Environmental Screening Levels
EV	electric vehicle

FEIR	Final Environmental Impact Report
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FHWA-RD-77-108	Highway Traffic Noise Prediction Model
FIRMs	Flood Insurance Rate Maps
FMMP	Farmland Mapping and Monitoring Program
FTA	Federal Transit Administration
Geologica	Geologica Inc.
GHG	greenhouse gas
GLO	General Land Office
GPCD	gallons per capita per day
gpm	gallons per minute
GSAs	groundwater sustainability agencies
GSP	groundwater sustainability plans
Guidelines	Chapter Six, Guidelines for Designing and Constructing New Buildings of the Downtown Sonoma Historic Preservation Design Guidelines
GWh	gigawatt-hours
HCFCs	Hydrochlorofluorocarbons
HFCs	hydrofluorocarbons
High GWP	High Global Warming Potential
HMBP	Hazardous Materials Business Plan
HRA	health risk assessments
HRE	Historic Resources Evaluation for the Hotel Project Sonoma Project
HRS	Historic Resource Study
HUD	Housing and Urban Development
HVAC	heating, ventilation, and air conditioning
Hz	hertz
in/sec	inches per second
IPCC	Intergovernmental Panel on Climate Change
ksf	square feet
LDL	Larson Davis Laboratories
L_{dn}	Day-Night Noise Level
LEAs	local enforcement agencies
LEED	Leadership in Energy and Environmental Design
L_{eq}	Equivalent Noise Level
LEV	Low-Emission Vehicle
LI	low impact development
L_{max}	Maximum Noise Level
L_{min}	Minimum Noise Level
MG	million gallon
MRZ	mineral resource zone
MS4	Municipal Separate Storm System
MT	metric tons

MT CO_2e	metric tons of carbon dioxide equivalents
MTBE	methyl tert-butyl ether
MTC	Metropolitan Transportation Commission
MUN	Municipal and Domestic Supply
MWh	megawatt-hour
N_2O	nitrous oxide
NAAQS	national ambient air quality standards
NAHC	Native American Heritage Commission
NEHRP	National Earthquake Hazards Reduction Program
NEHRPA	National Earthquake Hazards Reduction Program Act
NEPA	National Environmental Policy Act
NFIP	National Flood Insurance Program
NHL	National Historic Landmark
NO_2	nitrogen dioxide
NOA	naturally occurring asbestos
NOAA Fisheries	National Marine Fisheries Service
NOP	Notice of Preparation
NO_X	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
NWIC	Northwest Information Center
OES	Office of Emergency Services
OHP	Office of Historic Preservation
Order	Water Quality Order No. 2006-0003
OSHA	Occupational Health and Safety Administration
PAH	polycyclic aromatic hydrocarbons
Pb	lead
PCBs	polychlorinated biphenyls
PFCs	perfluorocarbons
PG&E	Pacific Gas & Electric Company
PJC	PJC Associates, Inc.
PM	particulate matter
PM_{10}	particulate matter of diameter equal to or less than 10 micrometers
$PM_{2.5}$	particulate matter of diameter equal to or less than 2.5 micrometers
Porter-Cologne Act	Porter-Cologne Water Quality Control Act
ppd	pounds per day
PPV	peak particle velocity
proposed project	Hotel Project Sonoma
PV	Photovoltaic
PWWF	peak wet weather flow
RCPA	Regional Climate Protection Authority
RCRA	Resource Conservation and Recovery Act of 1976
RDEIR	Recirculated Draft EIR

Reporting Rule	Greenhouse Gas Reporting Rule
RMS	root mean square
ROG	reactive organic gases
RPS	Renewables Portfolio Standard
RWD	Reports of Waste Discharge
RWQCB	Regional Water Quality Control Board
San Francisco Bay RWQCB	San Francisco Bay Regional Water Quality Control Board
SARA	Superfund Amendments and Reauthorization Act
SCAQMD	South Coast Air Quality Management District
Scoping Plan	Climate Change Scoping Plan
SCTA	Sonoma County Transportation Authority
SEL	sound exposure level
SENL	Single-Event [Impulsive] Noise Level
SF_6	sulfur hexafluoride
SFBAAB	San Francisco Bay Area Air Basin
SGMA	Sustainable Groundwater Management Act
SIP	State Implementation Plan
SMARA	Surface Mining and Reclamation Act
SO_2	sulfur dioxide
Sonoma Valley GSA	Sonoma Valley Groundwater Sustainability Agency
Sonoma Water	Sonoma County Water Agency
SO_X	sulfur oxides
SPD	Sonoma Police Department
SR	State Route
SR	State Route
State SIP Strategy	2016 State Strategy for the State Implementation Plan
SVCSD	Sonoma Valley County Sanitation District
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
TCRs	Tribal Cultural Resources
TMDLs	Total Maximum Daily Loads
TOCs	toxic air contaminants
TOT	Transient Occupancy Tax
tpd	tons per day
TPHd	total petroleum hydrocarbons as diesel
TPHg	total petroleum hydrocarbons as gasoline
U.S. EPA	United States Environmental Protection Agency
UCMP	U.C. Berkeley Museum of Paleontology
USFWS	U.S. Fish and Wildlife Service
USTs	underground storage tanks
UWMP	Urban Water Management Plan
VdB	vibration decibels
VMT	vehicle miles traveled
VOC	volatile organic compounds

WDRs	waste discharge requirements
WEAP	Worker's Environmental Awareness Program
$\mu g/m^3$	micrograms per cubic meter
µin/sec	microinch per second

1. EXECUTIVE SUMMARY

This Recirculated Draft Environmental Impact Report (RDEIR) evaluates the physical environmental impacts of implementing the proposed Hotel Project Sonoma (the proposed project) as required by the California Environmental Quality Act (CEQA) of 1970 (Public Resources Code Section 21000 *et seq*.) and the CEQA Guidelines (California Code of Regulations [CCR], Title 14, Section 15000 *et seq*.).

1.1 PROJECT REQUIRING ENVIRONMENTAL ANALYSIS

The Hotel Project Sonoma (the proposed project) would redevelop approximately 1.24 acres of land in the City of Sonoma's (City) Downtown District, adjacent to and south of State Route (SR) 12 (West Napa Street), and adjacent to and west of First Street West. The project site includes portions of four different parcels with separate assessor's parcel numbers, which would be combined into one parcel as part of the proposed project. The proposed project includes the development of a 62-guestroom hotel, 80-seat restaurant and bar, spa with 6 treatment rooms, raised swimming pool veranda, 130 on-site parking spaces (consisting of a 113-stall basement parking garage, 9 surface parking spaces, and 8 covered residential parking spaces), and an 8-unit residential building. As part of the proposed project, three existing commercial buildings, and existing parking lots and landscaping, would be demolished. The proposed project also includes reconfiguring the on-site infrastructure as necessary to support the proposed redevelopment, including water supply, wastewater conveyance, stormwater detention, electricity, natural gas, and interior drive aisles.

1.2 ISSUES TO BE RESOLVED AND AREAS OF CONTROVERSY

CEQA Guidelines Section 15123 suggests that an EIR include a summary of "areas of controversy known to the Lead Agency" and "[i]ssues to be resolved." Topics addressed in response to the Notice of Preparation (NOP) include the following:

- Impacts on special-status plant, fish, and wildlife species
- Air travel related to tourism and associated greenhouse gas emissions
- Interest in a 50 percent housing alternative
- Pedestrian safety related to staff parking across the street
- Support for additional housing development
- Parking code requirements
- Accurate project description
- Impacts during construction
- Traffic impacts including peak-period traffic on surrounding streets and proposed loading areas
- Adequate bicycle lanes that do not conflict with traffic
- Lynch Building inclusion in the project
- Consider a left-turn lane on Napa Street
- Consider housing at the Bank of Marin property across the street
- Historic resources
- Water, sewer, fire evacuation
- Employee and visitor travel to project site and travel by guests once they arrive
- Land use, aesthetics, traffic, and air quality be included
- Consistency with the General Plan and zoning

- Scale of the project considering merging four lots into one
- Consistency with development patterns in the historic district
- Contact Sonoma Water Agency regarding restrictions on water use
- Examine 25-room boutique hotel with residential units

The City has reviewed and considered all of the comments submitted in response to the NOP during preparation of this RDEIR.

1.3 SUMMARY OF ALTERNATIVES

CEQA Guidelines Section 15126.6 requires that an EIR describe a range of reasonable alternatives to the proposed project that could feasibly attain the basic objectives of the project and avoid and/or lessen the environmental effects of the project. Below is a summary of the alternatives to the proposed project, which are considered in Chapter 5, "Alternatives," of this RDEIR.

1.3.1 ALTERNATIVE 1: NO PROJECT ALTERNATIVE

Under the No Project Alternative, the existing land uses, buildings, parking lots, and landscaping would remain unchanged, and the proposed hotel, restaurant, and residential building would not be developed. Furthermore, portions of the four different Assessor's Parcel Numbers that make up the project site would not be reconfigured into one lot, as would occur under the proposed project. These parcels include the Lynch Building, which houses retail tenants, offices, and seven market-rate studio apartments. The No Project Alternative contemplates the continued operation of the existing commercial and the existing seven market-rate studio apartments.

1.3.2 ALTERNATIVE 2: HOTEL/RESIDENTIAL (50%-50%) ALTERNATIVE

This alternative was developed to provide an expanded housing component as compared to the proposed project. Based on a project site area of 54,000 square feet (or 1.24 acres), 25 residential units would be the maximum number of units permitted under the applicable Commercial Zoning District, which allows 20 units per acre. At an average of 800 square feet per unit, this is 20,000 square feet of space for rent and a gross square footage of approximately 25,075 square feet (including hallways and other non-rented space). This alternative assumes 12 two-bedroom units and 13 one-bedroom units. Assuming 50 percent of the building space is available for hotel use, this would accommodate approximately 34 hotel rooms. The total building square footage would be approximately 50,150 square feet under this alternative, somewhat reduced compared to the proposed project, and three stories in height, as with the main building proposed under the proposed project.

1.3.3 ALTERNATIVE 3: HOTEL/RESIDENTIAL (75%-25%) ALTERNATIVE

Under the 75/25 Hotel/Residential Alternative, the number of hotel rooms would be reduced from 62 to 40. This alternative would provide 16 dwelling units and a restaurant. The total building square footage under Alternative 3 would be approximately 65,000, and the building is assumed to be three stories. The 60 full-time and 30 part-time employees required for the proposed project would be reduced to 49 full-time and 24 part-time employees under Alternative 3.

1.3.4 ALTERNATIVE 4: HOTEL ONLY ALTERNATIVE

Under Alternative 4, the Hotel Only Alternative, the number of hotel rooms would be maintained at 62, and the alternative would also include an 80-seat restaurant and bar, a spa with 6 treatment rooms, and raised swimming pool veranda. There would be no residential component under this alternative. The total building square footage under Alternative 4 would be approximately 66,000, and the building is assumed to be three stories with the same footprint as the hotel building under the proposed project. Instead of the dwelling units contemplated as a part of the proposed project, this alternative would include a loading area on-site.

1.3.5 ALTERNATIVE 5: FEWER HOTEL ROOMS ALTERNATIVE

Under the Fewer Hotel Rooms Alternative, the number of hotel rooms would be reduced from 62 to 48. There would be no residential component. This alternative would also include an 80-seat restaurant and bar, a spa with 6 treatment rooms, and a raised swimming pool veranda. The total building square footage under Alternative 5 would be approximately 66,000, and the building is assumed to be three stories with the same footprint as the hotel building under the proposed project. This alternative would provide a fewer number of hotel guest rooms as compared to the proposed project, with some rooms using a suite or other larger square footage format.

1.4 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Table 1-1 summarizes the impacts, mitigation measures, and resulting level of significance after mitigation for the relevant environmental topic areas evaluated for the proposed project. The table is intended to provide an overview, as required by the CEQA Guidelines Section 15123; narrative discussions for each topic area are included in the corresponding sections of Chapter 4 of this RDEIR.

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Table 1-1. Summary of Project Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
4.2 AESTHETICS			
Impact 4.2-1: Substantially degrade the existing visual character or conflict with applicable zoning and other regulations governing scenic quality.	LTS	No mitigation measures are required.	LTS
4.3 AIR QUALITY			
Impact 4.3-1: Conflict with or Obstruct Implementation of the Applicable Air Quality Plan.	LTS	No mitigation measures are required.	LTS
Impact 4.3-2: Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable NAAQS or CAAQS.	PS	**Mitigation Measure 4.3-2: Implement BAAQMD Basic Construction Mitigation Measures Recommended for all Proposed Projects.** The proposed project's construction contractor shall comply with the following fugitive dust control best management practices, as recommended by the BAAQMD Basic Construction Mitigation Measures, or as modified before the time of project implementation, for reducing construction emissions of fugitive dust PM_{10} and $PM_{2.5}$: ► All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day or as often as needed to control dust emissions. Watering should be sufficient to prevent airborne dust from leaving the site. Increased watering frequency may be necessary whenever wind speeds exceed 15 miles per hour. Reclaimed water should be used whenever possible. ► All haul trucks transporting soil, sand, or other loose material off-site shall be covered. ► All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. ► All vehicle speeds on unpaved roads shall be limited to 15 mph.	LTS

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Table 1-1. Summary of Project Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		▸ All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used. ▸ Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points. ▸ All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation. Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.	
Impact 4.3-3: Expose Sensitive Receptors to Substantial Pollutant Concentrations.	LTS	No mitigation measures are required.	LTS
Impact 4.3-4: Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.	LTS	No mitigation measures are required.	LTS
4.4 BIOLOGICAL RESOURCES			
Impact 4.4-1: Effects on Special-Status Species.	LTS	No mitigation measures are required.	LTS
Impact 4.4-2: Interference with Wildlife Movement or Established Migratory Corridors	LTS	No mitigation measures are required.	LTS

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Table 1-1. Summary of Project Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Impact 4.4-3: Conflict with Tree Preservation Policies or Ordinances.	LTS	No mitigation measures are required. Compliance with the City's Tree Ordinance (Municipal Code Title 12, Chapter 12.08) will be required through a condition of approval.	LTS
4.5 CULTURAL AND TRIBAL CULTURAL RESOURCES			
Impact 4.5-1: Potential for Substantial Adverse Change in the Significance of an Archaeological Resource.	PS	**Mitigation Measure 4.5-1a: Worker's Environmental Awareness Program (WEAP)** The project applicant shall retain an archaeologist that is on the list of Graton Rancheria-approved archeologists to conduct a Worker's Environmental Awareness Program (WEAP) training for all construction personnel on archaeological sensitivity prior to the commencement of any ground-disturbing activities. The WEAP training shall include a description of the types of cultural material that may be encountered, cultural sensitivity issues, the regulatory environment, and the proper protocol for treatment of the materials in the event of a find. The project applicant shall coordinate with the City to provide advance notice and an invitation to the Federated Indians of Graton Rancheria to participate in this training.	LTS
	PS	**Mitigation Measure 4.5-1b: Conduct a Cultural Resources Survey, Stop Work and Evaluate if Materials are Encountered, and Implement a Treatment Plan, as Necessary.** ► After the completion of demolition activities, a cultural resources survey shall be completed by an archaeologist who meets the Secretary of the Interior's professional qualifications standards. Additionally, limited subsurface explorations shall be completed through a series of auger hole borings. ► If any prehistoric or historic subsurface cultural resources are discovered during ground-disturbing activities, all work within 50 feet of the resources shall be halted and a qualified archaeologist shall be consulted to assess the significance of the find according to CEQA Guidelines Section 15064.5. This work shall also include the Federated Indians of Graton	LTS

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Table 1-1. Summary of Project Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		Rancheria (the Tribe) Tribal Historic Preservation Officer (THPO) for review and comment. ► If any find is determined to be significant, representatives from the City, the Tribe, and the archaeologist would meet to determine the appropriate avoidance measures or other appropriate mitigation. All significant cultural materials recovered shall be, as necessary and at the discretion of the consulting archaeologist, subject to scientific analysis, professional museum curation, and documentation according to current professional standards. In considering any suggested mitigation proposed by the consulting archaeologist to mitigate impacts to historical resources or unique archaeological resources, the City shall consult with the Tribe before determining whether avoidance is necessary and feasible in light of factors such as the nature of the find, project design, costs, and other considerations. If avoidance is infeasible, other appropriate measures (e.g., data recovery) may be instituted, along with other potential measures determined by the City in consultation with the Tribe. ► Work may proceed on other parts of the project site while mitigation is being carried out.	
Impact 4.5-2: Potential for Substantial Adverse Change in the Significance of a Historical Resource.	LTS	No mitigation measures are required	LTS
Impact 4.5-3: Potential to Disturb Human Remains.	PS	**Mitigation Measure 4.5-3: Avoid Impacts to Human Remains Consistent with State Law.** As described therein, if human remains are uncovered during future ground-disturbing activities, the project applicant and contractors would be required to halt potentially damaging excavation in the area of the burial and notify the County Coroner and a professional archaeologist to determine the nature of the remains. The coroner would be required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or State lands (California Health and Safety Code Section 7050.5[b]).	LTS

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Table 1-1. Summary of Project Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		If the coroner determines that the remains are those of a Native American, he or she must contact the NAHC by phone within 24 hours of making that determination (California Health and Safety Code Section 7050[c]). The responsibilities for acting upon notification of a discovery of Native American human remains are identified in California Public Resources Code Section 5097.9. Following the coroner's findings, the property owner, contractor or project proponent, an archaeologist, and the Most Likely Descendant designated by the Native American Heritage Commission would determine the ultimate treatment and disposition of the remains and take appropriate steps to ensure that additional human interments are not disturbed. The Most Likely Descendant would have 48 hours to complete a site inspection and make recommendations after being granted access to the site. A range of possible treatments for the remains, including nondestructive removal and analysis, preservation in place, relinquishment of the remains and associated items to the descendants, or other culturally appropriate treatment may be discussed. Public Resources Code Section 5097.9 suggests that the concerned parties may extend discussions beyond the initial 48 hours to allow for the discovery of additional remains. The following is a list of site protection measures that could be employed: 1. record the site with the NAHC and the appropriate Information Center, 2. use an open-space or conservation zoning designation or easement, and 3. record a document with the county in which the property is located. If the NAHC is unable to identify a Most Likely Descendant or the Most Likely Descendant fails to make a recommendation within 48 hours after being granted access to the site, the Native American human remains and associated grave goods would be reburied with	

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Table 1-1. Summary of Project Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		appropriate dignity on the subject property in a location not subject to further subsurface disturbance.	
Impact 4.5-4: Potential Impacts to Tribal Cultural Resources	PS	**Mitigation Measure 4.5-4: Conduct a Tribal Cultural Resources Survey, Stop Work and Evaluate if Materials are Encountered, and Implement a Treatment Plan, as Necessary.** ► After the completion of demolition activities, a Tribal Cultural Resources survey shall be completed by the Tribe with an archaeologist who meets the Secretary of the Interior's professional qualifications standards. Additionally, limited subsurface explorations shall be completed through a series of auger hole borings and additional survey techniques determined by the City in consultation with the Tribe to be necessary to identify Tribal Cultural Resources. This could include ground penetrating radar (GPR) and canine investigation. ► The project applicant/contractor/s shall coordinate with the City to provide a schedule for ground-disturbing activities on-site, and extend an invitation for a Tribal Monitor a minimum of seven days prior to beginning earthwork, clearing and grubbing, or other soil disturbing activities. The Tribal Monitor shall be invited to inspect the project site, including any soil piles, trenches, or other disturbed areas, within the first five days of groundbreaking activity. ► If Tribal Cultural Resources are discovered during post-demolition activities, all work within 50 feet of the resource shall be halted and a qualified archaeologist shall be consulted to assess the significance of the find according to CEQA Guidelines Section 15064.5. This work shall also include the Federated Indians of Graton Rancheria (the Tribe) Tribal Historic Preservation Officer (THPO) for review and comment. ► If Tribal Cultural Resources are present, representatives from the City, the Tribe, and the archaeologist would meet to	LTS

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Table 1-1. Summary of Project Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		determine the appropriate avoidance measures or other appropriate mitigation. The City shall consult with the Tribe before determining whether avoidance is necessary and feasible in light of factors such as the nature of the find, project design, costs, and other considerations. If avoidance is infeasible, other appropriate measures (e.g., data recovery) may be instituted, along with other potential measures determined by the City in consultation with the Tribe. ▸ Work may proceed on other parts of the project site while mitigation is being carried out.	
4.6 GEOLOGY, SOILS, AND PALEONTOLOGICAL RESOURCES			
Impact 4.6-1: Exposure to Strong Seismic Ground Shaking.	LTS	No mitigation measures are required	LTS
Impact 4.6-2: Result in Substantial Soil Erosion	LTS	No mitigation measures are required	LTS
Impact 4.6-3: Hazards from Construction in Unstable Soils	LTS	No mitigation measures are required	LTS
Impact 4.6-4: Damage to Unknown Paleontological Resources.	PS	**Mitigation Measure 4.6-4: Avoid Impacts to Unique Paleontological Resources.** Prior to the start of earthmoving activities, the project applicant shall retain a qualified archaeologist or paleontologist to train all construction personnel involved with earthmoving activities regarding the possibility of encountering fossils, the appearance and types of fossils likely to be seen during construction, and proper notification procedures should fossils be encountered. If paleontological resources are discovered during earthmoving activities, the construction crew shall immediately cease work within 50 feet of the find and notify the City of Sonoma. The project applicant shall retain a qualified paleontologist to evaluate the resource and prepare a recovery plan. The recovery plan may include, but is not limited to, a field survey, construction monitoring, sampling and data recovery procedures, museum curation for any specimen recovered, and a report of findings.	LTS

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Table 1-1. Summary of Project Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		Recommendations in the recovery plan that are determined by the City to be necessary and feasible shall be implemented before construction activities can resume at the site where the paleontological resource or resources were discovered.	
4.7 GREENHOUSE GAS AND ENERGY			
Impact 4.7-1: GHG Emissions Generation	CC	**Mitigation Measure 4.7-1a: Minimize the inclusion of natural gas infrastructure and use of natural gas in all buildings and supporting operations.** The City of Sonoma shall require the project applicant to prohibit natural gas infrastructure for the residential portion of the proposed project; limit natural gas infrastructure for the hotel portion of the proposed project to that which is necessary to meet the requirements of backup generators required for the proposed hotel operations; and minimize the use of natural gas in restaurant operations, including requiring the use of electric powered pumps for any water heating requirements. Natural gas infrastructure and operational equipment that would requiring the use of natural gas shall be submitted to the City for review prior to the issuance of any demolition or grading permit.	CC and SU
		Mitigation Measure 4.7-1b: Implement Mitigation Measure 4.14-a, Transportation Demand Management for Project Guests and Employees.	
		Mitigation Measure 4.7-1c: Incorporate CALGreen Tier 2 Standards for Electric Vehicle Infrastructure Into Project Design – Non-Residential. The City of Sonoma shall require the project applicant to include provide electric vehicle (EV) capable parking at the rate consistent with California Green Building Standards Code (CALGreen) Tier 2 standards for the proposed non-residential uses based on the proposed size and scale of development. EV capable parking will include the installation of the enclosed conduit that forms the physical pathway for electrical wiring and adequate panel capacity to accommodate future installation of a dedicated branch circuit	

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Table 1-1. Summary of Project Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		and charging station(s). As applicable to the proposed project, 2019 CALGreen Tier 2 standards require 20 percent of total parking spaces serving multifamily dwellings to be EV capable and 12 of up to 150 non-residential parking spaces be EV capable.	
		Mitigation Measure 4.7-1d: Incorporate CALGreen Tier 2 Standards for EV Infrastructure Into Project Design - Residential. The City of Sonoma shall require the project applicant to include provide EV capable parking at the rate consistent with CALGreen Tier 2 standards for the proposed residential uses based on the proposed size and scale of development. EV capable parking will include the installation of the enclosed conduit that forms the physical pathway for electrical wiring and adequate panel capacity to accommodate future installation of a dedicated branch circuit and charging station(s).	
		Mitigation Measure 4.7-1e: Purchase Electricity from a Power Mix that is 100 Percent Renewable. The City of Sonoma shall require the project applicant to subscribe to the Sonoma Clean Power 100 percent renewable electricity (EverGreen) program, or another program that provides 100 percent renewable electricity and achieves a comparably reduced GHG intensity in terms of pounds of carbon dioxide equivalents per megawatt-hour of electricity.	
		Mitigation Measure 4.7-1f: Purchase and Retire GHG Emissions Credits. The project applicant shall purchase and retire greenhouse gas (GHG) emissions credits for the proposed project. Prior to the issuance of a building permit, the project applicant shall provide documentation for review and approval by the City of Sonoma, that demonstrates consistency with the requirements of this mitigation measure, including the specific performance standards outlined below regarding the credit program selected.	

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Table 1-1. Summary of Project Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		The project applicant shall purchase and retire GHG emissions credits in an amount sufficient to reduce the proposed project's annual amortized construction and operational emissions to a level considered less than cumulatively considerable based upon the 2030 target of 2.88 MT CO_2e per service population and the State's goal of carbon neutrality by 2045. The project applicant shall purchase and retire GHG emissions credits sufficient to meet such requirements for operations through 2055, which reflects the assumed 30-year lifetime of the proposed project. Total operational emissions and required GHG credits were estimated for each year of operations over the 30-year project lifetime using incremental emissions estimates for the years 2025 through 2029, 2030 through 2049, and 2050 through 2055. Operational emissions for each incremental period of operations were based upon emissions estimates for the first year of each period (e.g., emissions for each year 2025 through 2029 were based upon 2025 emissions estimates). This approach provided consideration for the fact that mobile source emissions would decline in future years due to cleaner vehicles from fleet turnover and increasingly stringent emissions regulations. Although energy-related emissions would also decline due to increasingly stringent RPS standards, energy-related emissions were conservatively held constant for all operational years. Similarly, increased technological opportunities to reduce natural gas use in the proposed restaurant was not included in this analysis. Based on these timelines and the project's operational for the incremental blocks between 2025 and 2055, the total required credits is 32,903 MT CO_2e for the life of the project. The purchase and retirement of credits may occur through one of the following programs, which are all developed consistent with ARB's offset protocols: (i) a California Air Resources Board (CARB) approved registry, such as the Climate Action Reserve, California Offsets through the American Carbon Registry, and the Verified Carbon Standard; (ii) any registry approved by CARB to act as a registry under the California Cap and Trade program; or (iii) through the California Air Pollution Control Officers	

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Table 1-1. Summary of Project Impacts and Mitigation Measures

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		Association (CAPCOA) GHG Rx. Such credits shall be based on protocols approved by CARB, consistent with Section 95972 of Title 17 of the California Code of Regulations, and shall not allow the use of offset projects originating outside of California. Off-site mitigation credits shall be real, additional, quantifiable, verifiable, enforceable, permanent, consistent with the standards set forth in Health and Safety Code section 38562, subdivisions (d)(1) and (d)(2) and that satisfy all of the following criteria: ► Real: emission reduction must have actually occurred, yielding quantifiable and verifiable reductions or removals determined using appropriate, accurate, and conservative methodologies that account for all GHG emissions sources, GHG sinks, and GHG reservoirs within the offset project boundary and account for uncertainty and the potential for activity-shifting leakage and market-shifting leakage. ► Additional: an emission reduction cannot be required by an existing law, rule, or other requirement that applies directly to the proposed project, or otherwise have occurred in a conservative business-as-usual scenario, consistent with CEQA Guidelines Section 15126.4(c)(3) and Health and Safety Code section 38562(d)(2). One carbon offset credit shall mean the past reduction or sequestration of one metric ton of carbon dioxide equivalent that is 'not otherwise required', consistent with CEQA Guidelines Section 15126.4(c)(3). ► Quantifiable: reductions must be quantifiable through tools or tests that are reliable, based on applicable methodologies, relative to the proposed project baseline in a reliable and replicable manner for all GHG emission sources and recorded with adequate documentation. Verifiable: the action taken to produce credits can be audited by an accredited verification body and there is sufficient evidence to show that the reduction occurred and was quantified correctly.	

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Table 1-1. Summary of Project Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		► Enforceable: an enforcement mechanism must exist to ensure that the reduction project is implemented correctly. ► Permanent: emission reductions or removals must continue to occur for the expected life of the reduction project (i.e., not be reversible, or if the reductions may be reversible, that mechanisms are in place to replace any reversed GHG emissions reductions). The purchase and retirement of credits shall be prior to the start of each operational year at a level necessary to ensure that annual operational emissions and amortized construction emissions remain below the project-specific 2030 GHG efficiency threshold for each year for the operational life of the project plus emissions associated with natural gas use after 2030 and mobile source emissions for non-residential uses as required to be 15 percent lower than citywide emissions per service population. Purchase and retirement of credits can also occur for multiple years in advance up to the total purchase requirement described above. The applicant shall provide the City of Sonoma with evidence of the purchase and retirement of credits in adequate amounts and appropriate timing. If the entire amount is retired up-front, the applicant shall provide the City evidence of the purchase and retirement prior to approval of any building permit associated with the project. If the reduction credits are purchased annually, the applicant shall provide evidence to the City prior to the annual renewal of the business license. The evidence of purchase and retirement of credits shall include (i) the applicable protocol(s) and methodologies associated with the carbon offsets, (ii) the third-party verification report(s) and statement(s) affiliated with the carbon offset projects, and (iii) the unique serial numbers assigned by the registry(ies) to the carbon offsets to be retired, which serves as evidence that the registry has determined the carbon offset project to have been implemented in accordance with the applicable protocol or methodology and ensures that the offsets cannot be further used in any manner.	

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Impact 4.7-2: Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation, or conflict with or obstruction of a state or local plan for renewable energy or energy efficiency.	LTS	No mitigation measures are required	LTS
4.8 HAZARDS AND HAZARDOUS MATERIALS			
Impact 4.8-1: Routine Transport, Use, or Disposal of Hazardous Materials	LTS	No mitigation measures are required	LTS
Impact 4.8-2: Exposure to Hazardous Materials from Upset and Accident Conditions	LTS	No mitigation measures are required	LTS
Impact 4.8-3: Use or Emissions of Hazardous Materials within One-Quarter Mile of a School.	LTS	No mitigation measures are required	LTS
Impact 4.8-4: Exposure of People and the Environment to Existing Hazardous Materials, Including Cortese-listed Sites.	PS	**Mitigation Measure 4.8-4a: Implement Soil and Groundwater Management Plan Recommendations.** ▸ Prior to the start of earthmoving activities, the project applicant must notify Chevron Environmental Management Company (CEMC), provide CEMC with copies of proposed constructions plans, and coordinate with CEMC regarding the potential to encounter contaminated soil and/or groundwater. The presence of a CEMC-authorized representative may be required on site during construction-related earthmoving activities. ▸ If evidence of stained or odiferous soils is encountered during project-related construction activities, CEMC must immediately be notified (if a CEMC-authorized representative is not already on site). Samples of the soil and/or groundwater (either in situ or from a segregated stockpile) must be collected by the property owner (or representative) for profiling purposes. If, based on a review of the profiling results, the Sonoma County Department of Resource Management Hazardous Materials Unit prohibits excavated soil from being reused on site due to the presence of petroleum hydrocarbons,	LTS

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Table 1-1. Summary of Project Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		then CEMC will coordinate with the property owner regarding the proper off-site disposal of the excavated soil. ► All excavated soil from the area affected by the former Chevron service station (which consists primarily of the proposed entry from SR 12 [West Napa Street] and the associated drive aisle; see AECOM 2014: Figure 2) must be stockpiled, or otherwise containerized, in a separate location from non-Chevron service station soil to allow for proper soil profiling, management, and disposal. **Mitigation Measure 4.8-4b: Implement BAAQMD and Cal OSHA Requirements for Asbestos and Lead Paint** ► The project applicant and its construction contractor/s shall comply with BAAQMD Rules 11-2-303 through 11-2-305. The project applicant and its construction contractor/s shall prepare an ACM survey prior to the start of construction activities and submit the survey results for BAAQMD review. The project applicant and its construction contractor/s shall implement all BAAQMD-recommended methods for removing, handling, and disposing of ACMs. ► The project applicant and its construction contractor/s shall implement Cal OSHA requirements related to handling and disposal of lead-based paint.	
Impact 4.8-5: Interference with Emergency Response or Evacuation Plans.	LTS	No mitigation measures are required	LTS
4.9 HYDROLOGY AND WATER QUALITY			
Impact 4.9-1: Violate Water Quality Standards or Waste Discharge Requirements.	LTS	No mitigation measures are required	LTS
Impact 4.9-2: Substantially Decrease Groundwater Supplies or Interfere with Groundwater Recharge	LTS	No mitigation measures are required	LTS

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Impact 4.9-3: Alter Drainage Patterns or Add Impervious Surfaces Resulting in Substantially Increased Erosion, Siltation, Downstream Flooding, or Increased Stormwater Runoff Volumes.	LTS	No mitigation measures are required	LTS
Impact 4.9-4: Conflict with a Water Quality Control Plan or Sustainable Groundwater Management Plan.	LTS	No mitigation measures are required	LTS
4.10 LAND USE AND PLANNING			
Impact 4.10-1. Consistency with City of Sonoma General Plan Policies and Land Use and Zoning Designations	LTS	No mitigation measures are required	LTS
4.11 NOISE AND VIBRATION			
Impact 4.11-1: Temporary, short-term exposure of sensitive receptors to construction noise.	S	**Mitigation Measure 4.11-1: Reduce Construction Noise** The project applicant and contractor(s) shall implement the following measures, which shall be identified in construction contracts and acknowledged by the contractor(s): ► Noise generating construction activities are prohibited on-site except between 8:00 a.m. and 6:00 p.m. Monday through Friday, between 9:00 a.m. and 6:00 p.m. on Saturday, and between 10:00 a.m. and 6:00 p.m. on Sundays and holidays. ► Construction equipment shall be properly maintained according to manufacturer specifications. ► All noise generating equipment used on-site shall use the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds); ► All air compressors and other stationary noise sources used on-site shall be "quiet" models, where commercially available. Select hydraulically- or electrically-powered equipment and avoid pneumatically powered equipment where commercially available. Impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for project demolition or construction shall be hydraulically- or electrically-powered	SU

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		wherever commercially available to avoid noise associated with compressed air exhaust from pneumatically powered tools. Where it is demonstrated to the City that the use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used. Quieter procedures shall be used, such as drills rather than impact equipment, whenever such procedures are available; ► Use all available quieter procedures and equipment (e.g., using welding instead of riveting, mixing concrete off-site instead of on-site); ► Locate stationary noise-generating equipment as far as possible from sensitive receptors adjacent to the project site. Construct temporary noise barriers or partial enclosures to acoustically shield on-site noise-generating stationary equipment located within 50 feet of the edge of the project site boundary; ► Prohibit unnecessary idling of internal combustion engines; ► Prior to initiation of on-site construction-related demolition or earthwork activities, a minimum 12-foot-high temporary sound barrier shall be erected along the property line adjacent to operational businesses and occupied residences. These temporary sound barriers shall be constructed with sound shielding properties and shall be constructed so that vertical or horizontal gaps are eliminated. These temporary barriers shall remain in place while heavy construction equipment, such as excavators, dozers, scrapers, loaders, rollers, pavers, and dump trucks, are operating within 50 feet of the edge of the construction site in any area adjacent to noise-sensitive uses; ► All construction-related traffic shall be limited to SR 12/West Napa Street in the vicinity of the project site and shall avoid streets with fronting noise-sensitive uses; ► Notify all businesses, residences or other noise-sensitive uses within 500 feet of the perimeter of the construction site of the	

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		construction schedule prior to the beginning of demolition and prior to each construction phase change that could potentially result in a temporary increase in ambient noise levels in the project vicinity; ► Signs shall be posted at the construction site that include permitted construction days and hours, a day and evening contact number for the job site, and a day and evening contact number for the on-site manager, and the City's Building Official, in the event of problems; ► An on-site manager shall be available to respond to and track noise and vibration complaints. The manager will determine the cause of any complaints (e.g., starting too early, bad muffler, etc.) and coordinate with the construction team to implement effective measures (considered technically and economically feasible) warranted to correct the problem. The telephone number of the manager shall be posted at the construction site and provided to properties within 500 feet of the project site in a notification letter. The manager shall notify the City's Building Official of all complaints within 24 hours. The manager will be trained to use a sound level meter and shall be available during all construction hours to respond to complaints; and ► A pre-construction meeting shall be held with the City's Building Official and the general contractor/on-site manager to confirm that noise measures and practices (including construction hours, neighborhood notification, posted signs, etc.) are fully operational.	
Impact 4.11-2: Temporary, short-term exposure of sensitive receptors to increased traffic noise levels from project construction.	LTS	No mitigation measures are required.	LTS

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Table 1-1. Summary of Project Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Impact 4.11-3: Temporary, short-term exposure of sensitive receptors to potential groundborne noise and vibration from project construction.	PS	**Mitigation Measure 4.11-3: Reduce Construction-Related Vibration** During site preparation, demolition, and construction activities, the following controls to reduce potential vibration impacts shall be implemented: ► The use of vibratory rollers is prohibited. The construction contractor shall identify alternative soil compaction methods such as static rollers. ► The construction contractor shall utilize small- to medium-sized bulldozers that would produce less vibration than using large bulldozers. ► Prior to the issuance of building permits the applicant and/or construction contractor shall inspect and report on the current structural condition of the existing buildings within 50 feet from where vibratory rollers, large bulldozers, and the like would be used. ► During construction, if any vibration levels cause cosmetic or structural damage to existing buildings in close proximity to a project site, the applicant shall immediately issue "stop-work" orders to the construction contractor to prevent further damage. Work shall not restart until the building is stabilized and/or preventive measures are implemented to relieve further damage to the building(s).	LTS
Impact 4.11-4: Long-term traffic noise levels at existing noise-sensitive receivers.	LTS	No mitigation measures are required.	LTS
Impact 4.11-5: Long-term non-transportation noise levels at existing noise-sensitive receivers.	PS	**Mitigation Measure 4.11-5: Implement Measures to Reduce Potential Exposure of Sensitive Receptors to Non-Transportation Source–Generated Noise.** The project applicant and contractor(s) shall implement the following measures, which shall be identified in construction contracts and acknowledged by the contractor(s):	LTS

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		▸ Air conditioning units shall be shielded with continuous, solid material, with no gaps, and shall block the line of sight between the project and adjacent buildings and properties and shall be located at least 100 feet from the existing noise-sensitive uses. ▸ Routine testing and preventive maintenance of emergency electrical generators shall be conducted during the less sensitive daytime hours of between 8:00 a.m. and 6:00 p.m. Monday through Friday. ▸ All electrical generators shall be equipped with noise control (e.g., muffler) devices in accordance with manufacturers' specifications. ▸ On-site landscape maintenance equipment shall be equipped with properly operating exhaust mufflers and engine shrouds, in accordance with manufacturers' specifications. ▸ For landscape maintenance areas located within 400 feet of any occupied noise-sensitive land uses, the operation of on-site landscape maintenance equipment shall be limited to the least noise-sensitive periods of the day, between 8:00 a.m. and 6:00 p.m. Monday through Friday.	
4.12 PUBLIC SERVICES			
Impact 4.12-1: Increased Demand for Fire Protection Facilities and Services	LTS	No mitigation measures are required	LTS
Impact 4.12-2: Increased Demand for Law Enforcement Services and Facilities.	LTS	No mitigation measures are required	LTS
Impact 4.12-3: Increased Demand for Schools.	LTS	No mitigation measures are required	LTS

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
4.13 TRANSPORTATION			
Impact 4.13-1. The project would be consistent with programs, plans, ordinances, and policies addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.			
Impact 4.13-1a: The project would not conflict with any programs, plans, policies, or ordinances pertaining to pedestrian access.	LTS	No mitigation measures are required.	LTS
Impact 4.13-1b: The project would not conflict with any programs, plans, policies, or ordinances pertaining to bicycle access.	LTS	No mitigation measures are required.	LTS
Impact 4.13-1c: The project would not conflict with any programs, plans, policies, or ordinances pertaining to transit use or access.	LTS	No mitigation measures are required.	LTS
Impact 4.13-2. Consistency with CEQA Guidelines Section 15064.3(b).			
Impact 4.13-2a: The VMT generated by the project would be potentially significant.	S	**Mitigation Measure 4.13-2a: Transportation Demand Management for project guests and employees.** Visitor-Focused VMT Mitigation Measures The project shall implement the following measures to reduce the project's VMT from visitors. ▸ **Private Airport Shuttle:** During peak season, the hotel shall offer a private airport shuttle to encourage patrons to avoid use of private vehicles. This effort could be coordinated with other area hotels to improve cost efficiency. ▸ **Rental Car Service:** During peak season, facilitate the use of rental cars for a more limited duration by coordinating the pick-up and drop-off of rental cars at the hotel for guests. ▸ **Parking Price Incentives:** Many hotels include parking in the cost of a room and by doing so, inadvertently encourage guests	SU

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		to bring cars and generate more congestion. As an alternative, the hotel shall unbundle the cost of parking from the room rate, indicating at the time of purchase that guests who arrive at the hotel in a private vehicle would be assessed an additional fee to park vehicles on-site. In addition to encouraging trip reduction, this measure could also reduce demand for on-site guest parking. ► **Transportation Information:** Providing guests with information regarding transportation options to the hotel and for transportation to sites in the area can help encourage guests to consider non-auto or rideshare options. This information shall be provided to guests as part of their registration confirmation process so that guests have the information early on to assist in their logistics planning for transportation options during their stay at the hotel. In addition, the project shall include an on-site transportation board including bicycle maps, trails, transit routes and schedules, and contact numbers for taxi, town car, and ride-share services in the reception area to assist guests. ► **Bike Share Program:** The hotel shall provide a fleet of bicycles available for use by guests to encourage their use for local transportation, which would complement other trip reduction measures. Employee-Focused VMT Mitigation Measures The proposed project shall implement the following measures to reduce the project's VMT from employees. ► **Alternative Transportation Incentives:** The proposed project shall provide employees with subsidized transit passes or parking cash-out incentives. This measure includes options for providing incentives for carpooling, transit, and active transportation modes. In non-urban areas, carpooling is often a highly effective trip reduction measure, as commute distances tend to be longer, and providing incentives to carpoolers can	

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		increase participation. Subsidized transit passes can also incentivize transit use, particularly given the proposed project's location within walking distance of bus stops served by Sonoma County Transit routes. Sonoma County Transit has a monthly pass that is good for unlimited rides currently for $62.50 per month. Employees who agree to use transit to reach the site a minimum of 50 percent of the time shall be provided a monthly pass for Sonoma County Transit free of charge. Similarly, use of non-vehicle transportation can be further supported by offering cash payments to employees who choose not to drive (also known as a "parking cash-out"), based on a portion of the market value of a parking space. Cash payments can also be provided to employees who agree to walk or bicycle to work a minimum of 50 percent of the time. Parking cash-out or active transportation incentives shall be a minimum of $50 per month to generate the desired trip reduction. Estimated trip reduction: 4 percent. ► **Ridematching:** The proposed project shall provide its employees with ridesharing information. The greatest barrier to workplace carpooling is often simply being able to identify and travel with other nearby employees. Fortunately, there are services that can assist in pairing employees within the same organization or across organizations. The most basic publicly available service is 511.org's free ridematching service. As an alternative, the hotel may set up an internal ridematching program among employees to facilitate carpooling. Estimated trip reduction: 4 percent. ► **Emergency Ride Home:** The proposed project shall provide employees with information about the Emergency Ride Home program. One of the reasons that many employees do not carpool or commute via alternative modes is the fear of being stranded should they need to leave in an emergency. Employees who carpool to work should be guaranteed a ride home in the case of an emergency or unique situation. SCTA offers an Emergency Ride Home (ERH) program for anyone	

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		who works or goes to school in Sonoma County and uses an alternative commute option such as carpooling, vanpooling, public transit, bicycling or walking. Through the ERH program, participants can receive reimbursement for a ride home via taxi, transportation network company (e.g. Uber or Lyft), rental car, or car share. ▸ **Trip Reduction Marketing:** The proposed project shall designate a transportation coordinator for the project site. This is not an additional position, but rather should fall under a manager's responsibilities. It is important to select someone to continually market the availability of travel demand management incentives and information, to oversee the different travel demand measures available, answer questions, pair carpoolers, and administer incentives. The transportation coordinator will oversee a marketing program that includes providing new employees with a welcome packet containing relevant transportation information. The packet could include material regarding ride-matching services, the guaranteed ride home program, the cash-out program, as well as resources for those walking or biking to work. Estimated trip reduction: 4 percent. ▸ **Bicycle Trip-End Facilities:** The project shall include bicycle trip-end facilities. Employees are more likely to ride their bicycle to work if secure and covered bicycle parking as well as showers and changing rooms are provided on-site. These measures complement other trip reduction strategies. Estimated trip reduction: 0.1 percent.	
Impact 4.13-3. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment);			
Impact 4.13-3a: Project would generate additional vehicle traffic resulting in queues that would impact through travel lanes in the project area.	LTS	No mitigation measures are required.	LTS

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Impact 4.13-3b: The project would add pedestrian trips to an intersection that has been identified by the City as needing improvements to safely and efficiently accommodate pedestrian travel.	LTS	No mitigation measures are required.	LTS
Impact 4.13.-3c: The proposed project would add bicycle trips at a location with a high incidence of bicycle collisions.	LTS	No mitigation measures are required.	LTS
Impact 4.13-3d: Sight distance at the proposed project driveways would be inadequate.	LTS	No mitigation measures are required.	LTS
Impact 4.13-3e: Project-generated traffic would result in safety concerns related to traffic operations at the West Napa Street project driveway.	LTS	No mitigation measures are required.	LTS
Impact 4.13-4. Result in inadequate emergency access	LTS	No mitigation measures are required.	LTS
4.14 UTILITIES AND SERVICE SYSTEMS			
Impact 4.14-1: Require or Result in the Relocation of or the Construction of New or Expanded Utilities and Service Systems Facilities, the Construction of Which Could Cause Significant Environmental Effects.	LTS	No mitigation measures are required.	LTS
Impact 4.14-2: Increased Demand for Water Supplies.	LTS	No mitigation measures are required.	LTS
Impact 4.14-3: Wastewater Capacity to Serve the Project's Projected Demand in Addition to the Provider's Existing Commitments.	PS	**Mitigation Measure 4.14-3: Provide Proof of Adequate Sewer Capacity Prior to Issuance of Building Permits.** Prior to issuance of a building permit by the City, the project applicant shall coordinate with Sonoma Valley County Sanitation District and Sonoma Water, and shall provide documentation to the City demonstrating that adequate wastewater conveyance capacity for the proposed project is available. The project shall cause no new net increases in overflow, or threat of overflow, in the collection system. Prior to building permit issuance, and sewer permit issuance, this shall be accomplished through wet weather inflow/infiltration adequate reductions in the sewer-shed, dry weather (regular sewer discharge) reductions in the	LTS

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		sewer-shed, by completing a portion of the future project as needed to maintain the pre-development hydraulic grade-lines, such as upsizing the sewer main in Broadway, or through another method approved by Sonoma Water. The project shall be reimbursed on a pro-rata basis by any other development in the future that uses any sewer conveyance capacity created by the project.	
Impact 4.14-4: Increased Generation of Solid Waste and Compliance with Solid Waste Statutes and Regulations.	LTS	No mitigation measures are required.	LTS

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2 INTRODUCTION

2.1 PROJECT REQUIRING ENVIRONMENTAL ANALYSIS

The Hotel Project Sonoma (the proposed project) would redevelop approximately 1.24 acres of land in the City's Downtown District, adjacent to and south of State Route (SR) 12 (West Napa Street), and adjacent to and west of First Street West. The project site includes portions of four different parcels with separate assessor's parcel numbers, which would be combined into one parcel as a part of the proposed project.

The proposed project includes the construction and operation of a 62-guestroom hotel, 80-seat restaurant and bar, spa with 6 treatment rooms, raised swimming pool veranda, 130 on-site parking spaces (consisting of a 113-stall basement parking garage, 9 surface parking spaces, and 8 covered residential parking spaces), and an 8-unit residential building. As part of the proposed project, three existing commercial buildings, and existing parking lots and landscaping, would be demolished. The proposed project also includes reconfiguring the on-site infrastructure, as necessary, to support the proposed redevelopment, including water supply, wastewater conveyance, stormwater detention, electricity, natural gas, and interior drive aisles.

2.2 PROJECT HISTORY AND BACKGROUND

The Hotel Project Sonoma has been undergoing review by the City of Sonoma since June 2012. In 2015, an Initial Study was prepared and circulated for public comment. The 2015 Initial Study identified a variety of environmental impacts that were considered to be less than significant, or where no impact would occur. In 2016, a limited scope Draft Environmental Impact Report (DEIR) was prepared and circulated for public comment. The 2016 DEIR considered only those environmental impacts where the 2015 Initial Study found that a significant or potentially significant impact could occur. The City considered comments received on the 2016 DEIR during preparation of a Final Environmental Impact Report (FEIR), which was circulated for public review in 2017. The EIR was certified at a City of Sonoma Planning Commission hearing on April 13, 2017, but no action was taken to approve or deny the project.

Certification of the 2017 EIR was subsequently appealed to the City Council. The City Council upheld the appeal and directed preparation of a Revised EIR. A Revised DEIR was prepared and circulated for public review in July 2018, and the Planning Commission held a public hearing on the Revised DEIR on September 4, 2018. The City considered comments received on the 2018 Revised DEIR during preparation of a Revised FEIR, which was circulated for public review in November 2019. However, no action was taken regarding Revised EIR certification or project approval.

In 2020, the City directed preparation of Recirculated Draft EIR to supersede all of the previous environmental documents and provide a complete, comprehensive analysis of the project as currently proposed.

2.3 TYPE OF ENVIRONMENTAL IMPACT REPORT

This document is a Recirculated Draft EIR (RDEIR). The City elected to prepare this RDEIR to address new information about the proposed project, as summarized below, and to provide the public another meaningful opportunity to comment on the potential environmental impacts of the Hotel Project Sonoma as currently proposed (California Environmental Quality Act [CEQA] Guidelines Section 15088.5).

2.3.1 SUMMARY OF CHANGES TO THE PROPOSED PROJECT

The proposed project analyzed in the 2015 Initial Study and the 2016 DEIR did not include a residential component. The 2018 Revised DEIR included an analysis of potential environmental impacts related to cultural resources and transportation/traffic associated with intersection improvements at SR 12 (West Napa Street) and First Street West; the improvements at this intersection were considered primarily because the proposed project would include the use of shared parking at the Bank of Marin property, located across SR 12 (West Napa Street) from the project site. The transportation impact study prepared to support the City's review of the proposed project recommends that the applicant designate a minimum of nine spaces off-site for use as employee parking for the project. The 2018 Revised DEIR also included a new alternative, which incorporated an 8-unit residential building at the project site.

The proposed project analyzed in this EIR includes the same hotel/spa/restaurant that was previously proposed, and it also now includes a separate 8-unit residential building as part of the proposed project. Given the amount of time that has passed since the 2015 Initial Study and 2016 DEIR were prepared, this EIR includes updates to the Environmental Setting wherever necessary; some of this updated environmental setting information has, in turn, resulted in changes to the environmental impact analyses and the mitigation measures. The entire EIR impact analysis has been updated for accuracy, clarity, and comprehensiveness. Finally, the significance thresholds have been updated based on the current CEQA Guidelines, Appendix G.

2.4 INTENDED USES AND PURPOSE OF THE RECIRCULATED EIR

The City of Sonoma, as the CEQA lead agency, has prepared this RDEIR to evaluate the environmental impacts of implementation of the proposed Hotel Project Sonoma.

The CEQA Guidelines charge public agencies with the responsibility of avoiding or minimizing environmental damage that could result from implementation of a project, where feasible. As part of this responsibility, public agencies are required to balance various public objectives, including economic, environmental, and social issues.

This RDEIR considers the site-specific environmental effects of the proposed project, and identifies mitigation measures with performance standards, where necessary, to reduce or avoid the project's significant environmental impacts. This RDEIR contains a full and complete analysis of all the environmental impacts that could occur from implementing the proposed project, and it supersedes all prior environmental documents that have previously been prepared related to the proposed project. The City will not rely on any of the prior environmental documents when determining whether or not to certify this Recirculated EIR or adopt the proposed project.

2.5 ENVIRONMENTAL REVIEW PROCESS

The purpose of an EIR is not to recommend approval or denial of a project. An EIR is an informational document used in the planning and decision-making process by the lead agency and responsible and trustee agencies. An EIR describes the significant environmental impacts of a project, identifies potentially feasible measures to mitigate potentially significant impacts, and describes potentially feasible alternatives to the project that can reduce or avoid significant environmental effects. CEQA requires decision makers to balance the benefits of a project against its environmental effects in deciding whether to carry out a project.

A Notice of Preparation (NOP) for this RDEIR was circulated to inform agencies and the general public that a Recirculated EIR was being prepared, and invited comments on the scope and content of the document. The NOP was circulated for a 30-day period. A public scoping meeting was held by the City on August 12, 2021 to receive comments on the scope of the environmental analysis as presented in the NOP. The City considered comments submitted in response to the NOP during preparation of this EIR. The City also contacted all potentially interested Native Tribal representatives identified by the Native American Heritage Commission, invited consultation, and considered input from Tribal representatives that chose to consult. Tribal representatives provided language used in this EIR, including mitigation language that was incorporated into this document. Please see Section 4.5 of this EIR for more detail.

This RDEIR is being circulated for a 45-day public review period, during which public comment and input from agencies and organizations is welcomed. At the close of the public review period, the City will prepare a Final Recirculated EIR that will include copies of any comments submitted on the RDEIR, responses to the comments, and any necessary changes to the text of the RDEIR. **Because this Recirculated EIR supersedes all prior environmental documents that were previously prepared, the City will *only* consider comments that are submitted on this RDEIR as part of the Final Recirculated EIR (CEQA Guidelines Section 15088.5[f][1]).**

If significant environmental effects are identified, the City will adopt "findings" indicating whether feasible mitigation measures or alternatives exist that can avoid or reduce those effects. If the environmental impacts are identified as significant and unavoidable, the City may still approve the project if it determines that social, economic, legal, technological, or other factors override the unavoidable impacts. The City will then be required to prepare a "Statement of Overriding Considerations" that discusses the specific reasons for approving the project.

The City must certify a Final EIR before approving the proposed project. In making a decision whether or not to approve the proposed project, the City will consider the information contained in this RDEIR, comments received on this RDEIR and responses to those comments, and the Final Recirculated EIR, as well as referenced material.

2.6 PUBLIC INVOLVEMENT PROCESS

2.6.1 SCOPING COMMENT PERIOD

As noted above, this 2023 RDEIR contains a full and complete analysis of the environmental impacts associated with the proposed project. This 2023 RDEIR supersedes all prior environmental documents. **Therefore, all comments concerning the potential environmental impacts of the proposed project must be directed to this 2023 RDEIR; the City will *not* respond to any comments that are submitted on the prior environmental documents (CEQA Guidelines Section 15088.5[f][1]).**

When submitting a comment, please include the name of a contact person in your agency or organization. All comments must be directed to the name and address listed below, either via postal mail or email:

Kristina Tierney, Associate Planner
Planning Department
City of Sonoma
No. 1 The Plaza
Sonoma, CA 95476

ktierney@sonomacity.org

A copy of the RDEIR is also available for review on the City's website at the following address: https://www.sonomacity.org/hotel-project-sonoma/

2.7 ORGANIZATION OF THE RECIRCULATED DRAFT EIR

This RDEIR is organized as follows:

- **Chapter 1, "Executive Summary,"** provides an overview of the findings, conclusions, and any recommended mitigation measures in the RDEIR.
- **Chapter 2, "Introduction,"** describes the project background and history; intended uses and purposes of this RDEIR; environmental review process; issues to be resolved and areas of controversy; public involvement process; and RDEIR organization.
- **Chapter 3, "Project Description,"** describes the project location, project characteristics, supporting infrastructure, project schedule, construction, required approvals and entitlements, and project objectives.
- **Chapter 4, "Environmental Setting, Impacts, and Mitigation Measures,"** evaluates the physical environmental effects of the proposed project and identifies mitigation for potentially significant and significant effects.
- **Chapter 5, "Alternatives,"** provides a comparative analysis between the proposed project and alternatives to the project. The Alternatives chapter provides a summary of the relative environmental impacts of the project alternatives, including the No Project Alternative. This chapter also identifies the "environmentally superior" alternative.
- **Chapter 6, "Other CEQA Considerations,"** describes the cumulative impacts of implementing the proposed project in combination with the impacts of related past, present, and reasonably foreseeable future projects; discusses the project's growth inducement potential; significant irreversible environmental changes associated with the project; and any significant and unavoidable effects of the project.
- **Chapter 7, "References,"** lists the sources of information cited throughout the RDEIR.
- **Chapter 8, "List of Preparers,"** lists the individuals who contributed to preparation of the RDEIR.
- **Appendices** provide background and technical information. Please see the City's website for the appendix: https://www.sonomacity.org/hotel-project-sonoma/.

3 PROJECT DESCRIPTION

3.1 PROJECT LOCATION AND SURROUNDING LAND USES

3.1.1 REGIONAL AND LOCAL PROJECT LOCATION

The project site is in southeastern Sonoma County, within the City of Sonoma (City). The City is situated in the center of the approximately 17-mile-long Sonoma Valley, which is bounded by the Sonoma Mountains to the west, the Mayacamas Mountains to the east, San Pablo Bay to the south, and the City of Santa Rosa to the north. State Route (SR) 12 provides access through the central and northern portions of the Sonoma Valley (Exhibit 3-1).

The project site consists of approximately 1.6 acres of property in Downtown Sonoma, and is surrounded by existing developed properties (Exhibit 3-2). The project site is approximately one-half block southwest of the historic Sonoma Plaza and is bounded by SR 12 (West Napa Street) to the north, First Street West to the east, the Best Western Sonoma Valley Inn and Krug Event Center to the south, and the Sonoma Grille Restaurant to the west.

The project site comprises the following four parcels and Assessor's Parcel Numbers (APN), all owned by the project applicant (Exhibit 3-3):

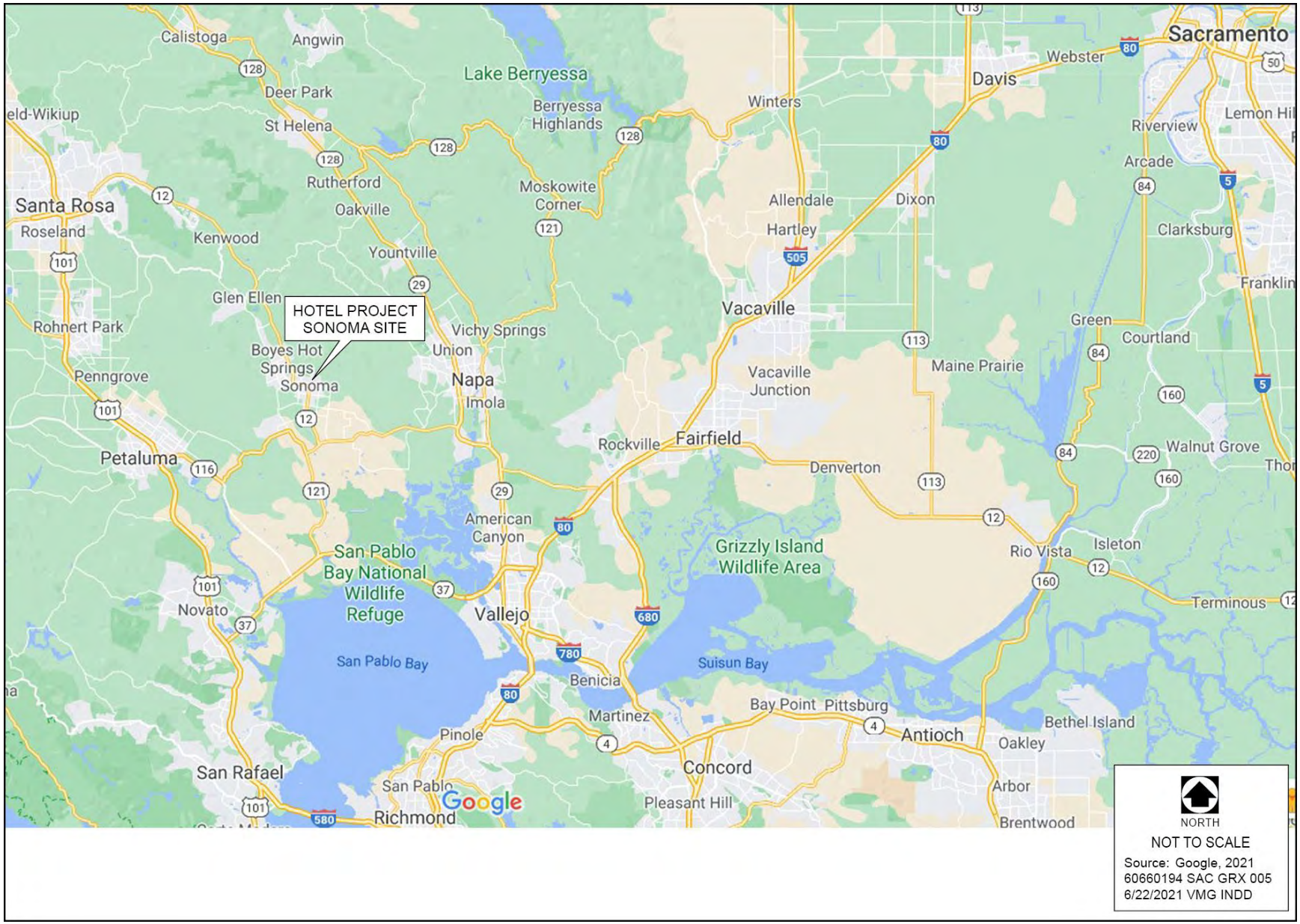
- APN 018-251-017: 153 West Napa Street, Sonoma, CA, former Chateau Sonoma Building
- APN 018-251-068: 135 West Napa Street, Sonoma, CA, Lynch Building (western portions of this parcel)
- APN 018-251-051: 135 West Napa Street, Sonoma, CA, metal office and warehouse (southern parking lot)
- APN 018-251-067: 117 West Napa Street, Sonoma, CA, Sonoma Index-Tribune Building (L-shaped parcel fronting First Street West)

The project site would be developed as a single parcel (shown as a yellow line in Exhibit 3-3). The project proposes a lot line adjustment and utility connections necessary to form a single parcel for the project site. After the proposed lot line adjustment, the project site would comprise approximately 1.24 acres.

3.1.2 EXISTING AND SURROUNDING LAND USES

The project site has four existing buildings, which are briefly described below and shown on Exhibit 3-3. No historical resources would be demolished as part of the proposed project.

1. **Former Chateau Sonoma Building.** The approximately 2,460-square-foot, single-story, former Chateau Sonoma Building located at 153 West Napa Street was built circa 1910 and is currently used as an office building. The entire building would be removed as part of the proposed project.



Source: Google 2021

Exhibit 3-1. Regional Project Site Location

Source: Ross Drulis Cusenbery Architecture, Inc. 2021, adapted by AECOM 2021

Exhibit 3-2. Project Site Location

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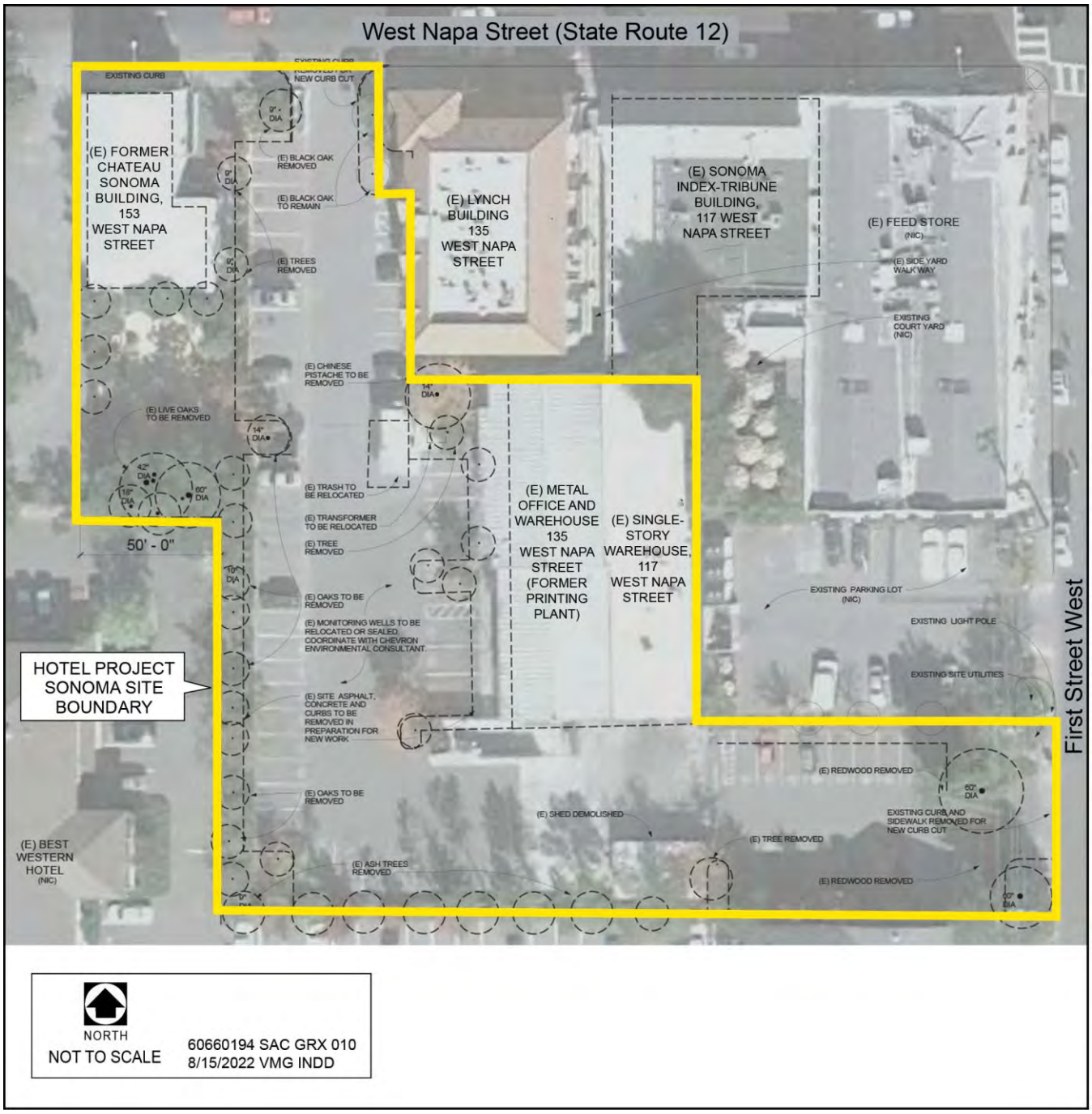


Sources: Data Provided by Ross Drulis Cusenbery Architecture, Inc. 2021, Modified by AECOM in 2021 and 2022

Exhibit 3-3. Existing Project Site Features

2. **Lynch Building**. The approximately 13,709-square-foot Lynch Building is located at 135 West Napa Street. The existing three-story, mixed-use building that houses retail tenants, offices, and seven market-rate studio apartments was constructed in 2002. The Lynch Building's current uses would not be altered or modified as part of the proposed project. However, the surface parking lot adjacent to the building would be used as shared parking with the proposed project through a shared parking agreement and would be modified to provide for the shared parking and provision of utility easements required to serve the project.

3. **Two-Story Metal Office and Warehouse South of the Lynch Building.** The 135 West Napa Street site also includes a 7,690-square-foot, two-story metal warehouse and office building that was constructed in 1986 and was previously used for newspaper production, as well as an adjoining surface parking lot. The entire warehouse/office building would be demolished as part of the proposed project.

4. **Single-Story Warehouse on the Sonoma Index-Tribune Building Parcel.** The parcel that includes the Sonoma Index-Tribune Building, at 117 West Napa Street, also includes an approximately 3,813-square-foot, one-story, metal warehouse building that was constructed in 1977 and shares a common wall with the two-story metal warehouse building on the 135 West Napa Street parcel. There is also a parking lot facing First Street West. The entire metal warehouse building would be removed as part of the proposed project, and the southern surface parking lot on this parcel would also become part of the project site. The Sonoma Index-Tribune Building would remain unchanged. The southern surface parking lot would be used for shared parking for the proposed project through a shared parking agreement with the proposed hotel.

The project site is immediately surrounded by commercial land uses on all sides. The vicinity of the project site consists of boutique shops, a hotel (the Best Western Sonoma Valley Inn and Krug Event Center), a variety of restaurants, wine tasting rooms, The Marketplace shopping center, and other commercial uses including a gas station and convenience store. The nearest off-site residential uses are approximately 100 feet to the southwest of the project site and consist of two-story, multi-family units. The nearest single-family residences are approximately 500 feet north of the project site on Church Street; however, there are 7 studio apartments in the Lynch Building on the project site. The project site is approximately 350 feet southwest of the historic Sonoma Plaza, an 8-acre park in the center of the Downtown area, which includes Sonoma City Hall, several historic buildings, picnic and play areas, and large expanses of public lawns and green space. The Sonoma State Historic Park is approximately 1,000 feet northeast of the project site, and Vallejo Home State Park is approximately 2,000 feet northwest of the project site. The Sonoma Valley Fire Station No. 1 is approximately 350 feet southwest of the project site.

3.1 PROPOSED PROJECT CHARACTERISTICS

3.1.1 ON-SITE LAND USES

The proposed project includes the development of a 62-guestroom hotel, 80-seat restaurant and bar, a spa with 6 treatment rooms, raised swimming pool veranda, 130 off-street parking spaces (consisting of a 113-stall basement parking garage, 9 surface parking spaces, and 8 covered residential parking spaces), and an 8-unit residential building. The project site is zoned Commercial (C) and is located within the Historic Overlay District. The commercial zoning district allows for a range of commercial (hotel, retail, offices, etc.), residential, and mixed-use developments. The City of Sonoma Municipal Code Section 19.10.020(B)(3) requires a residential component for new development on commercially zoned properties and states:

3. Residential Component. In applications for new development on properties of one-half acre in size or larger for which a discretionary permit is required, a residential component shall be required, except in either of the following circumstances:

a. The replacement of a commercial use within an existing tenant space with another commercial use.

b. Additions up to 30 percent of existing historic structures that are listed, or eligible to be listed, on the National Register of Historic Places, the California Register of Historical Resources and/or the City of Sonoma Inventory of Historic Sites and Structures where the addition would not impact the historic designation.

A residential component shall be equal to 100 percent of the floor area of the commercial component. The residential component may be wholly or partially satisfied through payment of a residential component fee, subject to approval by the Planning Commission. The residential component fee shall be paid per square foot of required residential component and shall be established by resolution of the City Council and paid into the Housing Trust Fund. Circumstances in which the residential component may be wholly or partially satisfied by the residential component fee include, but are not limited to, the following:

a. The presence of existing uses or conditions incompatible with residential development on or adjacent to the property for which a new development is proposed.

b. Existing property characteristics, including size limitations and environmental characteristics, that constrain opportunities for residential development or make it infeasible.

c. Limitations imposed by other regulatory requirements, such as the Growth Management Ordinance.

HOTEL/RESIDENTIAL

Hotel (Building A). The proposed hotel building would total 117,716 gross square feet of building floor area which includes one basement parking garage (113 parking spaces), three floors of 62 hotel guestrooms, an 80-seat restaurant and bar, a raised pool veranda, a spa with 6 treatment rooms, hotel lobby/reception, back-of-house areas for staff, and 9 surface-level parking spaces.[1]

Eight-Unit Residential (Building B): The proposed 8-unit residential building would total of 21,221 gross square feet of building floor area which would include 8 covered street-level residential parking spaces, and two floors of residences consisting of 2 one-bedroom units, 5 two-bedroom units, and 1 three-bedroom unit.

Details regarding the two proposed buildings are listed in Table 3-1 and Table 3-2. A floor plan showing the proposed first floor of the entire project site (both buildings and exterior flatwork) is provided in Exhibit 3-4. The total combined building area of Buildings A and B would be 138,937 square feet, of which 52,110 square feet

1 Gross building area is the area measured to the outside surface of the exterior walls and includes interior walls. Gross building area is the same as floor area. The term "gross" distinguishes it from net area which is measured to the interior face of all walls.

would be the below-grade hotel parking garage and 8,258 square feet would be the covered residential first-floor surface parking area.

Table 3-1. Hotel Building A—Summary of Proposed Land Uses

Building Level	Uses	Other Services	Gross Building Floor Area (square feet)	Notes
Basement Parking	113 parking spaces	Receiving, back of house support spaces, stair and elevator cores, vehicle ramps	52,110	Building area calculation includes curving vehicle ramp and First Street West exit ramp.
Surface Parking at ground level/First Floor	9 parking spaces	N/A	N/A	Nine surface parking spaces shared with Lynch Building tenants
First Floor	3 hotel rooms	80-seat restaurant and bar, spa, lobby, and support spaces	21,830	None
Second Floor	30 hotel rooms	Guestroom support spaces	22,264	None
Third Floor	29 hotel rooms	Guestroom support spaces	21,512	None
Total Hotel Rooms	**62**	**Total Building Square Footage**	**117,716**	**-**
Total Parking Spaces	**122**	**-**	**-**	**-**

Source: Data provided by Ross Drulis Cusenbery Architecture, Inc. in 2021 and 2023

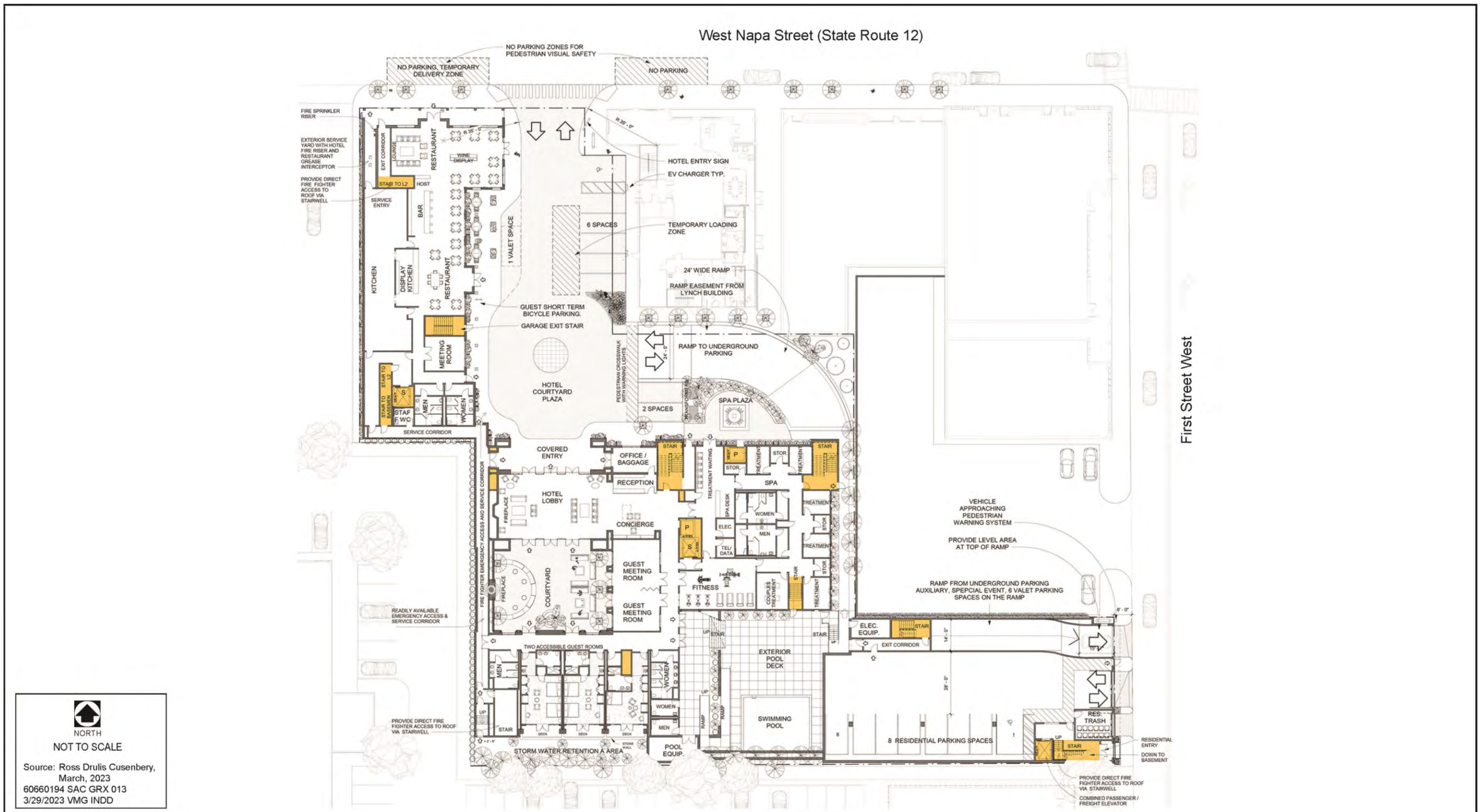
Table 3-2. Eight-Unit Residential Building B—Summary of Proposed Land Uses

Floor Level	Bedroom Count	Unit Interior Floor Area (Net) (square feet)	Floor Plate Gross Building Floor Area (square feet)
First Floor – 8 covered parking spaces, elevator, stair cores, and circulation	N/A	N/A	8,258
Second Floor –Unit 1	2	1,345	-
Second Floor –Unit 2	2	1,270	-
Second Floor –Unit 3	2	1,495	-
Second Floor –Unit 4	1	626	-
Second Floor –Unit 5	1	597	-
Total Second Floor	N/A	**5,333**	**6,786**
Third Floor–Unit 6	3	1,903	-
Third Floor–Unit 7	2	1,796	-
Third Floor–Unit 8	2	1,214	-
Total Third Floor	N/A	**4,913**	**6,177**
Total All Unit Interior Floor Area (Net)	N/A	**10,246**	-
Total Gross Building Floor Area	N/A	N/A	**21,221**

Source: Data provided by Ross Drulis Cusenbery Architecture, Inc. in 2023.

Note: Since there are no residential units on the first floor, there is no Unit Interior Floor Area calculation for this level.

As noted, the City's Municipal Code requires a residential component for new development on commercially zoned properties comprising 100 percent of the floor area of the commercial floor area unless waived or reduced by the Planning Commission. The applicant intends to request a partial waiver of this residential requirement for the residential square footage shortfall.



Source: Ross Drulis Cusenbery Architecture, Inc. 2021, modified by AECOM in 2021

Exhibit 3-4. Conceptual First Floor Plan

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COURTYARDS

The hotel (Building A) would be constructed around three exterior courtyards, including the hotel plaza courtyard, an open interior lobby courtyard, and the raised swimming pool veranda area. The courtyards would be landscaped with raised planting beds and tree wells partially irrigated with captured, stored, and recycled rainwater. The hotel's plaza courtyard would be open to the public, would provide public circulation, and would be faced by a public restaurant and bar, spa, and hotel guest-serving uses.

ARCHITECTURAL DESIGN

The architectural design of the new hotel and residences would be consistent with *Chapter Six, Guidelines for Designing and Constructing New Buildings of the Downtown Sonoma Historic Preservation Design Guidelines* (Guidelines) prepared by Page & Turnbull Architects, March 2017. The following briefly describes this approach.

Materials and Finishes: The overall design would incorporate materials and decorative elements found in historic buildings in the Downtown District including but not limited to: troweled plaster, natural stained wood, stone veneer-clad walls, board and batten siding, corrugated metal roofing, and split-faced, cut stone features similar to Sonoma City Hall, the Swiss Hotel, and other historic buildings along East Napa Street.

Building exteriors would be varied, including deep-set window reveals finished with thick sills and jambs. Exterior detailing would include custom stone, steel, and plaster finishes, timber and precast corbel blocks and miscellaneous running trim. Guest rooms will include exterior custom metal balconies and railing systems.

Scale and Massing: The hotel would be designed as simple interconnected volumes separated by open air courtyards avoiding elaborate ornamentation. In context, the new hotel sits adjacent to the existing three-story Lynch Building and across West Napa Street from a variety of tall street-wall type buildings. To break down the overall height, massing, and scale of the hotel, the design staggers the upper floor plates and third floor roof surfaces back from the street and hotel plaza courtyard. Sloped roofs with dormers would fold over the third story of the building façade to lower the appearance of the third-story roofline. As recommended in the Guidelines, other scale reduction strategies would be employed including articulation of the exterior facades with exterior wooden arcades, dormers, balconies, awnings, recessed entry doors, porches, and window seats. The hotel's street frontage and courtyards would include street trees in planters, fountains, and other landscaping features.

The proposed project would be required to conform to all City Development Code building height, building setback, and lot coverage requirements including consistency with *Chapter Six, Guidelines for Designing and Constructing New Buildings, of the Downtown Sonoma Historic Preservation Design Guidelines* prepared by Page & Turnbull Architects, March 2017.

A rendering showing the conceptual exterior design of the proposed hotel/restaurant building, looking south from SR 12 (West Napa Street), is provided in Exhibit 3-5 (note that the portion of the hotel shown on the left side of Exhibit 3-5 would not actually be visible from SR 12 [West Napa Street] because it would be blocked by the existing Lynch Building, Index-Tribune Building, and Feed Store building). A visual simulation showing the proposed hotel and restaurant, looking south from SR 12 (West Napa Street), is provided in Exhibit 3-6.

Source: Ross Drulis Cusenbery Architecture, Inc. 2021

Exhibit 3-5. Conceptual Rendering of Proposed Hotel/Restaurant, Looking South from SR 12 (West Napa Street)

Source: Ross Drulis Cusenbery Architecture, Inc. 2019

Exhibit 3-6. Visual Simulation of Proposed Hotel/Restaurant, Looking South from SR 12 (West Napa Street)

LANDSCAPING AND TREE REPLACEMENT

The landscape design for the project site includes approximately 2,150 square feet of raised planter rain garden beds; perimeter plantings; raised planters and tree wells in exterior courtyards; auto court landscape and street trees in raised planters; and a small second-floor rooftop garden. Site landscape features would include fountains, exterior fire pits (non-wood burning), fabric shade structures, benches, exterior furniture, and exterior heater systems. Hardscaping would include decorative exterior pavers and concrete paving over structural concrete podium construction and roadbeds.

The project site has 50 existing trees, most of which are growing on the perimeter of the existing parking lot and are in poor to marginal condition (MacNair & Associates 2013). The City of Sonoma Tree Committee reviewed the proposed tree removal and recommended the removal of 48 trees and included tree protection measures for two scarlet oaks. The proposed project includes replacement of every tree removed from the project site. Oak trees would be replaced on a two-for-one basis; all other trees would be replaced on a one-for-one basis, either on site or through a City-approved in-lieu payment to support tree planting elsewhere in the City. Tree replacement would meet or exceed the requirements of the tree ordinance contained in the Sonoma Municipal Code Chapter 12.08. Based on the Tree Committee's review, 82 trees would be required, and the required tree replacement would be imposed as a condition of approval.

HOTEL GUEST ARRIVAL AND DEPARTURE

Guest vehicles would enter from SR 12 (West Napa Street) into the hotel's plaza courtyard. Guest arrival and departure would take place adjacent to the public lobby, deep in the site to avoid a traffic back-up on SR 12 (West Napa Street). During non-peak traffic periods, departing guests would exit right onto SR 12 (West Napa Street). During peak traffic periods, departing guests would pick up their vehicles in the basement parking garage and exit directly onto First Street West. Exiting of hotel guests at peak times would be managed by the valet service. In addition, the hotel's travel demand management measures, operated and supervised by hotel staff, would include prohibiting full-size buses from passenger pick up or drop off at the hotel auto court, and prohibiting vehicle idling in hotel driveways.

BICYCLES

The hotel would provide, maintain, and offer the use of a fleet of 12 bicycles or more for guests. Hotel employees would also have access to the use of bicycles. Employee showers and lockers would be provided to encourage bicycling to work. Secure employee bicycle parking would be provided in the basement parking garage. Public bicycle racks would be provided at the front of the hotel.

OFF-STREET PARKING

The proposed project would provide a total of 130 off-street basement and surface parking spaces. The combined hotel, restaurant and bar, spa, and residential uses would be provided 97 parking spaces. In addition, 33 parking spaces for the Sonoma Index-Tribune Building and Lynch Building's existing residential, retail, and office uses (which are not changing as part of the proposed project) would continue to be provided. The hotel's basement parking garage, which would be managed by a valet parking service on a 24-hour basis, would provide 113 parking spaces. Parking space types would include accessible, van accessible, standard, compact, and sub compact spaces. The other 17 spaces would consist of surface parking, nine of which are hotel surface spaces and

eight of which are covered residential spaces. The transportation impact study prepared to support the City's review of the proposed project recommends that the applicant designate a minimum of nine spaces off-site for use as employee parking for the project, though the project proposed that up to 25 spaces are available, if needed, for staff overflow parking across the street.

DELIVERIES AND LOADING AREAS

There are three delivery loading and unloading area options. For smaller vehicles such as vans, the loading zone would be in the basement garage receiving area, which would be accessed from SR 12 (West Napa Street). For larger vehicles such as box trucks and UPS trucks or larger, deliveries would be received at the temporary outdoor loading area in the Hotel Plaza Courtyard. This would include large tractor trailer truck deliveries – anticipated to constitute approximately two deliveries per week. An optional delivery zone is proposed for the south side of SR 12 (West Napa Street) in front of the proposed restaurant.

Hotels and restaurants in the area typically use common vendors with deliveries originating from throughout the Bay Area. It is typical for those vendors to schedule their deliveries so that they service as many Sonoma hotels and restaurants as possible in common trips. Delivery trips to the proposed project would likely be in common with the adjacent Red Grape and Sonoma Grille restaurants. Because of the Plaza parking conditions, most deliveries to area restaurants are completed prior to 10:00 a.m. The proposed project would set scheduled delivery times for vendors as a condition of delivery to the hotel. Most of the proposed hotel's deliveries would be for the restaurant. Hotel supplies, such as paper products and soaps, would be delivered by vendors that also deliver for the restaurant. The hotel would launder bed linens and towels using in-house equipment. Only restaurant linens would require an outside delivery company.

Approximately 37 deliveries per week are anticipated to serve the proposed project, with 22 of these deliveries being in common with existing and future deliveries to other businesses and 15 trips being unique to the proposed project (please see Appendix B for more detail).

TRASH AND RECYCLING

The proposed project would have coordinated trash services that incorporate the proposed uses with the existing office and residential uses adjacent to the project in the Lynch and Sonoma Index Tribune Buildings. Current trash pickup includes once weekly service from Sonoma Garbage Collectors to handle the existing offices and residences at 117 and 135 West Napa Street. With the proposed project, service would expand to twice weekly.

The hotel, restaurant and bar, spa, and residential units are required to comply with the City's recycling requirements. Trash and recycling staging and storage would be located in an enclosed, ventilated trash enclosure fronting First Street West. Recycling staging would take place in the basement of the hotel. Recyclables would be transferred to the street side trash and recycle enclosure on the regularly scheduled days of pick-up by the Sonoma Garbage Collector.

HOTEL EMPLOYEES

The hotel would have an employee population of approximately 60 full-time employees and 30 part-time employees, with a maximum of 40 employees working at a time during the primary daytime shift.

Some of the office space at the Lynch Building (135 West Napa Street) would be used to provide off-site office space for project employees.

3.1.2 OFF-SITE IMPROVEMENTS

OFF-SITE SHARED PARKING

The property at 136 West Napa Street located across SR 12 (West Napa Street) to the north of the proposed hotel is also owned by the project applicant. This site is developed with a 6,700-square-foot commercial building and a 48-space parking lot. The parking requirement for the existing building is 23 spaces, leaving an excess of 25 off-street parking spaces. As part of the proposed project, the project applicant proposes to grant the City an irrevocable offer of dedication for an easement for nine spaces within that lot for the exclusive use of the proposed project, for hotel staff parking (see Exhibit 3-2). No alteration to this property at 136 West Napa Street or any physical change would be required to accommodate the use of a portion of the parking lot for hotel employee parking.

3.1.3 SUPPORTING INFRASTRUCTURE

WATER SUPPLY

The City receives treated water from the Sonoma County Water Agency (Sonoma Water). The City owns water distribution facilities within its service area, including four storage tanks, two booster stations, and the necessary water mains and appurtenances. The City is also connected to two storage tanks owned by Sonoma Water.

Sonoma Water's primary source of water supply is surface water from the Russian River, via the Lake Sonoma and Lake Mendocino Reservoirs. Additional City water supply is derived from six City-owned and operated active groundwater wells. The City's water distribution system contains three pressure zones that are each served by one or more storage tanks. The project site is located within pressure Zone 1 of the City's service area (CSW|ST2 2015a).

Because the project site comprises portions of several different parcels that would be redeveloped as one lot, new on-site water supply distribution lines would be installed to serve the proposed development. A connection to the existing 8-inch off-site supply line located in the SR 12 (West Napa Street) right-of-way would be installed, subject to approval by the City Public Works Department. The existing two-inch water service serving the Lynch Building would be relocated to the back of sidewalk and on-site service piping relocated to avoid conflicts with the new hotel building. The existing water service serving the Chateau Sonoma building would be abandoned. An existing water service serving the warehouse behind the Tribune Building from First Street West would also be abandoned (Ross Drulis Cusenbery Architecture, Inc. 2015).

The proposed project includes a voluntary Water Conservation Program (J. Crowley Group, Inc. 2015). The program includes water conservation measures governing plumbing fixtures; landscape and irrigation systems; rainwater harvesting; restaurant and heating, ventilation, and air conditioning (HVAC) equipment; operational, laundry, and maintenance practices; employee training; and guest outreach. The program is designed to achieve an approximately 30 percent reduction in the project's overall yearly water demands.

WASTEWATER

In addition to water supply, Sonoma Water also manages and operates eight sanitation (wastewater) districts and zones throughout Sonoma County. The project site is within the Sonoma Valley County Sanitation District (SVCSD) service area, which is managed and operated by Sonoma Water.

Because the project site comprises portions of several different parcels that would be redeveloped as one lot, new on-site wastewater collection lines would be installed to serve the proposed development. A connection to the existing 8-inch off-site wastewater collection line in the SR 12 (West Napa Street) right-of-way would be installed, subject to approval by Sonoma Water (CSW|ST2 2015b). To serve the facilities on the garage/basement level, a pump would be installed to lift waste to the gravity sewer at the first-floor level. The pump would be contained in a sump tank near the northwestern corner of the garage. A grease trap would be installed on the west side of the auto court area to serve the new restaurant. A monitoring manhole would be installed at the outflow of the grease trap before connecting to the new eight-inch main leaving the site. An existing sanitary sewer manhole serving the Lynch Building would be relocated to make room for new storm drainage facilities. The existing sewer lateral connection for the Lynch Building to the existing main in West Napa Street would remain. A sewer lateral serving the existing warehouse behind the Tribune Building from First Street West would be abandoned (Ross Drulis Cusenbery Architecture, Inc. 2015).

Wastewater treatment for the proposed project would continue to be provided at the SVCSD's wastewater treatment plant, located at 22675 8th Street East in Sonoma.

STORMWATER DRAINAGE

The City of Sonoma owns and operates a stormwater drainage system throughout the City limits, which discharges to Nathanson Creek, Sonoma Creek, and Fryer Creek. Stormwater is not treated prior to discharge to local creeks and streams.

A new on-site stormwater drainage system would be installed to serve the proposed development. The new system would discharge through an existing private nine-inch storm drain at the southwestern corner of the project site, which in turn discharges to a City-owned 36-inch collector in the Second Street West right-of-way.

The project is required to comply with the statewide General Permit for Discharges of Storm Water Associated with Construction Activity (State Water Resources Control Board Order 2009-009-DWQ as amended by Order Nos. 2010-0014-DWQ and 2012-0006-DWQ) (SWRCB 2012), which requires preparation of a construction Stormwater Pollution Prevention Plan (SWPPP) and implementation of associated Best Management Practices (BMPs) designed to reduce the potential for pollutant transport during construction. The Construction General Permit also requires dischargers to consider the use of post-construction permanent BMPs that remain in service to protect water quality throughout the life of the project.

In addition, during the project's operational phase, the proposed project is required to comply with the Phase II Small Municipal Separate Storm Sewer System (MS4) General Permit standards established by the State Water Resources Control Board (SWRCB 2013, as amended). An operational Stormwater Pollution Prevention Plan for business-related activities, prepared by a civil engineer, would be required as a condition of approval of the Use Permit Application, as required by the City's Stormwater Management and Discharge Control Ordinance (City of

Sonoma Municipal Code Title 13, Chapter 13.32). This plan would demonstrate the project's compliance with the MS4 permit standards during the operational phase.

OTHER UTILITIES

Electricity and natural gas would be supplied to the project site by Pacific Gas & Electric Company (PG&E). The electrical power supply would be augmented by an approximately 8,704-square-foot rooftop photovoltaic (solar) generation system. Electrical supply for the new hotel would originate from SR 12 (West Napa Street). A connection would be installed in front of the Lynch Building, and power would be routed to a new transformer on the east side of the hotel's auto court area. The existing transformer serving the Lynch Building would be relocated adjacent to the new transformer serving the hotel.[2] Power for the Lynch Building would be re-routed to the new transformer location. All new electrical and telecommunications lines to serve the proposed project would be installed underground (Ross Drulis Cusenbery Architecture, Inc. 2015).

Natural gas service for the proposed project would be sized to power an emergency generator located on the parking garage basement level.[3] Natural gas service would be provided from an existing supply line in the SR 12 (West Napa Street) right-of-way. An existing three-inch natural gas line serving the Chateau Sonoma building and a lateral line from First Street West that serves the existing warehouse would be abandoned, and new service for these buildings would be provided from First Street West (Ross Drulis Cusenbery Architecture, Inc. 2015).

Solid waste recycling service for the City of Sonoma, including the proposed project, is provided by Sonoma Garbage Collectors.

3.2 CONSTRUCTION EQUIPMENT AND STAGING

3.2.1 SITE PREPARATION AND DEMOLITION

The proposed project would be constructed on a closed, Cortese-listed hazardous materials site. As discussed in detail in Section 4.8, "Hazards and Hazardous Materials," a gasoline service station formerly located at 135 West Napa Street was dismantled in 1998, including removal of underground storage tanks, hydraulic lifts, and other fuel-related piping. From 1998 to 2002, the site underwent extensive excavation of soil contaminated with petroleum hydrocarbons (associated with leaks from the former underground storage tanks). The case was closed by the Sonoma County Environmental Health Department in 2014 (Geologica Inc. 2015). Newspaper print operations at 117 West Napa Street ceased in 2008 and all piping related to printing ink was removed from this site in 2009.

A Phase I Environmental Site Assessment, prepared in 2015 (Geologica Inc. 2015), noted that most contaminated soil had been previously excavated and removed, and residual hydrocarbon concentrations in the soil have been further reduced over time due to natural attenuation processes and enhanced in-situ biodegradation remedial activities. Vapor intrusion studies indicated that indoor air quality meets regulatory agency requirements. Furthermore, groundwater contamination levels were below primary and secondary maximum contaminant levels at the time of case closure in 2014. The Sonoma County Department of Health Services required that a Soil and

2 The transformers are shown on Exhibit 3-4 Conceptual First Floor Plan. They would be located between the two east parking spaces and the Spa Plaza.

3 The emergency generator would be located on the Basement Level Plan in a room near the curved ramp up to the Hotel Plaza.

Groundwater Management Plan (AECOM 2014) be prepared and placed on file prior to case closure to govern any future reuse of the site.

Prior to the start of construction activities, approval would be required from the Sonoma County Department of Health Services, Environmental Health and Safety Division, which serves as the local Certified Unified Program Agency (CUPA) under the California Environmental Protection Agency's Unified Program, and the project applicant and its construction contractor must comply with the terms and conditions set forth in the Soil and Groundwater Management Plan (AECOM 2014).

The project contractor would install site fencing, traffic controls, tree protection (e.g., fencing off trees that are to be retained on the project site to avoid accidental damage during construction), and other site controls in preparation for demolition.

During the site preparation phase, approximately 22,057 cubic yards of soil would be hauled off site. Soil export is assumed to have some overlap with the demolition phase of the project. Approximately 13,963 square feet of existing buildings and approximately 30,000 square feet of existing hardscape would be demolished from the project site as part of the proposed project. The following buildings would be demolished, none of which are historical resources (Page and Turnbull 2011, 2012, and 2016; Knapp Architects 2015):

- The former Chateau Sonoma Building at 153 West Napa Street;
- The two-story metal office and warehouse at 135 West Napa Street; and
- The single-story warehouse on the Sonoma Index-Tribune Building at 117 West Napa Street.

The California Green Building Standards Code (CALGreen) requires at least 65 percent of the non-hazardous waste from projects to be diverted by: (1) develop and submit a waste management plan to the jurisdiction's enforcement agency that identifies materials and facilities to be used and document diversion; (2) use a waste management company, approved by the enforcing agency, that can document 65 percent diversion, or (3) use the disposal reduction alternative, as appropriate for the type of project.

Materials to be recycled or re-used would be stored on-site in non-combustible containers. All demolition materials, waste, and debris that are not designated to be salvaged would be removed and disposed of in compliance with all local, State, and federal regulations.

3.2.2 CONSTRUCTION

Construction of the proposed project is expected to last approximately 18 months. Construction would be limited to weekdays (Monday through Friday), between the hours of 8:00 a.m. and 6:00 p.m.

Construction is anticipated to include a full range of equipment, including concrete/industrial saws, excavators, bulldozers, tractors, loaders, backhoes, graders, cranes, forklifts, generators, welders, air compressors, cement and mortar mixers, paving equipment, and rollers.

All construction equipment and personnel would be staged within the boundaries of the project site. Construction access would occur from either SR 12 (West Napa Street) or First Street West. Construction traffic and haul routes would use SR 12 in the vicinity of the project site. A construction management plan would be required as a condition of approval.

3.3 REQUIRED PROJECT APPROVALS

The purpose of this EIR is to analyze the proposed project and is intended to apply to the listed project approvals, as well as to any other approvals that may be necessary or desirable to implement the proposed project. Construction and operation of the proposed project is anticipated to require approvals and actions including, but not necessarily limited to:

- City of Sonoma:
  - Certification of the EIR
  - Use Permit
  - Encroachment Permits
  - Demolition Permits (Design Review and Historic Preservation Commission)
  - Design Review
  - Sign Permit
  - Grading and Building Permits
  - Lot Line Adjustment
  - Tree Removal Permit
- Sonoma County Water Agency approval of proposed water supply improvements
- Sonoma Valley County Sanitation District approval of proposed wastewater improvements
- County of Sonoma Department of Public Health Environmental Health Division approval of construction on a closed and remediated hazardous materials site
- Caltrans – an encroachment permit would be required for any work within the State Route 12 right-of-way
- Bay Area Air Quality Management District – back-up generator
- PG&E approval of electrical and natural gas facilities and
- Other local, State, or federal approvals or permits as may be necessary pursuant to applicable laws and regulations

3.4 PROJECT OBJECTIVES

The project objectives are as follows:

- Develop a hotel at an economically viable scale with a restaurant and bar, pool veranda, spa, and residential dwelling units in Downtown Sonoma.
- Stimulate the local economy through hospitality uses, retail sales, and job creation.
- Provide aesthetically pleasing architecture to complement the existing character of the City of Sonoma.
- Promote economic vitality for the City through new Transient Occupancy Tax (TOT) generated by the hotel and capital investment on what is currently an underutilized site.

- Promote sustainability by designing and constructing a hotel that meets State of California CalGreen Requirements.
- Add a residential presence in the town center through mixed-use development that combines housing with non-residential uses.
- Provide full- and part-time local employment opportunities in the hotel and restaurant industry.
- Encourage quality, variety, and innovation in new development.
- Establish Sonoma as a place where bicycling is safe and convenient.
- Minimize vehicle trips while ensuring safe and convenient access to nearby activities and maintaining the City of Sonoma's small-town character.

4 ENVIRONMENTAL IMPACT ANALYSIS

4.0 APPROACH TO THE ANALYSIS

4.0.1 INTRODUCTION

Consistent with the CEQA Guidelines Section 15126.2, Chapter 4 of this EIR is focused on an evaluation of topic areas where significant impacts on the physical environment associated with the Hotel Project Sonoma (the proposed project) may occur, and identifies feasible mitigation for those impacts, where necessary. These topics areas consist of the following: aesthetics, air quality, biological resources, cultural and tribal cultural resources, geology and paleontology, greenhouse gas emissions and energy, hazards and hazardous materials, hydrology and water quality, land use and planning, noise and vibration, public services, transportation, and utilities and service systems.[1]

The following discussion addresses the affected environment, regulatory framework, environmental consequences, and mitigation measures for each of the environmental issue areas in Chapter 4; and explains the terminology used in the analysis in Chapter 4. The reader is referred to the individual topic area sections regarding specific assumptions, methodology, and significance criteria (thresholds of significance) used in the analysis and determination of significance of impacts.

4.0.2 FORMAT AND CONTENT

Topic area analyses in Sections 4.2 through 4.14 are organized in the following format:

1. The **Environmental Setting** subsection provides an overview of the baseline physical environmental conditions (i.e., the environmental baseline), in accordance with the CEQA Guidelines (14 CCR Section 15125[a][1]).

2. The **Regulatory Framework** subsection identifies the plans, policies, laws, regulations, and ordinances that are relevant to each topical section based on current conditions.

3. The **Environmental Impacts and Mitigation Measures** subsection identifies the adverse physical environmental impacts of the proposed project in accordance with the CEQA Guidelines (14 CCR Sections 15125 and 15143). This subsection is organized as follows:

    - The **Thresholds of Significance** provide criteria to define at what level an impact would be considered significant in accordance with CEQA. Thresholds may be quantitative or qualitative; they may be based on examples found in CEQA regulations or the CEQA Guidelines; scientific and factual data relative to the City's jurisdiction; legislative or regulatory performance standards of federal, state, regional, or local agencies relevant to the impact analysis; or other factors. Generally, however, the thresholds of

1 Section 4.1 of this EIR contains brief discussion, at a lesser level of detail, of topic areas where impacts on the physical environment from implementing the proposed project are clearly less than significant or no impact would occur. The following topic areas are discussed in Section 4.1: agricultural resources, mineral resources, population and housing, recreation, and wildfire.

significance used are derived from Appendix G of the CEQA Guidelines, as amended; factual or scientific information and data; and applicable regulatory standards of federal, state, regional, and local agencies.

- The **Impact Analysis** describes potential adverse physical environmental effects associated with implementation of the proposed project. The Impact Analysis specifies why impacts are found to be significant and unavoidable, significant or potentially significant, or less than significant, or why there is no environmental impact, based on the identified thresholds of significance. The impacts are listed numerically and sequentially throughout each section.

- **Mitigation Measures** to avoid, minimize, rectify, reduce, or compensate for significant and potentially significant impacts of the proposed project, in accordance with the CEQA Guidelines (14 CCR Sections 15370, 15002[a][3], 15021[a][2], and 15091[a][1]), where feasible, are recommended for each significant and potentially significant impact. If implementation of feasible mitigation measures is not sufficient to reduce an impact to a "less-than-significant" level, or no feasible mitigation measures are available, the impacts are described as "significant and unavoidable."

4.0.3 TERMINOLOGY USED TO DESCRIBE IMPACTS

IMPACT LEVELS

This EIR uses the following terminology to denote the significance of each identified environmental impact throughout Chapter 4.

- **No impact** indicates that the construction, operation, and maintenance of the proposed project would not have any direct or indirect effects on the environment. It means no change from existing conditions. This impact level does not need mitigation.

- A **less-than-significant impact** is one that would not result in a substantial or potentially substantial adverse change in the physical environment. This impact level does not require mitigation, even if feasible, under CEQA.

- A **significant impact** is defined by Public Resources Code Section 21068 as one that would cause "a substantial, or potentially substantial, adverse change in the environment." CEQA Guidelines Section 15382 further clarifies that the environment includes "any of the physical conditions within the area affected by the project." Levels of significance can vary by project, based on the change in the existing physical condition. Under CEQA, mitigation measures or alternatives to the proposed project must be provided, where feasible, to reduce the magnitude of significant impacts.

- A **potentially significant impact** is one that, if it were to occur, would be considered a significant impact as described above before the application of mitigation. For CEQA purposes, a potentially significant impact is treated as if it were a significant impact.

- A **significant and unavoidable impact** is one that would result in a substantial or potentially substantial adverse effect on the environment, and that could not be reduced to a less-than-significant level even with any feasible mitigation. Under CEQA, a project with significant and unavoidable impacts may proceed, but the lead agency is required to prepare a "statement of overriding considerations" in accordance with CEQA

Guidelines Section 15093, explaining why specific economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, of a proposed project outweigh the unavoidable adverse environmental effects.

- A **beneficial impact** is an impact that is considered to cause a positive change or improvement in the environment and for which no mitigation measures are required.

- An impact may have a level of significance that is too uncertain to be reasonably determined, which would be designated **too speculative for meaningful evaluation**, in accordance with CEQA Guidelines Section 15145. Where some degree of evidence points to the reasonable potential for a significant effect, the EIR may explain that a determination of significance is uncertain, but is still assumed to be "potentially significant," as described above. In other circumstances, after thorough investigation, the determination of significance may still be too speculative to be meaningful. This is an effect for which the degree of significance cannot be determined for specific reasons, such as because aspects of the impact itself are either unpredictable or the severity of consequences cannot be known at this time.

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4.1 TOPIC AREAS NOT CARRIED FORWARD FOR FURTHER ANALYSIS

For the following topic areas, the proposed project would have a less-than-significant impact or no impact: agricultural resources, mineral resources, population and housing, recreation, and wildfire. Therefore, these topic areas have not been carried forward for further analysis in this RDEIR, for the reasons discussed below.[1]

4.1.1 AGRICULTURAL RESOURCES

THRESHOLDS OF SIGNIFICANCE

Based on Appendix G of the CEQA Guidelines, an impact related to agricultural and forestry resources is considered significant if the proposed project would do any of the following.

1. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Important Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program (FMMP) of the California Resources Agency, to nonagricultural use.

The project site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance on maps prepared pursuant to the Farmland Mapping and Monitoring Program, California Department of Conservation (DOC). The project site is designated as "Urban and Built-up Land" on the 2018 Important Farmland Map for Sonoma County (DOC 2018). Therefore, the proposed project implementation would have **no impact** related to conversion of farmland.

2. Conflict with existing zoning for agricultural use or a Williamson Act contract.

The project site is located in the urbanized area of Downtown Sonoma. The site is zoned Commercial (C) with a Historic District Overlay and is surrounded on all four sides by existing developed properties. There are no Williamson Act contracts at the project site or in the Downtown Sonoma area. Therefore, the proposed project implementation would have **no impact** related to conflicts with agricultural zoning or Williamson Act contracts.

3. Conflict with existing zoning for, or cause rezoning of, forestland (as defined in Public Resources Code Section 12220[g]), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104[g]).

The project site is zoned Commercial (C) with a Historic District Overlay. The project site is not zoned for forestland, timberland, or timberland production. Therefore, the proposed project implementation would have **no impact** related to conflicts with forestland or timberland zoning.

4. Result in the loss of forestland or conversion of forestland to non-forest use.

[1] The approach in this RDEIR follows the guidance of Public Resources Code Section 21002.1: "the purpose of an environmental impact report is to identify the significant effects on the environment of a project, to identify alternatives to the project, and to indicate the manner in which those significant effects can be mitigated or avoided…To provide more meaningful public disclosure, reduce the time and cost required to prepare an environmental impact report, and focus on potentially significant effects on the environment of a proposed project, lead agencies shall… focus the discussion in the environmental impact report on those potential effects on the environment of a proposed project which the lead agency has determined are or may be significant. Lead agencies may limit discussion on other effects to a brief explanation as to why those effects are not potentially significant."

The project site is located in the urbanized area of Downtown Sonoma. The site is zoned Commercial (C) with a Historic District Overlay, and is surrounded on all four sides by existing developed properties. Therefore, the proposed project implementation would have **no impact** related to the loss of forestland or conversion of forestland to non-forest uses.

5. Involve other changes in the existing environment that, because of their location or nature, could result in conversion of Farmland to nonagricultural use or conversion of forest land to non-forest use.

For the same reasons described above in criteria 1–4 above, the proposed project implementation would have **no impact** related to conversion of farmland or forestland to urban uses.

4.1.2 MINERAL RESOURCES

THRESHOLDS OF SIGNIFICANCE

Based on Appendix G of the CEQA Guidelines, an impact related to mineral resources is considered significant if the proposed project would do any of the following.

1. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.

Sand and gravel mined in Sonoma County is used for construction. Construction aggregates are an important building material used in Portland cement concrete, asphalt concrete, plaster, and stucco, and as a road base material. Under the Surface Mining and Reclamation Act (SMARA), the State Mining and Geology Board may designate certain mineral deposits as being regionally significant to satisfy future needs. The Board's decision to designate an area is based on a classification report prepared by the California Geological Survey and on input from agencies and the public. The City of Sonoma, including the project site, is not located in a regionally important area of known mineral resources (i.e., mineral resource zone [MRZ]-2) for construction aggregates, and does not have any active aggregate mining operations within the City limits (Miller et al. 2005). Therefore, the proposed project implementation would have **no impact** related to the loss of availability of known regionally important mineral resources.

2. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.

The *City of Sonoma 2020 General Plan* (City General Plan) (City of Sonoma 2006) does not address mineral resources deposits or mining operations because none are present within the City limits nor are they projected to occur in the future (see also response to criterion 1, above and Miller et al. 2005). Therefore, the proposed project implementation would have **no impact** related to loss of availability of a locally important mineral resources recovery site.

4.1.3 POPULATION AND HOUSING

THRESHOLDS OF SIGNIFICANCE

Based on Appendix G of the CEQA Guidelines, an impact related to population and housing is considered significant if the proposed project would do any of the following.

1. 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).

As described in Chapter 3, "Project Description," the project site is developed with existing buildings and parking lots. As part of the proposed project, three existing commercial buildings would be demolished: the former Chateau Sonoma building, a metal warehouse and office building previously used for newspaper production, and another metal warehouse. The project site would be redeveloped as one parcel, with an eight-unit residential building, and a hotel/restaurant/spa building. Using the existing average number of persons per household in the City, which was 2.12 in 2021 (California Department of Finance 2021) and 2.13 in 2020 (Metropolitan Transportation Commission and Association of Bay Area Governments [MTC and ABAG] 2017), the eight new residential units are assumed to accommodate up to 17 new residents. The hotel/restaurant component of the proposed project includes 62 guestrooms and would require 60 full-time employees and 30 part-time employees.

ABAG is the regional body for projecting regional and local growth. The projected changes in population and jobs in the City, as determined by the forecasts in the *Plan Bay Area 2040* (MTC and ABAG 2017), are shown in Table 4.1-1.

Table 4.1-1. Projected Population and Jobs in the City of Sonoma

Year	Projected Population	Projected Number of Jobs
2020	10,625	7,305
2025	10,960	7,495
Change	+335	+190

Source: MTC and ABAG 2017

As shown in Table 4.1-1, between 2020 and 2025, the City's population is forecast to increase by 335, and the total number of jobs in the City is forecast to increase by 190. Since the proposed project would generate fewer than 190 jobs and only 17 new residents, and would likely employ at least some existing City residents for the new jobs, the proposed project would not exceed the population growth planned for in the City General Plan (City of Sonoma 2006) or the *Plan Bay Area 2040* (MTC and ABAG 2017) and therefore would not lead to any potentially significant adverse environmental effect related to planned population growth beyond what is addressed in detail in the environmental topic-specific sections of this RDEIR. Furthermore, the hotel guests would be temporary, short-term visitors to the area, and would not be long-term residents.

With respect to indirect population increases, the proposed project would be located in Downtown Sonoma and does not involve extension of roads or other infrastructure with the potential to induce population growth. Modifications to the existing on-site utilities systems would be sized to only serve the proposed project. Existing larger capacity off-site utility lines would continue to be used, as they are now. The proposed project would require 60 full-time employees and 30 part-time employees. The City does not exercise authority over the location of future employees of the proposed project. The City has a vacancy rate of 11.8 percent, indicating that up to 677 dwelling units are available. However, a number of these vacant units may be a second home and additionally, the size, type, and cost of such housing may not be affordable for future households with an employee of the proposed project (Department of Finance 2021). Based on the small number of employees and the location of the project site in an area with existing utilities, the proposed project would not indirectly induce an unplanned increase in the City's population or other proposed project features that would lead to any

potentially significant adverse environmental effect related to planned population growth beyond what is addressed in detail in the environmental topic-specific sections of this RDEIR.

For the reasons described above, the proposed project implementation would result a **less-than-significant** impact related to direct or indirect inducement of substantial unplanned population growth.

2. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

The existing Lynch Building, located at 135 West Napa Street, houses retail tenants, offices, and seven studio apartments. However, as discussed in Chapter 3, "Project Description," the Lynch Building would not be modified as part of the proposed project, and parking for the existing Lynch Building tenants would continue to be provided. Therefore, the proposed project implementation would not displace existing people or housing that would require the construction of replacement housing elsewhere, and there would be **no impact.**

4.1.4 RECREATION

THRESHOLDS OF SIGNIFICANCE

Based on Appendix G of the CEQA Guidelines, an impact related to recreation is considered significant if the proposed project would do any of the following.

1. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.

The Parks, Cemeteries, and Facilities Division of the City Public Works Department administers the City's 17 parks, nine play structures, two public restrooms, Class I bike trails, hiking trails, a duck pond, and a rose garden. The project site is approximately 350 feet southwest of the historic Sonoma Plaza (part of the Sonoma State Historic Park operated by California State Parks). The Sonoma Plaza is an eight-acre park in the center of the downtown area, which includes the Sonoma City Hall, several historic buildings, picnic and play areas, and large expanses of public lawns and green space. The Sonoma State Historic Park contains a variety of features in different locations, such as the Vallejo Home area, approximately 2,000 feet northwest of the project site. The City has identified 96.3 acres of City parks in Sonoma, along with another 187.1 acres of regional parks in areas contiguous with the City, and 59.7 acres of State parks for a total of 343.1 acres of parkland and a policy to provide a minimum of 5 acres of open space and parkland per 1,000 residents (City of Sonoma 2006).

The proposed hotel, restaurant, and spa would require 60 full-time employees and 30 part-time employees; this small number of employees' use of area parks is not anticipated to result in substantial physical deterioration of recreational facilities in the vicinity of the project site. Although hotel guests would likely use parks in the area during their stay, any increases in demand to parks would be minor given the hotel only has 62 guestrooms. As discussed above in Section 4.1.3, the proposed project could result in up to 17 new residents from the 8-unit residential building; however, the proposed project would not increase the population in the City beyond the regional growth projections (see Section 4.1.3, above). Only considering City parks, the City currently provides approximately 9 acres of parkland per 1,000 residents compared to a policy of 5 acres per 1,000. Therefore, the proposed project would not increase the use of existing neighborhood and regional parks or other recreational

facilities such that substantial physical deterioration of the facility would occur or be accelerated, and this impact is considered **less than significant.**

2. Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment.

The proposed project does not include or require construction or expansion of recreational facilities; thus, there would be **no impact.**

4.1.5 WILDFIRE

THRESHOLDS OF SIGNIFICANCE

Based on Appendix G of the CEQA Guidelines, an impact related to wildfire is considered significant if the proposed project would be located in or near state responsibility areas or lands classified as very high fire hazard severity zones, and if the project would also:

- substantially impair an adopted emergency response plan or emergency evacuation plan;
- due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire;
- require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment; or
- expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

The project site is located in the urbanized area of Downtown Sonoma, in a Local Responsibility Area. The site is currently developed with, and is surrounded by, developed properties. The nearest State Responsibility Area is approximately 0.5 mile to the north, and encompasses the Mayacamas Mountains; the California Department of Forestry and Fire Protection (CAL FIRE) has designated this area as a mixture of "Moderate" and "High" fire hazard severity zones (CAL FIRE 2021). The Mayacamas Mountains to the east, as well as the Sonoma Mountains to the west, are also designated by CAL FIRE as a mixture of "Moderate" and "High" fire hazard severity zones. None of these areas are classified as "Very High" fire hazard severity zones (CAL FIRE 2021).

The project site consists of flat topography and is currently fully developed with commercial buildings and associated paved parking lots. Fire protection services to the project site are currently provided, and would continue to be provided after the site is redeveloped, by the Sonoma Valley Fire District. The nearest Sonoma Valley Fire District facility is Station No. 1, which is approximately 350 feet southwest of the project site. (See also Section 4.13, "Public Services," of this 2023 RDEIR for additional details related to fire protection services.) The Sonoma Valley Fire District will review the proposed project plans for consistency with ingress and egress requirements and other applicable requirements through the building permit process. SR 12 is the main highway through the Sonoma Valley, and it would serve as the primary regional evacuation route in case a wildland fire were to start outside the city and threaten residents or hotel guests.

In summary, the project site is not located in or near areas designated as State Responsibility Areas or very high fire hazard severity zones. Furthermore, demolition of the existing commercial buildings and associated parking lots, and redevelopment of the site with the proposed hotel/restaurant/spa building and 8-unit residential building, would not exacerbate existing conditions related to urban or wildland fires. Thus, the proposed project implementation would result in **no impact** related to wildland fire hazards.

4.2 AESTHETICS

4.2.1 ENVIRONMENTAL SETTING

EXISTING VISUAL CHARACTER

The project site is immediately surrounded by commercial land uses on all sides. The vicinity of the project site consists of shops, a hotel (the Best Western Sonoma Valley Inn and Krug Event Center), a variety of restaurants, wine tasting rooms, a shopping center, and other commercial uses, including a gas station and convenience store. On the north side of SR 12 (West Napa Street), across from the northwest corner of the project site, the Sonoma Bungalows Boutique Hotel has recently been constructed (completed in late 2021). This property consists of eight separate small units designed to look like "California bungalows," which are similar to the craftsman style but use stucco, siding, and cultured stone for their exterior finishes. The bungalows have small, covered porches. The nearest off-site residential uses are approximately 100 feet to the southwest of the project site and consist of two-story, multi-family units. The nearest single-family residences are approximately 500 feet north of the project site on Church Street. The project site is approximately 350 feet southwest of the historic Sonoma Plaza, an 8-acre park in the center of the Downtown area, which includes the City of Sonoma City Hall, several historic buildings, picnic and play areas, and large expanses of public lawns and green space.[1]

The block in which the proposed project parcels are located is a developed downtown commercial district, like the blocks that adjoin it in all directions except the northeast (the Sonoma Plaza is northeast of the project site). The block that includes the project site is occupied almost entirely by buildings or parking lots, with scattered landscaping including lawn grass, shrubs, and urban street trees. The buildings range from one to three stories. Exterior finishes include stucco, brick, wood, composite siding, and concrete (tilt-up walls), and a mixture of red tile and black composite roofing materials. Three of the immediately adjacent buildings have second-story balconies with roofs, and wood or iron railings. The colors of most of the surrounding buildings are light tan to off-white. The perimeters of existing parking lots include wood or metal fencing, and typical urban landscaping consisting of a mix of evergreen and deciduous street trees, and low growing shrubs. Tall, grey metal light standards with overhead lights are present along SR 12 (West Napa Street). Parking lot lighting generally consists of relatively shorter black metal poles with lantern-style lighting at the top.

The existing visual character of the site and vicinity is reflective of the surrounding buildings, which were constructed at various times over the last 200 years. Some of the nearby buildings (such as those associated with the Sonoma Plaza National Historic Landmark) are historic resources constructed in the 1800s, while other nearby historic buildings were constructed in the early to mid-1900s. Some of the surrounding commercial uses such as the Best Western Hotel, the gas station, and the Sonoma Bungalows Boutique Hotel, date from the 1980s to 2021.

1 The Sonoma Plaza National Historic Landmark (NHL) was granted Landmark status by the Department of the Interior in December of 1961 and includes the Sonoma Plaza and nine properties, including the Sonoma Barracks; the Casa Grande adobe site; the Casa Grande Servant Quarters; the Mission San Francisco Solano; the Jones (Castenada) Adobe; the Nash-Patton Adobe; the Don Salvado Vallejo Adobe; the Leese-Fitch Adobe; and the Site of the Raising of the Bear Flag/the Plaza itself. In 1973, a National Register of Historic Places Inventory Nomination Form was prepared for the "Sonoma Plaza (National Historic Landmark)," which extended the boundary to the rear parcel lines of all of the lots facing the Sonoma Plaza and extended the district boundary along East Spain Street, East Napa Street, 1st Street East, 2nd Street East, and a three-parcel discontiguous boundary on 1st Street East, just north of Patten Street. In addition to the Sonoma Plaza National Historic Landmark status, a National Register Historic District was established in 1992. The Sonoma Plaza National Register Historic District expanded the 1973 Sonoma Plaza National Historic Landmark boundary with an extension south on Broadway to include the three-parcel discontiguous boundary on 1st Street East and include additional parcels on the north side of East Napa Street. Please see Section 4.5 of this RDEIR for more details.

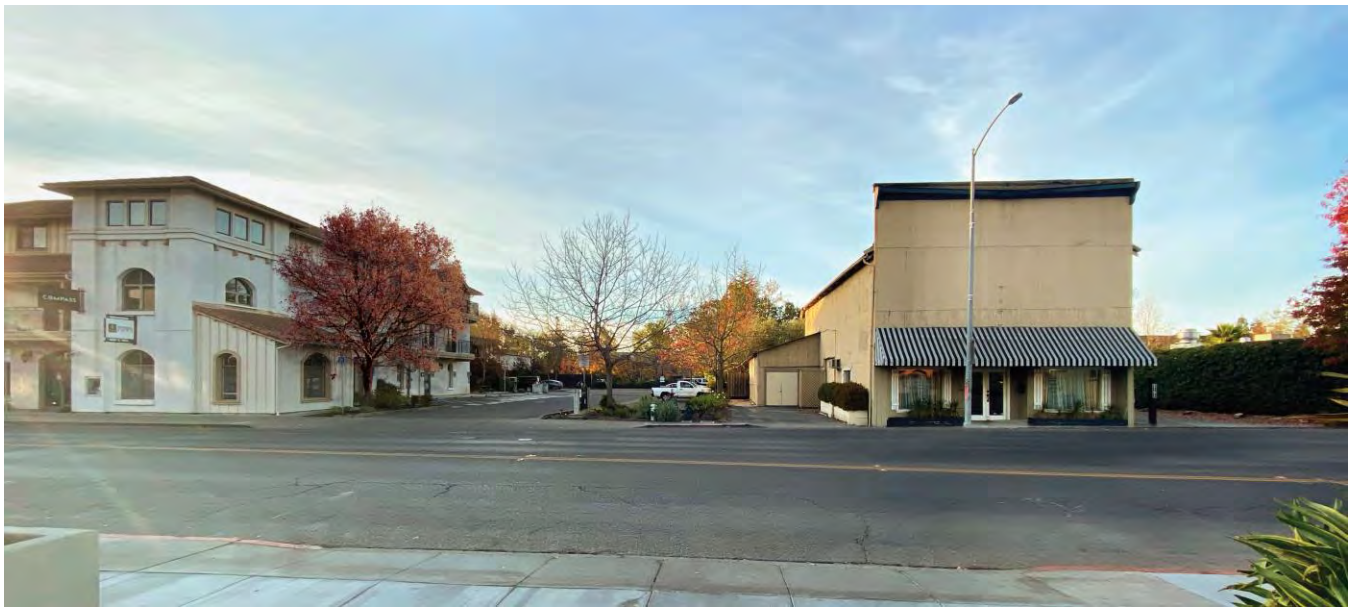
As detailed in Section 4.5 of this RDEIR, "Cultural and Tribal Cultural Resources," two properties adjacent to the project site have been recorded as part of the Sonoma League for Historic Preservation survey efforts in 1978 and 1998. These two properties are the Hawker Home at 158 West Napa Street and the Griffith Block at 101-103 West Napa Street. The Hawker Home is across the street from the former Chateau Sonoma building and the proposed project would replace the former Chateau Sonoma building with a new building of similar height and scale to the structures in the vicinity of the project. The project site would be visible from the rear of the Griffith Block building.

The northern portion of the Index-Tribune Building at 117 West Napa Street (not including the metal warehouses or office building behind 135 and 117 West Napa Street) are eligible for the California Register of Historic Places. The Leese-Fitch Adobe at 491 1st Street West is a contributor to the Sonoma Plaza National Historic Landmark and Sonoma Plaza National Register Historic and is screened from the project site by an intervening non-contributing building next to the Leese-Fitch Adobe. The Italianate commercial building at 481 1st Street West is a contributor to the Sonoma Plaza National Register Historic District and two buildings visually separate this building from the project site. Italianate commercial building at 483 1st Street West is a contributor to the Sonoma Plaza National Register Historic District and four buildings visually separate this building from the project site. The Temple Masonic Lodge at 465 1st Street West is a contributor to the Sonoma Plaza National Register Historic District and there are no vantage points where the project site and this building are both prominently visible. The Sonoma Plaza is a National Historic Landmark and Sonoma Plaza National Register Historic District contributor and only a small portion of the proposed project site would be visible from the southwest corner of the Plaza. Sonoma City Hall is a contributor to the Sonoma Plaza National Register Historic District and there are no vantage points where the project site and Sonoma City Hall are both prominently visible. The Carnegie Library at 453 1st Street East is a contributor to the Sonoma Plaza National Register Historic District and there are no vantage points where the project site and former Carnegie Library are both prominently visible.

The project site is within the City's Historic Overlay Zone, which is intended to preserve structures that are historically and/or culturally significant. However, as discussed in detail in Section 4.5, "Cultural and Tribal Cultural Resources," there are no historic resources within the project site, or that would be demolished or materially altered by the site, or that would experience a change in the setting that would alter the historic significance of any structure or Historic Overlay Zone. Please see Section 4.5 of this RDEIR for more detail.

As noted in the Knapp Architects (2015) *Historic Resources Evaluation*, the nine specific properties listed in the National Historic Landmark (NHL) designation for the Sonoma Plaza Historic District are mostly grouped on the north and west side of the Sonoma Plaza. Based on the location of the project site and the location of these properties, along with the intervening, existing buildings, there is only a very limited visual connection between contributing properties and the project site.

Exhibit 4.2-1 through Exhibit 4.2-5 show the existing visual character of the project site and the immediate surrounding vicinity. Visual simulations with renderings showing the proposed project are presented in Section 4.2.3, "Environmental Impacts and Mitigation Measures."



Source: Ross Drulis Cusenbery 2019

Exhibit 4.2-1. Looking south from Bank of Marin Parking Lot at 143 West Napa Street, North Side of SR 12 (West Napa Street). View of the former Chateau Sonoma Building at 153 West Napa Street (on the right) which would be demolished as part of the proposed project, a paved parking lot with landscaping in the center (also part of the project site), and a three-story commercial building at 135 West Napa Street (on the left – not part of the project site).

Source: Ross Drulis Cusenbery 2019

Exhibit 4.2-2. Looking southwest from the Sonoma Bungalows Boutique Hotel entryway, North Side of SR 12 (West Napa Street). View of project site including the former Chateau Sonoma Building at 153 West Napa Street in the foreground (with the striped awning), and other commercial buildings in the middle-ground not part of the project site including 135 West Napa Street (three-story white building), the Sonoma Index Tribune building (117 West Napa Street, red brick with a covered front balcony), and The Feed Store building (103 West Napa Street).

Source: Ross Drulis Cusenbery 2019

Exhibit 4.2-3. Looking southwest from the north side of SR 12 (West Napa Street)/1st Street West intersection. View of a portion of The Feed Store building (103 West Napa Street), the Sonoma Index Tribune building (117 West Napa Street, red brick with a covered front balcony), 135 West Napa Street (three-story tan/white building) (none of these buildings are part of the project site), and further west a view of the former Chateau Sonoma Building at 153 West Napa Street (to be demolished). Other commercial properties on the north side of SR 12 (West Napa Street) across from the project site are also visible, along with the Sonoma Mountains in the background (approximately 3 miles to the west).

Source: Ross Drulis Cusenbery 2019

Exhibit 4.2-4. Looking southeast from the north side of SR 12 (West Napa Street)/2nd Street West intersection. View of the gas station (195 West Napa Street) and a small one-story commercial building (165 West Napa Street), along with the Best Western Sonoma Valley Inn (550 2nd Street West), which are not part of the project site. Farther east along SR 12 (West Napa Street), the former Chateau Sonoma Building at 153 West Napa Street (to be demolished) is visible, along with the commercial building at 135 West Napa Street (three-story white building, not part of the project site).

Source: Google Earth 2015

Exhibit 4.2-5. Looking south from the 1st Street West/SR 12 (West Napa Street) intersection. View of The Feed Store Building on the right (103 West Napa Street, not part of the project site), 1st Street West in the center, and the Bank of America building on the left (118 West Napa Street, not part of the project site). The southeast corner of the project site (where the proposed 8-unit residential building would be constructed), is visible immediately beyond The Feed Store building on 1st Street West between the first two tall, brown wood electrical poles (see red arrow).

DESIGNATED SCENIC HIGHWAYS

SR 12 is a State-designated scenic highway starting north of West Agua Caliente Road (north of Boyes Hot Springs) to Meadowridge Drive north of Kenwood (California Department of Transportation [Caltrans] 2019), beginning approximately 2 miles north of the project site. The project site is not visible from the designated portion of SR 12 due to the intervening distance, topography, vegetation, and buildings. SR 12 from Boyes Hot Springs south to the intersection with SR 121, which includes the City of Sonoma, is not a State-designated scenic highway but is eligible for designation.

The City's General Plan (City of Sonoma 2006) does not include scenic designations for any local roadways in the City. The City's General Plan indicates that scenic resources consist of the hillsides associated with the Sonoma Mountains and rural agricultural lands. These resources are outside of the City boundaries, approximately three miles to the east and west of the project site.

There are no Sonoma County-designed scenic corridors, scenic landscape uses, or community separators either within or adjacent to the project site's viewshed (Sonoma County 2016).

EXISTING LIGHT AND GLARE

The proposed project is situated in the developed, urbanized Downtown area of the City. SR 12 (West Napa Street) includes Caltrans' standard high-mast lighting to illuminate the roadway. Additional nighttime lighting is present throughout the parcels that comprise the project site, and all of the surrounding properties, in the form of illuminated signage, building lighting, and parking lot lighting. Therefore, a substantial amount of nighttime

lighting and some glare (both daytime [from exterior surfaces] and nighttime [from exterior lighting]) is present in the project area under existing conditions.

4.2.2 REGULATORY FRAMEWORK

FEDERAL PLANS, POLICIES, REGULATIONS AND LAWS

There are no federal plans, policies, regulations, or laws related to aesthetics that would apply to the proposed project.

STATE PLANS, POLICIES, REGULATIONS, AND LAWS

State Scenic Highway Program

California's Scenic Highway Program was created by the Legislature in 1963, to protect and enhance the natural scenic beauty of California highways and adjacent corridors, through special conservation treatment. The State laws governing the Scenic Highway Program are found in the California Streets and Highways Code, sections 260 through 263. A highway may be designated as scenic depending upon how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler's enjoyment of the view. An eligible State highway becomes officially designated through a process in which the local governing body applies to Caltrans for scenic highway approval, adopts a Corridor Protection Program, and receives notification that the highway has been officially designated as a State Scenic Highway by the Caltrans Director.

Development within a designated scenic highway corridor is not precluded. However, a Corridor Protection Program, approved by Caltrans and enforced by the applicable local government(s), ensures that development activities within the scenic corridor are compatible with scenic resource protection and community values.

REGIONAL AND LOCAL PLANS, POLICIES, REGULATIONS, AND ORDINANCES

City of Sonoma General Plan

The City General Plan (City of Sonoma 2006) contains the following policies related to aesthetics that are applicable to the proposed project.

Community Development Element

- **Policy CD-4.1:** Promote innovative design and mixed uses through the Development Code.
- **Policy CD-5.1:** Preserve and enhance the scale and heritage of the community without imposing rigid stylistic restrictions.
- **Policy CD-5.2:** Promote positive community interaction through provision of attractive public spaces.
- **Policy CD-5.3:** Protect important scenic vistas and natural resources, and incorporate significant views and natural features into project designs.
- **Policy CD-5.4:** Preserve and continue to utilize historic buildings as much as feasible.

- **Policy CD-5.5:** Promote higher density, infill development, while ensuring that building mass, scale, and form are compatible with neighborhood and town character.

- **Policy CD-5.6:** Pursue design consistency, improved pedestrian and bicycle access, and right-of-way beautification along the Highway 12 corridor.

Sonoma Municipal Code Section 19.34.010 – Downtown District

Section 19.34.010(B), Desired Future, states that "[t]he primary objectives for the Downtown district are to preserve and enhance its historic character and to retain and promote its economic vitality as a commercial, cultural, and civic center attractive to residents and visitors." Additionally, this municipal code section states that new construction should build upon the established character of the Downtown District.

Sonoma Municipal Code Section 19.34.020 – Project Planning and Design Standards

Municipal Code Section 19.34.020, Project Planning and Design Standards, contains development standards applicable to the project site (Table 3-27). Section 19.34.020(B), Building Design, contains various urban design guidelines that would apply to the proposed project. Section 19.34.020(B)(3) provides guidelines for the development of new commercial structures in the Downtown District. Related guidelines contained in this municipal code section include:

- Buildings should reinforce the scale, massing, proportions, and detailing established by other significant historic buildings in the vicinity (if any).

- The massing of larger commercial and mixed-use buildings (5,000 square feet or greater) should be broken down to an appropriate scale through the use of storefronts and breaks in the facade.

- Architectural styles and details that reflect the Sonoma vernacular should be used. In the Downtown district, examples include stone, stucco, pressed metal, transoms, base tile, and glass block. The use of durable, high-quality materials is encouraged.

- Site design and architectural features that contribute to pedestrian comfort and interest, such as awnings, recessed entrances, paseos, alleys, and patios, are encouraged.

Sonoma Municipal Code Chapter 19.42 – Sonoma Historic Overlay District

Municipal Code Chapter 19.42 (Historic Preservation and Infill in the Historic Zone) is intended to safeguard the historic character of the City by recognizing and preserving historic and cultural resources by providing incentives and rehabilitation of historically and culturally significant resources, and by ensuring that development in the Historic Overlay District is architecturally compatible. Development within the Historic Overlay District is subject to the provisions and guidelines set forth in Municipal Code Chapter 19.42, as well as the City-required design review to ensure development within the Historic Overlay District is compatible with the historic character of the City.

Sonoma Municipal Code Section 19.40. 130 – Protection of Scenic Vistas

Municipal Code section 19.40.130 (Protection of Scenic Vistas) provides standards for the protection of important scenic vistas throughout the City as identified in the General Plan, Community Development Element, "Town

Design." The provisions of Section 19.40.030 apply to any new development for which a discretionary planning or subdivision permit is required that has the potential to affect any of the scenic vistas identified in the General Plan (see the "Town Design Elements" map in the Community Development Element). The Section defines a "scenic vista" to mean a public view, benefitting the community at large, of significant features, including hillside terrain, ridgelines, canyons, geologic features, and community amenities (e.g., parks, landmarks, permanent open space). This section requires new structures to be constructed and located in a manner that preserves scenic vistas by maintaining view corridors, whenever possible. Examples of corridors include:

1. Unbuilt space between buildings;
2. View opportunities created from undeveloped lots;
3. Airspace created from public parks and open spaces; and
4. Open spaces created from the deliberate spacing of buildings on the same lot or adjacent lots.
5. Development in hillside areas, especially near ridgelines, shall comply with the standards in SMC 19.40.050, Hillside development.

Sonoma Municipal Code Section 19.54.080 – Site Design and Architectural Review

Municipal Code Section 19.54.080 (Site Design and Architectural Review) establishes the review requirements necessary to ensure that all applicable development projects comply with the City's standards and design guidelines. Additionally, this code section contains provisions intended to minimize potential adverse effects on properties surrounding proposed new development. Section 19.54.080(B)(2) (Design Review Requirements for Commercial Uses and Mixed Uses) states that design review is required for new construction and building additions. According to Section 19.54.080(D)(2), for projects subject to discretionary review by the Planning Commission, the Planning Commission is responsible for reviewing and acting upon the project site plan, building massing, and elevation concepts to the extent it deems necessary. Subsequent review by the Design Review and Historic Preservation Commission will include review of elevation details, colors and materials, landscaping, including fences and walls, lighting, site details, such as the placement of bike racks and trash enclosures, and any issues specifically referred to the Design Review and Historic Preservation Commission by the Planning Commission.

Municipal Code Section 19.54.080(G) sets forth the findings that must be made during the design and architectural review process in order for projects to be approved. Section 19.54.080(G)(1) provides the basic findings that must be made, including a finding that the project responds appropriately to the context of adjacent development, as well as existing site conditions and environmental features. In addition to these findings, for projects that are within the Historic Overlay District, Section 19.54.080(G)(2) requires the following findings prior to project approval:

- The project will not impair the historic character of its surroundings.
- The project substantially preserves the qualities of any significant historic structures or other significant historic features on the site.
- The project substantially complies with the applicable guidelines set forth in Sonoma Municipal Code Chapter 19.42 (Historic Preservation and Infill in the Historic Zone).

- The project substantially complies with any applicable preservation plan or other guidelines or requirements pertaining to a local historic district as designated through Sonoma Municipal Code Section 19.42.020.

At this time, the applicant has not submitted an application for design review. This would be required as a condition of project approval prior to issuance of a building permit.

4.2.3 Environmental Impacts and Mitigation Measures

Thresholds of Significance

Based on Appendix G of the CEQA Guidelines, the proposed project would have a significant impact related to aesthetics if it would:

- 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;
- except as provided in Public Resources Code section 21099, substantially degrade the existing visual character or quality of public views of the site and its surroundings (public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality; or
- create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

Issues Not Discussed Further

Substantial Adverse Effect on a Scenic Vista—The project site and surrounding area are located in the City's urbanized Downtown District. As shown in Figures 4.2-1 through 4.2-5, existing buildings limit distant views throughout the project area; small portions of the Sonoma Mountains to the east and west are only visible from roadway corridors. The proposed project site is not part of a scenic vista, nor does the surrounding urbanized Downtown District constitute a scenic vista. Therefore, development of the proposed project would not affect a scenic vista and there would be **no impact.** This issue is not evaluated further in this RDEIR.

Substantially Damage Scenic Resources within a State Scenic Highway—As described previously, the segment of SR 12 that runs through the City and is immediately adjacent to the project site to the north (i.e., West Napa Street) is not a designated State scenic highway. This stretch of SR 12 is listed as eligible for designation; however, there is no draft or adopted Corridor Protection Program that would govern development along this stretch of SR 12. Architectural renderings provided by the project applicant (see 2023 RDER Chapter 3, "Project Description," and Exhibit 4.2-6 through Exhibit 4.2-10, below), along with required compliance with City Municipal Code standards related to design, architectural materials, scaling and massing, and landscaping, would ensure that development of the proposed project would not damage resources within an eligible State scenic highway, and thus there would be **no impact.** This issue is not evaluated further in this RDEIR.

Create Substantial New Light or Glare Effects on Day or Nighttime Views—As described previously, the project site is situated within the City's urbanized Downtown District, which already has relatively high levels of nighttime lighting and (in older areas) building materials that can cause daytime glare. The proposed project is

required to comply with Sonoma Municipal Code Section 19.40.030 (Exterior Lighting), which includes standards for shielding and directing light downwards, and Section 18.20.130 (Illuminated Signs and Exterior Business Lighting), which prohibits glare or excessively bright lighting from new exterior signage. As noted above, the proposed project will be required to undergo Design Review and Sign Review prior to issuance of a building permit as a condition of approval, which will ensure compliance with applicable Development Code standards.

Furthermore, the proposed project incorporates the use of architectural coatings designed to reduce glare. The proposed project is required by law to meet these standards, and must undergo an architectural review for consistency with City standards prior to issuance of building permits. Therefore, development of the proposed project would not create substantial new light or glare effects on day or nighttime views, and there would be **no impact.** This issue is not evaluated further in this RDEIR.

IMPACT ANALYSIS

Impact 4.2-1: Substantially degrade the existing visual character or conflict with applicable zoning and other regulations governing scenic quality.

The proposed project includes the construction of a group of buildings which the applicant has designed with the intent to be consistent with the historic character of the City's Downtown District. As described in detail below and shown in the visual simulations presented in Exhibit 4.2-7 through Exhibit 4.2-11, the project applicant has incorporated the requirements of Sonoma Municipal Code Section 19.34.020 (Project Planning and Design Standards) into the design of the proposed project. For example, Municipal Code Section 19.34.020(B)(3)(c) states that architectural styles and details that reflect the Sonoma vernacular should be used, and in the Downtown District; examples include stone, stucco, pressed metal, transoms, base tile, and glass block. The use of durable, high-quality materials is encouraged. The proposed project design draws from three primary Sonoma architectural patterns: the use of gabled thick-walled buildings parallel to the street, layering of exterior wooden arcades at the sidewalk, and overhanging sheltering roofs. Featured building materials include hand troweled plaster, natural stained wood, stone veneer-clad walls, board and batten siding, corrugated metal roofing, and split-faced cut stone features. Building exteriors would include deep-set window reveals finished with thick sills and jambs. Exterior detailing would include custom stone, steel and plaster finishes, timber and precast corbel blocks and miscellaneous running trim. Guest rooms would include exterior custom metal balconies and railing systems (see Exhibit 3-5 and Exhibit 4.2-6).

Municipal Code Section 19.34.020(B)(3)(a) states that buildings should reinforce the scale, massing, proportions, and detailing established by other significant historic buildings in the vicinity. Municipal Code Section 19.34.020(B)(3)(b) states the massing of larger commercial and mixed-use buildings (5,000 square feet or greater) should be broken down to an appropriate scale through the use of storefronts and breaks in the façade. The proposed project has been designed so that the height and scale of the buildings would include "layering" strategies such as the introduction of appropriately scaled building features at the street edge and staggering and sloping of the upper floor plates and third floor roof surfaces back from the street and hotel Plaza Courtyard. This approach would enable the overall massing and scale of the buildings to be broken down into smaller elements. Steep roofs with dormers would fold over the third story of the buildings to lower the appearance of the third story roofline. Other scale reduction strategies include articulation of the exterior facades with exterior wooden arcades, dormers, balconies, awnings, recessed entry doors, porches, and window seats. As shown in Exhibit 4.2-7

through Exhibit 4.2-11, the proposed project would meet the Municipal Code requirements for scale, massing, proportions, and detailing, and would be broken down to an appropriate scale through the use of storefronts and breaks in the façade, as established by other existing nearby buildings, including historic buildings in the vicinity.

Source: Ross Drulis Cusenbery 2022

Exhibit 4.2-6. Use Permit Application Rendering of the proposed project looking south from entrance along Highway 12 into the courtyard area.

The proposed project has been designed to comply with the Municipal Code section 19.40.060 (Landscape Standards). The landscape design for the project site includes approximately 2,150 square feet of raised planter rain garden beds; perimeter plantings; raised planters and tree wells in exterior courtyards; auto court landscape and street trees in raised planters; and a small second floor roof top garden. Site landscape features would include fountains, exterior fire pits (non-wood burning), fabric shade structures, benches, exterior furniture, and exterior heater systems. Hardscaping would include decorative exterior pavers and concrete paving over structural concrete podium construction and roadbeds. The proposed project has also been designed to comply with the City's Water Efficient Landscaping Ordinance (Municipal Code Chapter 14.32).

Visual simulations showing the proposed hotel, restaurant, and eight-unit residential building are presented and described below.

Source: Ross Drulis Cusenbery 2019

Exhibit 4.2-7. Visual simulation looking south from Bank of Marin Parking Lot at 143 West Napa Street, North Side of SR 12 (West Napa Street). In this view, the former Chateau Sonoma Building at 153 West Napa Street has been demolished and replaced with the proposed restaurant portion of the project, which would front on West Napa Street. The former parking lot in the center of this view has been replaced by the proposed landscaped project entry and courtyard, and a portion of the hotel is visible at the back of the courtyard. The three-story commercial building at 135 West Napa Street (on the left), which is not part of the project site, is also visible.

Source: Ross Drulis Cusenbery 2019

Exhibit 4.2-8. Visual simulation looking southwest from the Sonoma Bungalows Boutique Hotel entryway, North Side of SR 12 (West Napa Street). In the foreground of this view of the project site, the former Chateau Sonoma Building at 153 West Napa Street has been demolished and replaced by the proposed restaurant associated with the proposed project. A large tree (formerly in a parking lot) has been retained as part of the proposed project entry to the left of the restaurant. This view also shows the existing commercial buildings to the west, which are not part of the project site: 135 West Napa Street (three-story white building), the Sonoma Index Tribune building (117 West Napa Street, red brick with a covered front balcony), and The Feed Store building (103 West Napa Street).

Source: Ross Drulis Cusenbery 2019

Exhibit 4.2-9. Visual simulation looking southwest from the North Side of SR 12 (West Napa Street)/1st Street West intersection. On the left, this view shows of a portion of The Feed Store building (103 West Napa Street), the Sonoma Index Tribune building (117 West Napa Street, red brick with a covered front balcony), 135 West Napa Street (three-story white building), which are not part of the project site. A southwest-facing view of the proposed restaurant associated with the project (with a covered second-story balcony and third-story dormer windows) is shown just beyond the three-story white commercial building (see red arrow). Other commercial properties on both sides of SR 12 (West Napa Street are also visible, along with the Sonoma Mountains in the background.

Source: Ross Drulis Cusenbery 2019

Exhibit 4.2-10. Visual simulation looking southeast from the north side of SR 12 (West Napa Street)/2nd Street West intersection. The 76® gas station (195 West Napa Street) and a small one-story commercial building (165 West Napa Street), along with the Best Western Sonoma Valley Inn (550 2nd Street West), which are not part of the project site, are visible in the foreground. Behind the gas station, the third story dormers above sliding glass doors and balconies of the proposed restaurant/hotel building are visible to the southeast (see red arrow). Looking east along SR 12, the front of the proposed restaurant portion of the project site is visible, with a second story covered balcony across the SR 12 frontage (immediately west of the tall green landscape tree). Further east along SR 12 (West Napa Street), the existing three-story white commercial building at 135 West Napa Street is visible, along with the Sonoma Index Tribune building (not part of the project site).

Source: Ross Drulis Cusenbery 2019

Exhibit 4.2-11. Visual simulation looking south from the 1st Street West/SR 12 (West Napa Street) intersection. View of The Feed Store Building on the right (103 West Napa Street, not part of the project site), 1st Street West in the center, and the Bank of America building on the left (118 West Napa Street, not part of the project site). The proposed 8-unit residential building at the project site is visible immediately beyond The Feed Store building on 1st Street West, between the two electrical poles (see red arrow).

The visual simulations presented in Exhibit 4.2-7 through Exhibit 4.2-11 demonstrate that the proposed project would be visually similar to and consistent with existing architectural styles. As particularly shown in Exhibit 4.2-8 and Exhibit 4.2-9, the project's frontage on SR 12 (West Napa Street) would be of the same height, scale, massing, and color as compared to the immediately adjacent three-story commercial building at 135 West Napa Street. In addition, the proposed project frontage would include a second-floor covered balcony with railing and a composite roof, which would be constructed at the same elevation (since the development area is flat) and would look visually similar to the second-floor covered balconies with railings and composite roofs as the adjacent commercial building at 135 West Napa Street and the Sonoma Index Tribune building (117 West Napa Street). The colors and exterior architectural style would be visually similar to both of these existing adjacent buildings, as well as the existing two-story building across the street at 103 West Napa Street, which also has a second-story balcony with railing and a composite roof. Exhibit 4.2-7 clearly demonstrates the exterior design of the proposed project, with an emphasis on the proposed frontage on SR 12 (West Napa Street). Please see also Exhibit 4.2-12 and Exhibit 4.2-13, which show before and after proposed project conditions as viewed along SR 12.

Source: Ross Drulis Cusenbery 2019

Exhibit 4.2-12. Before project (top image) and after project (bottom image) view looking east along SR 12.

Source: Ross Drulis Cusenbery 2019

Exhibit 4.2-13. Before project (top image) and after project (bottom image) view looking west along SR 12.

As shown comparing Exhibit 4.2-3 and Exhibit 4.2-9, when looking to the west along the north side of SR 12, the Sonoma Mountains are visible, and the proposed project would not block any portion of the view of this ridgeline.

As described above, the Sonoma Bungalows Boutique Hotel was constructed in 2021 across the street from the project site, on the north side of SR 12 (West Napa Street). The proposed Hotel Project Sonoma would have a similar visual appearance as compared to the newly constructed Sonoma Bungalows Boutique Hotel, including the use of similar materials for the proposed project such as cultured stone, wood, and siding.

The parcels that comprise the project site are zoned and designated for commercial uses. The proposed project is required to conform to all City Municipal Code requirements (including, but not limited to, Chapter 19.42 (Historic Preservation and Infill in the Historic Zone), Section 19.34.020 (Project Planning and Design Standards), Section 19.40.060 (Landscape Standards), Section 19.40.030 (Exterior Lighting), Section 19.40.130 (Protection of Scenic Vista), and Section 19.54.080 (Site Design and Architectural Review), related to building height, building setbacks, lot coverage requirements, architectural design themes and materials, exterior coatings (to reduce glare), and landscaping, along with a City architectural review before permits are issued, and the conditions of project approval would include these requirements. Compliance with these Municipal Code requirements ensures consistency with General Plan policies governing scenic quality, such as Policy CD-4.1 (promote innovative design and mixed uses), Policy CD-5.1 (preserve and enhance the scale and heritage of the community without imposing rigid stylistic restrictions), Policy CD-5.5 (promote higher density, infill development, while ensuring that building mass, scale, and form are compatible with neighborhood and town character), and Policy CD-5.6 (pursue design consistency, improved pedestrian and bicycle access, and right-of-way beautification along the SR 12 corridor).

Because the proposed project would not include demolition of any historic structures; the site is appropriately zoned and designated for commercial uses (including hotel uses); the proposed project is subject to and has demonstrated compliance with City Municipal Code requirements related to design standards; and the proposed exterior finishes, colors, size, scale, massing, and architectural details would be consistent with existing buildings immediately surrounding the project site, the proposed project would not substantially degrade the existing visual character or conflict with applicable zoning and other regulations governing scenic quality, and this impact would be **less than significant.**

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4.3 AIR QUALITY

This section describes existing local and regional air quality conditions; summarizes applicable air quality regulations at the federal, state, and local levels; and analyzes potential air quality impacts attributable to the proposed project. This section also presents mitigation measures that would reduce significant impacts, where feasible and appropriate.

This chapter is based on the methodology recommended by the Bay Area Air Quality Management District (BAAQMD) for project-level review. Construction and operational air pollutant emissions calculation inputs and modeling outputs are included in Appendix C of this Recirculated Draft EIR. Please see the City's website for the appendix: https://www.sonomacity.org/hotel-project-sonoma/.

4.3.1 ENVIRONMENTAL SETTING

Air quality is defined by the concentration of pollutants in relation to their impact on human health and the environment. The proposed project is located within the San Francisco Bay Area Air Basin (SFBAAB), which comprises all of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, and Santa Clara counties, the southern portion of Sonoma County, and the southwestern portion of Solano County. Ambient concentrations of air pollutants are determined by the amount of emissions released by pollutant sources and the atmosphere's ability to transport and dilute such emissions. Terrain, wind, atmospheric stability, and the presence of sunlight all affect transport and dilution. Therefore, existing air quality conditions in the project area are influenced by topography, meteorology, and climate, in addition to the amount of emissions released by existing air pollutant sources. This section describes air pollutants of concern and identifies the natural factors in the SFBAAB that affect air pollution.[1]

TOPOGRAPHY, CLIMATE, AND AIR POLLUTION POTENTIAL

The SFBAAB is characterized by complex terrain consisting of coastal mountain ranges, inland valleys, and bays, which distort normal wind flow patterns. The proposed project site is located within Sonoma Valley, an inland valley of the SFBAAB. The Sonoma Valley is long and narrow, approximately 5 miles wide at its southern end and less than a mile wide at the northern end.

The hills and mountains in the SFBAAB contribute to the high pollution potential of some areas. The Sonoma Valley is west of the Napa Valley, separated from the Napa Valley and from the Cotati and Petaluma Valleys by mountains. During the day, or at night during windy conditions, areas in the lee sides of mountains are sheltered from the prevailing winds, thereby reducing turbulence and downwind transport. At night, when wind speeds are low, the upper atmospheric layers are often decoupled from the surface layers during radiation conditions. If elevated terrain is present, it will tend to block pollutant transport in that direction. Elevated terrain also can create a recirculation pattern by inducing upvalley air flows during the day and reverse downvalley flows during the night, allowing little inflow of fresh air.

The climate of the SFBAAB is determined largely by a high-pressure system that is almost always present over the eastern Pacific Ocean off the West Coast of North America. During winter, the Pacific high-pressure system

[1] This section describing the SFBAAB is primarily from Bay Area Air Quality Management District, 2017 Appendix C: Sample Air Quality Setting, in *California Environmental Quality Act Air Quality Guidelines*.

shifts southward, allowing more storms to pass through the region. During summer and early fall, when few storms pass through the region, emissions generated within the Bay Area can combine with abundant sunshine under the restraining influences of topography and subsidence inversions to create conditions that are conducive to the formation of photochemical pollutants, such as ozone, and secondary particulates, such as nitrates and sulfates.

The areas having the highest air pollution potential tend to be those that experience the highest temperatures in the summer and the lowest temperatures in the winter. The inland valleys are sheltered from the marine air and experience hotter summers and colder winters. Thus, the topography of the inland valleys creates conditions more conducive to higher air pollution potential. Summertime temperatures in the SFBAAB are determined in large part by the effect of differential heating between land and water surfaces. Because land tends to heat up and cool off more quickly than water, a large-scale gradient (differential) in temperature is often created between the coast and the inland valleys. Summer average maximum temperatures in Sonoma Valley are usually in the high-80's, and summer minimums are around 50 degrees. Winter maximums are in the high-50's to the mid-60's, with minimums ranging from the mid-30's to low-40's.

The SFBAAB is characterized by moderately wet winters and dry summers. However, the amount of annual precipitation can vary greatly from one part of the SFBAAB to another, even within short distances. Within the City, average rainfall between 1952 and 2010 was approximately 30 inches per year, with approximately 80 percent occurring from November through March.

Within the Sonoma Valley, the strongest upvalley winds occur in the afternoon during the summer and the strongest downvalley winds occur during clear, calm winter nights. Prevailing winds follow the valley northwest/southeast, while some upslope flow during the day and downslope flow during the night occurs near the base of the mountains. The air pollution potential of the Sonoma Valley could be high if there were significant sources of pollution nearby.

Although air pollution potential is strongly influenced by climate and topography, the air pollution that occurs in a location also depends upon the amount of air pollutant emissions in the surrounding area or transported from more distant places. Air pollutant emissions generally are highest in areas that have high population densities, high motor vehicle use, and/or industrialization. Local sources of air pollution within Sonoma Valley are minor. With the exception of some processing of agricultural goods, such as wine and cheese manufacturing, there is little industry in this valley.

AIR POLLUTANTS OF CONCERN

Criteria Air Pollutants

Federal and State air quality standards have been established by the U.S. Environmental Protection Agency (EPA) and at the state level by the California Air Resources Board (CARB), respectively, for six common air pollutants, known as criteria air pollutants. The criteria pollutants include particulate matter (PM) (which is further subdivided into PM of diameter equal to or less than 10 micrometers [PM_{10}] and PM of diameter equal to or less than 2.5 micrometers [$PM_{2.5}$]), ground-level ozone, carbon monoxide (CO), sulfur dioxide (SO_2), nitrogen dioxide (NO_2), and lead. The following provides a brief description of these criteria air pollutants, including their source types and health effects.

Ozone

Ozone is a colorless gas that is odorless at ambient levels. It exists primarily as a beneficial component of the ozone layer in the upper atmosphere (stratosphere), shielding the earth from harmful ultraviolet radiation emitted by the sun, and as a pollutant in the lower atmosphere (troposphere).

Ozone is the primary component of urban smog. It is not emitted directly into the air but is formed through a series of reactions involving reactive organic gases (ROG) (also referred to as volatile organic compounds [VOC]) and oxides of nitrogen (NO_X) in the presence of sunlight. ROG emissions result primarily from incomplete combustion and the evaporation of chemical solvents and fuels. NO_X includes various combinations of nitrogen and oxygen, including nitric oxide, NO_2, and others, typically resulting from the combustion of fossil fuels (EPA 1999).

Meteorology and terrain play a major role in ozone formation. Generally, low wind speeds or stagnant air coupled with warm temperatures and clear skies provide the optimum conditions for formation. As a result, summer is generally the peak ozone season. Because of the reaction time involved, peak ozone concentrations often occur far downwind of the precursor emissions. Therefore, ozone is a regional pollutant that often affects large areas. In general, ozone concentrations over or near urban and rural areas reflect an interplay of emissions of ozone precursors, transport, meteorology, and atmospheric chemistry.

Individuals exercising outdoors, children, and people with lung disease, such as asthma and chronic pulmonary lung disease, are considered to be the most susceptible subgroups for ozone effects. Short-term ozone exposure (lasting for a few hours) can result in changes in breathing patterns, reductions in breathing capacity, increased susceptibility to infections, inflammation of lung tissue, and some immunological changes. In recent years, a correlation has also been reported between elevated ambient ozone levels and increases in mortality rates (EPA 2021a). An increased risk of asthma has been found in children who participate in multiple sports and live in communities with high ozone levels.

Emissions of the ozone precursors ROG and NO_X statewide have decreased steadily over the past several years. According to the most recently published California Air Resources Board Almanac (2013), emission levels of NO_X and ROG in SFBAAB are projected to continue to decrease over the next 15 years, largely due to more stringent motor vehicle standards and cleaner burning fuels, as well as due to rules for control of ROG from various industrial coating and solvent operations (CARB 2013).

Carbon Monoxide

CO is a colorless and odorless gas that, in the urban environment, is primarily produced by the incomplete burning of carbon in fuels, primarily from mobile (transportation) sources. Generally, 85 percent of the statewide CO emissions are from mobile sources; the other 15 percent consists primarily of CO emissions from residential wood-burning stoves/furnaces and agricultural burning, as well as some from stationary-source fuel combustion waste disposal (e.g., landfills and incinerators), petroleum production, and industrial mineral processes (CARB 2017). Relatively high concentrations are typically found near crowded intersections and along heavily used roadways carrying slow-moving traffic. Even under the most severe meteorological and traffic conditions, high concentrations of CO are limited to locations within a relatively short distance (300 to 600 feet) of heavily traveled roadways. Vehicle traffic emissions can cause localized CO impacts, and severe vehicle congestion at major signalized intersections can generate elevated CO levels, called “hot spots,” which can be hazardous to

human receptors adjacent to the intersections. Overall, CO emissions are decreasing, in part because the Federal Motor Vehicle Control Program has mandated increasingly lower emission levels for vehicles manufactured since 1973.

CO enters the bloodstream through the lungs by combining with hemoglobin, which normally supplies oxygen to the cells. However, CO combines with hemoglobin much more readily than oxygen does, drastically reducing the amount of oxygen available to the cells. Adverse health effects associated with exposure to high CO concentrations, typically only attainable indoors or within similarly enclosed spaces, include dizziness, confusion, unconsciousness, and death. CO exposure is especially harmful to individuals who suffer from cardiovascular diseases (EPA 2021a).

Nitrogen Dioxide

NO_2 is one of a group of highly reactive gases known as oxides of nitrogen, or NO_X. NO_2 is formed when ozone reacts with nitric oxide (i.e., NO) in the atmosphere. The major human-made sources of NO_2 are combustion devices, such as boilers, gas turbines, and mobile and stationary reciprocating internal combustion engines. The combined emissions of NO and NO_2 are referred to as NO_X and reported as equivalent NO_2. Because NO_2 is formed and depleted by reactions associated with photochemical smog (ozone), the NO_2 concentration in a particular geographical area may not be representative of the local NO_X emission sources. NO_X also react with water, oxygen, and other chemicals to form nitric acids, contributing to the formation of acid rain.

Inhalation is the most common route of exposure to NO_2. Breathing air with a high concentration of NO_2 can lead to respiratory illness. Short-term exposure can aggravate respiratory diseases, particularly asthma, leading to respiratory symptoms (such as coughing, wheezing, or difficulty breathing), hospital admissions, and visits to emergency rooms. Longer exposures to elevated concentrations of NO_2 may contribute to the development of asthma and potentially increase susceptibility to respiratory infections. Larger decreases in lung functions are observed in individuals with asthma or chronic obstructive pulmonary disease (e.g., chronic bronchitis, emphysema) than in healthy individuals, indicating a greater susceptibility of these sub-groups (EPA 2021b).

Sulfur Dioxide

SO_2 is one component of the larger group of gaseous sulfur oxides (SO_X). SO_2 is used as the indicator for the larger group of SO_X, as it is the component of greatest concern and found in the atmosphere are much higher concentrations than other gaseous SO_X. SO_2 is typically produced by such stationary sources as coal and oil combustion facilities, steel mills, refineries, and pulp and paper mills. The major adverse health effects associated with SO_2 exposure pertain to the upper respiratory tract. On contact with the moist mucous membranes, SO_2 produces sulfurous acid, which is a direct irritant. Concentration rather than duration of exposure is an important determinant of respiratory effects. Children, the elderly, and those who suffer from asthma are particularly sensitive to effects of SO_2 (EPA 2021c).

SO_2 also reacts with water, oxygen, and other chemicals to form sulfuric acids, contributing to the formation of acid rain. SO_2 emissions that lead to high concentrations of SO_2 in the air generally also lead to the formation of other SO_X, which can react with other compounds in the atmosphere to form small particles, contributing to particulate matter pollution, which can have health effects of its own.

Particulate Matter

PM is a complex mixture of extremely small particles and liquid droplets. Particulate matter is made up of a number of components, including acids (such as nitrates and sulfates), organic chemicals, metals, and soil or dust particles. Two forms of fine particulates are now recognized and regulated. Inhalable coarse particles, or PM_{10}, include the particulate matter with an aerodynamic diameter of 10 microns (i.e., 10 millionths of a meter or 0.0004-inch) or less. Inhalable fine particles, or $PM_{2.5}$, have an aerodynamic diameter of 2.5 microns or less (i.e., 2.5 millionths of a meter or 0.0001 inch). The major area-wide sources of $PM_{2.5}$ and PM_{10} are fugitive dust, especially from roadways, agricultural operations, and construction and demolition. Sources of PM also include all types of combustion, including motor vehicles, power plants, residential wood burning, forest fires, agricultural burning, and some industrial processes. While exhaust emissions from mobile sources contribute only a very small portion of directly emitted PM_{10} and $PM_{2.5}$ emissions, they are a major source of ROG and NO_X, which undergo reactions in the atmosphere to form particulate matter, known as secondary particles. These secondary particles make up the majority of PM pollution.

Diesel engines emit a complex mixture of air pollutants, including both gaseous and solid material. The solid material in diesel exhaust is known as diesel particulate matter (DPM). More than 90 percent of DPM is less than 1 µm in diameter, and thus is a subset of $PM_{2.5}$. As discussed further under Section 3.2.1.3, Toxic Air Contaminants, CARB identified DPM as a toxic air contaminant (TAC) in 1998 based on published evidence of a relationship between diesel exhaust exposure and lung cancer, and the cancer-causing effects of DPM have been further supported by subsequent studies (CARB 2022).

The size of particulate matter is directly linked to the potential for causing health problems. Particles that are 10 micrometers in diameter or smaller generally pass through the throat and nose and enter the lungs more easily than larger particles. Some particulate matter, such as pollen, occurs naturally. In the SFBAAB, most particulate matter is caused by combustion, factories, construction, grading, demolition, agricultural activities, and motor vehicles. Extended exposure to particulate matter can increase the risk of chronic respiratory disease. PM_{10} bypasses the body's natural filtration system more easily than larger particles and can lodge deep in the lungs. $PM_{2.5}$ penetrates even more deeply into the lungs, and this is more likely to contribute to health effects—at concentrations well below current PM_{10} standards. Once inhaled, these particles can affect the heart and lungs and cause serious health effects and even death. The adverse health effects associated with PM_{10} depend on the specific composition of the particulate matter. For example, health effects may be associated with metals, polycyclic aromatic hydrocarbons (PAH), and other toxic substances adsorbed onto fine particulate matter (referred to as the "piggybacking effect"), or with fine dust particles of silica or asbestos. Effects related to short- and long-term exposure to elevated concentrations of PM_{10} include respiratory symptoms, aggravation of respiratory and cardiovascular diseases, a weakened immune system, and cancer (World Health Organization 2021). $PM_{2.5}$ poses an increased health risk because these very small particles can be inhaled deep in the lungs and may contain substances that are particularly harmful to human health. Direct emissions of $PM_{2.5}$ decreased in the SFBAAB between 2000 and 2010, but are projected to increase very slightly through 2035. Similarly, emissions of DPM decreased from 2000 through 2010 due to reduced exhaust emissions from diesel mobile sources; these emissions are anticipated to continue to decline through 2035 (CARB 2013).

Lead

Lead is a highly toxic metal that may cause a range of human health effects. Lead is found naturally in the environment and is used in manufactured products. Previously, the lead used in gasoline anti-knock additives

represented a major source of lead emissions to the atmosphere. Soon after its inception, EPA began working to reduce lead emissions, issuing the first reduction standards in 1973. Lead emissions have decreased substantially as a result of the near elimination of leaded gasoline use. Metal processing is currently the primary source of lead emissions. The highest levels of lead in air are generally found near lead smelters. Other stationary sources are waste incinerators, utilities, and lead-acid battery manufacturers. Although the ambient lead standards are no longer violated, lead emissions from stationary sources still pose "hot spot" problems in some areas. As a result, CARB has identified lead as a TAC.

Fetuses, infants, and children are more sensitive than others to the adverse effects of lead exposure. Exposure to low levels of lead can adversely affect the development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence quotients. In adults, increased lead levels are associated with increased blood pressure. Lead poisoning can cause anemia, lethargy, seizures, and death, although it appears that lead does not directly affect the respiratory system.

Ambient Air Quality

Monitoring Data

Concentrations of criteria air pollutants are measured at several monitoring stations in the SFBAAB. Table 4.3-1 summarizes the air quality data for 5 recent years of complete data (2017-2021) from the CARB monitoring station located at Sebastopol-103 Morris Street, the closest station to the project area.

Table 4.3-1. Ambient Air Quality Monitoring Data (2017-2021)

	2017	2018	2019	2020	2021
Ozone: Maximum concentration (ppm) [1]	0.071*	0.053	0.059	0.068	0.071
Ozone: Number of days standard exceeded (2015 standard) [2]	1	0	0	0	0
Carbon Monoxide (CO) [3] **Not Available**					
Fine Particulate Matter ($PM_{2.5}$): Maximum concentration ($\mu g/m^3$) [1]	81.8*	175.3*	28	124.3	29.5
Fine Particulate Matter ($PM_{2.5}$): Number of days standard exceeded (measured/estimated) [4]	4.0/4	13.1/13	0.0/0	7.2	2
Respirable Particulate Matter (PM_{10}): Maximum concentration ($\mu g/m^3$) [5]	155.5*	259.1*	85.6	129.4	57.4
Respirable Particulate Matter (PM_{10}): Number of days standard exceeded (measured/estimated) [4]	1.1/1	2.1/2	0.0/0	0	0

Notes: $\mu g/m^3$ = micrograms per cubic meter; ppm = parts per million

* indicates the measurement exceeds a national ambient air quality standard.

1 Measured at Sebastopol-103 Morris Street monitoring station.

2 The 8-hour national ozone standard was revised to 0.075 ppm in March 2008 and then again to 0.070 in October 2015.

3 Carbon monoxide and sulfur dioxide are not currently monitored at any station in the San Francisco Bay Area Air Basin.

4 Measured days are those days that an actual measurement was greater than the level of the state daily standard or the national daily standard. Measurements are typically collected every 6 days. Estimated days are the estimated number of days that a measurement would have been greater than the level of the standard had measurements been collected every day. The number of days above the standard is not necessarily the number of violations of the standard for the year. 2021 days exceeded is for the San Francisco Bay Area Air Basin.

5 Measured at Healdsburg-133 Matheson Street monitoring station.

Source: CARB 2022

SFBAAB Attainment Status

EPA and CARB use the type of monitoring data presented in Table 4.3-1 to designate attainment status for criteria air pollutants based on whether or not the national ambient air quality standards (NAAQS) and California Ambient Air Quality Standard (CAAQS), respectively, have been achieved. The purpose of these designations is to identify areas with air quality problems and thereby initiate planning efforts for improvement.

The three basic designation categories are "attainment," "nonattainment," and "unclassified":

- Attainment: This designation signifies that pollutant concentrations in the area do not exceed the established standard. In most cases, a maintenance plan is required for a region after it has attained an air quality standard and is designated as an attainment or maintenance area after previously being designated as nonattainment. Maintenance plans are designed to ensure continued compliance with the standard.
- Nonattainment: This designation indicates that a pollutant concentration has exceeded the established standard. To identify the severity of the problem and the extent of planning and actions required to meet the standard, nonattainment areas are assigned a classification that is commensurate with the severity of their air quality problem (e.g., moderate, serious, severe, extreme). The severity of the non-attainment status for the ozone NAAQS directly affects the control measures required in their Air Quality Attainment Plan, Air Quality Management Plan, or Clean Air Plan, as well as the timeline for achieving attainment of the NAAQS.
- Unclassified: This designation indicates that insufficient data exists to determine attainment or nonattainment.

As shown in Table 4.3-2, the SFBAAB is designated as nonattainment for the State ozone, PM_{10}, and $PM_{2.5}$ standards and the national ozone and $PM_{2.5}$ standards.

Table 4.3-2. Attainment Designations for the San Francisco Bay Area Air Basin

Pollutant	California Standard	Federal Standard
Ozone	Nonattainment	Nonattainment
Carbon Monoxide	Attainment	Attainment
Nitrogen Dioxide	Attainment	Attainment
Sulfur Dioxide	Attainment	No Current Federal Designation
Particulate Matter—10 Micrometers or Less	Nonattainment	Unclassified
Particulate Matter—2.5 Micrometers or Less	Nonattainment	Nonattainment
Sulfates	Attainment	No Federal Standard
Lead	Identified as a Toxic Air Contaminant by CARB	Attainment
Hydrogen Sulfide	Unclassified	No Federal Standard
Vinyl Chloride	Identified as a Toxic Air Contaminant by CARB	No Federal Standard
Visibility-Reducing Particles	Unclassified	No Federal Standard

Source: BAAQMD 2022a

Air Quality Index

The health impacts of the various air pollutants of concern can be presented in several ways. The clearest comparison is to the State and federal ozone standards. The EPA developed the Air Quality Index (AQI) as an easy-to-understand measure of health impacts compared with concentrations in the air. Table 4.3-3 provides a summary of the health impacts of ozone at different concentrations based on the EPA's AQI.

Table 4.3-3. Health Effects of Ozone Concentrations

Air Quality Index/ 8-hour Ozone Concentration	Health Effects Description
AQI—0–50—Good	Sensitive Groups: Children and people with asthma are the groups most at risk.
Concentration 0–54 ppb	Health Effects Statements: None.
	Cautionary Statements: None.
AQI—51–100—Moderate	Sensitive Groups: Children and people with asthma are the groups most at risk.
Concentration 55–70 ppb	Health Effects Statements: Unusually sensitive individuals may experience respiratory symptoms.
	Cautionary Statements: Unusually sensitive people should consider limiting prolonged outdoor exertion.
AQI—101–150—Unhealthy for Sensitive Groups	Sensitive Groups: Children and people with asthma are the groups most at risk.
Concentration 71–85 ppb	Health Effects Statements: Increasing likelihood of respiratory symptoms and breathing discomfort in active children and adults, and people with respiratory disease, such as asthma.
	Cautionary Statements: Active children and adults, and people with respiratory disease, such as asthma, should limit prolonged outdoor exertion.
AQI—151–200—Unhealthy	Sensitive Groups: Children and people with asthma are the groups most at risk.
Concentration 86–105 ppb	Health Effects Statements: Greater likelihood of respiratory symptoms and breathing difficulty in active children and adults and people with respiratory disease, such as asthma; possible respiratory effects in general population.
	Cautionary Statements: Active children and adults, and people with respiratory disease, such as asthma, should avoid prolonged outdoor exertion; everyone else, especially children, should limit prolonged outdoor exertion.
AQI—201–300—Very Unhealthy	Sensitive Groups: Children and people with asthma are the groups most at risk.
Concentration 106–200 ppb	Health Effects Statements: Increasingly severe symptoms and impaired breathing likely in active children and adults and people with respiratory disease, such as asthma; increasing likelihood of respiratory effects in general population.
	Cautionary Statements: Active children and adults, and people with respiratory disease, such as asthma, should avoid all outdoor exertion; everyone else, especially children, should limit outdoor exertion.

Source: Air Now. N.D. AQI Calculator: AQI to Concentration Calculator. Website: https://www.airnow.gov/aqi/aqi-calculator. Accessed June 27, 2022.

TOXIC AIR CONTAMINANTS (TAC)

Both federal and state air quality regulations also focus on TACs. A TAC is an air pollutant that may cause or contribute to an increase in mortality or in serious illness, or that may otherwise pose a hazard to human health. TACs are usually present in minute quantities in the ambient air; however, their toxicity or health risk may pose a threat to public health even at low concentrations. TACs can be separated into carcinogens and noncarcinogens, based on the nature of the effects associated with exposure to the pollutant. For regulatory purposes, carcinogens are assumed to have no safe threshold below which health impacts would not occur. Noncarcinogens differ in that there is generally assumed to be a safe level of exposure below which no negative health impact is believed to occur.

According to the *California Almanac of Emissions and Air Quality* (CARB 2013), most of the estimated health risk from TACs can be attributed to relatively few compounds, the most important being particulate matter from diesel-fueled engines (i.e., DPM). Other 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.

DPM differs from other TACs because it is not a single substance, but a complex mixture of hundreds of substances. Although DPM is emitted by diesel-fueled internal combustion engines, the composition of the emissions varies depending on engine type, operating conditions, fuel composition, type of lubricating oil, and presence or absence of an emission control system. Unlike the other TACs, no ambient monitoring data are available for DPM because no routine measurement method currently exists. However, emissions of DPM are forecasted to decline; it is estimated that emissions of DPM in 2035 will be less than half those in 2010, further reducing statewide cancer risk and non-cancer health effects (CARB 2022).

Asbestos is the name given to several naturally occurring fibrous silicate minerals. Asbestos has been mined for applications requiring thermal insulation, chemical and thermal stability, and high tensile strength. Asbestos is also found in its natural state in rock or soil (known as naturally occurring asbestos [NOA]). Mapping published by the United States Geological Survey and California Geological Survey indicates that the project is not located within an area known to contain NOA. In addition, no existing structures which may have used asbestos during construction would be demolished by the proposed project.

In 1983, the California Legislature enacted a program to identify the health effects of TACs and to reduce exposure to these contaminants to protect the public health. The California Health and Safety Code defines a TAC as "an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health." A substance that is listed as a hazardous air pollutant pursuant to Section 112(b) of the federal Clean Air Act (42 US Code Section 7412[b]) is a toxic air contaminant.

Under State law, the California Environmental Protection Agency (CalEPA), acting through CARB, is authorized to identify a substance as a TAC if it is an air pollutant that may cause or contribute to an increase in mortality or serious illness, or may pose a present or potential hazard to human health. Additionally, CARB has implemented control measures for a number of compounds that pose high risks and show potential for effective control.

TACs are usually present in minute quantities in the ambient air; however, their toxicity or health risk may pose a threat to public health even at low concentrations. TACs can be separated into carcinogens and noncarcinogens, based on the nature of the effects associated with exposure to the pollutant. For regulatory purposes, carcinogens are assumed to have no safe threshold below which health impacts would not occur. Noncarcinogens differ in that there is generally assumed to be a safe level of exposure below which no negative health impact is believed to occur. These levels are determined on a pollutant-by-pollutant basis.

ODORS

Odors are typically considered a local air quality problem. The BAAQMD identifies land uses that could lead to odor impacts, including:

- wastewater treatment plants;
- landfills;

- confined animal facilities;
- composting stations;
- food manufacturing plants;
- refineries; and
- chemical plants.

Though odors are not a health hazard, reactions to odors can cause irritation, anger, or anxiety, or even circulatory and respiratory problems, nausea, vomiting, and headaches. The ability to detect odors varies considerably among the population and overall is subjective. An odor that is offensive to one person may be perfectly acceptable to another (e.g., coffee roaster). An unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. A person can become desensitized to almost any odor and recognition only occurs with an alteration in the intensity through the phenomenon known as odor fatigue.

SENSITIVE RECEPTORS

Some land uses are considered more sensitive to air pollution than others, due to the types of population groups or activities involved. Children, pregnant women, the elderly, those with existing health conditions, and athletes or others who engage in frequent exercise are especially vulnerable to the effects of air pollution. Accordingly, land uses that are typically considered sensitive receptors include schools, daycare centers, parks and playgrounds, and medical facilities.

Residential areas are considered sensitive to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to pollutants present. Recreational land uses are considered moderately sensitive to air pollution. Exercise places a high demand on respiratory functions, which can be impaired by air pollution, even though exposure periods during exercise are generally short. In addition, noticeable air pollution can detract from the enjoyment of recreation. Industrial and commercial uses are not sensitive receptors (BAAQMD 1999).

The project site is immediately surrounded by commercial uses on all sides. Residences exist on-site in the Lynch Building, as well, and there is one dwelling unit in the Sonoma Index Tribune Building, as well as off-site approximately 100 feet to the southwest of the project site. Single-family residences are also located approximately 500 feet north of the project site on Church Street. Future residences are proposed as part of the proposed project, to be located adjacent to the proposed hotel in the southeastern portion of the project site.

4.3.2 REGULATORY FRAMEWORK

Ambient air quality standards have been adopted at federal and state levels for criteria air pollutants. In addition, both the federal and state governments regulate the release of TACs. The project site is in the SFBAAB and is subject to the rules and regulations imposed by the BAAQMD. Federal, state, regional, and local laws, regulations, plans, or guidelines that are potentially applicable to the proposed project are summarized below.

FEDERAL PLANS, POLICIES, REGULATIONS AND LAWS

Clean Air Act

The Clean Air Act (CAA) was passed in 1963 by the United States Congress and has been amended several times. The 1970 Clean Air Act amendments strengthened previous legislation and laid the foundation for the regulatory

scheme of the 1970s and 1980s. The act delegates primary responsibility for clean air to EPA. EPA develops rules and regulations to preserve and improve air quality and delegates specific responsibilities to State and local agencies.

Under the act, EPA has established the NAAQS for the criteria air pollutants. The purpose of the NAAQS is two-tiered: primarily to protect public health, and secondarily to prevent degradation to the environment (i.e., impairment of visibility, damage to vegetation and property).

The CAA also requires each state to prepare an air quality control plan, referred to as a State Implementation Plan (SIP). The federal Clean Air Act Amendments of 1990 (CAAA) added requirements for states with nonattainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. The 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 to determine whether implementing them will achieve ambient air quality standards. If EPA determines a SIP to be inadequate, a federal implementation plan that imposes additional control measures may be prepared for the nonattainment area.

STATE PLANS, POLICIES, REGULATIONS, AND LAWS

California Clean Air Act

CARB is 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 CAA allows states to adopt more stringent standards or to include other pollution species. The CCAA, signed into law in 1988, required CARB to establish CAAQS for the above-mentioned criteria air pollutants for which EPA has established NAAQS, as well as for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particulate matter (see Table 4.3-4). The CCAA also requires all areas of the state to achieve and maintain the CAAQS by the earliest practical date. Similar to the NAAQS, the CAAQS incorporate a margin of safety to protect sensitive individuals. The act specifies that local air districts should focus particular attention on reducing the emissions from transportation and areawide emission sources and provides districts with the authority to regulate indirect sources. CARB also maintains air quality monitoring stations throughout the state in conjunction with air districts. CARB uses the data collected at these stations to classify air basins as being in attainment or nonattainment with respect to each pollutant and to monitor progress in attaining air quality standards.

CARB is the lead agency for developing the SIPs in California. SIPs are not single documents. They are a compilation of new and previously submitted plans, programs (such as monitoring, modeling, permitting, etc.), district rules, state regulations, and federal controls. Many of California's SIPs rely on the same core set of control strategies, including emission standards for cars and heavy trucks, fuel regulations and limits on emissions from consumer products. Local air districts and other agencies prepare SIP elements and submit them to CARB for review and approval. CARB forwards SIP revisions to the United States Environmental Protection Agency (EPA) for approval and publication in the Federal Register. Most recently, in March 2017, CARB adopted the *2016 State Strategy for the State Implementation Plan* (State SIP Strategy), and on April 19, 2017, the BAAQMD adopted the *2017 Bay Area Clean Air Plan*, which outlines strategies to attain all state and federal air quality standards, including those related to particulate matter, ozone, and toxic air contaminants.

Table 4.3-4. National and California Ambient Air Quality Standards (NAAQS and CAAQS)

Pollutant	Averaging Time	California Standards[a]	Federal Primary Standards[b]	Major Pollutant Sources
Ozone[c]	1-hour	0.09 ppm (180 µg/m^3)	–	Motor vehicles, paints, coatings, and solvents.
	8-hour	0.070 ppm (137 µg/m^3)	0.070 ppm (137 µg/m^3)	
Carbon Monoxide (CO)	1-hour	20 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)	Internal combustion engines, primarily gasoline-powered motor vehicles.
	8-hour	9.0 ppm (10 mg/m^3)	9 ppm (10 mg/m^3)	
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)	0.053 ppm (100 µg/m^3)	Motor vehicles, petroleum-refining operations, industrial sources, aircraft, ships, and railroads.
	1-hour	0.18 ppm (339 µg/m^3)	0.100 ppm (188 µg/m^3)	
Sulfur Dioxide (SO_2)	Annual Arithmetic Mean	–	0.030 ppm	Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.
	24-hour	0.04 ppm (105 µg/m^3)	0.14 ppm	
	1-hour	0.25 ppm (655 µg/m^3)	0.075 ppm (196 µg/m^3)	
Respirable Particulate Matter (PM_{10})[d]	Annual Arithmetic Mean	20 µg/m^3	–[8]	Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	24-hour	50 µg/m^3	150 µg/m^3	
Respirable Particulate Matter ($PM_{2.5}$)	Annual Arithmetic Mean	12 µg/m^3	12.0 µg/m^3	Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	24-hour	–	35 µg/m^3	
Lead	30-day Average	1.5 µg/m^3	–	Present source: lead smelters, battery manufacturing & recycling facilities. Past source: combustion of leaded gasoline.
	Calendar Quarterly	–	0.15 µg/m^3	
	Rolling 3-Month Average[12]	–	0.15 µg/m^3	
Sulfates (SO_4)[e]	24-hour	25 µg/m^3	–	Industrial processes.
Visibility-Reducing Particle Matter	8-hour	Extinction coefficient of 0.23 per kilometer—visibility of 10 miles or more	No Federal Standard	Visibility-reducing particles consist of suspended particulate matter, which is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary greatly in shape, size, and chemical composition, and can be made up of many different materials such as metals, soot, soil, dust, and salt.
Hydrogen Sulfide	1-hour	0.03 ppm (42 µg/m^3)	No Federal Standard	Hydrogen sulfide (H_2S) is a colorless gas with the odor of rotten eggs. It is formed during bacterial decomposition of sulfur-containing organic substances. Also, it can be present in sewer gas and some natural gas and can be emitted as the result of geothermal energy exploitation.
Vinyl Chloride	24-hour	0.01 ppm (26 µg/m^3)	No Federal Standard	Vinyl chloride (chloroethene), a chlorinated hydrocarbon, is a colorless gas with a mild, sweet odor. Most vinyl chloride is used to make polyvinyl chloride (PVC) plastic and vinyl products. Vinyl chloride has been detected near landfills, sewage plants, and hazardous waste sites, due to the microbial breakdown of chlorinated solvents.

Notes for Table 4.3-4

Notes: ppm: parts per million; µg/m^3: micrograms per cubic meter * Standard has not been established for this pollutant/duration by this entity.

[a] California standards for ozone, CO (except 8-hour Lake Tahoe), SO_2 (1 and 24 hour), NO_2, and particulate matter (PM_{10}, $PM_{2.5}$, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

[b] National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m^3 is equal to or less than one. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, is equal to or less than the standard.

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

[d] On December 14, 2012, the national annual $PM_{2.5}$ primary standard was lowered from 15 µg/m_3 to 12.0 µg/m^3. The existing national 24-hour $PM_{2.5}$ standards (primary and secondary) were retained at 35 µg/m^3, as was the annual secondary standard of 15 µg/m^3. The existing 24-hour PM_{10} standards (primary and secondary) of 150 µg/m^3 also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

[e] On June 2, 2010, a new 1-hour SO_2 standard was established, and the existing 24-hour and annual arithmetic mean standards were revoked.

Source: CARB 2022

CARB has established emission standards for vehicles sold in California and for various types of equipment. California gasoline specifications are governed by both state and federal agencies. During the past decade, federal and state agencies have imposed numerous requirements on the production and sale of gasoline in California. In December 2004, ARB adopted a fourth phase of emission standards (Tier 4) in the Clean Air Non-road Diesel Rule that are nearly identical to those finalized by EPA on May 11, 2004. As such, engine manufacturers are now required to meet after-treatment-based exhaust standards for NO_X and PM starting in 2011 that are more than 90 percent lower than current levels, putting emissions from off-road engines virtually on par with those from on-road, heavy-duty diesel engines. CARB has also adopted control measures for DPM and more stringent emissions standards for various on-road mobile sources of emissions, including transit buses, diesel-powered trucks, and off-road diesel equipment (e.g., tractors, generators).

Assembly Bill 1807 (Tanner Air Toxics Act) and Assembly Bill 2588 (Air Toxics "Hot Spot" Information and Assessment Act of 1987)

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

California Air Resources Board Regulations for Mobile Sources

Idling of Commercial Heavy-Duty Trucks (13 California Code of Regulations [CCR] 2485)

This Airborne Toxic Control Measure (ATCM) was adopted to control emissions from idling trucks. It prohibits idling for more than 5 minutes for all commercial trucks with a gross vehicle weight rating over 10,000 pounds. The ATCM contains an exception that allows trucks to idle while queuing or involved in operational activities.

In-Use Off-Road Diesel-Fueled Fleets (13 CCR 2449 et seq.)

This ATCM requires that specific fleet average requirements are met for criteria air pollutant emissions, particularly NO_X and particulate matter, from in-use off-road diesel-fueled vehicles. Where average requirements cannot be met, Best Available Control Technology requirements apply.

California Low-Emission Vehicle Program

CARB first adopted Low-Emission Vehicle (LEV) program standards in 1990. These first LEV standards ran from 1994 through 2003. LEV II regulations, running from 2004 through 2010, represent continuing progress in emission reductions. As the state's passenger vehicle fleet continues to grow and more sport utility vehicles and pickup trucks are used as passenger cars rather than work vehicles, more stringent LEV II standards were adopted to provide reductions necessary for California to meet federally mandated clean air goals outlined in the 1994 SIP. In 2012, the ARB adopted the LEV III amendments to California's LEV regulations. These amendments, also known as the Advanced Clean Car Program, include more stringent emission standards for model years 2017 through 2025 for criteria pollutants and greenhouse gas (GHG) emissions for new passenger vehicles.

Carl Moyer Memorial Air Quality Standards Attainment Program

The Carl Moyer Memorial Air Quality Standards Attainment Program (Carl Moyer Program), a partnership between the ARB and local air districts, issues grants to replace or retrofit older engines and equipment with engines and equipment that exceed current regulatory requirements to reduce air pollution. Money collected through the Carl Moyer Program complements California's regulatory program by providing incentives to effect early or extra emission reductions, especially from emission sources in environmental justice communities and areas disproportionately affected by air pollution. The program has established guidelines and criteria for the funding of emissions reduction projects. Within the SFBAAB, the BAAQMD administers the Carl Moyer Program. The program has established guidelines and criteria for the funding of emissions reduction projects.

California Air Resources Board Regulations for Energy Sources

California has adopted various administrative initiatives and enacted climate-change related legislation that establishes a greenhouse gas emissions reductions target for the State of California and puts into place several programs and regulations to achieve such targets. While these plans, policies, and regulations are directed at reducing greenhouse gas emissions, many have co-benefits of reducing total energy consumption by land use development and reducing the per-unit emissions of air pollutants that result from the generation of electricity. These programs and regulations are described in detail in Section 4.8, "Greenhouse Gas Emission," of this RDEIR.

Odors

California has established limits on nuisance odors per the California Health and Safety Code Section 41700(a) which states "…a person shall not discharge from any source whatsoever quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or that endanger the comfort, repose, health, or safety of any of those persons or the public, or that cause, or have a natural tendency to cause, injury or damage to business or property." The California Health and Safety Code includes extensive regulatory guidance to address odors, food safety, worker safety, and related topics, including Sections 114149-114149.3, "Ventilation," and Sections 114244-114245.7, "Refuse."

REGIONAL AND LOCAL PLANS, POLICIES, REGULATIONS, AND ORDINANCES

Bay Area Air Quality Management District

The BAAQMD is the agency responsible for ensuring that the NAAQS and CAAQS are attained and maintained in the SFBAAB. BAAQMD is responsible for:

- Adopting and enforcing rules and regulations concerning air pollutant sources
- Issuing permits for stationary sources of air pollutants
- Inspecting stationary sources of air pollutants
- Responding to citizen complaints
- Monitoring ambient air quality and meteorological conditions
- Awarding grants to reduce motor vehicle emissions
- Conducting public education campaigns
- Air quality management planning

Bay Area Air Quality Management District 2017 Clean Air Plan

The BAAQMD adopted the final Bay Area Clean Air Plan in 2017. The BAAQMD prepared the 2017 Clean Air Plan in cooperation with the Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG). The 2017 Plan is a multi-pollutant strategy that updates the most recent Bay Area ozone plan, the 2010 Clean Air Plan, pursuant to State air quality planning requirements, and builds upon the BAAQMD's efforts to reduce emissions of PM, TACs, and GHGs.

The goals of the 2017 Clean Air Plan are to protect public health and protect the climate by providing a long-range strategy to reduce regional air pollutants and climate pollutants. The 2017 Clean Air Plan aims to lead the region into a post-carbon economy, continue progress toward attaining all State and federal air quality standards, and eliminate health risk disparities from air pollution exposure in Bay Area communities. The Plan includes control strategies for implementation in the near-term of the next three to five years, as well as describes a long-term pathway for the next two to three decades.

Key priorities of the 2017 Clean Air Plan include reducing of emissions of criteria air pollutants and TACs from all key sources; reducing of emissions of what the plan refers to as "super-GHGs" such as methane, black carbon and fluorinated gases; decreasing demand for fossil fuels through increased efficiencies in systems and decreased demand for vehicle travel and high-carbon goods and services; the decarbonization of the energy system.

Bay Area Air Quality Management District Rules and Regulations

BAAQMD administers a number of specific regulations on various sources of pollutant emissions. Those that may be applicable to the proposed project include, but are not limited to, the following:

- BAAQMD Regulation 2, Rule 2, New Source Review
- BAAQMD Regulation 2, Rule 5, New Source Review of Toxic Air Contaminants
- BAAQMD Regulation 6, Rule 1, General Requirements
- BAAQMD Regulation 6, Rule 2, Commercial Cooking Equipment
- BAAQMD Regulation 7, Odorous Substances
- BAAQMD Regulation 8, Rule 3, Architectural Coatings

- BAAQMD Regulation 8, Rule 4, General Solvent and Surface Coatings Operations
- BAAQMD Regulation 8, Rule 7, Gasoline Dispensing Facilities
- BAAQMD Regulation 11, Rule 2, Asbestos, Demolition, Renovation, and Manufacturing)

Sonoma County Transportation Authority

The Sonoma County Transportation Authority (SCTA) is designated as the Congestion Management Agency for Sonoma County. Every five years SCTA updates the Sonoma Comprehensive Transportation Plan (CTP), a multi-modal transportation plan that documents existing conditions and prioritizes regional transportation needs throughout Sonoma County. The current CTP, Moving Forward 2050, establishes countywide goals, objectives, and policies for improving mobility on Sonoma County's streets, highways, transit systems, and bicycle/pedestrian facilities, as well as strategies to reduce transportation related impacts.

SCTA is partnered with the Regional Climate Protection Authority (RCPA), which was formed in 2009 to coordinate countywide climate protection efforts among Sonoma County's nine cities and multiple agencies. SCTA and RCPA share the same Board of Directors and the same goal to reduce GHG emissions. The RCPA co-produced the Shift Sonoma County — Low Carbon Transportation Action Plan (Shift) with SCTA. The Shift Plan shows the path to reduce GHG emissions in transportation by half, by 2030, a key milestone toward the CTP goal of zero emissions by 2050.

City of Sonoma Municipal Code

Beginning January 1, 2020, the 2019 California Green Building Standards Code (CALGreen) became effective for new buildings and certain addition or alteration projects throughout California. The City has adopted and amended CALGreen as part of the City's Municipal Code to require CALGreen + Tier 1 level of compliance (except the Tier 1 Energy Efficiency measures) for all new buildings. The City requires that project applicants hire a third-party green building special inspector to verify compliance with CALGreen requirements as amended by the City.

City of Sonoma General Plan

The City General Plan (City of Sonoma 2006), contains the following policy and implementation measure related to air quality that are applicable to the proposed project.

Environmental Resources Element

- **Policy 2.9:** Require development to avoid potential impacts to wildlife habitat, air quality, and other significant biological resources, or to adequately mitigate such impacts if avoidance is not feasible.
    - **Implementation Measure 2.9.1**: Evaluate applications for new development in terms of their potential to expose sensitive uses to substantial air pollutant concentrations and/or to create or emit objectionable odors.

4.3.3 Environmental Impacts and Mitigation Measures

Thresholds of Significance

Based on Appendix G of the CEQA Guidelines, the proposed project would have a significant impact related to air quality resources if it would:

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

Where available, the significance thresholds established by the applicable air quality management or air pollution control district may be relied upon to make the significance determinations. While the final determination of whether or not a project is significant is within the purview of the lead agency pursuant to CEQA Guidelines Section 15064(b), BAAQMD recommends that its quantitative and qualitative air pollution thresholds be used to determine the significance of project-related emissions (BAAQMD 2017a). The City, in its discretion and based on scientific evidence supporting the use thereof, has determined it is appropriate to utilize BAAQMD's recommended thresholds for purposes of identifying the project's potential air quality impacts.

Consistency with the Applicable Air Quality Plan

The applicable air quality plan is BAAQMD's 2017 Bay Area Clean Air Plan (BAAQMD 2017b). According to BAAQMD's California Environmental Quality Act Air Quality Guidelines, the determination of 2017 Clean Air Plan consistency should consider the following for plan-level analyses (BAAQMD 2017a).

- Does the plan support the primary goals of the 2017 Clean Air Plan?
- Does the plan include applicable control measures from the 2017 Clean Air Plan?
- Does the plan disrupt or hinder implementation of any 2017 Clean Air Plan control measure?

The project would be consistent with the Bay Area Clean Air Plan if it would support the plan's goals, include applicable control measures from the Bay Area Clean Air Plan, and would not disrupt or hinder implementation of any control measures from the plan. Consistency with this plan is the basis for determining whether the proposed project would conflict with or obstruct implementation of an applicable air quality plan.

Regional Net Increase in Criteria Air Pollutants

BAAQMD's 2017 CEQA Air Quality Guidelines include project-level screening and emissions thresholds for temporary construction-related emissions and long-term operational emissions that would be generated by a project. These screening levels and thresholds represent the levels below which a project's individual emissions of criteria air pollutants or precursors would not result in a cumulatively considerable contribution to the SFBAAB's existing nonattainment status under an applicable NAAQS or CAAQS (BAAQMD 2017a). The BAAQMD screening criteria provide a conservative indication of whether a project could result in the generation of construction- or operational-related criteria air pollutants and/or precursors that exceed the BAAQMD thresholds of significance. The screening level sizes for land uses relevant to the proposed project – hotel and residential uses – are provided in Table 4.3-5.

Table 4.3-5. BAAQMD Criteria Air Pollutant and Precursor Screening Level Sizes

Land Use Type	Operational Screening Size	Construction-Related Screening Size
Hotel	489 rooms	554 rooms
High Turnover Restaurant	33,000 square feet	277,000 square feet
Apartment low-rise	451 dwelling units	240 dwelling units
Apartment mid-rise	494 dwelling units	240 dwelling units
Condo/townhouse, general	451 dwelling units	240 dwelling units
Condo/townhouse, high-rise	511 dwelling units	252 dwelling units

Notes: Screening levels include indirect and area source emissions. Emissions from engines (e.g., back-up generators) and industrial sources subject to Air District Rules and Regulations embedded in the land uses are not included in the screening estimates and must be added to the above land uses.

Source: BAAQMD 2017a, Appendix D: Threshold of Significance Justification, in California Environmental Quality Act Air Quality Guidelines.

The screening criteria are generally representative of new development on greenfield sites without any form of mitigation measures taking into consideration. In addition, as noted by BAAQMD, projects that are mixed-use, infill, and/or proximate to transit service and local services would generate less emissions than the greenfield-type projects that the above screening criteria are based upon. If a project includes emissions from stationary source engines, such as backup generators, or industrial sources subject to the BAAQMD Rules and Regulations, BAAQMD notes that the screening criteria should not be used. In addition to the screening levels above, BAAMQD provides the following guidance with regard to construction-related details that a project must satisfy in order to apply the screening criteria to the evaluation of construction-related criteria air pollutant and precursor emissions:

- All basic construction measures from the 2017 CEQA Guidelines must be included in project design and implemented during construction.
- Construction-related activities may not include:
  - demolition;
  - simultaneous occurrence of more than two construction phases (e.g., paving and building construction taking place at the same time);
  - simultaneous construction of more than one land use type (e.g., the project would develop residential and commercial uses on the same site) (this is not applicable to high-density infill development);
  - extensive site preparation (e.g., greater than default assumptions for grading, cut/fill, or earth movement); or
  - extensive material transport (e.g., greater than 10,000 cubic yards of soil import or export) requiring a considerable amount of haul truck activity.

For projects that do not meet the screening criteria provided in Table 4.3-5 or otherwise do not satisfy one or more of the criteria in the above list, the BAAQMD quantitative thresholds in Table 4.3-6 shall be used to evaluate a project's regional impacts associated with the generation of construction-related and/or operational criteria air pollutant and precursor emissions.

BAAQMD has developed recommended thresholds of significance, as presented in the BAAQMD CEQA Guidelines, and supported by Appendix D of the BAAQMD CEQA Guidelines, "Threshold of Significance Justification," by which a lead agency may evaluate the potential air quality impacts of a project. The BAAQMD's project-level thresholds re summarized in Table 4.3-6. According to BAAQMD, projects with emissions less than the thresholds presented in Table 4.3-6 would be expected to have a less-than-significant impact on air quality of the SFBAAB because exceedance of these thresholds may otherwise contribute to exceedances of CAAQS and NAAQS.

Table 4.3-6. BAAQMD Regional (Mass Emissions) Criteria Air Pollutant Significance Thresholds

Pollutant	Construction Phase Average Daily Emissions (pounds per day)	Operational Average Daily Emissions (pounds per day)	Operational Maximum Annual Emissions (tons per year)
ROG	54	54	10
NO_x	54	54	10
PM_{10}	82 (Exhaust)	82	15
$PM_{2.5}$	54 (Exhaust)	54	10
PM_{10} and $PM_{2.5}$ Fugitive Dust	BMPs	Included with Above PM Thresholds	Included with Above PM Thresholds

Note: BMPs = Best Management Practices.

Source: BAAQMD 2017a, Appendix D: Threshold of Significance Justification, in California Environmental Quality Act Air Quality Guidelines.

Regional Health Risks Associated with Criteria Air Pollutant and Precursor Emissions

The California Supreme Court provided guidance on analysis of air quality impacts on human health in *Sierra Club v. County of Fresno* (2108) 6 Cal. 5th 502. The case reviewed the long-term, regional air quality analysis contained in the EIR for the proposed Friant Ranch development. The Friant Ranch project is a 942-acre master-plan development in unincorporated Fresno County within the San Joaquin Valley Air Basin, an air basin currently in nonattainment for the ozone and $PM_{2.5}$ NAAQS and CAAQS. The Court found that the air quality analysis was inadequate because it failed to provide enough detail "for the public to translate the bare [criteria pollutant emissions] numbers provided into adverse health impacts or to understand why such a translation is not possible at this time." The Court's decision clarifies that the agencies authoring environmental documents must make reasonable efforts to connect a project's air quality impacts to specific health effects or explain why it is not technically feasible to perform such an analysis.

All criteria pollutants that would be generated by the project are associated with some form of health risk. Criteria pollutants can be classified as either regional or localized pollutants. Regional pollutants can be transported over long distances and affect ambient air quality far from the emissions source. Localized pollutants affect ambient air quality near the emissions source. Ozone is considered a regional criteria pollutant, whereas CO, NO_2, SO_2, and lead (Pb) are localized pollutants. PM can be both a local and a regional pollutant, depending on its composition. As discussed above, the primary criteria pollutants of concern generated by the proposed project are ozone precursors (ROG and NOx) and PM (including Diesel PM). Known health effects related to ozone and PM are summarized in Section 4.3.1.2 above. (e.g., asthma). If a project were to exceed the emissions in Table 4.3-6, emissions could cumulatively contribute to the nonattainment status of the region for ozone and PM and contribute increased health effects associated with these air quality conditions.

The BAAQMD is the primary agency responsible for ensuring the health and welfare of sensitive individuals to elevated concentrations of emissions in the SFBAAB, and at present, does not have a methodology that would

correlate the expected air quality emissions of a project to the likely specific health consequences of such emissions. Moreover, there are also no tools currently available to correlate the expected air quality emissions of projects to the likely specific health consequences of the increased emissions. Reducing emissions would contribute to reducing possible health effects related to criteria air pollutants. However, for projects that exceed the emissions thresholds shown in Table 4.3-6, it is speculative to determine how exceeding regional thresholds would affect the number of days the region is in nonattainment—as mass emissions are not linearly correlated with concentrations of emissions—or how many additional individuals in the region would be affected by the health effects cited above.

The analysis of health impacts due to individual projects resulting from emissions of criteria air pollutants has long been focused on a regional or air basin-wide level, typically evaluated through regional air quality planning efforts, such as under Air Quality Attainment Plans and the SIP. This is because the complex reactions and conditions that lead to the formation of ozone and PM in the atmosphere can result in the transport of pollutants over wide aeras and result in health impacts from criteria air pollutants being experienced on a regional scale such as the SFBAAB. The potential for criteria air pollutant emissions to be transported over wide areas means that the emissions of ozone precursor pollutants, such as ROG and NO_X, from a project site such as that of the proposed project does not necessarily translate directly into a specific concentration of ozone or a specific health risk in that same area. To achieve the health-based standards established by CARB and the EPA, the air districts prepare air quality management plans that detail regional programs to attain the CAAQS and NAAQS. In addition, air quality attainment plans take into account anticipated growth and ongoing development within the region, and the thresholds of significance established by BAAQMD account for such growth while serving to identify projects that would generate a level of emissions that could contribute to exceedances of CAAQS and NAAQS. If a project within the BAAQMD exceeds the regional significance thresholds, the proposed project could contribute to an increase in health effects in the basin until the attainment standards are met in the SFBAAB.

Localized Project-Related Criteria Air Pollutant and Precursor Emissions

Community Risk and Hazards

Local community risk and hazard impacts are associated with TACs and $PM_{2.5}$ because emissions of these pollutants can have significant health impacts at the local level. The BAAQMD's significance thresholds for local community risk and hazard impacts apply to both the siting of a new source and the siting of a new receptor. The BAAQMD CEQA Guidelines acknowledges that the California's Supreme Court decision in *California Building Association v. BAAQMD* (62 Cal. 4th 369, 2015) determined that "CEQA generally does not require analysis of how existing environmental conditions will impact a project's future users or residents…Despite the statute's evident concern with protecting the environment and human health, its relevant provisions are best read to focus almost entirely on how projects affect the environment." As also noted by BAAQMD, this Supreme Court decision also upheld that "evaluating a project's potentially significant exacerbating effects on existing environmental hazards…Because this type of inquiry still focuses on the project's impacts on the environment – how a project might worsen existing conditions – directing an agency to evaluate how such worsened conditions could affect a project's future users or residents is entirely consistent with this focus and with CEQA as a whole." There is specific context under CEQA in which analysis of exposing new receptors to existing environmental hazards is required, as detailed in CEQA Guidelines Sections 21096 and 21159 pertaining to contexts involving airports and the development of schools and some housing projects. Finally, the Supreme Court decision did not

present any opinion or decision preventing local agencies from considering the impact of locating new development in areas subject to existing environmental hazards.

For assessing community risk and hazards, sources within a 1,000-foot radius are considered. Sources are defined as freeways, high volume roadways (with volumes of 10,000 vehicles or more per day or 1,000 trucks per day), and permitted sources.[2,3] The proposed project would generate TACs and $PM_{2.5}$ during construction activities that could elevate concentrations of air pollutants at the surrounding residential receptors. Potential TAC and $PM_{2.5}$ emissions that could be generated as a result of the proposed project operations would be limited to mobile source emissions from vehicle trips to and from the project site, and a backup emergency generator that would be permitted in accordance with BAAQMD regulations, neither of which would represent substantial localized emissions sources. The proposed project also proposes the development of eight residential dwelling . Mixed-use, infill development is generally consistent with land use planning and transportation strategies[4] to reduce mobile source emissions, but would also result in the siting of new sensitive receptors (e.g., residents) in an area surrounded by existing development. The BAAQMD has adopted screening tables for air toxics evaluation during construction. BAAQMD recommends that construction-related TAC and $PM_{2.5}$ impacts should be addressed on a case-by-case basis, taking into consideration the specific construction-related characteristics of each project and proximity to off-site receptors, as applicable. The thresholds identified below are applied to the proposed project's emissions and related potential impacts on surrounding existing sensitive receptors.

Community Risk and Hazards – Project

Project-level construction emissions of TACs or $PM_{2.5}$ from the proposed project to individual sensitive receptors within 1,000 feet of the project site that exceed any of the thresholds listed below are considered a potentially significant community health risk (BAAQMD 2017a):

- Non-compliance with a qualified Community Risk Reduction Plan.
- An excess cancer risk level of more than 10 in one million, or a non-cancer (i.e., chronic or acute) hazard index greater than 1.0 would be a significant cumulatively considerable contribution.
- An incremental increase of greater than 0.3 micrograms per cubic meter ($\mu g/m^3$) annual average $PM_{2.5}$ from a single source would be a significant cumulatively considerable contribution.

Community Risk and Hazards – Cumulative

Cumulative sources represent the combined total risk values of each of the individual sources within the 1,000-foot evaluation zone. A project would have a cumulative considerable impact if the aggregate total of all past, present, and foreseeable future sources within a 1,000-foot radius from the fence line of a source or location of a receptor, plus the contribution from the project, exceeds the following (BAAQMD 2017a):

- Non-compliance with a qualified Community Risk Reduction Plan; or
- An excess cancer risk levels of more than 100 in one million or a chronic non-cancer hazard index (from all local sources) greater than 10.0; or

[2] Bay Area Air Quality Management District, 2017a, California Environmental Quality Act Air Quality Guidelines.

[3] Bay Area Air Quality Management District, 2012, Recommended Methods for Screening and Modeling Local Risks and Hazards.

[4] Bay Area Air Quality Management District, 2017b, Clean Air Plan 2017, pages 1/15, 4/4, 4/23, 5/9 – 5/13, A/4, F/18.

- 0.8 μg/m^3 annual average $PM_{2.5}$.

Carbon Monoxide

As described in Section 4.3.1.2, "Air Pollutants of Concern," CO is a colorless and odorless gas that, in the urban environment, is primarily produced by the incomplete burning of carbon in fuels, primarily from mobile (transportation) sources. Relatively high concentrations may be found near crowded intersections and along heavily used roadways carrying slow-moving traffic. Even under the most severe meteorological and traffic conditions, high concentrations of CO are limited to locations within a relatively short distance (300 to 600 feet) of heavily traveled roadways. Vehicle congestion, particularly at major signalized intersections, can generate elevated CO levels, called "hot spots," which can be hazardous to human receptors proximate to the area of congestion.

The significance criteria for CO hotspots are based on the CAAQS for CO, which is 9.0 ppm (8-hour average) and 20.0 ppm (1-hour average). However, with the turnover of older vehicles, introduction of cleaner fuels, and implementation of control technology, the SFBAAB is in attainment of the CAAQS and NAAQS for CO, and CO concentrations in the SFBAAB have steadily declined over time. Because CO concentrations have improved, BAAQMD does not require a CO hotspot analysis and the proposed project would be considered to result in a less-than-significant impact related to local CO concentrations if the following criteria are met (BAAQMD 2017a):

- The project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, the regional transportation plan, and local congestion management agency plans.
- The project would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour.
- The project traffic would not increase traffic volumes at affected intersection to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway).

Odors

BAAQMD does not have recommended thresholds related to odors associated with construction-related emissions. To address long-term operational emissions leading to odors, BAAQMD recommends a qualitative approach, noting that a project that would result in the siting of a new odor source should consider the BAAQMD CEQA Guidelines' odor screening distances also provided in Table 4.3-5 for reference, and the complaint history of the odor source(s). The land uses for which BAAQMD has developed odor screening distances are those that typically have the potential to generate substantial odor complaints, including wastewater treatment plants, landfills or transfer stations, composting facilities, confined animal facilities, food manufacturing, and chemical plants. Odors are also regulated under BAAQMD's Regulation 7, Odorous Substances, and Regulation 1, Rule 1-301, Public Nuisance. Regulation 7 places general limitations on odorous substances and specific emission limitations on certain odorous compounds. Regulation 1, Rule 1-301 states that no person shall discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or the public; or which endangers the comfort, repose, health or safety of any such persons or the public, or which causes, or has a natural tendency to cause,

injury or damage to business or property. Under BAAQMD's Rule 1-301, a facility that receives three or more violation notices within a 30-day period can be declared a public nuisance.

Based on the BAAQMD-recommended thresholds, projects that would site a new odor source farther than the applicable screening distance shown in Table 4.3-6 from an existing receptor, would not likely result in a significant odor impact. Alternatively, a type of odor source with five (5) or more confirmed complaints in the new source are per year, averaged over three years, is considered to have a significant impact on receptors within the screening distance shown in Table 4.3-7.

Table 4.3-7. BAAQMD Odor Screening Distances

Land Use / Type of Operation	Project Screening Distance (miles)
Wastewater Treatment Plant	2
Wastewater Pumping Facilities	1
Sanitary Landfill	2
Transfer Station	1
Composting Facility	1
Petroleum Refinery	2
Asphalt Batch Plant	2
Chemical Manufacturing	2
Fiberglass Manufacturing	1
Painting/Coating Operations	1
Rendering Plant	2
Coffee Roaster	1
Food Processing Facility	1
Confined Animal Facility/Feed Lot/Dairy	1
Green Waste and Recycling Operations	1
Metal Smelting Plants	2

Source: BAAQMD 2017a, Appendix D: Threshold of Significance Justification, in California Environmental Quality Act Air Quality Guidelines.

In summary, pursuant to the BAAQMD amended thresholds for evaluating project-related air quality impacts, implementation of the proposed project would be considered significant if it would (BAAQMD 2017a):

- conflict with the BAAQMD's 2017 Clean Air Plan;
- exceed the BAAQMD screening level criteria or generate construction-related criteria air pollutant or precursor emissions that exceed the BAAQMD-recommended thresholds of average daily emissions of 54 pounds per day of ROG, 54 pounds per day of NO_X, 82 pounds per day of exhaust PM_{10}, 54 pounds per day of exhaust $PM_{2.5}$, or result in a violation of the CO CAAQS;
- exceed the BAAQMD screening level criteria of generate long-term regional criteria air pollutant or precursor emissions that exceed the BAAQMD-recommended thresholds of average daily emissions of 54 pounds per day of ROG, 54 pounds per day of NO_X, 82 pounds per day of exhaust PM_{10}, 54 pounds per day of exhaust $PM_{2.5}$; maximum annual emissions of 10 tons per year of ROG, 10 tons per year of NO_X, 15 tons per year of PM_{10}, or 10 tons per year of $PM_{2.5}$; or result in a violation of the CO CAAQS;
- expose the maximally exposed individual to TAC emissions that result in an incremental increase in cancer risk of more than 10 in one million, a Hazard Index equal to or greater than 1.0, and/or a concentration of $PM_{2.5}$ emissions greater than or equal to 0.3 micrograms per meter cubed; or

- include an odor source with five or more confirmed complaints per year overaged over three years.

In developing thresholds of significance for air pollutants, the BAAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions.

ISSUES NOT DISCUSSED FURTHER

None.

IMPACT ANALYSIS

Impact 4.3-1: Conflict with or Obstruct Implementation of the Applicable Air Quality Plan.

The BAAQMD 2017 Bay Area Clean Air Plan is the applicable air quality plan that comprehensively addresses control strategies for the reduction of ozone (through the reduction of ozone precursors), $PM_{2.5}$, TACs, and GHG emissions. The two primary goals of the 2017 Bay Area Clean Air Plan are to protect public health and protect the climate. Any project that would conflict with or obstruct these goals would be considered inconsistent with the 2017 Bay Area Clean Air Plan. Large projects that exceed regional employment, population, and housing planning projections have the potential to be inconsistent with the regional inventory compiled as part of the BAAQMD 2017 Bay Area Clean Air Plan. On an individual project basis, consistency with BAAQMD quantitative thresholds is interpreted as demonstrating support for the 2017 Clean Air Plan goals.

The proposed project falls substantially below the BAAQMD-established construction-related and operational project screening level sizes for criteria air pollutant impacts within the SFBAAB; those relevant to the proposed project include:

- 8 proposed residential dwelling units compared to the screening level of 240 for construction and 494 for operational impacts;
- 62 hotel rooms compared to the screening level of 554 hotel room for construction and 489 hotel rooms for operational impacts;
- Approximately 7,000 square feet (ksf) for proposed restaurant use compared to the screening level of 277 ksf for construction and 33 ksf for operational impacts; and
- Ancillary uses such as the spa.

The project site is in Downtown Sonoma, which is the most densely developed part of the City, and has a gridded street network that provides a high degree of connectivity to promote pedestrian and bicycle access.[5] The project

5 For more information about how development patterns and the transportation network can reduce vehicular travel demand, please see California Air Pollution Control Officers Association. 2010. Quantifying Greenhouse Gas Mitigation Measures: http://www.aqmd.gov/docs/default-source/ceqa/handbook/capcoa-quantifying-greenhouse-gas-mitigation-measures.pdf and California Air Resources Board. 2014. Impacts of Network Connectivity on Passenger Vehicle Use and Greenhouse Gas Emissions: https://ww2.arb.ca.gov/sites/default/files/2020-06/Impacts_of_Network_Connectivity_on_Passenger_Vehicle_Use_and_Greenhouse_Gas_Emissions_Policy_Brief.pdf.

site is close to common visitor destinations, which would facilitate alternatives to driving and reduce the average distance of trips taken by hotel guests to reach such destinations.

The 2017 Clean Air Plan control strategy encompasses 85 individual control measures that describe specific actions to reduce emissions under the following sectors: stationary (industrial) sources, transportation, energy, buildings, agriculture, natural and working lands, waste management, water, and super-GHG pollutants. Many of these measures are industry-specific and would not be applicable to the proposed land uses or target larger-scale planning efforts such as transit funding and utility energy programs, and would not directly apply to the proposed project. However, the proposed project would be in alignment with the goals of the 2017 Bay Area Clean Air Plan in that it incorporates several features that are consistent with the project-scale actions identified within the plan. For example, key elements in the control strategy that would be applicable to the proposed project are to "[d]irect new development to areas that are well-served by transit, and conducive to bicycling," "[e]xpand the production of low-carbon, renewable energy by promoting on-site technologies such as rooftop solar, wind and ground-source heat pumps," "[p]romote energy and water efficiency in both new and existing buildings," and "[p]romote the switch from natural gas to electricity for space and water heating in Bay Area buildings."

The proposed project is generally consistent with these measures as it proposes mixed-use, infill development in Downtown Sonoma, approximately one-half block from the Sonoma Plaza, which is served by both local and intercity transit service of Sonoma County Transit and is within approximately one-quarter mile of existing Class I, II, and III bike routes and adjacent to the proposed Class II bike route that is on the regional network. In addition, the project does not contain features that would conflict with or obstruct implementation of any 2017 Clean Air Plan control measures. Therefore, the proposed project would conform to this determination of consistency for the 2017 Clean Air Plan.

In addition, as the proposed project involves development of a hotel and restaurant with ancillary uses and an eight-unit residential building, and since the City requires the introduction of residential uses on properties with commercial zoning, it would not result in the increase of population or housing that was not foreseen in City or regional planning efforts (see Section 4.1 of this RDEIR). Therefore, it would not have the potential to substantially affect housing, employment, and population projections within the region, which is the basis of the 2017 Bay Area Clean Air Plan projections. Furthermore, as detailed under Impact 4.3-2 below, the proposed project would not exceed the BAAQMD-recommended thresholds of significance for assessing project-level impacts associated with regional criteria air pollutant and precursor emissions. These thresholds are established to identify projects that have the potential to generate a level of emissions that would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions. Because the project would not exceed these thresholds, it would not be considered by the BAAQMD to result in a level of emissions that would result in a cumulatively considerable contribution to the existing air quality conditions of the SFBAAB. Therefore, and for the reasons mentioned previously, the proposed project would not conflict with or obstruct implementation of the 2017 Bay Area Clean Air Plan and impacts would be **less than significant**.

Mitigation Measure: No mitigation measures are required.

Impact 4.3-2: Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable NAAQS or CAAQS.

As detailed above in Section 4.3.1.2, "Criteria Air Pollutants of Concern," the SFBAAB is classified as nonattainment for NAAQS for ozone and $PM_{2.5}$ and for CAAQS for ozone, $PM_{2.5}$, and PM_{10}. The nonattainment

status of regional pollutants results from past and present development within the Air Basin, and this regional impact is a cumulative impact. No single project would be sufficient in size, by itself, to result in nonattainment of regional air quality standards. Instead, a project's emissions may be individually limited, but cumulatively considerable when evaluated in combination with past, present, and future development projects. The BAAQMD thresholds of significance for construction and operational phases of a project are established to identify projects that have the potential to generate a level of emissions that would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions. Construction and operational emissions are discussed separately below.

Construction

Construction-related activities would result in temporary emissions of criteria air pollutants and ozone precursors from fugitive dust generation associated with demolition and ground disturbing activities (e.g., excavation, grading, and clearing); exhaust emissions from use of off-road equipment and construction vehicle trips associated with hauling of demolition materials and import or export of fill, material delivery, and construction worker commutes; and off-gassing of ROG emissions during asphalt paving and application of architectural coatings. Ozone precursor emissions of ROG and NO_X are associated primarily with construction equipment exhaust and the application of architectural coatings. PM emissions are associated primarily with fugitive dust generated during site preparation and grading, and vary depending on the soil silt content, soil moisture, wind speed, acreage of disturbance, vehicle travel to and from the construction site, and other factors. PM emissions are also generated by equipment exhaust and re-entrained road dust from vehicle travel on paved and unpaved surfaces.

As noted above, BAAQMD has identified screening level criteria, as listed in Table 4.3-5, by which projects may be evaluated and those that meet the criteria would be anticipated to result in a less-than-significant level of regional criteria air pollutant and precursor emissions. However, BAAQMD has also identified construction-related characteristics that, if present, would subject a project to more detailed review even if the project meets the land use size criteria.

The proposed project land uses are well below the screening level size criteria provided by BAAQMD. However, the proposed project would result in overlapping construction phases, including demolition debris and soil export. During the site preparation phase, approximately 22,057 cubic yards of soil export would be hauled off-site, in addition to demolition material. Therefore, a quantified analysis of the proposed project's construction emissions was conducted using the California Emissions Estimator Model (CalEEMod) based on information provided and verified by the project applicant.

Construction Fugitive Dust PM

Ground-disturbing activities associated with the construction phase of the proposed project would generate fugitive dust. The proposed project would involve building and asphalt demolition and would require soil haul to accommodate the subterranean parking garage. Fugitive dust emissions (PM_{10} and $PM_{2.5}$) are considered to be significant unless the proposed project implements the BAAQMD's Best Management Practices (BMPs) for fugitive dust control during construction. PM_{10} is typically the most significant source of air pollution from the dust generated by construction. The amount of dust generated during construction would be highly variable and is dependent on the amount of material being demolished, the type of material, moisture content, and meteorological conditions. If uncontrolled, PM_{10} and $PM_{2.5}$ levels downwind of actively disturbed areas could lead to a temporary

construction-related impact. Mitigation is necessary to ensure that the construction contractor adheres to BAAQMD's BMPs for constructions. Impacts associated with construction-related fugitive dust are **potentially significant** prior to mitigation. Implementation of Mitigation Measure 4.3-2 below would reduce this impact to less than significant.

Construction-Related Ozone Precursor and Exhaust PM Emissions

Construction emissions were modeled using CalEEMod, Version 2022.1. CalEEMod provides a consistent platform for estimating construction and operational emissions from various land use projects and is the model recommended by the BAAQMD for estimating project emissions. Project-specific information, including proposed construction schedule, construction equipment use, and demolition material and soil haul quantities were used in place of model defaults to more accurately estimate emissions associated with the proposed project's anticipated construction activities. The proposed project construction emissions assume construction could begin in 2024 and is anticipated to take approximately 18 months to complete. To determine potential construction-related air quality impacts, criteria air pollutants generated by the proposed project-related construction activities are compared to the BAAQMD significance thresholds in Table 4.3-8 for average daily emissions. Average daily emissions are based on the annual construction emissions divided by the total number of active construction days, as reported by CalEEMod. Detailed model inputs and CalEEMod output files are available in Appendix C to this Recirculated EIR. Please see the City's website for the appendix: https://www.sonomacity.org/hotel-project-sonoma/. As shown in Table 4.3-8, criteria air pollutant emissions from construction equipment exhaust associated with the proposed project would not exceed the BAAQMD average daily construction thresholds. Therefore, construction-related criteria pollutant emissions from exhaust are **less than significant**.

Table 4.3-8. Construction-Related Criteria Air Pollutant and Ozone Precursor Average Daily Emissions

Construction Year	ROG (pounds per day)	NO_X (pounds per day)	PM_{10} (exhaust) (pounds per day)	$PM_{2.5}$ (exhaust) (pounds per day)
2024	1.82	16.1	0.66	0.61
2025	3.85	11.7	0.42	0.39
BAAQMD Threshold	54	54	82	54
Exceed Threshold?	No	No	No	No

Source: Modeled by AECOM 2023. See Appendix C for detailed modeling inputs and calculations.

Operations

Daily activities associated with the operation of the proposed project such as employees and visitors driving to and from the site, deliveries, space cooling, cooking, refrigeration, and other typical activities would generate criteria air pollutant and precursor emissions from area, energy, mobile, and stationary sources. Operational emissions can be distinguished according to their source, including mobile, area, energy, and stationary source emissions. Mobile-source emissions are those associated with vehicle trips, which for the proposed project would include hotel guests, employee trips, and delivery trips.[6] Area-source emissions are those associated with consumer products, periodic architectural coatings, and landscape maintenance activities. Energy use emissions are associated with building electricity and natural gas usage (non-hearth). Stationary source emissions associated

6 For more detail on deliveries, please see the project's delivery plan in Appendix B. Please see the City's website for the appendix: https://www.sonomacity.org/hotel-project-sonoma/.

with the proposed project would be limited to a backup generator that would operate only as needed and for brief intermittent maintenance testing throughout the year.

Criteria pollutant emissions generated by project operations were quantified using CalEEMod Version 2022.1, for the earliest operational year of 2025. Mobile source emissions were estimated based upon the trip rates and distances, as provided in the traffic analysis of Section 4.13, *Transportation*, of this RDEIR. Stationary source emissions were based upon the planned backup generator size for the proposed project. Area and energy source emissions were based up on CalEEMod defaults for the proposed land uses. Detailed model inputs and CalEEMod output files are available in Appendix C to this RDEIR. Please see the City's website for the appendix: https://www.sonomacity.org/hotel-project-sonoma/.

To determine potential operational air quality impacts, criteria air pollutants generated by the proposed project-related operational activities are compared to the BAAQMD significance thresholds in Table 4.3-9 and Table 4.3-10 for average daily and maximum annual emissions, respectively.

Table 4.3-9. Operational Criteria Air Pollutant and Ozone Precursor Average Daily Emissions

Emissions Source	ROG (pounds per day)	NO_X (pounds per day)	PM_{10} (total) (pounds per day)	$PM_{2.5}$ (total) (pounds per day)
Mobile	2.77	4.27	2.62	0.53
Area	1.97	0.71	0.06	0.06
Energy	0.08	1.44	0.11	0.11
Stationary	0.11	0.3	0.02	0.02
Total	4.92	6.72	2.8	0.71
BAAQMD Threshold	54	54	82	54
Exceed Threshold?	No	No	No	No

Source: Modeled by AECOM, 2023. See Appendix C for detailed modeling inputs and calculations.

Table 4.3-10. Operational Criteria Air Pollutant and Ozone Precursor Annual Emissions

Emissions Source	ROG (tons per year)	NO_X (tons per year)	PM_{10} (total) (tons per year)	$PM_{2.5}$ (total) (tons per year)
Mobile	0.50	0.78	0.48	0.10
Area	0.36	0.13	0.01	0.01
Energy	0.01	0.26	0.02	0.02
Stationary	0.02	0.05	<0.005	<0.005
Total	0.90	1.23	0.51	0.13
BAAQMD Threshold	10	10	15	10
Exceed Threshold?	No	No	No	No

Source: Modeled by AECOM, 2023. See Appendix C for detailed modeling inputs and calculations.

As shown in Table 4.3-9 and Table 4.3-10, criteria air pollutant emissions from proposed project operations would not exceed the BAAQMD daily or annual operational thresholds. Therefore, operational criteria pollutant emissions are **less than significant**.

Incremental Increase in Regional Criteria Air Pollutants and Related Health Effects

As described in Section 4.3.1.2, "Air Pollutants of Concern," and Section 4.3.1.9, "Thresholds of Significance" and the sub-discussion on Regional Project-Generated Criteria Air Pollutant and Precursor Emissions, receptor exposure to elevated concentrations of criteria air pollutants is capable of causing adverse health effects,

particularly to sensitive populations. As described above, while temporary construction activities and long-term operations would result in an incremental increase in regional criteria air pollutants, these emissions would not be at a level that is considered cumulatively considerable and also would not expose receptors to substantial pollutant concentrations, as described below.

In the amicus brief filed by the South Coast Air Quality Management District (SCAQMD) on the California Supreme Court's decision in *Sierra Club v. County of Fresno*, the SCAQMD noted that, "[it] takes a large amount of additional precursor emissions [e.g., NOx] to cause a modeled increase in ambient ozone levels… a project emitting only 10 tons per year of NOx or ROG is small enough that its regional impact on ambient ozone levels may not be detected in the regional air quality models used to determine ozone levels…" (SCAQMD 2015). Although this information was submitted by the SCAQMD, it would generally apply to the SFBAAB as well since both the South Coast Air Basin and the SFBAAB are designated as nonattainment areas for state and national ozone standards the South Coast Air Basin is designated as severe non-attainment, while the SFBAAB is designated as marginal non-attainment.

Although implementation of the proposed project would incrementally increase criteria air pollutant emissions within the SFBAAB, any analysis linking potential adverse health risks to corresponding pollutant concentrations would be speculative for several reasons. First, while not quantified, it is recognized that the majority of mass emissions associated with land use development such as the proposed project would be a result of vehicle activity, such as visitor, employee, and residential trips to and from the project site, which would occur primarily not at the project site and be subject to varying meteorological and topographical influences. These emissions would be subject to small-scale air patterns, such as those formed as wind passes between buildings and other anthropogenic features (e.g., cars), creating eddies and other turbulence that affect pollutant transport. Second, as mentioned previously, the SCAQMD has stated: "For the so-called criteria pollutants, such as ozone, it may be more difficult to quantify health impacts… It takes time and the influence of meteorological conditions for these reactions to occur, so ozone may be formed at a distance downwind from the sources… Scientifically, health effects from ozone are correlated with increases in the ambient level of ozone in the air a person breathes… However, it takes a large amount of additional precursor emissions to cause a modeled increase in ambient ozone levels over an entire region. For example, the SCAQMD's 2012 AQMP [Air Quality Management Plan] showed that reducing NO_X by 432 tons per day (157,680 tons per year) and reducing ROG by 187 tons per day (68,255 tons per year) would reduce ozone levels at the SCAQMD's monitor site with the highest levels by only 9 parts per billion. SCAQMD staff does not currently know of a way to accurately quantify ozone-related health impacts caused by NO_X or ROG emissions from relatively small projects" (SCAQMD 2015, pgs. 10-11).

The proposed project would not generate emissions anywhere near the levels cited by the SCAQMD in its amicus brief on the California Supreme Court's decision in *Sierra Club v. County of Fresno* (i.e., 432 tons per day of NOx and 187 tons per day of ROG). Finally, adverse health effects associated with receptor exposure to regional criteria air pollutant concentrations is cumulative in nature. In other words, such health effects are the result of regional air quality conditions and the nonattainment status of a region that results from past, present, and future emissions sources in the region, which are accounted for in the BAAQMDs planning efforts of the regional air quality attainment plans.

As detailed above, air quality attainment plans take into account anticipated growth and ongoing development within the region, and the thresholds of significance established by BAAQMD account for such growth while serving to identify projects that would generate a level of emissions that could contribute to exceedances of

CAAQS and NAAQS. While a project of this size would not individually result emissions that would cause an increase in health effects associated with air quality in the region, it would incrementally contribute to the cumulative regional mass emissions of ozone and PM. If a project within the BAAQMD exceeds the regional significance thresholds, the proposed project could contribute to an increase in health effects in the region. However, the proposed project's emissions would be substantially less than the respective BAAQMD thresholds of significance and therefore this impact is **less than significant**.

Mitigation Measure 4.3-2: Implement BAAQMD Basic Construction Mitigation Measures Recommended for all Proposed Projects.

The proposed project's construction contractor shall comply with the following fugitive dust control best management practices, as recommended by the BAAQMD Basic Construction Mitigation Measures, or as modified before the time of project implementation, for reducing construction emissions of fugitive dust PM_{10} and $PM_{2.5}$:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day or as often as needed to control dust emissions. Watering should be sufficient to prevent airborne dust from leaving the site. Increased watering frequency may be necessary whenever wind speeds exceed 15 miles per hour. Reclaimed water should be used whenever possible.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

Significance after Mitigation

Implementation of Mitigation Measure 4.3-2 would ensure implementation of BAAQMD's best management practices for the control of fugitive dust emissions during construction. In addition, additional details regarding watering of exposed surfaces to minimize fugitive dust have been included to ensure that such action is not

limited to twice per day but implemented as needed to effectively control fugitive dust and prevent airborne dust from leaving the site. Therefore, the proposed project's construction would comply with BAAQMD requirements for all construction projects to reduce temporary fugitive dust emissions, and would reduce this impact to **less than significant**.

Impact 4.3-3: Expose Sensitive Receptors to Substantial Pollutant Concentrations.

Toxic Air Contaminants

Construction-related activities would result in short-term emissions of DPM from the exhaust of off-road heavy-duty diesel equipment for site preparation (e.g., excavation, grading, and clearing); paving; application of architectural coatings; and other miscellaneous activities. Diesel PM was identified as a TAC by CARB in 1998. The potential cancer risk from the inhalation of DPM, as discussed below, is the TAC of concern related to construction activities.

Emissions from construction equipment throughout California and the United States will be reduced over time due to a final rule promulgated by U.S. EPA in January 2001 that reduces emissions for heavy-duty diesel engines in 2007 and subsequent model years. These emissions standards represented a 90 percent reduction in NO_X emissions, 72 percent reduction of nonmethane hydrocarbon emissions and 90 percent reduction of PM emissions in comparison to the emissions standards for the 2004 model year. In December 2004, CARB adopted the fourth phase of emission standards (Tier 4) in the Clean Air Non-road Diesel Rule that are nearly identical to those finalized by U.S. EPA on May 11, 2004. As such, engine manufacturers are now required to meet after-treatment-based exhaust standards for NO_X and PM starting in 2011 that is more than 90 percent lower than current levels, putting emissions from off-road engines virtually on par with those from on-road heavy-duty diesel engines. As construction equipment continues to turnover and/or be retrofitted over time, DPM emissions associated with construction continue to decrease (EPA 2004; see also above in Regulatory Framework under the heading, "California Clean Air Act").

With respect to the health impacts, the dose to which receptors are exposed is the primary factor used to determine health risk (i.e., potential exposure to TAC emission levels that exceed applicable standards). Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher exposure level for the maximally exposed individual. Thus, the risks estimated for a maximally exposed individual are higher if a fixed exposure occurs over a longer period of time.

According to the California Office of Environmental Health Hazard Assessment, health risk assessments (HRA), which determine the exposure of sensitive receptors to TAC emissions, should be based on a 30-year exposure period; however, such assessments should be limited to the period and duration of activities associated with the subject project.

In the case of the proposed project, construction activities are anticipated to last for a total of approximately 18 months, which would be approximately 5 percent of the standard exposure time for a typical HRA. The project site is surrounded primarily by other commercial land uses. There are residences in the Lynch Building and Sonoma Index Tribute Building, as well as approximately 100 feet to the southwest of the project site. Residences are also located approximately 500 feet north of the project site on Church Street. Golden Living Centers –

London House Sonoma nursing care facility and Sunshine School daycare facility are also approximately 900 feet southwest and southeast, respectively, of the project site. DPM concentrations reduce substantially with distance.

In support of the 2016 Draft EIR, a construction HRA was conducted for the construction phase of the project as proposed under the 2016 Draft EIR, which is included as Appendix D to this RDEIR for reference.[7] The EPA AERMOD dispersion modeling program was used to estimate excess lifetime cancer risks, chronic non-cancer hazard indexes, and annual average $PM_{2.5}$ concentrations at the nearest sensitive receptors. The analysis methodology was based on the most current 2015 OEHHA Guidance, which is still the most currently applicable methodology for the evaluation of health risks. The inputs to the HRA considered an 18-month construction duration and assumed a similar mix and intensity of construction equipment use and construction-related vehicle trips. The current proposed project analysis used a slightly more conservative approach in assuming greater potential overlap of construction subphases, such as grading and site preparation and related haul trips. Based on the 2015 HRA, cancer risks for receptors at the daycare and nursing care facility from only construction activities related to the proposed project were calculated to be 1.4 in one million and less than 1 in one million, respectively; for the maximum exposed off-site residents, cancer risk was calculated to be 17 in one million; for non-carcinogenic effects, the hazard index identified for each toxicological endpoint totaled less than 1 for off-site sensitive receptors from the proposed project; and the maximum $PM_{2.5}$ annual concentrations at a surrounding sensitive receptor was found to be 0.10 microgram per meter cubed. Of these results, only the cancer risk for the maximum exposed off-site residence would exceed a BAAQMD significance threshold, that for cancer risk greater than 10 in one million. As detailed in the HRA (Appendix D), mitigation requiring the construction contractor to use construction equipment fitted with Level 3 Diesel Particulate Filters (DPF) for equipment of 50 horsepower or more would substantially reduce DPM emissions associated with on-site equipment used during construction and was determined to reduce potential health risks to a less-than-significant level.

The proposed project's construction timeline is several years after that assumed for the HRA (earliest proposed construction start year of 2024 compared to the assumed start of 2016 used to inform emissions for the HRA). Due to fleet turnover and increasingly stringent emissions standards by CARB for off-road equipment, even with assumed increased intensity of overlapping construction phases, haul trips for excavation, and heavy-duty equipment use and assuming the average fleet mix for construction equipment in the year 2024, average daily construction-related emissions of DPM for all emissions sources (on- and off-site), would be approximately 0.53 pounds per day compared to the mitigated on-site emissions estimates of approximately 0.52 pounds per day used to inform the HRA. Therefore, the calculated cancer risk from the mitigated scenario of the 2016 HRA is still applicable to the proposed project without mitigation, and cancer risk from project construction would be well below the BAAQMD significance threshold of 10 in one million. In addition, proposed project total $PM_{2.5}$ emissions, inclusive of fugitive dust and exhaust emissions, for all emissions sources (on- and off-site) would be approximately 0.73 pounds per day, which is less than the 2016 HRA unmitigated emissions for which the HRA found that concentrations did not exceed BAAQMD thresholds, and comparable to the 2016 HRA mitigated emissions of approximately 0.71 pounds per day (inclusive of on- and off-site emissions). In other words, the proposed project's emissions without mitigation are comparable to the mitigated emissions scenario used to inform the mitigation HRA analysis, in which impacts were found to be less than the BAAQMD-recommended thresholds of significance for cancer risk, health hazards, and $PM_{2.5}$ concentrations.

7 Please see the City's website for the appendix: https://www.sonomacity.org/hotel-project-sonoma/.

Therefore, the proposed project would not exceed the BAAQMD thresholds for health risk without the need for implementation of mitigation, based on the project type, scale, location, and construction details, and due to the fact that fleet turnover and emissions standards for construction-related equipment and diesel-powered trucks has resulted in reduced emissions per unit of activity over time.

Therefore, because of the limited emissions generated during construction activities (as shown in Table 4.3-8), the limited duration of construction, and distance from sensitive receptors, and as reflected in the HRA, construction of the proposed project would not result in exposure of sensitive receptors to substantial TAC emissions. This impact related to construction-related TAC emissions would be **less than significant.**

Operational

Hotels do not typically generate substantial TAC emissions. Land uses that are more likely to generate substantial TAC emissions include industrial land uses that involve stationary sources and manufacturing processes. The proposed land uses could involve trips coming to and leaving from the project site, a portion of which could be diesel-fueled vehicles. However, the proposed project is not anticipated to result in more than approximately 15 new deliveries per week. In other words, the proposed project's land uses are not the type of land uses that would likely generate a higher proportion of diesel-fueled vehicles or heavy-duty trucks, which would be anticipated from land uses, such as distribution centers and heavy industrial projects. Thus, the proposed project's land uses would not substantially increase the proportion of diesel-fueled vehicles coming to and leaving the project site.

The proposed project would generate less than 1 pound per day of $PM_{2.5}$, of which a portion would be DPM emissions. These emissions would be distributed over regional and local roads and would not be concentrated in one location as a constant source of TAC emissions from the project site; on average, less than one-tenth of one pound would be generated on-site by the backup generator during periods of intermittent use. Thus, the proposed project's minimal TAC emissions would be intermittent and dispersed throughout the region and would not expose a single receptor to all of its emissions. Because the proposed project's potential TAC emissions (i.e., operational mobile-source emissions and on-site intermittent backup generator use) would be intermittent and dispersed throughout local roadways, these emissions would not be proportionately higher than baseline mobile sources (i.e., not include a higher proportion of diesel-fueled vehicles than current levels), and would not expose a single receptor to a bulk of its emissions. Therefore, the proposed project's operational activities would not generate TAC concentrations at any site that would expose sensitive receptors to substantial TAC concentrations. Considering this information, the proposed project's operational activities would not generate substantial TAC emissions that would expose nearby sensitive receptors to substantial TAC concentrations. This impact related to operational TAC emissions would be **less than significant.**

Note: As described previously, the California Supreme Court decision in *California Building Industry Association v. BAAQMD* (62 Cal.4th 369) clarified that CEQA does not require an evaluation of impacts of the environment on a project. The Supreme Court also found that CEQA requires the analysis of exposing people to environmental hazards in specific circumstances, including the location of development near airports, schools near sources of toxic contamination, and certain exemptions for infill and workforce housing. The Supreme Court also held that public agencies remain free to conduct this analysis regardless of whether it is required by CEQA. Since the proposed project includes the development of 8 on-site residential units, this analysis also considered whether the project's future residents would be exposed to existing sources of TAC emissions for informational purposes only – this information has not been used to determine the significance of environmental impacts under CEQA. The

2017 BAAQMD Air Quality Guidelines recommend that lead agencies examine TAC and/or $PM_{2.5}$ sources that are located within 1,000 feet of a proposed sensitive receptor. Common stationary sources of TAC and $PM_{2.5}$ emissions include gasoline stations, dry cleaners, and diesel backup generators, which are subject to BAAQMD permit requirements designed to reduce or avoid adverse impacts. The other, often more significant, common source types are on-road motor vehicles on freeways and roads, such as trucks and cars, and off-road sources, such as construction equipment, ships, and trains. Land uses that contain permitted sources, such as a landfill or manufacturing plant, may also contain non-permitted TAC and/or $PM_{2.5}$ sources, particularly if they host a high volume of diesel truck activity.

The BAAQMD has developed several screening analysis tools to evaluate TAC emissions. If the new receptor does not have a major road source (i.e., a freeway or arterial with greater than 10,000 vehicles per day according to the BAAQMD CEQA Guidelines) within 1,000 feet of the project site, then the proposed project meets the distance requirements and no further single-source roadway-related air quality evaluation is recommended by BAAQMD.

Consistent with the recommendations in the BAAQMD CEQA Guidelines (BAAQMD 2017a) for receptor thresholds, risks and hazards were evaluated within the zone of influence of the potential new receptors (1,000-foot radius from the project site). The BAAQMD's Stationary Source Screening Map (BAAQMD 2022b) was used to identify and obtain the cancer risk, health hazard, and PM2.5 concentrations associated with stationary sources within 1,000 feet. Table 4.3-11 presents the adjusted cancer risk and health hazard, and $PM_{2.5}$ concentrations at the proposed residences from the BAAQMD-permitted stationary sources within 1,000 feet of the project site. As shown, health risks (i.e., cancer risk, health hazard, and $PM_{2.5}$ concentrations) for stationary sources would not exceed the BAAQMD thresholds of significance at the project site. According to BAAQMD's Health Risk Calculator (BAAQMD 2022c) which considers distance to the receptors, no individual source would contribute more than the BAAQMD's recommended project-level significance thresholds for cancer risk, health hazard, or $PM_{2.5}$ concentration. In addition, the total cancer risk at the proposed residences from the surrounding stationary sources would be approximately 2.58 in one million, which is below BAAQMD's recommended cumulative significance threshold of a cancer risk greater than 100 in one million. The combined health hazard and $PM_{2.5}$ concentration would be similarly over an order of magnitude less than the respective BAAQMD recommended thresholds. In addition, the BAAQMD resources indicate that the data provided on their Stationary Sources Screening Map (BAAQMD 2022b) include screening level risks and hazards are intentionally conservative and based on worst-case assumptions. Therefore, it can be assumed the *actual* cancer risk, health hazard, and $PM_{2.5}$ concentrations associated with these stationary sources would be lower and that the proposed project would not site future residents in a location subject to substantial pollutant exposure. The impact is **less than significant**.

Table 4.3-11. BAAQMD Permitted Stationary Sources within 1,000 feet of the Project Site

Name of Facility	Cancer Risk[1] (in one million)	Health Hazard[1]	$PM_{2.5}$ Concentration[1] ($\mu g/m^3$)
City of Sonoma Fire Department	0.5096	0.0001	0.0006
Carneros Village Lofts	0.0001	0.0000	0.0001
Jeffrey Martinez dba Sonoma 76	0.5493	0.0026	-
Broadway Shell	1.5224	0.0073	-
BAAQMD Project-Level Threshold	10	1	0.3
Exceeds BAAQMD Project-Level Threshold?	No	No	No
Cumulative (Total)	2.5814	0.0100	0.0007
BAAQMD Cumulative Threshold	100	10.0	0.8
Exceeds BAAQMD Cumulative Threshold?	No	No	No

Notes: BAAQMD = Bay Area Air Quality Management District; PM2.5 = particulate matter with a diameter of 2.5 microns or less; µg/m3 = micrograms per cubic meter; N/A = not applicable.

1 Cancer risk has been adjusted for distance from the source based on the BAAQMD's Health Risk Calculator "Distance Multiplier", included in Appendix D. Please see the City's website for the appendix: https://www.sonomacity.org/hotel-project-sonoma/.

Source: BAAQMD 2022b, c. Data modeled by AECOM in 2022.

CO Impacts

Local mobile-source CO emissions and concentrations near roadway intersections are a direct function of traffic volume, speed, and delay. Transport of CO is extremely limited because it disperses rapidly with distance from the source under normal meteorological conditions. However, under specific meteorological conditions, CO concentrations near roadways and/or intersections may reach unhealthy levels with respect to local sensitive land uses, such as residential units, hospitals, schools, and childcare facilities.

As noted above, BAAQMD has developed a screening threshold to determine if a project would cause an intersection to potentially generate a CO hotspot. The screening thresholds have been developed with conservative assumptions to avoid underestimating CO concentrations. Therefore, a project that would not exceed the screening thresholds would be highly unlikely to generate a CO hotspot and would not expose sensitive receptors to CO concentrations harmful to public health. According to this methodology, projects would have the potential to generate a CO hotspot if it did not contribute a substantial volume of vehicle trips to an intersection that exceeded 44,000 vehicles per hour. For intersections located in areas where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway), the screening threshold is 24,000 vehicles per hour.

As further detailed in Section 4.13, *Transportation*, the proposed project is consistent with local transportation planning efforts to support alternative modes of transportation, reduced dependency upon single-occupancy vehicles, and support land use planning that promotes infill and mixed-use development within the town center. There are no affected intersections at which vertical and/or horizontal mixing is substantially limited. As detailed in the Transportation Impact Study for the proposed project, peak-hour volumes at study intersections do not exceed 2,000 vehicles at any given intersection (see Appendix G, https://www.sonomacity.org/hotel-project-sonoma/). This is substantially below the BAAQMD-recommended screening level of 44,000 vehicles per hour at an affected intersection. Therefore, the proposed project would not result in individually or cumulatively significant impacts from CO emission. This impact pertaining to CO emissions would be **less than significant**.

Mitigation Measure: No mitigation measures are required.

Impact 4.3-4: Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

As detailed in the Thresholds of Significance section above, BAAQMD has developed a list of facilities that are known producers of odors and established screening distances for use in evaluation of potential odor impacts (see Table 4.3-7). The proposed land uses (e.g., hotel, restaurant, and residential) are not land uses associated with odors that constitute a public nuisance and are not identified in Table 4.3-7. During operation, the proposed project could generate odors from cooking associated with the on-site restaurant. However, odors from cooking are not substantial enough to be considered nuisance odors that would affect a substantial number of people. Furthermore, as previously noted, nuisance odors are regulated under BAAQMD Regulation 7, Odorous Substances, and Regulation 1, Rule 1-301, Public Nuisance.

Construction of the proposed project would generate temporary odors associated with diesel exhaust from diesel-powered equipment and ROG emissions associated with the application of asphalt and architectural coatings. BAAQMD does not have any recommended thresholds or screening distances associated with construction-related odorous emissions. However, odors associated with diesel fumes, asphalt paving, and architectural coatings would be temporary and would disperse rapidly with distance from the source. Any potentially noxious odors would be generally confined to the immediate vicinity of the project site; by the time such emissions reach any sensitive receptor sites, they would be diluted to well below any level that would adversely affect a substantial number of people. Therefore, this impact would be **less than significant.**

Mitigation Measure: No mitigation measures are required.

4.4 BIOLOGICAL RESOURCES

4.4.1 ENVIRONMENTAL SETTING

HABITAT TYPES

The project site is located in an urbanized area, has been completely altered by past development, and essentially no longer supports any natural habitat. Nearly the entire site is covered with impervious surfaces consisting of buildings and parking lots.

"Developed habitats" associated with urban communities such as those found at the project site are classified as areas that have been heavily modified by humans, including roadways, existing buildings, and structures, as well as recreation fields, lawns, and landscaped vegetation found in residential yards. Because of the high degree of disturbance in these areas, they generally have low habitat value for wildlife. Typically, the species composition in urban areas consists of a mix of native and nonnative trees, shrubs, flowers, and turf grass. Approximately 50 trees, most of them street trees, are present on the project site. The trees are located around the perimeter of the buildings and the parking lots. A small cluster of coast live oaks and valley oaks are present behind the existing Chateau Sonoma building and 16-inch and 24-inch coast redwoods in the southeastern portion of the site along First Street West are planned for removal (MacNair and Associates 2013).

SPECIAL-STATUS SPECIES

Special-status species are plants and animals that are legally protected under the State and/or federal Endangered Species Acts or other regulations, as well as other species that are considered rare enough by the scientific community and trustee agencies to warrant special consideration, particularly with regard to protection of isolated populations, nesting or denning locations, communal roosts, and other essential habitat.

Suitable habitat for most of the special-status species known or suspected to occur in the vicinity of the City is absent from the project site. The project site contains a commercial building fronting SR 12 (West Napa Street), which is currently used as a retail shop; a metal building, which was previously used for newspaper production by the Sonoma Index-Tribune; and a shed along the southern edge of the project site. Additionally, the project site is adjacent to the Lynch building and the Sonoma Index-Tribune building. Attics and other spaces within these buildings have the potential to contain bat roosting habitat. In addition to the structures onsite, there are several trees onsite and directly adjacent to the project site with the potential to contain suitable bat roosting habitat. Bat species that are most likely to occur on the project site include the pallid bat (*Antrozous pallidus*), a California species of special concern, as well as common bat species such as Yuma myotis (*Myotis yumanensis*), big brown bat (*Eptesicus fuscus*), and Mexican free-tailed bat (*Tadarida brasiliensis*).

SENSITIVE HABITATS

Sensitive habitats include areas of special concern to resource agencies, areas protected under CEQA, areas designated as sensitive natural communities by the California Department of Fish and Wildlife (CDFW), areas outlined in Section 1600 of the California Fish and Game Code, areas regulated under Section 404 of the federal Clean Water Act, and areas protected under local regulations and policies.

There is no riparian habitat or other sensitive natural community or sensitive habitat identified in local or regional plans, policies, regulations, or by CDFW or the U.S. Fish and Wildlife Service (USFWS), present at the project site. The site contains no creeks or other surface waterbodies.

HABITAT CONSERVATION PLANNING

The project site and the surrounding area are not within the boundaries of any habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

4.4.1 REGULATORY FRAMEWORK

FEDERAL PLANS, POLICIES, REGULATIONS AND LAWS

Federal Endangered Species Act

The USFWS and the National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NOAA Fisheries) are responsible for implementing the federal Endangered Special Act (ESA). The ESA protects fish and wildlife species, and their habitats, that are listed as threatened or endangered. Endangered species, subspecies, or distinct population segments are those that are in danger of extinction through all or a significant portion of their range. Threatened species, subspecies, or distinct population segments are those that are likely to become endangered in the near future. None of the bat species that have the potential to occur at the project site are federally listed (CDFW 2021).

STATE PLANS, POLICIES, REGULATIONS, AND LAWS

California Endangered Species Act

The California Endangered Species Act (CESA) establishes State policy to conserve, protect, restore, and enhance threatened or endangered species and their habitats. CESA mandates that State agencies should not approve projects that jeopardize the continued existence of threatened or endangered species if reasonable and prudent alternatives are available that would avoid jeopardy. For projects that would affect species that are on the federal and State lists, compliance with the federal ESA satisfies the CESA if CDFW determines that the federal incidental take authorization is consistent with CESA under California Fish and Game Code Section 2080.1. For projects that would result in take of species that are only State-listed, the project proponent must apply for a take permit under Section 2081(b) of the California Fish and Game Code.

California Fish and Game Code

Under the California Fish and Game Code, CDFW provides protection from "take" for a variety of species, including Fully Protected species. "Fully Protected" is a legal protective designation administered by the CDFW, intended to conserve wildlife species that are at risk of extinction within California. Lists have been created for birds, mammals, fish, amphibians, and reptiles. The California Fish and Game Code sections dealing with Fully Protected species state that these animals "...may not be taken or possessed at any time and no provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to take any fully protected" species.

REGIONAL AND LOCAL PLANS, POLICIES, REGULATIONS, AND ORDINANCES

City of Sonoma General Plan

The City General Plan (City of Sonoma 2006), contains the following policies related to biological resources that are applicable to the proposed project.

Environmental Resources Element

- **Policy ER-2.2:** Preserve habitat that supports threatened, rare, or endangered species identified by State or federal agencies.
- **Policy ER-2.6:** Preserve existing trees and plant new trees.
- **Policy ER-2.9:** Require development to avoid potential impacts to wildlife habitat, air quality, and other significant biological resources, or to adequately mitigate such impacts if avoidance is not feasible.

City of Sonoma Municipal Code – Tree Ordinances

The City of Sonoma Tree Ordinance (Municipal Code Title 12, Chapter 12.08) requires the review and approval of the Planning Commission or the Design Review and Historic Preservation Commission, as well as the City's Tree Committee, for new development that would alter, remove, or relocate any "significant tree" on private property. In addition, a permit is required from the Public Works Department. A "significant tree" is defined as a tree with a single trunk circumference greater than 1.5 feet at a height of 4.5 feet above the ground surface. As part of the permit requirements, an arborist's report is required, which describes the species, size, and health of existing trees, and identifies those trees that would be removed. Significant trees that are removed must be replaced at a minimum of a 1:1 ratio, or an in-lieu fee may be paid by the project applicant, at the discretion of the City. Trees that will be retained must be protected prior to and during construction activities with fencing around a non-intrusion zone designed to include a portion of the tree root system.

The City of Sonoma Heritage Tree Ordinance (Municipal Code Title 12, Chapter 12.09) is designed to protect certain trees that are deemed an essential part of the City's natural and historical heritage, wherever they occur in the City, while at the same time recognizing individual rights to utilize land in a manner that will not be prejudicial to the public interest. A "heritage tree" is defined as a tree or group of trees specifically designated by official act of the parks and recreation commission and which meet the following criteria:

A. The tree or group of trees has historical significance or has taken on the aura of historical appeal; or

B. The tree or group of trees is mutually dependent upon each other for survival; or

C. The tree or group of trees is considered an outstanding specimen[1] of its species; or

[1] An "outstanding specimen" is a tree which has been determined by the parks and recreation commission heritage tree committee to be healthy, has attained maturity, and is well formed.

D. The tree or group of trees is the size of 50 inches or more in diameter measured at 24 inches above natural grade; and

E. The tree or group of trees has been recommended as such by the parks and recreation commission and dedicated and accepted by the City Council of Sonoma.

Heritage trees may not be damaged or removed.

4.4.2 Environmental Impacts and Mitigation Measures

Thresholds of Significance

Based on Appendix G of the CEQA Guidelines, the proposed project would have a significant impact related to biological resources if it would:

- have a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS;
- have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFW;
- have a substantial adverse effect on federally protected waters of the United States, including wetlands, as defined by Section 404 of the Clean Water Act (CWA) through direct removal, filling, hydrological interruption, or other means;
- interfere substantially with the movement of any native resident or migratory wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

Issues Not Discussed Further

Adverse Effects on Riparian Habitat or Other Sensitive Natural Communities—There is no riparian habitat or any other sensitive natural community on the project site. Thus, there would be no impact, and this topic is not evaluated further in this RDEIR.

Adverse Effects on Federally Protected Waters of the United States, Including Wetlands—There are no federally protected waters of the United States, including wetlands, or waters of the State, within or immediately adjacent to the project site. The closest surface waterbody to the project site is Sonoma Creek, which is located approximately 0.75 miles to the west. Best Management Practices implemented during construction as part of the Stormwater Pollution Prevention Plan, and during operation as part of the proposed project's compliance with

the City's Municipal Separate Storm System (MS4) permit, would protect downstream water quality. Thus, there would be no impact, and this topic is not evaluated further in this RDEIR.

Conflict with an Adopted Habitat Conservation Plan—The project site and the surrounding area are not within the boundaries of any habitat conservation plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Thus, there would be no impact, and this topic is not evaluated further in this RDEIR.

IMPACT ANALYSIS

Impact 4.4-1: Effects on Special-Status Species.

As discussed previously in the Environmental Setting, the only potential special-status species at the project site consists of one species of bat, as well as common bat species, which are evaluated below.

Bat Survey Results

The consulting firm, H.T. Harvey and Associates (2015), was retained by the City to perform an assessment of bat roosting habitat on the site and the potential impacts of the proposed project related to bats and their roosting habitat. Biologists conducted a daytime habitat assessment for bats on August 10, 2015. Biologists searched for bats, suitable bat roosting habitat, and evidence of roosting bats (e.g., guano or staining) in the existing metal warehouse and the former Chateau Sonoma building, which would be demolished as part of the proposed project. In addition, due to their proximity to construction-related activities, the Lynch building, and the Sonoma Index-Tribune building, which are not scheduled for demolition, were also surveyed. Finally, the biologists evaluated the trees on the project site for signs of roosting bats or potential bat roosting habitat.

Based on the results of the daytime survey, the biologists returned to the site prior to sunset to conduct a dusk emergence survey at the Lynch building and former Chateau Sonoma building. During this survey, the biologists set up two Song Meter SM2BAT bat detectors to assist in the detection of bats and to record vocalizations of any bats emerging from structures on the project site. In addition, the biologists monitored possible roost locations along rooflines (as identified during the daytime survey) for emerging bats from 7:30 p.m. to 8:45 p.m.

Because the biologists were unable to access the attic of the former Chateau Sonoma building on August 10th, an H.T. Harvey and Associates biologist returned to the site on August 25, 2015 to visually assess potential roosting habitat within the attic and look for bats or evidence of bat presence (e.g., guano or staining).

No signs of bat use (i.e., guano or staining) were detected during the daytime surveys on August 10th or 25th. No potential bat roosting habitat was detected at the metal warehouse or Sonoma Index-Tribune building, but potential bat roosting habitat was identified at the former Chateau Sonoma and Lynch buildings. Specifically, the tile roofing on the Lynch building and the attic of the former Chateau Sonoma building were determined to provide suitable habitat for individuals or colonies of bats, including the pallid bat (*Antrozous pallidus*), which is a California species of special concern, as well as common bat species such as the Yuma myotis (*Myotis yumanensis*), big brown bat (*Eptesicus fuscus*), and Mexican free-tailed bat (*Tadarida brasiliensis*). In addition, the biologists noted pieces of tin peeling back along the roofline of the former Chateau Sonoma building and several potential bat access points along the roofline where the tin was cut to allow pass-through space for wooden beams. However, examination of the inside of the attic of the former Chateau Sonoma building revealed

no evidence (e.g., guano or staining) that bats were present, or had ever used that site as a roost. The trees surrounding the building were also surveyed, but these trees were very young and did not provide suitable cavities or crevices to support roosting bats.

No bats were observed or detected at the Lynch building or the former Chateau Sonoma building during the dusk emergence survey. Furthermore, no bats were observed emerging from the Lynch building. One Mexican free-tailed bat call was recorded on the bat detector adjacent to the Lynch building. However, because Mexican-free tailed bats roost in large congregations and only one call was detected, it is most likely that this call was from a bat that was passing through the area, rather than emerging from a roost on the project site.

Impact Analysis

Pallid bats are very susceptible to human disturbance and are not expected to roost in buildings while they are occupied, such as those on the project site. Therefore, pallid bats are not expected to roost on the project site.

Similarly, although potentially suitable roosting habitat for common bat species was determined to be present at the Lynch building and former Chateau Sonoma building, no evidence of current bat use of the site, nor any evidence that the attic of the former Chateau Sonoma building had ever been used by roosting bats, was observed during the daytime habitat assessments or dusk emergence survey. In addition, the trees within the project site do not provide cavities suitable for use by roosting bats. Therefore, roosting bats were determined to be absent from the site. Given the length of time in which these buildings have been in place, coupled with the lack of any evidence that bats have ever used them for roosting, there is no reasonable expectation that bats will move onto the site to roost prior to the start of project-related activities.

Bats, such as the individual Mexican free-tailed bat that was detected during the dusk survey, could potentially forage over the site. If noise and disturbances from project-related construction were to occur at dusk or after dark, construction activities could result in the temporary disturbance of foraging individual bats through the alteration of foraging patterns (e.g., avoidance of work areas because of increased noise and activity levels during project activities). However, project-related construction activity is expected to occur between the hours of 8:00 a.m. and 6:00 p.m., Monday through Friday; between 9:00 a.m. and 6:00 p.m. on Saturday; and between 10:00 a.m. and 6:00 p.m. on Sundays and holidays; and therefore, would not involve nighttime work that could disturb foraging bats. Furthermore, because the proposed project would not result in substantial changes to the availability of foraging habitat after construction is completed, the proposed project would not have a substantial long-term adverse impact on foraging habitat or prey availability for bats. Therefore, the proposed project would result in a **less-than-significant** impact to roosting or foraging bats and their habitat.

Mitigation Measure: No mitigation measures are required.

Impact 4.4-2: Interference with Wildlife Movement or Established Migratory Corridors.

The project site is in an urbanized area of Downtown Sonoma, surrounded by existing roadways, buildings, and parking lots, which preclude the presence of any important wildlife movement corridors across the site. The project site contains no creeks or aquatic habitat. There are no established, designated wildlife migratory corridors or nursery sites within or adjacent to the project site. Wildlife species that are common in developed, urban habitats would continue to move through the area, both during and after construction. Therefore, development of the proposed project would not substantially interfere with the movement of any native resident or migratory fish

or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nurseries. Therefore, a **less-than-significant** impact on wildlife movement would occur.

Mitigation Measure: No mitigation measures are required.

Impact 4.4-3: Conflict with Tree Preservation Policies or Ordinances.

MacNair and Associates (2013) was retained by the City to prepare an Arborist's Report for the proposed project, as required by City Municipal Code Chapter 12.08. As described above in the Environmental Setting, most of the existing trees are located around the perimeter of the project site—around the parking lots and buildings. A small cluster of coast live oaks and valley oaks is present behind the former Chateau Sonoma building. Table 4.4-1 lists the species, quantity, and general condition of the trees at the project site.

Table 4.4-1. Tree Species and Condition at the Project Site

Tree Species	Quantity	General Condition
Chinese pistache (*Pistacia chinensis*)	4	Generally moderate health and structural condition.
Coast live oak (*Quercus agrifolia*)	2	Generally moderate condition with limited issues.
Coast redwood (*Sequoia sempervirens*)	2	One tree in moderate condition and one drought stressed and previously topped.[1]
Crape myrtle (*Lagerstroemia indica*)	1	Moderate health and structural condition.
Deodar cedar (*Cedrus deodara*)	1	Moderate health and structural condition.
Eastern red oak (*Quercus rubra*)	1	Generally moderate health and structural condition.
European olive (*Olea europaea*)	3	Generally moderate health and structural condition.
Flowering plum (*Prunus cerasifera*)	2	Poor condition due to drought stress and sunscald.
Honeylocust (*Gleditsia triacanthos*)	3	Poor to marginal condition due to drought stress and sunscald.
Japanese maple (*Acer palmatum*)	4	Generally moderate health and structural condition.
Scarlet oak (*Quercus coccinea*)	5	Generally moderate health and structural condition.
Shamel ash (*Fraxinus uhdei*)	17	Poor to marginal condition due to drought stress and sunscald.
Valley oak (*Quercus lobata*)	5	Generally poor to marginal condition due to drought stress and insect problems.
Total	50	

1 This tree has been removed since the 2013 arborist report.

Source: MacNair and Associates 2013

Most of the 50 trees on the project site would be removed for development of the proposed project. Two small scarlet oak trees would be retained. The Arborist's Report identifies the trunk diameter at 4.5 feet above the ground surface, number of trunks, crown height and width, health and structural ratings, and a rating as to the suitability for preservation given each tree's current condition. Approximately 20 of the trees were rated with a moderate potential for preservation; the rest were rated with a poor to marginal potential for preservation. The Arborist's Report found that there are no Heritage Trees at the project site.

On March 28, 2013, the City Tree Committee reviewed the Arborist's Report (MacNair and Associates 2013) and approved the tree removal plan with the following conditions:

- trees must be replaced at a minimum 1:1 ratio (15-gallon box size) for each 6 inches of tree diameter removed;

- the project applicant must implement all tree protection measures and tree recommendations contained in the Arborist Report; and

- if the development site is inadequate in size to accommodate the replacement trees, the trees may be planted on public property with the approval of the Public Works Director. In addition, upon approval of the City Council, the City may accept an in-lieu payment of $100.00 per 15-gallon replacement tree on condition that all such payments shall be used for tree-related educational projects and/or planting programs of the City.

Following public comment on the 2018 RDEIR, the City determined that the following additional condition of approval would be implemented as part of the proposed project:

- Oak trees that will be removed as part of the proposed project shall be replaced on a 2:1 basis.

- The above conditions would be required as a part of the proposed project and therefore the proposed project would comply with the City's Tree Ordinance (Municipal Code Title 12, Chapter 12.08) and the impact would be **less than significant.**

The tree planting plan for off-site planting, as with all project elements related to compliance with the City's Tree Ordinance, is required to be developed and approved by the City.

Mitigation Measure: No mitigation measures are required.

4.5 CULTURAL AND TRIBAL CULTURAL RESOURCES

4.5.1 ENVIRONMENTAL SETTING

ARCHAEOLOGICAL RESOURCES

The Coast Miwok, who called this region home prior to European-American intrusion, were located within Sonoma and Marin Counties. The following ethnographic summary is not intended as a thorough description of Coast Miwok culture but instead is meant to provide a background to the present cultural resource investigation. In this section, the past tense is sometimes used when referring to native peoples because this is a historical study. This convention is not intended to suggest that Coast Miwok people only existed in the past. To the contrary, the Coast Miwok group has strong cultural and social identities today (ALTA 2022a). This includes the Federated Indians of Graton Rancheria (Tribe), a federally recognized tribe with direct descendants of Coast Miwok and Southern Pomo.

The Coast Miwok are one of the California Penutian Language speaking groups and closely related to the Lake Miwok (Kelly 1978:414). The Coast Miwok occupied the northwest coast of California from the mouth of the Golden Gate in the south, to approximately 5 miles north of Bodega Bay in the north, to approximately 4 miles east of Sonoma Creek (Barrett 1908; Kelly 1978). Barrett (1908) divides Coast Miwok speakers into two distinct dialects: Western/Bodega and Southern/Marin. There were historically 44-recorded villages within the Coast Miwok territory, many of which provide present place names (Kelly 1978:415). Ethnographic accounts indicate that the Coast Miwok lived in large villages, each of which had a headman, but cannot be said to have a universal tribal organization. According to informant Tom Smith, a headman (hóypuh), a "woman chief" (hóypuh kulé(·)yih) and a third female leader (máien) split responsibilities of tending to people and organizing religious ceremonies (ALTA 2022a).

The Coast Miwok followed a cyclical pattern of subsistence, targeting resources that were available on a seasonal basis. They practiced a diversified subsistence economy based on fishing, hunting, and gathering with a particular dependence on acorns. Important marine resources included fish, eels, clams, mussels, and seaweed, while terrestrial resources included acorns, bear, deer, elk, and small game (Kelly 1978:416). The Coast Miwok had a rich culture of religion, ritual, and dance, with music and games being a large part of their cultural expression (ALTA 2022a).

The Coast Miwok were among the first California Native peoples to encounter European colonialists when Sir Francis Drake landed on the Marin headlands in 1579. During the late eighteenth and early nineteenth century, many Coast Miwok people were subjected to Spanish missionization efforts, as well as providing labor at Fort Ross under the Russians. In 1850, a year after the end of the American conquest of California, the Coast Miwok population was estimated at 250 (Kelly 1978:414). More recently, while the Coast Miwok still contend with the burdens of colonization, cultural revitalization efforts and community organizing have demonstrated their resilience. Coast Miwok groups are and will continue to be active members of Bay Area social and political life (ALTA 2022a).

Project Site

A records search was conducted by Alta Archaeological Consulting (ALTA) archaeologist Heather Warner on May 19, 2022 (File Number 21-1936) at the Northwest Information Center (NWIC). The NWIC, an affiliate of the State of California Office of Historic Preservation, is the official state repository of archaeological and historical records and reports for an 18-county area that includes Sonoma County. The records search included a review of all studies and resources on file within a one-quarter mile radius of the project site. Sources consulted include archaeological site and survey base maps, survey reports, site records, historic General Land Office (GLO) maps, and review of historic registers and inventories.

There are 53 historic-era cultural resources documented within one-quarter mile radius of the project site. Two cultural resources have prehistoric components (P-49-000345 and P-49-005862). Both sites are located within the Sonoma State Historic Park, 0.25 miles from the project site. No cultural resources are documented within the project site.

On May 19, 2022, ALTA staff archaeologist Sarah King Narasimha and Federated Indians of Graton Rancheria Tribal Monitor Freddie Romero conducted a field survey of the project site. The survey entailed a cultural resources inventory of the project site, totaling approximately 1.6 acres. Ground surface visibility was generally poor, being largely obscured by pavement. Exposed soils were limited to landscaped areas, which were inspected for evidence of cultural materials. No cultural resources were identified as a result of archaeological field survey (ALTA 2022a).

TRIBAL CULTURAL RESOURCES

Assembly Bill 52, which went into effect in July 2015, is an amendment to CEQA Section 5097.94 of the Public Resources Code. AB 52 established a proactive consultation process with all California Native American tribes identified by the Native American Heritage Commission (NAHC) with cultural ties to an area. This process is implemented on projects that file a notice of preparation for an EIR or notice of intent to adopt a negative or mitigated negative declaration. Under AB 52, the Lead Agency is required to consult with tribes at tribal request. The bill further created a new class of resources under CEQA known as Tribal Cultural Resources (TCRs).

On February 22, 2022, AECOM, on behalf of the City, sent formal invitations to consult under AB 52 to 10 tribes regarding the proposed project. A response was received from the Federated Indians of Graton Rancheria (Tribe) on March 1, 2022. The Federated Indians of Graton Rancheria has provided input that has been incorporated into this RDEIR.

ALTA archaeologist Heather Warner contacted the NAHC on May 16, 2022 to request a review of the Sacred Lands Files for information on Native American cultural resources in the project site and to request a list of Native American contacts in this area. ALTA received a NAHC response dated July 7, 2022 that stated the review of the Sacred Land Files was negative and provided a copy of the NAHC Tribal Consultation List for Sonoma County that contained 13 tribes.

On May 16, 2022, Heather Warner sent outreach letters to the same 13 tribes identified on the NAHC Tribal Consultation List for Sonoma County that identified the area as an area of geographic interest. The City reviewed a response from the Federated Indians of Graton Rancheria, met with representatives of the Federated Indians of

Graton Rancheria, incorporated suggestions for revising the EIR, and incorporated suggestions for mitigation measures, and shared the revised EIR and mitigation language with Federated Indians of Graton Rancheria.

HISTORICAL RESOURCES

The Spanish were the first Europeans to set foot in the area. Sailor Bodega y Quadra entered Tomales Bay in 1775. In 1812, Russians traveling from Alaska settled in Sonoma County, ignoring Spanish territorial claims, leasing land from the Pomos and establishing the first European settlement in the area at Fort Ross (Placeworks 2018).

In response to the Russian presence, the Mexican Government (newly independent from Spain and possessing title to California since 1821) sent Jose Altimira to the Sonoma Valley in 1823 to establish a mission and to take control of the rich valleys between the Sacramento River and the Pacific Coast. The new, northernmost of the 21 California missions was constructed in 1824 and was called San Francisco de Solano. The mission became the center of the new town of Sonoma in 1835 and became the headquarters of Commandant Mariano Vallejo, who had already begun to build an adobe villa on his Rancho to the west, near present-day Petaluma (Placeworks 2018).

Mexican attempts in 1833 and 1834 to colonize the Santa Rosa Plain failed, and the Sonoma settlement became increasingly important to the control of an area considering the Russian encroachment and the presence of Native Americans. A smallpox epidemic reduced the local tribes' populations, in combination with the declining fortunes of the Russians, resulting in the sale of Fort Ross to the Swiss adventurer Johann Sutter (Placeworks 2018).

As Commandant Vallejo granted large ranchos to people in the Sonoma Valley, the population in the area grew. By the mid-1840s, Americans were present in substantial numbers. In June 1845, a group of Americans declared their independence from Mexico as the "Bear Flag Republic." The republic had no official government and was dissolved when the United States Navy took charge of the area in July of 1846. The war ended in 1847, and as a result of the Treaty of Guadalupe Hidalgo, California was added as one of the territories of the United States. California became a state in 1850 and the various counties were established in 1851 (Placeworks 2018).

After much of the ranchos granted by Commandant Vallejo were broken up, towns began to form in the area. The Sonoma town square, originally laid out by Vallejo under his military rule, was active in the 1840s. Ten years later, the town was virtually abandoned during the gold rush of the 1850s. When California gained statehood and Sonoma County was established, the city of Santa Rosa was selected over Sonoma as the county seat. Growth and development in the Sonoma area were stimulated by agriculture, although lumbering, tanning, and quarrying also played important roles in the early economy of the valley (Placeworks 2018).

Today, the City of Sonoma still contains several historic structures and sites associated with the Mission period, the Bear Flag Republic, and the historical development of the valley, as described in more detail below. These structures and sites include the Sonoma Plaza National Historic Landmark and surrounding historic structures, as well as the Vallejo Estate at the corner of Spain and West 3rd streets. Additionally, two historic districts that encompass the Sonoma Plaza and nearby parcels are near the project site: the Sonoma Plaza National Historic Landmark and the Sonoma Plaza National Register Historic District. Although the project site is near the Sonoma Plaza National Historic Landmark boundary and the Sonoma Plaza National Register Historic District boundaries, the project site itself is not within those respective boundaries, as shown on Exhibit 4.5-1 and described in more detail below. However, the project site is within the City of Sonoma Historic Overlay Zone (Placeworks 2018).

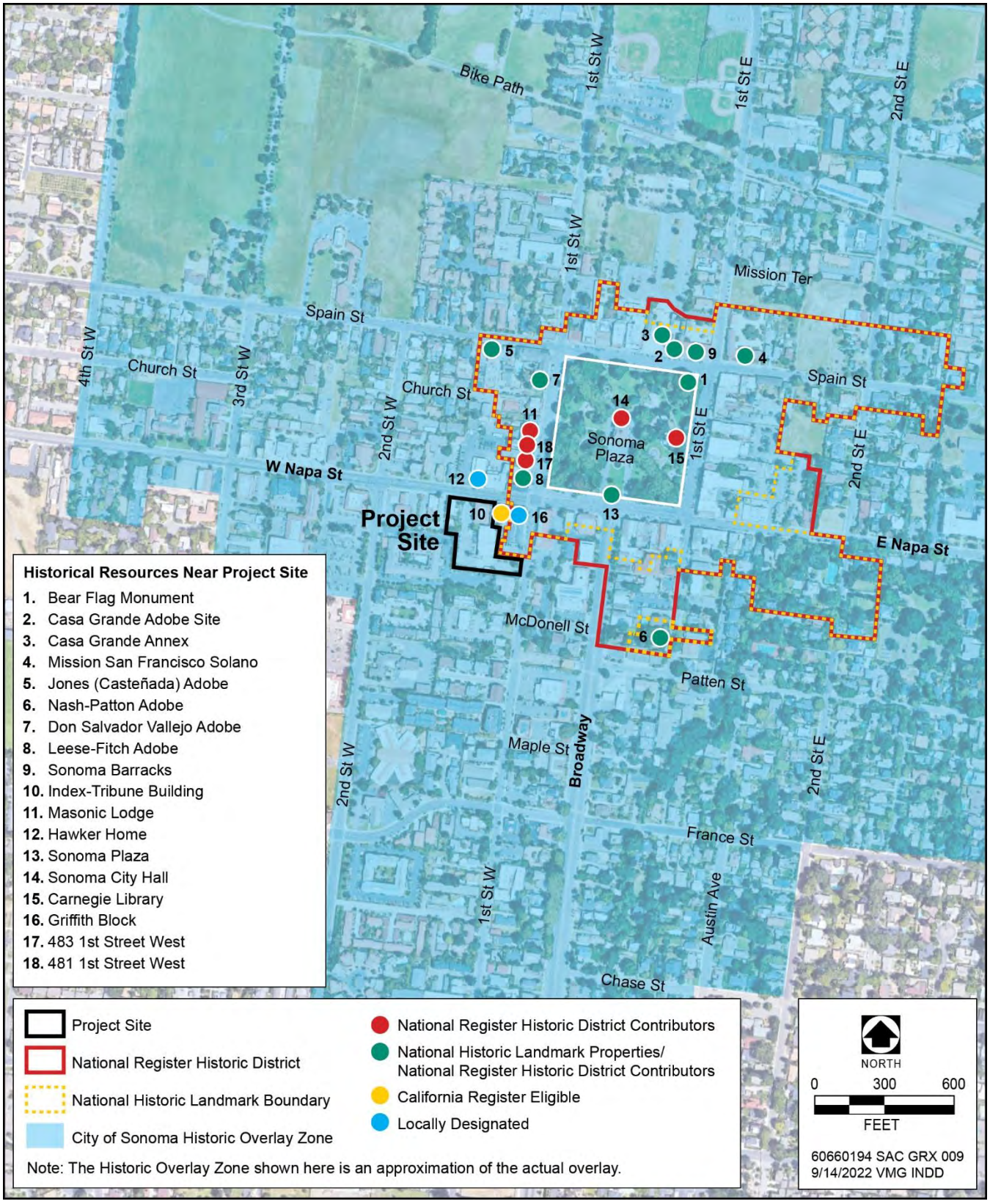


Exhibit 4.5-1. Historical Resources Near Project Site

Sonoma Plaza National Historic Landmark

The Sonoma Plaza National Historic Landmark (NHL) was granted Landmark status by the Department of the Interior in December of 1961 via a letter submittal from the mayor. The NHL district includes the Sonoma Plaza and nine properties, including the Sonoma Barracks; the Casa Grande adobe site; the Casa Grande Servant Quarters; the Mission San Francisco Solano; the Jones (Castenada) Adobe; the Nash-Patton Adobe; the Don Salvado Vallejo Adobe; the Leese-Fitch Adobe; and the Site of the Raising of the Bear Flag/the Plaza itself. Most of the buildings face the plaza, while the Jones (Castenada) Adobe and the Nash Patton Adobe were on adjacent blocks to the plaza, several lots away (Cox and Mulhern 1973; Knapp Architects 2015). After passage of the National Historic Preservation Act of 1966 and the establishment of the National Register of Historic Places (NRHP), previously designated National Historic Landmarks were automatically listed on the NRHP.

Sonoma Plaza National Register Historic District (1973)

In 1973, a *National Register of Historic Places Inventory – Nomination Form* was prepared for the "Sonoma Plaza (National Historic Landmark)," which extended the boundary to the rear parcel lines of all of the lots facing the Sonoma Plaza and extended the district boundary along East Spain Street, East Napa Street, 1st Street East, 2nd Street East, and a three-parcel discontiguous boundary on 1st Street East, just north of Patten Street. While this newly expanded boundary brought in several dozen new properties, the 1973 NRHP nomination form only identified additional 21 properties to add to the Sonoma Plaza National Historic Landmark, for a total of 30 properties (Cox and Mulhern 1973).

Sonoma Plaza National Register Historic District (1992)

In addition to the Sonoma Plaza National Historic Landmark status, a National Register Historic District was established in 1992. The Sonoma Plaza National Register Historic District expanded the 1973 Sonoma Plaza National Historic Landmark boundary with an extension south on Broadway to include the three-parcel discontiguous boundary on 1st Street East and include additional parcels on the north side of East Napa Street (Crowe 1992: 4).

Michael Crowe of the Western Regional Office of the National Park Service, who prepared the registration form, concluded that the Sonoma Plaza Historic District meets National Register criteria A, B, and C because the historic district illustrates important state and local historical and architectural values and established a period of significance of 1823-1944 (Crowe 1992: 22-23). Based on his historic context, Crowe identified 82 contributing buildings, 56 non-contributing buildings, five sites (three contributing), one contributing structure, and two contributing objects (Crowe 1992: 1).

Project Site

Although the project site is not within the Sonoma Plaza National Register Historic District, it abuts the southwest corner of the historic district boundary near two non-contributors and is in the vicinity of seven contributors. The proposed parking lot and ramp directly abut two parcels (APN 018-251-020 and 018-251-056) at the southwest corner of 1st Street West and West Napa Street, which comprise the southwest corner of the Sonoma Plaza National Register Historic District boundary. The parcel at APN 018-251-020 contains the 1921-constructed Griffith Block building at 101-103 West Napa Street and APN 018-251-056 is an empty parking lot directly south. These two parcels were combined and numbered as property 107 at 103-05 West Napa Street in the 1992 Sonoma Plaza National Register Registration Form. The Griffith Block building has been modified since its

original construction and in conjunction with the parking lot, were listed as non-contributing properties to the Sonoma Plaza National Register Historic District (Crowe 1992: 19). While these two parcels do not contribute to the significance of the historic district, the project site is still within proximity of the National Register Historic District as a whole. Additionally, as discussed below, the Griffith Block building at 101-103 West Napa Street has a local historic designation.

The six nearby contributing buildings within the historic district are the 1841-constructed Leese-Fitch Adobe at 491 1st Street West, which is also within the Sonoma Plaza National Historic Landmark, the 1890-constructed Italianate commercial building at 481 1st Street West, the 1890-constructed Italianate commercial building at 483 1st Street West, the 1909-constructed Temple Masonic Lodge at 465 1st Street West, the 1913-constructed former Carnegie Library building at 453 1st Street East, and the 1906-08-constructed Sonoma City Hall at 1 The Plaza. The seventh contributor is the Sonoma Plaza itself, which also includes two monuments for the Rising of the Bear Flag at the northeast corner of the plaza, which is also part of the Sonoma Plaza National Historic Landmark (Crowe 1992: 1, 4, 13, 14, 16).

Sonoma League for Historic Preservation Inventory of Historic Structures

Two properties that are adjacent to the project site have been recorded as part of the Sonoma League for Historic Preservation survey efforts in 1978 and 1998. These two properties are the Hawker Home at 158 West Napa Street (APN 018-202-101) and the Griffith Block at 101-103 West Napa Street (APN 018-251-020).

In 1978, the Sonoma League of Historic Preservation conducted a survey of historic-age resources in the Valley of the Moon, which included the city of Sonoma. The survey divided the Valley of the Moon region into separate "areas," of which "Area Ten" encompasses Sonoma Plaza historical resources that are listed as eligible for the National Register. The survey of Area Ten included a total of 113 properties, of which 78 were identified as eligible for the National Register, in addition to one bridge and three properties described as open space, which includes the Sonoma Plaza itself (Knapp Architects 2015).

The Hawker Home at 158 West Napa Street is one-story, bungalow-style residence constructed circa 1900 and is now converted as part of a boutique hotel. The building was recorded in 1978 and was updated in 1998. As part of this update effort, a California Department of Parks and Recreation (DPR) 523 Primary Record and Building, Structure & Object Record was prepared on 158 West Napa Street that included photos from the original survey with updated photos from 1998 and provided the built date of 1900. A California Historical Resource Status Code 5 was assigned to the property, which is defined as "Properties Recognized as Historically Significant by Local Government," but the property was subsequently entered into the California Office of Historic Preservation's Built Environment Resource Directory (BERD) with a California Historical Resource Status Code 3S, which is "Appears eligible for NR individually through survey evaluation." A planning document prepared for a project that included the Hawker Home in 2016 stated that the building is eligible for listing in the California Register of Historical Resources under Criteria B and C (Sonoma League for Historic Preservation 2022a; OHP BERD 2022; APD Preservation LLC 2016 September 26). Regardless, the Hawker Home at 158 West Napa Street (APN 018-202-101) is considered a historical resource for the purposes of CEQA.

In 1998, as part of the updated and expanded 1978 survey, the one-story Griffith Block commercial building at 101-103 West Napa Street was recorded by members of the Sonoma League for Historic Preservation on a DPR 523 Primary Record and Building, Structure & Object Record. The DPR forms were updated in 2016 with photos from Google Street View dated July 2015 and a corrected built date of 1921 from an 1890 construction date

assigned during the 1998 recordation. The DPR forms lack a building description and construction history, but a California Historical Resource Status Code 5 was assigned to the property, which is for "Properties Recognized as Historically Significant by Local Government." Additionally, while the surveys have not been formally adopted by the City, properties with California Historical Resource Status Code 5 are mapped on the City's GIS portal "Local Historic" layer and listed as a "Designated Historic Site" in the GIS portal property information. Therefore, the Griffith Block is considered a historical resource for the purposes of CEQA (Sonoma League for Historic Preservation 2022b; City of Sonoma 2022).

Index-Tribune Building at 117 West Napa Street

The proposed project calls for the demolition of a 7,690-square-foot, two-story metal warehouse and office building constructed in 1986 behind 135 West Napa Street (APN 018-251-051) and an approximately 3,813-square-foot, one-story, metal warehouse building constructed in 1977 behind the 1928-constructed Sonoma Index-Tribune building at 117 West Napa Street (APN 018-251-067). Page & Turnbull prepared a Historic Resource Study (HRS) on the 1928-constructed Sonoma Index-Tribune building at 117 West Napa Street in 2011. Page & Turnbull concluded that the building was eligible for the California Register under Criteria 1 and 2. However, this report focused on the northern portion of the building that was originally constructed in 1928 and altered in 1958. The report did not attribute significance to the warehouse additions, constructed in 1977 at the southern portion of the parcel (APN 018-251-067), and next door in 1986 at APN 018-251-051, because they were less than 50 years old at the time of recordation.

The *Historic Resources Evaluation for the Hotel Project Sonoma Project* (HRE) prepared by Knapp Architects in 2015, addressed the warehouse additions even though they were less than 50 years old at the time of recordation, The authors concluded that the warehouse additions are not historically significant because they were less than 50 years old and were constructed well after the Index-Tribune was established, and that the additions should not be included in the designation of 117 West Napa Street as a historical resource (Knapp Architects 2015: 4).

Former Chateau Sonoma Building at 153 West Napa Street

The proposed project calls for the demolition of the single-story, former Chateau Sonoma Building located at 153 West Napa Street (APN 018-250-017) that was constructed circa 1910. Page & Turnbull prepared a HRS in 2011 that concluded the property is not individually eligible to the California Register under Criteria 1, 2, or 3 because it lacked historic significance and only retained a moderate degree of integrity to its original date of construction (Page & Turnbull 2011: 25-27).

4.5.2 REGULATORY FRAMEWORK

FEDERAL PLANS, POLICIES, REGULATIONS AND LAWS

National Historic Preservation Act

The National Historic Preservation Act of 1966 established the National Register of Historic Places (National Register) as the official designation of historical resources, including districts, sites, buildings, structures, and objects. For a property to be eligible for listing in the National Register, it must be significant in American history, architecture, archaeology, engineering, or culture, and must retain integrity in terms of location, design, setting, materials, workmanship, feeling and association. Resources less than 50 years in age, unless of exceptional importance, are not eligible for the National Register. Though a listing in the National Register does

not prohibit demolition or alteration of a property, CEQA requires the evaluation of project effects on properties that are listed in the National Register.

STATE PLANS, POLICIES, REGULATIONS, AND LAWS

California Register of Historical Resources

The California Register of Historical Resources (California Register) establishes a list of properties to be protected from substantial adverse change. The State Office of Historic Preservation (OHP) has determined that buildings, structures and objects 45 years or older may be of historical value. A historical resource may be listed in the California Register if it meets any of the following criteria:

1. It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

2. It is associated with the lives of persons important in California's past;

3. It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic value; or

4. It has yielded or is likely to yield information important in prehistory or history.

The California Register includes properties that are listed or have been formally determined eligible for listing in the National Register, State Historical Landmarks, and eligible Points of Historical Interest. Other resources that may be eligible for the California Register, and which require nomination and approval for listing by the State Historical Resources Commission, include resources contributing to the significance of a local historic district, individual historical resources, historical resources identified in historic surveys conducted in accordance with OHP procedures, historical resources or districts designated under a local ordinance consistent with the procedures of the State Historical Resources Commission, and local landmarks or historic properties designated under local ordinance.

California Historical Building Code

The California Historical Building Code (CHBC), defined in Sections 18950 to 18961 of Division 13, Part 2.7 of the Health and Safety Code, provides regulations and standards for the rehabilitation, preservation, restoration (including related reconstruction), or relocation of historical buildings, structures, and properties deemed by any level of government as having importance to the history, architecture, or culture of an area. The City has adopted the 2022 CHBC as part of its Municipal Code in section 14.10.015, Technical Codes Adopted.

California Environmental Quality Act Statute and Guidelines

CEQA defines cultural and historical resources broadly. Cultural resources can include remains of prehistoric habitations and activities, historic sites and materials, and places used for traditional Native American observances or places with special cultural significance. In general, any trace of human activity over 50 years in age is required to be treated as a potential cultural resource.

According to the CEQA Guidelines (Section 15064.5[a]), a historical resource is generally considered significant if it meets the criteria for listing in the California Register of Historical Resources (CRHR) (Public Resources

Code Section 5024.1; California Code of Regulations (CCR), Title 14, Section 4852). A historical resource is defined as any site that is:

(1) Listed in or determined to be eligible by the State Historical Resources Commission, for listing in the CRHR (Pub. Res. Code § 5024.1; 14 CCR § 4850 et seq.),

(2) Included in a local register of historical resources, as defined in section 5020.1(k) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements of section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant,

(3) Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources (Pub. Res. Code, § 5024.1; 14 CCR § 4852) including the following:

(A) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

(B) Is associated with the lives of persons important in our past;

(C) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

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

(4) The fact that a resource is not listed in, or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to Public Resources Code Section 5020.1(k)), or identified in an historical resources survey (meeting the criteria in Public Resources Code Section 5024.1(g)) does not preclude a lead agency from determining that the resource may be an historical resource as defined in Public Resources Code Sections 5020.1(j) and 5024.1.

The CRHR includes resources that are listed in or formally determined eligible for listing in the National Register of Historic Places (NRHP), as well as some California State Landmarks and Points of Historical Interest. Properties of local significance that have been designated under a local preservation ordinance (local landmarks or landmark districts) or have been identified in a local inventory of historical resources may be eligible for listing in the CRHR and are presumed to be significant resources under CEQA unless a preponderance of evidence indicates otherwise (Pub. Res. Code § 5024.1; 14 CCR § 4850). The eligibility criteria for listing in the CRHR are similar to those for NRHP listing but focus on the importance of the resources to California history and heritage. A cultural resource may be eligible for listing in the CRHR if it:

(1) is associated with events or patterns of 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; or

(2) is associated with the lives of persons important to local, California, or national history; or

(3) embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master, or possesses high artistic values; or

(4) has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

The CRHR definition of integrity and its special considerations for certain properties differ slightly from those for the NRHP. Integrity is defined as "the authenticity of an historical resource's physical identity evidenced by the survival of characteristics that existed during the resource's period of significance." The CRHR further states that eligible resources must "retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance," and lists the same seven aspects of integrity used to evaluate properties under the NRHP criteria. The CRHR's special considerations for certain property types are limited to moved buildings, structures, or objects; historical resources achieving significance within the past 50 years; and reconstructed buildings.

The CEQA Guidelines also require consideration of unique archaeological resources (Section 15064.5). Public Resources Code Section 21083.2(g) includes the following definition:

A "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 any 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, or;

(3) Is directly associated with a scientifically recognized important prehistoric or historic event or person.

Assembly Bill 52

Assembly Bill (AB) 52, enacted in 2014, amended sections of CEQA regarding Native American involvement and established a new resource category, "tribal cultural resources," and states that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource may have a significant effect on the environment.

Section 21074 was added to the Public Resources Code to define tribal cultural resources, as follows:

21074. (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 "non-unique 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).

AB 52 requires the CEQA lead agency to consult with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project if the tribe requests written information from the lead agency about projects in that area and requests consultation. The consultation must occur before the lead agency releases a negative declaration, mitigated negative declaration, or environmental impact report. In addition, AB 52 establishes the following time limits for responses regarding consultation:

- Within 14 days after the lead agency determines that a project application is complete or a public agency decides to undertake a project, the lead agency must formally notify the designated contacts or tribal representatives of traditionally and culturally affiliated California Native American tribes that have requested notice.
- The California Native American tribe has 30 days after receiving formal notification from the public agency to request consultation.
- The lead agency must begin the consultation process within 30 days of receiving a California Native American tribe's request for consultation.

REGIONAL AND LOCAL PLANS, POLICIES, REGULATIONS, AND ORDINANCES

Sonoma County Historic Landmarks

The Sonoma County Landmarks Commission was established under County Ordinance No. 1768, which also established procedures to designate Historic Landmarks and Historic Districts. According to the Landmarks Commission By-Laws, Historic Landmarks must meet the criteria for eligibility adopted by the Landmarks Commission, which are based on National Register eligibility criteria. The Landmarks Commission also reviews development proposals and administers the Historic Resources Preservation Program. Of the 178 Sonoma County Historic Landmarks and Historic Districts, 26 are in the City, none of which are located within the Sonoma Plaza National Historic Landmark boundary, Sonoma Plaza National Register Historic District, or the project site (PermitSonoma.org 2022).

Sonoma League for Historic Preservation Inventory of Historic Structures

The Sonoma League for Historic Preservation was established in 1969. In 1978 and 1979, volunteers from the Sonoma League for Historic Preservation conducted a survey of 113 potentially significant historic-age buildings in Sonoma County. The survey was updated and expanded in 1998 to record properties on DPR 523 Primary Record and Building, Structure & Object Records. Updated and new survey results are searchable through the Sonoma League for Historic Preservation website. While the surveys have not been formally adopted by the City, properties with California Historical Resource Status Code 5 are mapped on the City's GIS portal "Local Historic" layer and listed as a "Designated Historic Site" in the GIS portal property information and are considered by the City to be historical resources for the purposes of CEQA (Page & Turnbull 2016a: 19; City of Sonoma 2022).

Local Inventory of Historic Sites and Structures

The City passed Resolution No. 18-2006 on April 5, 2006, which established a local inventory of historic sites and structures. The inventory was comprised of 94 sites and structures in the City that "represent an irreplaceable heritage of great significance to the community in terms of its culture, its character, and its economy;" with California Historical Resource Status Codes of 1 or 2, indicating the properties are listed in the National or California registers (1) or properties determined eligible for listing in the National or California registers (2) (City of Sonoma, Resolution No. 18-2006). 13 additional properties were added to the list on January 17, 2023.

City of Sonoma General Plan

The City of Sonoma 2020 General Plan contains the following goals and policies related to cultural and tribal cultural resources that are applicable to the proposed project (City of Sonoma 2006).

Community Development Element

- **Goal CD-5:** Reinforce the historic, small-town characteristics that give Sonoma its unique sense of place.
  - **Policy CD-5.1:** Preserve and enhance the scale and heritage of the community without imposing rigid stylistic restrictions.
  - **Policy CD-5.4:** Preserve and continue to utilize historic buildings as much as feasible.
  - **Policy CD-5.8:** Encourage the designation and preservation of local historic structures and landmarks, and protect cultural resources.
    - **Implementation Measure 5.8.2:** Refer development proposals to the California Archaeological Inventory at Sonoma State University to ensure that important archeological sites are identified and protected.

Local Economy Element

- **Goal LE-1:** Support and enhance the local economy in a manner consistent with Sonoma's character and in furtherance of its quality of life.

- **Policy LE-1.8:** Preserve and enhance the historic Plaza area as a unique, retail-oriented commercial and cultural center that attracts both residents and visitors.

City of Sonoma Historic Overlay District

Chapter 19.42, Historic Preservation and Infill in the Historic Zone, of the Sonoma Municipal Code is intended to safeguard the historic character of the City by recognizing and preserving historic and cultural resources by providing incentives and rehabilitation of historically and culturally significant resources, and by ensuring that development in the historic overlay zone is architecturally compatible. Development within the Historic Overlay District is subject to the provisions and guidelines set forth in the Sonoma Municipal Code Chapter 19.42, as well as the City-required design review to ensure development within the Historic Overlay District is compatible with the historic character of the City. As shown on Exhibit 4.5-1, the project site is within the Sonoma Historic Overlay Zone. The proposed project would be reviewed against the guidelines set forth in Chapter 19.42.050 Guidelines for infill development in the Historic Overlay District for which a discretionary permit is required.

City of Sonoma Municipal Code – Adoption of California Historical Building Code

The California Historical Building Code, published by the California Building Standards Commission, has been adopted by reference without amendments in Title 14, Chapter 14.10, Section 14.10.015 of the Sonoma Municipal Code.

4.5.3 Environmental Impacts and Mitigation Measures

Thresholds of Significance

Based on Appendix G of the CEQA Guidelines, the proposed project would have a significant impact related to cultural and tribal cultural resources if it would:

- cause a substantial adverse change in the significance of a unique archaeological resource as defined in Public Resources Code Section 21083.2 and the CEQA Guidelines Section 15064.5;
- cause a substantial adverse change in the significance of a historical resource as defined in the CEQA Guidelines Section 15064.5;
- disturb any human remains, including those interred outside formal cemeteries; or
- cause a substantial adverse change in the significance of a tribal cultural resource defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geologically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:
  - listed or eligible for listed in the California Register of Historical Resources, or in local register of historical resources as defined in Public Resources Code Section 5020.1(k); or
  - a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

CEQA Guidelines Section 15064.5 defines "substantial adverse change" as physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the resource would be materially impaired. The significance of a historical resource is materially impaired when a project results in demolition or material alteration in an adverse manner of those physical characteristics of a resource that:

- conveys its historical significance and that justify its inclusion in, or eligibility for inclusion in, the CRHR;
- accounts for its inclusion in a local register of historical resources pursuant to Public Resources Code Section 5020.1(k) or its identification in a historical resources survey meeting the requirements of Public Resources Code Section 5024.1(g), unless the public agency reviewing the effects of the proposed project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or
- conveys its historical significance and that justify its eligibility for inclusion in the CRHR, as determined by a lead agency for purposes of CEQA.

IMPACT ANALYSIS

Impact 4.5-1: Potential for Substantial Adverse Change in the Significance of an Archaeological Resource.

No archaeological cultural resources were identified within the project site as a result of the records search, literature review, Native American consultation, or archaeological field survey.

Since the project site has been previously developed and is almost completely covered with impervious surfaces, ground-disturbing activities associated with the prior construction likely already disturbed or resulted in the discovery of any archeological resources that may have existed on the site. Moreover, development of the proposed project would be subject to policies in the City General Plan (City of Sonoma 2006), including Implementation Measure 5.8.2 which calls for the City to refer development proposals to the California Archaeological Inventory at Sonoma State University to ensure that important archeological sites are identified and protected. This implementation measure from the City General Plan would serve to reduce potential impacts to archeological resources on the project site.

As discussed in the Environmental Setting above, a records search was conducted by ALTA on May 19, 2022 to determine the potential for the presence of archaeological resources that may be present at the project site or within a 0.25-mile radius. Based on the results of records searches, and the locations of known prehistoric archaeological sites, it was determined that there is a possibility for archaeological deposits to be present at the project site. Therefore, project-related earthmoving activities could unearth or disturb archaeological resources that may be present at the site, and this impact is considered **potentially significant**.

> Mitigation Measure 4.5-1a**: Worker's Environmental Awareness Program (WEAP)**
>
> The project applicant shall retain an archaeologist that is on the list of Graton Rancheria-approved archeologists to conduct a Worker's Environmental Awareness Program (WEAP) training for all construction personnel on archaeological sensitivity prior to the commencement of any ground-disturbing activities. The WEAP training shall include a description of the types of cultural material that may be encountered, cultural sensitivity issues, the regulatory environment, and the proper protocol for treatment of the materials in the event of a find. The project applicant shall coordinate with the City to provide advance notice and an invitation to the Federated Indians of Graton Rancheria to participate in this training.

Mitigation Measure 4.5-1b: Conduct a Cultural Resources Survey, Stop Work and Evaluate if Materials are Encountered, and Implement a Treatment Plan, as Necessary.

- After the completion of demolition activities, a cultural resources survey shall be completed by an archaeologist who meets the Secretary of the Interior's professional qualifications standards. Additionally, limited subsurface explorations shall be completed through a series of auger hole borings.
- If any prehistoric or historic subsurface cultural resources are discovered during ground-disturbing activities, all work within 50 feet of the resources shall be halted and a qualified archaeologist shall be consulted to assess the significance of the find according to CEQA Guidelines Section 15064.5. This work shall also include the Federated Indians of Graton Rancheria (the Tribe) Tribal Historic Preservation Officer (THPO) for review and comment.
- If any find is determined to be significant, representatives from the City, the Tribe, and the archaeologist would meet to determine the appropriate avoidance measures or other appropriate mitigation. All significant cultural materials recovered shall be, as necessary and at the discretion of the consulting archaeologist, subject to scientific analysis, professional museum curation, and documentation according to current professional standards. In considering any suggested mitigation proposed by the consulting archaeologist to mitigate impacts to historical resources or unique archaeological resources, the City shall consult with the Tribe before determining whether avoidance is necessary and feasible in light of factors such as the nature of the find, project design, costs, and other considerations. If avoidance is infeasible, other appropriate measures (e.g., data recovery) may be instituted, along with other potential measures determined by the City in consultation with the Tribe.
- Work may proceed on other parts of the project site while mitigation is being carried out.

Significance after Mitigation

Implementation of Mitigation Measures 4.5-1a and -1b would reduce potential project impacts on archaeological resources to a less than significant level because a cultural resources survey, including subsurface soil borings, would be implemented prior to the start of construction activities to determine the potential likelihood of encountering archaeological materials during construction. Furthermore, if any archaeological materials were encountered during construction, construction in the vicinity of the find would be halted, a professional archaeologist would be consulted, and an appropriate treatment plan would be implemented.

Impact 4.5-2: Potential for Substantial Adverse Change in the Significance of a Historical Resource.

As described above and shown on Exhibit 4.5-1, the project site is within the vicinity of the Sonoma Plaza National Historic Landmark, the Sonoma Plaza National Register Historic District, and is within the City of Sonoma Historic Overlay Zone. The historical resources listed in Table 4.5-1 have the potential to be adversely affected by the proposed project because of their close proximity (within an approximately one-half-block radius) to the project site. Each of these historical resources are discussed in further detail below. The aspects of the proposed project with the greatest potential to affect these historical resources consist of: siting and layout; scale, form, and massing; façade compositions and openings; and exterior materials.

Table 4.5-1. Historical Resources Potentially Affected by the Proposed Project

Property Name	Address	Eligibility Source	Survey Criteria	Type	Listed in City of Sonoma Inventory of Historic Sites and Structures
Index-Tribune Building (North)	117 W. Napa St. (adjacent to project site)	Page & Turnbull Report	California Register - eligible	Building (individual)	No
Sonoma Plaza National Historic Landmark	~300 ft. northeast of project site	Nat'l. Historic Landmark	Nat'l. Historic Landmark - listed	District	No
Sonoma Plaza National Register District	~300 ft. northeast of project site	Nat'l. Register Nomination	Nat'l. Register-listed	District	No
Temple Masonic Lodge	465 1st St. W. (~300 ft. north of project site)	Nat'l. Register Nomination	Nat'l. Register-listed	Contributor to district	Yes
Italianate commercial building	481 1st St. W. (~280 ft. northeast of project site)	Nat'l. Register Nomination	Nat'l. Register-listed	Contributor to district	Yes
Italianate commercial building	483 1st St. W. (~260 ft. northeast of project site)	Nat'l. Register Nomination	Nat'l. Register-listed	Contributor to district	Yes
Leese-Fitch Adobe	491 1st St. W. (~250 ft. northeast of project site)	Nat'l. Historic Landmark	Nat'l. Historic Landmark/Nat'l. Register Historic District - listed	Nat'l. Historic Landmark / Contributor to a district	Yes
Carnegie Library	453 1st St. E. (~880 ft. northeast of project site)	Nat'l. Register Nomination	Nat'l. Register-listed	Contributor to district	Yes
Sonoma City Hall	1 The Plaza (~680 ft. northeast of project site)	Nat'l. Register Nomination	Nat'l. Register-listed	Contributor to district	Yes
Sonoma Plaza	1 The Plaza (~680 ft. northeast of project site)	Nat'l. Register Nomination	Nat'l. Register-listed	Contributor to district	Yes
Hawker Home	158 W. Napa St. (~150 ft. northwest of project site)	Valley of the Moon Survey (Area 10) – 1978; 1998	Local Survey	Building	No
Griffith Block	101-103 W. Napa St. (~170 ft. east of project site)	Valley of the Moon Survey (Area 10) - 1998	Local Survey	Building	No

Note: N/A = not applicable
Source: AECOM 2023

Index-Tribune Building 117 West Napa Street

The Index-Tribune Building is a two-story tall building that abuts the northeast corner of the proposed project site (see Exhibit 4.5-1). An HRS prepared in 2012 by Page & Turnbull concluded that the Index-Tribune Building is eligible for listing on the California Register under Criteria 1 and 2 (Page & Turnbull 2016b).

On April 14, 2016, the City Planning Commission approved the reconstruction of the Index-Tribune Building including the addition of a second floor. The remodel was also reviewed by the City Design Review and Historic Preservation Commission. The application included a March 24, 2016 study by Page & Turnbull analyzing the historical resources impacts resulting from improvements to the Index-Tribune Building. The analysis found that the improvements maintained the character-defining features on the front façade of the building and the total reconstruction of the side and rear walls would not impair the historic nature of the building. The remodel was later issued with all of the required permits and was completed in 2017. The rear (south) elevation was completely demolished and rebuilt with a new concrete two-story wall. Upon demolition of the warehouse, as proposed by the project, the owner of the Index-Tribune Building will stucco the rear elevation to match the other walls of the building (Page & Turnbull 2016b). Implementation of the proposed project would demolish the warehouse, which is not a character-defining feature of the Index-Tribune Building and was recommended not to be included in the designation of 117 West Napa Street as a historical resource. The proposed project also includes new stucco siding on the rear elevation of the Index-Tribune Building, but the rear elevation is not a character-defining feature of the historical resource. Additionally, implementation of the proposed project would change the immediate setting of the Index-Tribune Building with construction of the proposed three-story hotel and spa building and detached three-story, 8-unit residential building. The evaluation of the Index-Tribune Building stated the building lacked integrity of setting because of the rear warehouse and office additions and adjacent historic-age buildings had been moved and replaced with new construction or parking lots (Page & Turnbull 2012). Therefore, changes to the setting do not affect the historical significance of this resource. Implementation of the proposed project would not result in substantial adverse change to the historic significance of the Index-Tribune Building, and this impact would be **less than significant.**

Sonoma Plaza National Historic Landmark

The project site abuts the Sonoma Plaza National Historic Landmark boundary which consists of the Sonoma Plaza and nine properties, described above in the Environmental Setting (see Exhibit 4.5-1). There is limited visual connection between the National Historic Landmark properties and the project site, and as a result, the proposed project could affect only the integrity of the setting, feeling, and association of these nine properties and the Sonoma Plaza. Most of these properties are generally located near the north and west side of the Sonoma Plaza—not within the immediate vicinity of the project site such that they would be potentially affected by the proposed project. Effects on National Historic Landmark properties within an approximately one-half-block radius of the project site are discussed below which are the Plaza and the Leese-Fitch Adobe. Thus, the proposed project implementation would result in a **less than significant** impact.

Sonoma Plaza National Register Historic District

The project site abuts the Sonoma Plaza National Register Historic District (Historic District) described above in the Environmental Setting (see Exhibit 4.5-1). Of the Historic District's 88 buildings, sites, structures, and objects, only the Plaza, Leese-Fitch Adobe, Sonoma City Hall, Carnegie Library, Temple Masonic Lodge, and the buildings at 481 and 483 1st Street West are within a one-half-block radius of the proposed project site – these

features are discussed below. Construction of the proposed project would form part of the setting of the Historic District, but of the contributing properties, a small portion of the proposed project may be visible from the southwest corner of the Sonoma Plaza which would only cause a small degree of change to the overall, but not the immediate, setting of the Historic District, since the new structures will not be out of scale with adjacent buildings.

Although the design of the proposed project would not match the historic buildings in the district, it would be similar enough so that it would not impair the integrity of setting, feeling, or association of the Historic District. Therefore, the proposed project would have a **less than significant** impact on the Sonoma Plaza National Historic District.

Leese-Fitch Adobe – 491 1st Street West–Sonoma Plaza National Historic Landmark and Sonoma Plaza National Register Historic District Contributor

The Leese-Fitch Adobe is two-stories tall and faces the west side of the Sonoma Plaza (see Exhibit 4.5-1). The non-contributing building next to the Leese-Fitch Adobe at the corner of West Napa Street and 1st Street West is markedly taller and forms a partial screen between it and the project site. The most significant part of the historical setting of the Leese-Fitch Adobe is the Sonoma Plaza itself and there are limited vantage points where the Leese-Fitch Adobe and the project would be viewed together. The project would cause a small degree of change to the overall, but not to the immediate setting of the Leese-Fitch Adobe. Therefore, implementation of the proposed project would not demolish or materially alter the Leese-Fitch Adobe, nor would it alter its immediate setting in a way that would materially impair its historical significance. Thus, the proposed project implementation would result in a **less than significant** impact.

Italianate Commercial Building – 481 1st Street West – Sonoma Plaza National Register Historic District Contributor

The Italianate commercial building at 481 1st Street West is one-story tall and faces the west side of the Sonoma Plaza (see Exhibit 4.5-1). Two buildings separate this building from the project site, specifically the adjacent two-story-tall Leese-Fitch Adobe building immediately adjacent to the south and the even taller, reconstructed non-contributing building at 497 1st Street West that form a screen between this building and the project site. Under existing conditions, the most significant part of the historical setting of this building is the Sonoma Plaza itself. There are no vantage points where the project site and this building are both prominently visible. The proposed project would cause a small degree of change to the overall, but not the immediate, setting of this building. Therefore, implementation of the proposed project would not demolish or materially alter this building, nor would it alter its immediate setting in a way that would materially impair its historical significance, and therefore would result in a **less than significant** impact.

Italianate Commercial Building – 483 1st Street West – Sonoma Plaza National Register Historic District Contributor

The Italianate commercial building at 483 1st Street West is one-story tall and faces the west side of the Sonoma Plaza (see Exhibit 4.5-1). Four buildings separate this building from the project site, specifically the nearby and taller Leese-Fitch Adobe and the reconstructed non-contributing building at 497 1st Street West that form a screen between this building and the project site. Under existing conditions, the most significant part of the historical setting of this building is the Sonoma Plaza itself. There are no vantage points where the project site and this building are both prominently visible. The proposed project would cause a small degree of change to the overall,

but not the immediate, setting of this building. Therefore, implementation of the proposed project would not demolish or materially alter this building, nor would it alter its immediate setting in a way that would materially impair its historical significance, and therefore would result in a **less than significant** impact.

Temple Masonic Lodge – 465 1st Street West – Sonoma Plaza National Register Historic District Contributor

The Temple Masonic Lodge is two stories tall and faces the west side of the Sonoma Plaza (see Exhibit 4.5-1). Six buildings separate the Temple Masonic Lodge from the project site. While the Temple Masonic Lodge is the tallest building on this block of 1st Street West, there are no vantage points where the project site and this building are both prominently visible. Under existing conditions, the most significant part of the historical setting of this building is the Sonoma Plaza itself. The proposed project would cause a small degree of change to the overall, but not the immediate, setting of this building. Implementation of the proposed project would not demolish or materially alter this building, nor would it alter its immediate setting in a way that would materially impair its historical significance, and therefore would result in a **less than significant** impact.

Sonoma Plaza–Sonoma Plaza National Historic Landmark and Sonoma Plaza National Register Historic District Contributor

The Sonoma Plaza is an urban park located on one city block (see Exhibit 4.5-1). It contains vehicle access and parking for Sonoma City Hall and the former Carnegie Library, paved walkways, and two monuments to the raising of the Bear Flag at the northeast corner, with grass and mature landscaping. A small portion of the proposed project may be visible from the southwest corner of the Plaza which would only cause a small degree of change to the overall, but not the immediate, setting of the Sonoma Plaza. Therefore, implementation of the proposed project would not demolish or materially alter the Plaza, nor would it alter its immediate setting in a way that would materially impair its historical significance, and therefore would result in a **less than significant** impact.

Sonoma City Hall – 1 The Plaza - Sonoma Plaza National Register Historic District Contributor

Sonoma City Hall is a two-story building sited at the center of the Sonoma Plaza and faces south (see Exhibit 4.5-1). Mature landscaping in grassy areas at the southwest corner of the Sonoma Plaza screen Sonoma City Hall from the project site. There are no vantage points where the project site and Sonoma City Hall are both prominently visible. Therefore, implementation of the proposed project would not demolish or materially alter the Sonoma City Hall building, nor would it alter its immediate setting in a way that would materially impair its historical significance, and therefore would result in a **less than significant** impact.

Carnegie Library – 453 1st Street East - Sonoma Plaza National Register Historic District Contributor

The former Carnegie Library is a one-story-tall building sited on the east side of Sonoma Plaza and faces east (see Exhibit 4.5-1). Mature landscaping in grassy areas at the southwest corner of the Sonoma Plaza screen the former Carnegie Library from the project site. There are no vantage points where the project site and former Carnegie Library are both prominently visible. Therefore, implementation of the proposed project would not demolish or materially alter the former Carnegie Library building, nor would it alter its immediate setting in a way that would materially impair its historical significance, and therefore would result in a **less than significant** impact.

Hawker Home – 158 West Napa Street

The Hawker Home is one-story, bungalow-style residence, now converted as part of a boutique hotel, that is immediately across SR 12 (West Napa Street), north of the project site at 158 West Napa Street (see Exhibit 4.5-1). The proposed project would remove the circa 1910-constructed former Chateau Sonoma building at 153 West Napa Street (which is not a historical resource) that faces the Hawker Home and replace it with the restaurant wing of the proposed hotel. The proposed project would alter the scale and density of development in the immediate vicinity of the Hawker Home, and would replace the former Chateau Sonoma building with a new building of similar height and scale to the structures in the vicinity of the proposed project. These changes would alter the setting of the Hawker Home to some degree; however, the proposed project would not change the balance of commercial and residential development in the area. The increase in density would occur on the south side of the project site – the side of the site farthest from the Hawker Home. Additionally, the Hawker Home's setting already includes sizable recent buildings such as the Lynch Building at 135 West Napa Street, as well as an older building of a similar scale to the proposed project located nearby on the north side of SR 12 (West Napa Street), like Sonoma Plaza National Register Historic District non-contributor building at 497 1st Street West, as well as new buildings have been constructed as part of the boutique hotel project at the rear of the Hawker Home. Therefore, implementation of the proposed project would not demolish or materially alter the Hawker Home, nor would it alter its immediate setting in a way that would materially impair its historical significance. Thus, project implementation would result in a **less than significant** impact.

Griffith Block – 101-103 W. Napa St.

The Griffith Block is a one-story commercial building at the southwest corner of SR 12 (West Napa Street) and 1st Street West (see Exhibit 4.5-1). The three-story hotel and spa portion of the proposed project and the detached, three-story 8-unit residential building would be visible from the rear of the Griffith Block building. Construction of these two building elements would not require demolition, destruction, relocation, or alteration to the Griffith Block building. While introduction of the proposed three-story buildings would alter the immediate setting of the Griffith Block building, this change would not materially impair any historical significance. Thus, the proposed project implementation would result in a **less than significant** impact.

Impact 4.5-3: Potential to Disturb Human Remains.

As described previously, the project site has been developed in the past, and ground-disturbing activities likely already disturbed or resulted in the discovery of any buried human remains that may have existed on the site. Nonetheless, it is possible that unknown human remains could be discovered through ground-disturbing construction activities associated with the proposed project. However, the project applicant is required to follow State regulations and implement associated procedures that are designed to reduce impacts in the unlikely event human remains are found.

California law recognizes the need to protect historic-era and Native American human burials, skeletal remains, and items associated with Native American interments from vandalism and inadvertent destruction. The procedures for the treatment of Native American human remains are contained in California Health and Safety Code Sections 7050.5 and 7052 and California Public Resources Code Section 5097. If human remains are present on-site and discovered through excavation, there could be a **potentially significant** impact.

Mitigation Measure 4.5-3: Avoid Impacts to Human Remains Consistent with State Law.

As described therein, if human remains are uncovered during future ground-disturbing activities, the project applicant and contractors would be required to halt potentially damaging excavation in the area of the burial and notify the County Coroner and a professional archaeologist to determine the nature of the remains. The coroner would be required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or State lands (California Health and Safety Code Section 7050.5[b]). If the coroner determines that the remains are those of a Native American, he or she must contact the NAHC by phone within 24 hours of making that determination (California Health and Safety Code Section 7050[c]). The responsibilities for acting upon notification of a discovery of Native American human remains are identified in California Public Resources Code Section 5097.9.

Following the coroner's findings, the property owner, contractor or project proponent, an archaeologist, and the Most Likely Descendant designated by the Native American Heritage Commission would determine the ultimate treatment and disposition of the remains and take appropriate steps to ensure that additional human interments are not disturbed. The Most Likely Descendant would have 48 hours to complete a site inspection and make recommendations after being granted access to the site. A range of possible treatments for the remains, including nondestructive removal and analysis, preservation in place, relinquishment of the remains and associated items to the descendants, or other culturally appropriate treatment may be discussed. Public Resources Code Section 5097.9 suggests that the concerned parties may extend discussions beyond the initial 48 hours to allow for the discovery of additional remains. The following is a list of site protection measures that could be employed:

1. record the site with the NAHC and the appropriate Information Center,
2. use an open-space or conservation zoning designation or easement, and
3. record a document with the county in which the property is located.

If the NAHC is unable to identify a Most Likely Descendant or the Most Likely Descendant fails to make a recommendation within 48 hours after being granted access to the site, the Native American human remains and associated grave goods would be reburied with appropriate dignity on the subject property in a location not subject to further subsurface disturbance.

Significance after Mitigation

Because the project applicant is required to comply with the State regulations described above related to human remains, which are designed to reduce or avoid any significant effect, the proposed project implementation would result in a **less than significant** impact.

Impact 4.5-4: Potential Impacts to Tribal Cultural Resources.

No Tribal Cultural Resources were identified within the project site as a result of the records search, literature review, Native American consultation, or archaeological field survey. However, Tribal Cultural Resources that have not yet been identified could be present and the proposed project implementation could result in the potential to cause a substantial adverse change in the significance of a Tribal Cultural Resource. A Tribal Cultural Resource is defined in Public Resources Code Section 21074 as either 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. This impact is considered **potentially significant**.

Mitigation Measure 4.5-4: Conduct a Tribal Cultural Resources Survey, Stop Work and Evaluate if Materials are Encountered, and Implement a Treatment Plan, as Necessary.

- After the completion of demolition activities, a Tribal Cultural Resources survey shall be completed by the Tribe with an archaeologist who meets the Secretary of the Interior's professional qualifications standards. Additionally, limited subsurface explorations shall be completed through a series of auger hole borings and additional survey techniques determined by the City in consultation with the Tribe to be necessary to identify Tribal Cultural Resources. This could include ground penetrating radar (GPR) and canine investigation.
- The project applicant and its construction contractor shall coordinate with the City to provide a schedule for ground-disturbing activities on-site, and extend an invitation for a Tribal Monitor a minimum of seven days prior to beginning earthwork, clearing and grubbing, or other soil disturbing activities. The Tribal Monitor shall be invited to inspect the project site, including any soil piles, trenches, or other disturbed areas, within the first five days of groundbreaking activity.
- If Tribal Cultural Resources are discovered during post-demolition activities, all work within 50 feet of the resource shall be halted and a qualified archaeologist shall be consulted to assess the significance of the find according to CEQA Guidelines Section 15064.5. This work shall also include the Federated Indians of Graton Rancheria (the Tribe) Tribal Historic Preservation Officer (THPO) for review and comment.
- If Tribal Cultural Resources are present, representatives from the City, the Tribe, and the archaeologist would meet to determine the appropriate avoidance measures or other appropriate mitigation. The City shall consult with the Tribe before determining whether avoidance is necessary and feasible in light of factors such as the nature of the find, project design, costs, and other considerations. If avoidance is infeasible, other appropriate measures (e.g., data recovery) may be instituted, along with other potential measures determined by the City in consultation with the Tribe.
- Work may proceed on other parts of the project site while mitigation is being carried out.

Significance after Mitigation

Implementation of Mitigation Measure 4.5-4 would reduce potential project impacts on Tribal Cultural Resources to a **less than significant** level because necessary post-demolition surveys would be conducted to identify any previously unknown Tribal Cultural Resources. Furthermore, if Tribal Cultural Resources were encountered during the proposed project implementation, construction in the vicinity of the find would be halted, and representatives from the Tribe, the City, and a qualified archaeologist would determine an appropriate treatment plan to be implemented, along with other potential measures identified by the City in consultation with the Tribe to reduce impacts.

4.6 GEOLOGY, SOILS, AND PALEONTOLOGICAL RESOURCES

4.6.1 ENVIRONMENTAL SETTING

In 2015, PJC Associates, Inc. (PJC) was retained to prepare a preliminary geotechnical report for the proposed project. Relevant information excerpted from the geotechnical report is presented below.

SEISMICITY

The project site is located in the Coast Ranges Geomorphic Province. This province is characterized by northwest-trending topographic and geologic features and includes many separate ranges and several major structural valleys such as the Sonoma Valley.

Faults and Seismic Ground Shaking

Surface rupture is the actual cracking or breaking of the ground surface along a fault during an earthquake, which is generally limited to a linear zone that is only a few yards wide. If surface fault rupture occurs, structures that are located across the fault trace can be torn apart, and pipelines can rupture. The project site not located in or near an Alquist-Priolo Earthquake Fault Zone (California Geological Survey [CGS] 2020).

Ground shaking—motion that occurs as a result of energy released during faulting—could potentially result in the damage or collapse of buildings and other structures, depending on the magnitude of the earthquake, the distance to the epicenter, and the character and duration of the ground motion. Geologists have determined that the greatest potential for surface fault rupture and strong seismic ground shaking is from active faults, that is, faults with evidence of activity during the Holocene epoch (the last 11,700 years).

The project site is located in the Sonoma Valley, in proximity to several mapped active or potentially active regional faults such as the Concord-Green Valley Fault, the Rodgers Creek-Hayward Fault, and the West Napa Fault (Jennings and Bryant 2010). Of these faults, the West Napa and the Rogers Creek Faults, located roughly 7 miles east-northeast and 4 miles southwest of the project site, respectively, are the closest active faults. The West Napa Fault was responsible for the magnitude 6.0 South Napa Earthquake (in August 2014) that resulted in one death, 200 injuries, and approximately $400 million in property damage. The West Napa, Rogers Creek, and Green Valley Faults are considered capable of generating maximum (moment magnitude) earthquakes of 6.5, 7.0, and 6.9, respectively (PJC 2015).

The U.S. Geological Survey indicates that the estimated probability of one or more magnitude 6.7 earthquakes occurring during the period 2014–2043 in the San Francisco Bay Area is 72 percent (Aagaard et al. 2016). In the project region, the faults with the highest estimated probability of generating damaging earthquakes (i.e., magnitude 6.7 or larger) are the Rodgers Creek (33 percent) and San Andreas Faults (22 percent). Because the proposed project is situated in a seismically active region, the potential for strong seismic ground shaking to occur in the future is considered high (PJC 2015).

Liquefaction and Lateral Spreading

As part of the geotechnical report, PJC (2015) performed a site-specific liquefaction analysis and determined that liquefaction is unlikely to occur at the project site. Furthermore, PJC (2015) noted that since there are no exposed

soils faces or creek embankments within or adjacent to the construction area, the potential for lateral spreading and lurching at the site is low.

SOILS

Soil Characteristics

Based on the results of soil borings obtained by PJC (2015), the near-surface soils at the project site consist of artificial fill, which is composed of sandy clays, sandy silts, and gravels at depths ranging from 3 to 5 feet below the ground surface. The artificial fill material is coarse to fine-grained, and loosely to moderately compacted. PJC (2015) noted that this material was likely emplaced during environmental remediation activities previously performed at the site (see Section 4.8, "Hazards and Hazardous Materials," for additional details). Below the artificial fill, soil borings encountered discontinuous alluvial deposits composed of sandy silts, sandy clays, clayey sands, and clayey gravels that extended to the maximum explored depth of 40 feet. The alluvial deposits were moist to saturated. Groundwater was encountered during the drilling for three of the five soil borings at depths ranging from 7 to 9 feet below the ground surface; groundwater was not encountered in the other two soil boreholes (PJC 2015).

Expansive Soils

Expansive soils are composed largely of clays, which greatly increase in volume when saturated with water and shrink when dried (referred to as "shrink-swell" potential). Soils with a moderate to high expansion potential can result in cracked foundations, structural distortions, and warping of doors and windows. Underground pipelines can also be damaged. Based on the results of site-specific soil testing, PJC (2015) concluded that project site soils have a low shrink-swell potential.

Unstable Soils

Based on the results of site-specific soil borings, PJC (2015) determined that the existing alluvial fill material at the project site is unstable (due to variable composition and density, and weakness and compressibility) and therefore is not suitable for support of proposed foundations associated with the proposed project.

PALEONTOLOGICAL RESOURCES

Paleontological resources are the fossilized remains of plants, animals, and other organisms. Paleontological resources are most likely to be present in geologic formations that are composed of sedimentary deposits because the way in which these deposits formed and became cemented over time created ideal conditions for preservation and subsequent fossilization.

Based on a review of geologic mapping prepared by Graymer et al. (2007) the native alluvial materials at the project site are of Pleistocene age (i.e., 2.8 million years Before Present [B.P.] to 11,700 years B.P.). A records search of the U.C. Berkeley Museum of Paleontology (UCMP) fossil collections database was performed by AECOM in July 2021; there are no recorded fossil localities at the project site or within the City (UCMP 2021). However, Pleistocene alluvial deposits (which are a type of sedimentary rock) are known to have yielded scientifically important unique paleontological resources, particularly vertebrate mammals, in several locations in Sonoma County and hundreds of locations throughout the state (UCMP 2021; Jefferson 1991a, 1991b).

4.6.2 REGULATORY FRAMEWORK

FEDERAL PLANS, POLICIES, REGULATIONS AND LAWS

Earthquake Hazards Reduction Act, Public Law 95–124

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 through the establishment and maintenance of an effective earthquake hazards reduction program. To accomplish this goal, the act established the National Earthquake Hazards Reduction Program (NEHRP). This program was substantially amended in November 1990 by the National Earthquake Hazards Reduction Program Act (NEHRPA), which refined the description of agency responsibilities, program goals, and objectives.

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 NEHRPA designates the Federal Emergency Management Agency as the lead agency of the program and assigns several planning, coordinating, and reporting responsibilities. Other NEHRPA agencies include the National Institute of Standards and Technology, National Science Foundation, and the U.S. Geological Survey.

STATE PLANS, POLICIES, REGULATIONS, AND LAWS

Alquist-Priolo Earthquake Fault Zoning Act, California Public Resources Code Sections 2621–2630

The Alquist-Priolo Earthquake Fault Zoning Act (Alquist-Priolo Act) (California Public Resources Code Sections 2621–2630) was passed in 1972 to reduce the hazard of surface faulting on structures designed for human occupancy. The main purpose of the law is to prevent the construction of buildings used for human occupancy on the surface trace of active faults.[1] The project site is not located within or near an Alquist-Priolo Earthquake Fault Zone or any other known fault (PJC 2015, Jennings and Bryant 2010).

Seismic Hazards Mapping Act, California Public Resources Code Sections 2690–2699.6

The Seismic Hazards Mapping Act of 1990 (California Public Resources Code Sections 2690–2699.6) addresses earthquake hazards from non-surface fault rupture, including liquefaction and seismically induced landslides. The act established a mapping program for areas that have the potential for liquefaction, landslide, strong ground shaking, or other earthquake and geologic hazards. The act also specifies that respective cities or counties with jurisdiction over a project may withhold development permits until geologic or soils investigations are conducted for specific sites and mitigation measures are incorporated into plans to reduce hazards associated with seismicity and unstable soils.

[1] The law addresses only the hazard of surface fault rupture and is not directed toward other earthquake hazards. The Alquist-Priolo Act requires the State Geologist to establish regulatory zones known as Earthquake Fault Zones around the surface traces of active faults and to issue appropriate maps. Earthquake Fault Zones are generally one-quarter mile wide or less (i.e., approximately 650 feet on both sides of the actual fault trace). The maps are distributed to all affected cities, counties, and state agencies for their use in planning efforts. 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.

National Pollutant Discharge Elimination System

In California, the State Water Resources Control Board (SWRCB) administers regulations promulgated by the U.S. Environmental Protection Agency (55 Code of Federal Regulations 47990) requiring the permitting of stormwater-generated pollution under the National Pollutant Discharge Elimination System (NPDES). In turn, the SWRCB's jurisdiction is administered through nine regional water quality control boards. Under these federal regulations, an operator must obtain a general permit through the NPDES Stormwater Program for all construction activities with ground disturbance of 1 acre or more. SWRCB's statewide storm water general permit for construction activity (Order 2009-009-DWQ as amended by Order No. 2012-0006-DWQ) requires the implementation of best management practices (BMPs) to reduce sedimentation into surface waters and to control erosion. One element of compliance with the NPDES permit is preparation of a storm water pollution prevention plan (SWPPP) that addresses control of water pollution, including sediment, in runoff during construction. (See Section 4.9, "Hydrology and Water Quality," for more information about the NPDES permit program and SWPPPs.)

California Building Standards Code, California Code of Regulations Title 24

The California Building Standards Commission is responsible for coordinating, managing, adopting, and approving building codes in California. The State of California provides minimum standards for building design through the California Building Standards Code (CBC) (California Code of Regulations Title 24). Where no other building codes apply, Chapter 29 of the CBC also regulates excavation, foundations, and retaining walls. The CBC applies to building design and construction in the state and is based on the Federal Uniform Building Code used widely throughout the country (generally adopted on a state-by-state or district-by-district basis). The CBC has been modified for California conditions with numerous more detailed or more stringent regulations.

The state earthquake protection law (California Health and Safety Code Section 19100 et seq.) requires that structures be designed to resist stresses produced by lateral forces caused by wind and earthquakes. The CBC requires an evaluation of seismic design that falls into Categories A–F (where F requires the most earthquake-resistant design) for structures designed for a project site. The CBC philosophy focuses on "collapse prevention," meaning that structures are designed for prevention of collapse for the maximum level of ground shaking that could reasonably be expected to occur at a site. Chapter 16 of the CBC specifies exactly how each seismic design category is to be determined on a site-specific basis through the site-specific soil characteristics and proximity to potential seismic hazards.

Chapter 18 of the CBC regulates the excavation of foundations and retaining walls. This chapter regulates the preparation of a preliminary soil report, engineering geologic report, geotechnical report, and supplemental ground-response report. Chapter 18 also regulates analysis of expansive soils and the determination of the depth to groundwater table. For Seismic Design Category C, Chapter 18 requires analysis of slope instability, liquefaction, and surface rupture attributable to faulting or lateral spreading. For Seismic Design Categories D, E, and F, Chapter 18 requires these same analyses plus an evaluation of lateral pressures on basement and retaining walls, liquefaction and soil strength loss, and lateral movement or reduction in foundation soil-bearing capacity. It also requires standards for structural design related to ground stabilization, selection of appropriate foundation type and depths, selection of appropriate structural systems to accommodate anticipated displacements, or any combination of these design solutions. The potential for liquefaction and soil strength loss must be evaluated for site-specific peak ground acceleration magnitudes and source characteristics consistent with the design earthquake

ground motions. Peak ground acceleration must be determined from a site-specific study, the contents of which are specified in CBC Chapter 18.

Finally, Appendix Chapter J of the CBC regulates grading activities, including drainage and erosion control and construction on unstable soils, such as expansive soils and areas subject to liquefaction.

REGIONAL AND LOCAL PLANS, POLICIES, REGULATIONS, AND ORDINANCES

City of Sonoma General Plan

The City General Plan (City of Sonoma 2006), contains the following policies and program related to geology and soils that are applicable to the proposed project. There are no policies related to paleontological resources.

Public Safety Element

- **Policy 1.1:** Require development to be designed and constructed in a manner that reduces the potential for damage and injury from natural and human causes to the extent possible.
    - **Implementation Program 1.1.1**: Require development to incorporate measures that mitigate risks associated with seismic, geologic, fire, or flood hazards to acceptable levels.

Environmental Resources Element

- **Policy 2.4**: Protect Sonoma Valley watershed resources, including surface and ground water supplies and quality.
- **Policy 2.5:** Require erosion control and soil conservation practices that support watershed protection.

City of Sonoma Excavation, Grading, and Fills Ordinance

The City of Sonoma Municipal Code, Title 14, Section 14.20, regulates excavation, grading, and fill throughout the City to preserve and enhance the natural beauty of the land, streams and creek banks; and reduce or eliminate the hazards of earthslides, mud flows, rock falls, undue settlement, erosion, siltation, and flooding. A grading permit is required for excavations that would involve more than 50 cubic yards of material. Grading permit applications must include existing and proposed contours, the location of all waterbodies, surface and subsurface drainage facilities and retaining walls, trees with a diameter of 6 inches or more, and the following plans:

- Stormwater runoff to and from the site and adjacent areas, along with a complete hydraulic analysis including the location, width, direction, and quantity of flow of each watercourse;
- Soils Report;
- Geotechnical Report; and
- Erosion and Sediment Control Plan that includes the placement of structural and nonstructural stormwater pollution prevention controls that will prevent erosion during construction and post construction.

4.6.3 ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Based on Appendix G of the CEQA Guidelines, the proposed project would have a significant impact related to geology or soils if it would:

- directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
  - rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault;
  - strong seismic ground shaking;
  - seismic-related ground failure, including 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- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse; or
- be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial risks to life or property; or
- have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.

Paleontological Resources

Based on Appendix G of the CEQA Guidelines, the proposed project would have significant impacts on paleontological resources if it would directly or indirectly destroy a unique paleontological resource or site. A "unique paleontological resource or site" is one that is considered significant under the following professional paleontological standards.

An individual vertebrate fossil specimen may be considered unique or significant if it is identifiable and well preserved, and it meets one of the following criteria:

- a type specimen (i.e., the individual from which a species or subspecies has been described);
- a member of a rare species;
- a species that is part of a diverse assemblage (i.e., a site where more than one fossil has been discovered) wherein other species are also identifiable, and important information regarding life history of individuals can be drawn;
- a skeletal element different from, or a specimen more complete than, those now available for its species; or
- a complete specimen (i.e., all or substantially all of the entire skeleton is present).

The value or importance of different fossil groups varies, depending on several factors: the age and depositional environment of the rock unit that contains the fossils; their rarity; the extent to which they have already been identified and documented; and the ability to recover similar materials under more controlled conditions (such as for a research project). Marine invertebrates generally are common, the fossil record is well developed and well documented, and they would generally not be considered a unique paleontological resource. Identifiable vertebrate marine and terrestrial fossils generally are considered scientifically important because they are relatively rare.

ISSUES NOT DISCUSSED FURTHER

Expose People or Structures to Hazards from Surface Fault Rupture—The project site is not located within or near an Alquist-Priolo Earthquake Fault Zone or any other known fault (PJC 2015, Jennings and Bryant 2010). Thus, there would be **no impact**, and this issue is not evaluated further in this RDEIR.

Expose People or Structures to Hazards from Liquefaction—A site-specific liquefaction hazard analysis was performed as part of the proposed project's geotechnical report, and it was determined that liquefaction would not represent a hazard for the proposed project (PJC 2015). Thus, there would be **no impact**, and this issue is not evaluated further in this RDEIR.

Expose People or Structures to Hazards from Landslides—The project site and the surrounding area are characterized by flat topography. Therefore, landslides would not represent a hazard for the proposed project and there would be **no impact**. This issue is not addressed further in this RDEIR.

Expose People or Structures to Hazards from Construction in Expansive Soil—As part of the site-specific geotechnical report, PJC (2015) determined that project site soils are not expansive. Thus, there would be **no impact,** and this issue is not evaluated further in this RDEIR.

Have Soils Unsuitable for Septic Systems—The use of an on-site wastewater disposal system is not proposed as part of the proposed project; therefore, **no impact** related to the ability of soils to support the use of septic systems would occur. This issue is not addressed further in this RDEIR.

IMPACT ANALYSIS

Impact 4.6-1: Exposure to Strong Seismic Ground Shaking.

The Sonoma Valley has historically experienced seismic activity. The nearest known active faults that pose a hazard for strong seismic ground shaking (i.e., the West Napa and Rogers Creek Faults) are approximately seven miles east-northeast and four miles southwest of the project site. A magnitude 6.0 earthquake on the West Napa Fault in 2014 resulted in considerable property damage in the region. The intensity of ground shaking depends on the distance from the earthquake epicenter to the site, the magnitude of the earthquake, and site soil conditions. PJC (2015) noted that strong seismic ground shaking is likely to occur at some point during the project's operational life.

Development of the proposed project is required by law to comply with seismic safety standards of the CBC. The CBC requires an evaluation of seismic design that falls into Categories A through F (where F requires the most earthquake-resistant design) for structures designed for a project site. The CBC philosophy focuses on "collapse prevention," meaning that structures are designed for prevention of collapse for the maximum level of ground

shaking that could reasonably be expected to occur at a site. Based on the seismic design category, the CBC requires an analysis of slope instability, liquefaction, and surface rupture attributable to faulting or lateral spreading, plus an evaluation of lateral pressures on basement and retaining walls, liquefaction and soil strength loss, and lateral movement or reduction in foundation soil-bearing capacity. It also requires that measures to reduce damage from seismic effects be incorporated in structural design. Measures may include ground stabilization, selection of appropriate foundation type and depths, selection of appropriate structural systems to accommodate anticipated displacements, or any combination of these measures.

The City requires that all structures be designed in accordance with the CBC. In addition, commercial driveway entries, sidewalks, and underground pipelines must be engineered and constructed according to the City's *Standard Plans* (City of Sonoma 2015), which are designed to avoid risk to life and property from geologic hazards. Compliance with these laws and standards, and implementation of the recommendations contained in the site-specific preliminary and final geotechnical reports, ensures that this impact would be **less than significant**.

Mitigation Measure: No mitigation measures are required.

Impact 4.6-2: Result in Substantial Soil Erosion.

The construction process associated with development of the proposed project would require a variety of earthmoving activities, including excavating, trenching, grading, and compacting. Construction-related earthmoving activities would expose soils to potential erosion from wind and water. Earthmoving activities during the winter months would expose soils to rain events, which could mobilize loose soil and result soil erosion. Subsequent soil transport during storm events could result in sedimentation both within and downstream of the project site. Furthermore, earthmoving activities during the summer months could result in wind erosion.

However, prior to the start of earthmoving activities, applicants must obtain a grading permit from the City, as required by Sonoma Municipal Code Section 14.20. The grading permit application must include a stormwater hydraulic analysis, soils report, geotechnical report, and erosion and sediment control plan demonstrating that all appropriate measures to reduce stormwater runoff and soil erosion would be implemented. Furthermore, project applicants are required by law to comply with the provisions of the SWRCB's *National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities* (Order 2009-009-DWQ as amended by Order 2012-0006-DWQ) (Construction General Permit). The Construction General Permit regulates stormwater discharges for construction activities under the CWA, and applies to all land-disturbing construction activities that would disturb one acre or more. Project applicants must submit a notice of intent to discharge to the North Coast Regional Water Quality Control Board (RWQCB) and must prepare and implement a SWPPP that includes site-specific BMPs to minimize construction-related soil erosion. Construction techniques that could be implemented to reduce the potential for stormwater runoff and sediment transport may include minimizing site disturbance, controlling water flow over the construction site, stabilizing bare soil, and ensuring proper site cleanup. BMPs that could be implemented to reduce erosion may include silt fences, staked straw bales/wattles, silt/sediment basins and traps, geofabric, trench plugs, terraces, water bars, soil stabilizers and re-seeding and mulching to revegetate disturbed areas. All NPDES permits also have inspection, monitoring, and reporting requirements.

Compliance with these laws and standards, and implementation of BMPs identified in the SWPPP and the Erosion and Sediment Control Plan, ensures that this impact would be **less than significant**.

Mitigation Measure: No mitigation measures are required.

Impact 4.6-3: Hazards from Construction in Unstable Soils.

Based on the results of site-specific soil borings, PJC (2015) determined that the existing alluvial fill material at the project site is unstable (due to variable composition and density, and weakness and compressibility) and therefore is not suitable for support of proposed foundations associated with the proposed project. These soils could experience substantial differential settlement under loads generated by new construction. PJC recommended that all of the artificial fill material within the proposed structural areas at the project site be removed as part of the site demolition activities, and replaced with properly engineered, compacted fill. PJC noted that the native soils have sufficient bearing strength to support the proposed foundations, and therefore engineered fill is not required for the foundations of the underground parking garage. Finally, PJC noted that the bottom of the parking garage foundation will likely be located below the groundwater table, and therefore the basement must be designed to resist the hydrostatic uplift pressures that will be placed on the foundations and walls. Alternatively, a subsurface drainage system and backdrains could be implemented under the garage floor and behind the basement walls (PJC 2015).

Prior to the issuance of building permits, a final design-level geotechnical report will be required, consistent with CBC requirements. Compliance with recommendations contained in the preliminary and final geotechnical reports, as well as compliance with the City's *Standard Plans* (City of Sonoma 2015), would ensure that foundations for buildings and parking lots, as well as underground pipelines, are designed appropriately based on site-specific conditions. Compliance with existing laws and regulations ensures that this impact would be **less than significant**.

Mitigation Measure: No mitigation measures are required.

Impact 4.6-4: Damage to Unknown Paleontological Resources.

The project site is composed of Holocene-age artificial fill material to a depth of 3–5 feet below the ground surface, and native Pleistocene-age alluvial deposits are present underneath the fill material to a depth of at least 40 feet (PJC 2015).

PJC (2015) has recommended that all artificial fill materials in structural areas should be excavated and removed, since they are not suitable for support of the proposed foundations. Any unique paleontological resources that may have originally been present in the artificial fill (which is of Holocene age) would have been destroyed during the original excavation, transport, grading, and compacting processes. Furthermore, unique paleontological resources must be more than 11,700 years old; native, Holocene-age deposits contain only the remains of extant modern taxa (if any resources are present), which are not considered "unique" paleontological resources.

The underground parking garage would require excavation 10 to 12 feet below the ground surface. Therefore, Pleistocene-age native alluvial deposits would be encountered. Because of the large number of vertebrate fossils that have been recovered from Pleistocene-age alluvial deposits throughout the state, these geologic deposits are considered to be of high paleontological sensitivity. Therefore, project-related earthmoving activities could result in accidental damage to or destruction of unique paleontological resources, and this impact is considered **potentially significant.**

Mitigation Measure 4.6-4: Avoid Impacts to Unique Paleontological Resources.

Prior to the start of earthmoving activities, the project applicant shall retain a qualified archaeologist or paleontologist to train all construction personnel involved with earthmoving activities regarding the possibility of encountering fossils, the appearance and types of fossils likely to be seen during construction, and proper notification procedures should fossils be encountered.

If paleontological resources are discovered during earthmoving activities, the construction crew shall immediately cease work within 50 feet of the find and notify the City of Sonoma.

The project applicant shall retain a qualified paleontologist to evaluate the resource and prepare a recovery plan. The recovery plan may include, but is not limited to, a field survey, construction monitoring, sampling and data recovery procedures, museum curation for any specimen recovered, and a report of findings. Recommendations in the recovery plan that are determined by the City to be necessary and feasible shall be implemented before construction activities can resume at the site where the paleontological resource or resources were discovered.

Significance after Mitigation

Implementation of Mitigation Measure 4.6-4 would reduce project-related impacts on unique paleontological resources to a **less-than-significant** level because construction workers would be alerted to the possibility of encountering paleontological resources and, in the event that resources were discovered, fossil specimens would be recovered and recorded and would undergo appropriate curation.

4.7 GREENHOUSE GAS EMISSIONS AND ENERGY

4.7.1 ENVIRONMENTAL SETTING

OVERVIEW

Certain gases in the Earth's atmosphere, classified as greenhouse gases (GHGs), play a critical role in determining the Earth's surface temperature. Solar radiation enters the Earth's atmosphere from space. A portion of the radiation is absorbed by the Earth's surface, and a smaller portion of this radiation is reflected back toward space through the atmosphere. However, infrared radiation is selectively absorbed by GHGs in the atmosphere. As a result, infrared radiation released from the Earth 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. Anthropogenic (e.g., human caused) emissions of GHGs lead to atmospheric levels in excess of natural ambient concentrations and have the potential to adversely affect the environment because such emissions contribute, on a cumulative basis, to global climate change.

The Intergovernmental Panel on Climate Change (IPCC) concluded that variations in natural phenomena, such as solar radiation and volcanoes, produced most of the warming of the Earth from pre-industrial times to 1950. Some variations in natural phenomena also had a small cooling effect. From 1950 to the present, increasing GHG concentrations resulting from human activity, such as fossil fuel burning and deforestation, have been responsible for most of the observed temperature increase (IPCC 2021).

Global surface temperature has increased by approximately 1.96 degrees Fahrenheit (°F) over the last 140 years (IPCC 2021); the likely total human-caused global surface temperature increase is 1.93°F. The rate of increase in global average surface temperature has not been consistent; the last four decades have warmed at a much faster rate per decade (IPCC 2021).

During the same period when increased global warming has occurred, many other changes have occurred in other natural systems. Sea levels have risen; precipitation patterns throughout the world have shifted, with some areas becoming wetter and others drier; snowlines have increased elevation, resulting in changes to the snowpack, runoff, and water storage; and numerous other conditions have been observed. Although it is difficult to prove a definitive cause-and-effect relationship between global warming and other observed changes to natural systems, there is a high level of confidence in the scientific community that these changes are a direct result of increased global temperatures caused by the increased presence of GHGs in the atmosphere (IPCC 2021).

Energy use (and efficiency) is an important indicator of GHG emissions, as well as a key opportunity to reduce GHG emissions. Therefore, energy is analyzed in this section in conjunction with the GHG analyses. This section considers the primary energy use needs for the proposed project; the benefit of existing regulations that require energy-efficient construction and operation; and the potential for the proposed project to result in the wasteful, inefficient, and unnecessary consumption of energy. The discussion of electrical and natural gas service providers and infrastructure is provided in Section 4.14, "Utilities and Service Systems."

PRINCIPAL GREENHOUSE GASES AND SOURCES

GHGs are present in the atmosphere naturally, are released by natural and anthropogenic (human-caused) sources, and are formed from secondary reactions taking place in the atmosphere. Natural sources of GHGs include the

respiration of humans, animals, and plants; decomposition of organic matter; volcanic activity; and evaporation from the oceans. Anthropogenic sources include the combustion of fossil fuels by stationary and mobile sources, waste treatment, and agricultural processes. The following are the principal GHG pollutants that contribute to climate change and their primary emission sources:

- Carbon Dioxide (CO_2): Natural sources of CO_2 include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; and evaporation from oceans. Anthropogenic (human) sources include burning of coal, oil, natural gas, and wood.

- Methane (CH_4): CH_4 is emitted during the production and transport of coal, natural gas, and oil. CH_4 emissions also result from livestock and other agricultural practices and by the decay of organic waste in municipal solid waste landfills.

- Nitrous Oxide (N_2O): N_2O is produced by both natural and human-related sources. Primary human-related sources of N_2O are agricultural soil management, sewage treatment, mobile and stationary combustion of fossil fuel, adipic acid production, and nitric acid production. N_2O is also produced naturally from a wide variety of biological sources in soil and water, particularly microbial action in wet tropical forests.

- Fluorinated gases: These gases are typically emitted in smaller quantities, but because they are potent greenhouse gases, they are sometimes called High Global Warming Potential (High GWP) gases. These High GWP gases include:

    - Chlorofluorocarbons (CFCs): These GHGs are used for refrigeration, air conditioning, packaging, insulation, solvents, or aerosol propellants.

    - Perfluorinated Chemicals (PFCs): PFCs are emitted as by-products of industrial processes and are also used in manufacturing.

    - Sulfur hexafluoride (SF_6): This is a strong GHG used primarily as an insulator in electrical transmission and distribution systems.

    - Hydrochlorofluorocarbons (HCFCs): These have been introduced as temporary replacements for CFCs and are also GHGs.

    - Hydrofluorocarbons (HFCs): These were introduced as alternatives to ozone-depleting substances in serving many industrial, commercial, and personal needs. HFCs are GHGs emitted as by-products of industrial processes and are also used in manufacturing.

GHGs are not monitored at local air pollution monitoring stations and do not represent a direct impact to human health. Rather, GHGs generated locally contribute to global concentrations of GHGs, which result in changes to the climate and environment.

GLOBAL WARMING POTENTIAL

Global warming potential (GWP) is a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. GWP is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and the length of time the gas remains in the atmosphere (its "atmospheric lifetime").

The GWP of each gas is measured relative to CO_2. Therefore, CO_2 has a GWP of one. GHGs with lower emissions rates than CO_2 may still contribute to climate change because they are more effective at absorbing outgoing infrared radiation than CO_2 (i.e., high GWP). For example, SF_6, while comprising a relatively small fraction of the total GHGs emitted annually worldwide, has a GWP of 22,800, meaning that one ton of SF_6 has the same contribution to the greenhouse effect as approximately 22,800 tons of CO_2. The concept of CO_2 equivalence (CO_2e) is used to account for the different GWP potentials of GHGs. GHG emissions are typically measured in terms of metric tons (MT) of CO_2e, and are often expressed in MT CO_2e.

Climate change is a global issue because GHGs can have global effects, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern (see Section 4.3 "Air Quality"). Whereas pollutants with localized air quality effects have relatively short atmospheric lifetimes (about one day), GHGs have long atmospheric lifetimes (one year to several thousand years), or long enough to be dispersed around the globe.

POTENTIAL EFFECTS OF CLIMATE CHANGE

Globally, climate change has the potential to affect numerous environmental resources through uncertain impacts related to future air temperatures and precipitation patterns. The IPCC's 2021 Synthesis Report indicated that warming of the climate system is unequivocal and, since the 1950s, many of the observed changes are unprecedented over decades to millennia. Signs that global climate change has occurred include warming of the atmosphere and ocean, diminished amounts of snow and ice, and rising sea levels (IPCC 2021).

Although climate change is driven by global atmospheric conditions, climate change impacts are felt locally. A scientific consensus confirms that climate change is already affecting California. Climate change is expected to make parts of California hotter, drier, and increasingly prone to extremes like megadroughts, flooding, and large wildfires. These changing conditions are likely to affect water and energy availability, agricultural systems, plants and wildlife, public health, housing, and quality of life.

- **Agriculture.** Some of the specific challenges faced by the agricultural sector and farmers include more drastic and unpredictable precipitation and weather patterns; extreme weather events; significant shifts in water availability and water quality; changes in pollinator lifecycles; temperature fluctuations; increased risks from invasive species and weeds, agricultural pests, and plant diseases; and disruptions to the transportation and energy infrastructure supporting agricultural production.

- **Biodiversity and Habitat.** Specific climate change challenges to biodiversity and habitat include species migration, range shift, and novel combinations of species; pathogens, parasites, and disease; invasive species; extinction risks; changes in the timing of seasonal life-cycle events; food web disruptions; and threshold effects (i.e., a change in the ecosystem that results in a "tipping point" beyond which irreversible damage or loss occurs).

- **Energy.** Specific climate change challenges for the energy sector include temperature, fluctuating precipitation patterns, increasing extreme weather events, and sea level rise. Increasing temperatures and reduced snowpack negatively affect the availability of a steady flow of snowmelt to hydroelectric reservoirs. Higher temperatures also reduce the capacity of thermal power plants since power plant cooling is less efficient at higher ambient temperatures.

- **Forestry.** The most significant climate change–related risk to forests is accelerated risk of wildfire and more frequent and severe droughts. Droughts have resulted in more large-scale mortalities and, combined with increasing temperatures, have led to an overall increase in wildfire risks. Increased wildfire intensity subsequently increases public safety risks, property damage, fire suppression and emergency response costs, watershed and water quality impacts, and vegetation conversions. These factors contribute to decreased forest growth, geographic shifts in tree distribution, loss of fish and wildlife habitat, and decreased carbon absorption.

- **Ocean and Coastal Ecosystems and Resources.** Sea level rise, changing ocean conditions, and other climate change stressors are likely to exacerbate longstanding challenges related to ocean and coastal ecosystems in addition to threatening people and infrastructure located along the California coastline and in coastal communities.

- **Public Health.** Climate change can affect public health through various environmental changes. Changes in precipitation patterns affect public health primarily through potential for altered water supplies and extreme events such as heat, floods, droughts, and wildfires. Increased frequency, intensity, and duration of extreme heat and heat waves is likely to increase the risk of mortality due to heat-related illness, as well as exacerbate existing chronic health conditions. Other extreme weather events are likely to negatively affect air quality and increase or intensify respiratory illness such as asthma and allergies.

- **Transportation.** The transportation industry is vulnerable to climate change risks, including sea level rise and erosion, which threaten many coastal California roadways, airports, seaports, transit systems, bridge supports, and energy and fueling infrastructure. Increasing temperatures and extended periods of extreme heat threaten the integrity of the roadways and rail lines. Other forms of extreme weather events, such as extreme storm events, can negatively affect infrastructure, which can impair movement of people and goods, or potentially block evacuation routes and emergency access roads. Increased wildfires, flooding, erosion risks, landslides, mudslides, and rockslides can all profoundly affect the transportation system and pose a serious risk to public safety.

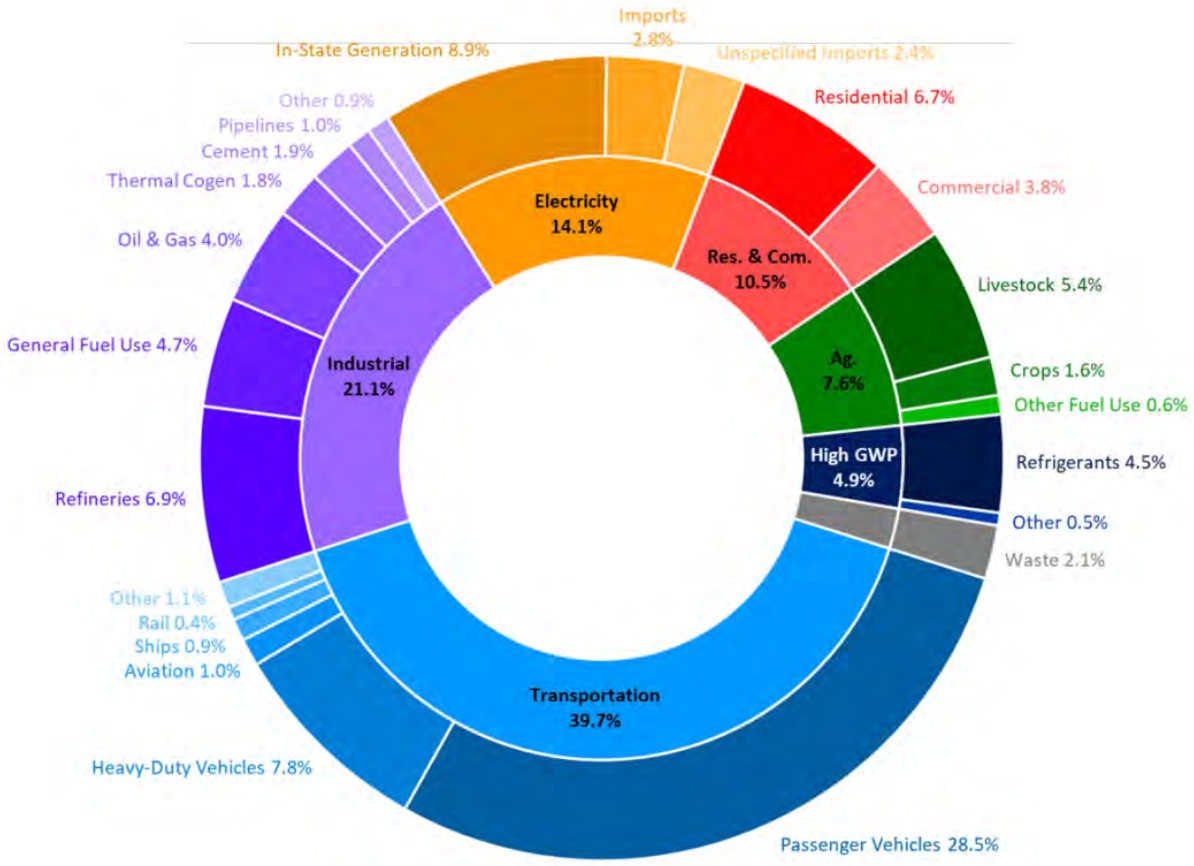
- **Water.** Climate change could seriously affect the timing, form, amount of precipitation, runoff patterns, and frequency and severity of precipitation events. Higher temperatures reduce the amount of snowpack and lead to earlier snowmelt, which can affect water supply availability, natural ecosystems, and winter recreation. Water supply availability during the intense dry summer months is heavily dependent on the snowpack accumulated during the wintertime. Increased risk of flooding has a variety of public health concerns including water quality, public safety, property damage, displacement, and post-disaster mental health problems. Prolonged and intensified droughts can also negatively affect groundwater reserves and result in increased overdraft and subsidence.

GREENHOUSE GAS EMISSIONS INVENTORIES AND TRENDS

State

The California Air Resources Board (CARB) prepares an annual inventory of statewide GHG emissions. GHGs are typically analyzed by sector, a term that refers to the type of activity. As shown in Exhibit 4.7-1, 418.2 million MT CO_2e in 2019. Combustion of fossil fuel in the transportation sector was the single largest source of California's GHG emissions in 2019, accounting for 40 percent of total GHG emissions. Transportation was

followed by industry, which accounted for 21 percent, and then the electric power sector (including in-state and out-of-state sources), which accounted for 14 percent of total GHG emissions (CARB 2021a).



Source: CARB 2021a

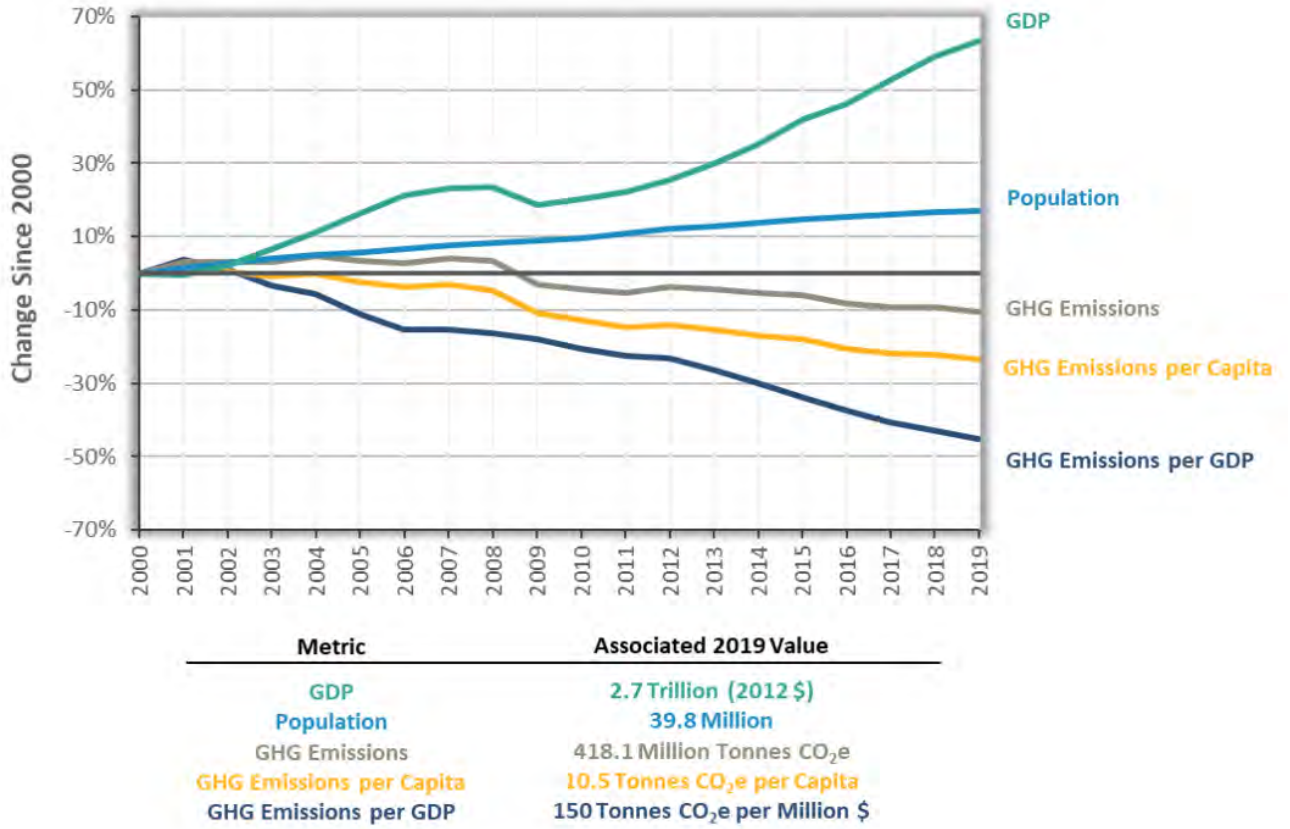
Exhibit 4.7-1. 2019 California Greenhouse Gas Emissions Inventory by Sector

California has implemented several programs and regulatory measures to reduce GHG emissions. Exhibit 4.7-2 demonstrates California's progress in reducing statewide GHG emissions. Since 2007, California's GHG emissions have been declining, even as population and gross domestic product have increased. Per-capita GHG emissions in 2019 were 25 percent lower than the peak per-capita GHG emissions recorded in 2001. Similarly, GHG emissions per million dollars of gross domestic product have decreased by 47 percent since the peak in 2001.

City of Sonoma

The Sonoma County Regional Climate Protection Authority (RCPA) established a baseline communitywide GHG inventory for calendar year 2010 and a back-cast inventory for 1990 as part of the Climate Action 2020 and Beyond (CA2020) for Sonoma County. This included GHG inventories for the City, as a member jurisdiction. This inventory captures the primary sources of emissions within a jurisdictional boundary that can be reduced through the actions of local governments and regional entities and does not include all activities in Sonoma County that drive an increase or decrease in GHG emissions; it does not include emissions associated with carbon sinks through carbon sequestration, consumption of goods and services imported into Sonoma County, industrial

and commercial stationary sources, or air travel.[1] Rather than trying to account for every source of emissions, this approach focuses on monitoring progress on the largest emissions sources that can most directly be influenced by local government actions.



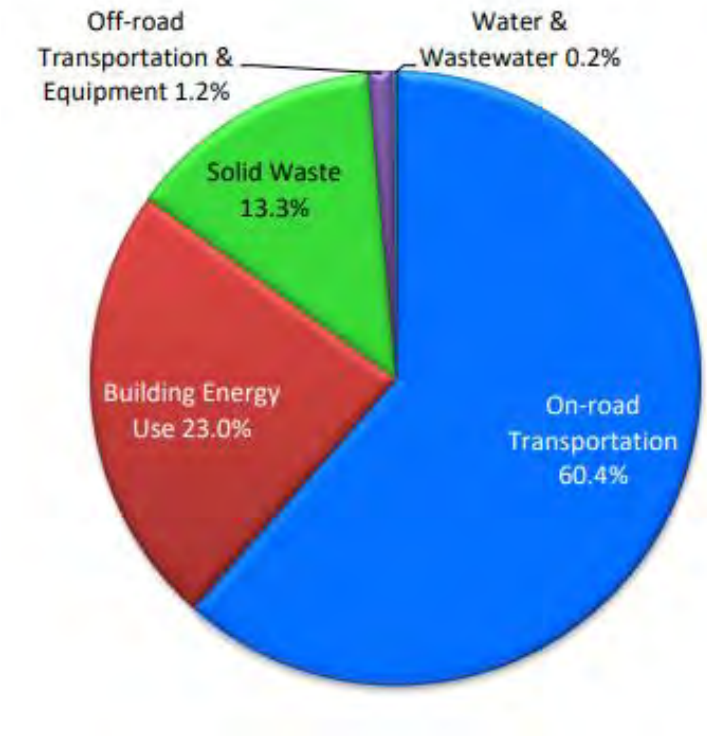
Metric	Associated 2019 Value
GDP	2.7 Trillion (2012 $)
Population	39.8 Million
GHG Emissions	418.1 Million Tonnes CO_2e
GHG Emissions per Capita	10.5 Tonnes CO_2e per Capita
GHG Emissions per GDP	150 Tonnes CO_2e per Million $

Source: CARB 2021b

Exhibit 4.7-2. Trends in California Greenhouse Gas Emissions (Years 2000 to 2019)

Based on this emissions inventory, total GHG emissions generated by community activities in the City in 2015 were approximately 105,000 MT CO_2e, which was 1.54 percent higher than 2010 (note that population increased approximately 2.3 percent over this time, indicating that the GHG emissions per capita decreased slightly even though total mass emissions increased). Emissions from transportation and waste sectors increased between 2010 and 2015, while those associated with building energy decreased. The relative contribution by sector to the 2015 emissions inventory is shown in Exhibit 4.7-3. On-road transportation accounted for more than 60 percent of total emissions, followed by building energy at 23 percent and solid waste at 13.3 percent. Relative to City's 1990 GHG emissions, 2015 emissions were approximately 8 percent above 1990 levels. According to the California Department of Finance, the City's population increased by 34 percent between 1990 and 2015, so again, while City emissions may be increasing, the per-capita emissions have been decreasing (DOF 2007, 2022).

[1] The Sonoma County GHG inventory followed the US Community Protocol for Accounting and Reporting of Greenhouse Gas Emissions, which provides detailed methodologies tailored for local government jurisdictions and agencies working to track emissions in the United States.



Source: City of Sonoma 2020

Exhibit 4.7-3. GHG Emissions

Since the communitywide inventory was published, the City Council adopted the 22 local climate measures recommended by the Regional Climate Protection Authority in its CAP2020 and developed its first Sustainability Work Plan in 2019. The City's *Climate Action and Environmental Sustainability Accomplishments and 2020-2021 Work Plan* was published in 2020 and highlights the City's climate change initiatives and next steps toward the City's goals in the form of a draft sustainability work plan. This plan does not estimate what emissions reductions may be available through implementation of the initiatives or actions in the work plan.

Energy Sources and Demand

Energy resources in the state of California include natural gas, electricity, water, wind, oil, coal, solar, geothermal, and nuclear resources. Energy production and energy use both result in the depletion of nonrenewable resources, such as oil, natural gas, and coal, and result in the emissions of pollutants.

The City identified energy consumption by homes, businesses, public buildings, and schools as the second largest contributor to GHG emissions generation, accounting for 23 percent of overall GHG emissions (City of Sonoma 2022). Reducing energy consumption through energy efficiency and energy conservation can reduce GHG emissions, as well as reduce demand upon non-renewable energy resources. PG&E delivers electricity and provides natural gas service to the project site. PG&E is regulated by the California Public Utilities Commission and purchases both gas and electrical power from a variety of sources, including other utility companies. PG&E offers customers the option to purchase up to 100 percent of their electricity from a community renewable program generating renewable power within California.

The City is a Community Choice Aggregation community. Consumers can choose either to purchase their electrical energy from PG&E or Sonoma Clean Power. Sonoma Clean Power is a not-for-profit public agency operated by the Cities of Cloverdale, Cotati, Fort Bragg, Petaluma, Point Arena, Rohnert Park, Santa Rosa, Sebastopol, Sonoma, Willits, and the Town of Windsor, and the counties of Sonoma and Mendocino. Sonoma Clean Power purchases energy from a variety of clean sources, such as hydropower, geothermal, solar, biomass, and wind. Customers may choose between the *CleanStart* electricity product, of which the power mix is 49 percent renewable and 93 percent carbon free, or the *EverGreen* electricity product, which provides 100 percent local (within Sonoma and Mendocino counties) renewable electricity to consumers (Sonoma Clean Power 2022). Customers have the option to opt-out of the Sonoma Clean Power program, in which case, the default electricity provider is PG&E.

Gasoline and diesel fuel are the primary fuels for transportation in California. However, the types of transportation power sources have diversified in California and elsewhere, including the increase in electric and hybrid vehicles. Various statewide regulations and plans (e.g. Low Carbon Fuel Standard, AB 32 Scoping Plan), in addition to federal funding programs, encourage the use of a variety of alternatives are used to reduce demand for petroleum-based fuel. Depending on the vehicle capability, conventional gasoline and diesel are increasingly being replaced by biodiesel, electricity, ethanol, hydrogen, natural gas, and other synthetic fuels. California has a growing number of alternative fuel vehicles through the joint efforts of the California Energy Commission (CEC), CARB, local air districts, federal government, transit agencies, utilities, and other public and private entities.

4.7.2 REGULATORY FRAMEWORK

Federal, state, regional, and local GHG-related plans, policies, and regulations are helpful for understanding the overall context for GHG emissions impacts and strategies to reduce GHG emissions.

FEDERAL PLANS, POLICIES, REGULATIONS AND LAWS

The U.S. Environmental Protection Agency (EPA) is the federal agency responsible for implementing the federal Clean Air Act (CAA). On April 2, 2007, the U.S. Supreme Court held that the EPA must consider regulation of motor vehicle GHG emissions. In *Massachusetts v. Environmental Protection Agency et al.,* 12 states and cities (including California) along with several environmental organizations sued to require EPA to regulate GHGs as pollutants under the CAA (127 S. Ct. 1438 [2007]). The Inflation Reduction Act, signed on August 16, 2022, affirms EPA's authority to regulate greenhouse gas emissions under the CAA.

STATE PLANS, POLICIES, REGULATIONS, AND LAWS

The legal framework for GHG emission reductions has come about through Executive Orders, legislation, and regulations. The major components of California's climate change initiatives are outlined below.

Executive Order S-3-05

Executive Order S-3-05, issued in recognition of California's vulnerability to the effects of climate change, set forth the following target dates by which statewide GHG emissions would be progressively reduced: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; and by 2050, reduce GHG emissions to 80 percent below 1990 levels.

Assembly Bill 32 and the State Climate Change Scoping Plan

In 2006, California passed the California Global Warming Solutions Act of 2006 (AB 32; California Health and Safety Code Division 25.5, Sections 38500, et seq.). AB 32 further details and puts into law the mid-term GHG reduction target established in Executive Order S-3-05: reduce GHG emissions below 1990 levels by 2020. AB 32 also identifies CARB as the State agency responsible for the design and implementation of emissions limits, regulations, and other measures to meet the target.

In December 2008, CARB adopted the Climate Change Scoping Plan (Scoping Plan), which contains the main strategies California will implement to achieve the required GHG reductions required by AB 32 (CARB 2008). The Scoping Plan also includes CARB-recommended GHG reductions for each emissions sector of California's GHG inventory. CARB acknowledges that land use planning decisions will have large impacts on the GHG emissions that will result from the transportation, housing, industry, forestry, water, agriculture, electricity, and natural gas emissions sectors. The Scoping Plan details the regulations, alternative compliance mechanisms, voluntary actions and incentives, etc. proposed to meet the target emission reduction levels.

The Scoping Plan differentiates between "capped" and "uncapped" strategies. Capped strategies are subject to the proposed Cap-and-Trade Program, discussed further below. The Scoping Plan states that the inclusion of these emissions within the Cap-and-Trade Program will help ensure that the emission targets in AB 32 are met despite some degree of uncertainty in the emission reduction estimates for any individual measure. Uncapped strategies that will not be subject to the Cap-and-Trade Program are provided as a margin of safety by accounting for additional GHG emission reductions (CARB 2008).

CARB is required to update the Scoping Plan at least once every five years to evaluate progress and develop future inventories that may guide this process. CARB approved the first update to the Climate Change Scoping Plan: Building on the Framework in June 2014 (CARB 2014). The Scoping Plan Update includes a status of the 2008 Scoping Plan measures and other federal, State, and local efforts to reduce GHG emissions in California, and potential actions to further reduce GHG emissions by 2020. The Scoping Plan Update determined that the State was on schedule to achieve the 2020 target (i.e., 1990 levels by 2020). However, an accelerated reduction in GHG emissions is required to achieve the S-3-05 2050 reduction target of 80 percent below 1990 levels by 2050.

The statewide measures adopted under the direction of AB 32, and as outlined in the Scoping Plan, would reduce GHG emissions associated with existing development, as well as new development. CARB released the 2030 Target Scoping Plan Update Concept Paper to initiate a discussion regarding how to most effectively achieve a 40 percent reduction in GHG emissions by 2030 as compared to 1990 statewide GHG emissions (consistent with SB 32 and Executive Order B-30-15, outlined below) (CARB 2016). This Concept Paper was followed by the release of the 2017 Scoping Plan Update: *California's 2017 Climate Change Scoping Plan*, which establishes a proposed framework of action for California to reduce statewide emissions by 40 percent by 2030 compared to 1990 levels (CARB 2017). CARB has now released the final 2022 Scoping Plan Update, which evaluates progress toward the statutorily required 2030 target, as well as examining scenarios that could achieve carbon neutrality by 2045 or sooner (CARB 2022).

Executive Order B-30-15

In April 2015, Governor Edmund Brown issued an executive order (EO) establishing a statewide GHG reduction goal of 40 percent below 1990 levels by 2030. The emission reduction target acts as an interim goal between the

AB 32 goal (i.e., achieve 1990 emission levels by 2020) and Governor Brown's Executive Order S-3-05 goal of reducing statewide emissions 80 percent below 1990 levels by 2050. In addition, the executive order aligns California's 2030 GHG reduction goal with the European Union's reduction target (i.e., 40 percent below 1990 levels by 2030) that was adopted in October 2014.

Senate Bill 32

Approval of SB 32 in September 2016 extended the provisions of AB 32 from 2020 to 2030 with a new target of 40 percent below 1990 levels by 2030.[2]

Assembly Bill 1279

For the post-2030 period, EO B-55-18 established a statewide goal of achieving carbon neutrality as soon as possible, but no later than 2045, and achieving and maintaining net negative emissions thereafter. Signed September 16, 2022, AB 1279, the California Climate Crisis Act, codified EO B-55-18. This bill declares the policy of the state both 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. It as requires that by 2045 statewide anthropogenic greenhouse gas emissions are reduced to at least 85 percent below the 1990 levels.

Senate Bill 1078 (2002), Senate Bill 100 (2021) – California Renewable Portfolio Standard

Established in 2002 by SB 1078, California's Renewables Portfolio Standard (RPS) requires electricity providers (i.e., utilities, cooperatives, and community choice aggregators) to provide a specified minimum portion of their electricity supply from eligible renewable resources by milestone target years. Since 2002, state legislative actions have modified and accelerated the RPS several times, resulting in one of the most ambitious renewable energy standards in the country. As of December 2021, per SB 100, the RPS requires retail sellers of electricity to serve 60 percent of their electric load with renewable energy by 2030 with new interim targets of 44 percent by 2024 and 52 percent by 2027, as well as requiring that all of the state's electricity come from carbon-free resources (not only RPS-eligible ones) by 2045.

California Code of Regulations Title 20: Appliance Efficiency Regulations

California Code of Regulations, Title 20, Division 2, Chapter 4, Article 4, Sections 1601-1608 (Appliance Efficiency Regulations): Appliance Efficiency Regulations regulates the sale of appliances in California. The Appliance Efficiency Regulations include standards for both federally regulated appliances and non-federally regulated appliances. There are 23 categories of appliances are included in the scope of these regulations. The standards within these regulations apply to appliances that are sold or offered for sale in California, except those sold wholesale in California for final retail sale outside the State and those designed and sold exclusively for use in recreational vehicles or other mobile equipment.

[2] The companion bill, AB 197, adds two non-voting members to the CARB, creates the Joint Legislative Committee on Climate Change Policies consisting of at least three Senators and three Assembly members, requires additional annual reporting of emissions, and requires Scoping Plan updates to include alternative compliance mechanisms for each statewide reduction measure, along with market-based compliance mechanisms and potential incentives.

California Code of Regulations Title 24: Energy Efficiency Standards

Part 6 (Energy Efficiency Standards for Residential and Nonresidential Buildings)

California Code of Regulations, Title 24, Part 6 (California's Energy Efficiency Standards for Residential and Nonresidential Buildings or Building Energy Efficiency Standards) was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption. The California Energy Commission updates the Building Energy Efficiency Standards every three years. In addition to strengthening standards, updates allow consideration and possible incorporation of new energy-efficient technologies and methods. Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases GHG emissions. The current 2019 Building Energy Efficiency Standards went into effect on January 1, 2020, and the 2022 Building Energy Efficiency Standards were adopted August 11, 2021, and will be applicable to buildings for which permit applications are applied for on or after January 1, 2023.

California Code of Regulations Title 24: California Green Building Standards Code

California Code of Regulations, Title 24, Part 11, is a comprehensive and uniform regulatory code for all residential, commercial, and school buildings that went into effect on January 1, 2011. The Code is updated on a regular basis, with the most recent update consisting of the 2019 California Green Building Standards Code (CALGreen) that became effective January 1, 2020. Local jurisdictions are permitted to adopt more stringent requirements, as State law provides methods for local enhancements.

Regional and Local Plans, Policies, Regulations, and Ordinances

Sonoma County Regional Climate Action Plan

The Sonoma County Regional Climate Action Plan, *Climate Action 2020 and Beyond (RCPA 2016)*, is a countywide collaborative strategy for GHG reductions and climate change resilience adopted by the RCPA adopted in July 2016. The RCPA is governed by a 12-member Board of Directors comprised of representatives from the Sonoma County Board of Supervisors and Council Members from each of the nine cities – Cloverdale, Cotati, Healdsburg, Petaluma, Rohnert Park, Santa Rosa, Sebastopol, Sonoma, and Windsor. Climate Action 2020 and Beyond included a countywide target to reduce GHG emissions by 25 percent from 1990 levels by the year 2020, as well as targets of 40 percent reduction from 1990 levels by 2030 and 80 percent reduction from 1990 by 2050. Subsequently, RCPA developed interim GHG emissions inventories to track progress toward GHG reductions, as well as produced and adopted in March 2021 the *Sonoma Climate Mobilization Strategy* to build upon Climate Action 2020 and Beyond and establish the updated countywide goal of achieving carbon neutrality by 2030. The Strategy contains 13 overarching strategies within local authority to reduce GHG emissions and increase carbon sequestration by 2030.

City of Sonoma General Plan

The City General Plan (City of Sonoma 2006) contains the following policies and implementation measures related to greenhouse gas emissions and energy.

Environmental Resources Element

- **Policy ER-3.2:** Encourage construction, building maintenance, landscaping, and transportation practices that promote energy and water conservation and reduce greenhouse gas emissions.

- **Implementation Measure ER-3.2.1:** Implement a sustainability program that includes quantified objectives, standards and incentives for green construction and assistance to local businesses and agricultural operations to institute green practices for construction and land, energy, and water conservation.

- **Implementation Measure ER-3.2.2:** Continue to implement the Xeriscape Ordinance and update it as necessary to achieve water conservation objectives.

- **Policy ER-3.3:** Set an example of sustainability by conserving resources and following green practices in City facilities, services, and projects.

    - **Implementation Measure ER-3.3.1:** Develop a sustainable resource conservation strategy for City facilities, services.

City of Sonoma Tier 1 Energy Efficiency Requirements

The City adopted and amended the CALGreen energy efficiency requirements to require local compliance with the voluntary Tier 1 of the CALGreen Code, requiring project applicants to verify compliance with CALGreen requirements, as amended by the City, for all building permit applications submitted after January 1, 2020.

City of Sonoma Climate Emergency Resolution

In June 2020, the City Council adopted a resolution declaring a climate emergency. As a component of this resolution, the City committed to a citywide strategy including: "(1) mitigation: reduce city-wide greenhouse gas emissions to net zero no later than 2030; (2) drawdown/sequestration: supporting effective carbon negative actions to place carbon underground where it will remain for virtual perpetuity plus supporting similar steps that remove carbon from the atmosphere; and (3) adaptation/resilience: implementing and/or supporting measures to prepare for the inevitable consequences and impacts of a rapidly warming planet…" The resolution set forth the City's intent to evaluate policies, plans, projects, purchases, and priorities, including the City's General Plan, in accordance with the above-noted strategy components. This is an ongoing process and no formal adoption of GHG targets or policies has been incorporated by ordinance or via an update to the City's General Plan.

City of Sonoma Climate Action Plan

The City developed a draft Climate Action Plan that was introduced to the Climate Action Commission in March 2023. City staff will engage the community in the summer of 2023 to review and revise the plan with the goal of bringing it to City Council for consideration and possible approval in fall of 2023. The draft plan includes actions to reduce GHG emissions.

4.7.3 Environmental Impacts and Mitigation Measures

Thresholds of Significance

Based on Appendix G of the CEQA Guidelines, the proposed project would have a significant impact related to greenhouse gas emissions if it would:

- generate greenhouse gas 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 greenhouse gases.
- CEQA Guidelines Section 15064.4(b) also states that, when assessing the significance of impacts from GHG emissions, a lead agency should consider (1) the extent to which a project may increase or reduce GHG emissions compared with existing conditions, (2) whether a project's GHG emissions would exceed a threshold of significance that the lead agency has determined to be applicable to the project, and (3) the extent to which a project would comply with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.

Based on Appendix G of the CEQA Guidelines, implementation of the proposed project would result in a potentially significant impact related to energy if it would result in any of the conditions listed below.

- Wasteful, inefficient, or unnecessary consumption of energy resources during proposed project construction or operations.
- Conflict with or obstruction of a state or local plan for renewable energy or energy efficiency.

Appendix F of the CEQA Guidelines provides guidance on determining whether a project would result in wasteful, inefficient, or unnecessary consumption of energy resources. As stated in Appendix F, the goal of conserving energy implies the wise and efficient use of energy, and the means of achieving this goal includes the following.

- Decreasing overall per-capita energy consumption.
- Decreasing reliance on fossil fuels such as coal, natural gas, and oil.
- Increasing reliance on renewable energy sources.

As described above in the Regulatory Framework section, the statewide context for GHG emissions analysis is established by AB 32 (2006), which requires reduction of statewide GHG emissions to 1990 levels by 2020 and SB 32, which established a reduction mandate of 40 percent below 1990 statewide emissions levels by 2030. Additional long-term goals have been established by EO S-3-05, a goal for the State of 80 percent below 1990 statewide emissions levels by 2050, and AB 1279/EO B-55-18, a goal of carbon neutrality by 2045.[3] These near-term targets and long-term goals create a framework that can be used to inform the level of emissions reductions necessary and whether GHG emissions associated with a project would represent a cumulatively considerable contribution to the significant cumulative impact of climate change. As the Supreme Court held, "consistency with meeting [those] statewide goals [is] a permissible significance criterion for project emissions" (*Center for Biological Diversity v. Department of Fish & Wildlife* [2015] 62 Cal.4th 204 [*Center for Biological Diversity*]).

[3] "Carbon neutrality" is defined in Executive Order B-55-18 as the point at which the removal of carbon pollution from the atmosphere meets or exceeds carbon emissions. Carbon neutrality is achieved when carbon dioxide and other GHGs generated by sources such as transportation, power plants, and industrial processes are less than or equal to the amount of carbon dioxide that is stored, both in natural sinks and mechanical sequestration.

Compared to global emissions of GHGs, the proposed project will not, by itself, contribute significantly to climate change; however, cumulative emissions from many projects and plans all contribute to global GHG concentrations and the climate system. As stated by the Supreme Court and referenced by BAAQMD in its threshold justification report for climate change impacts, "[t]o the extent a project incorporates efficiency and conservation measures sufficient to contribute its portion of the overall greenhouse gas reductions necessary [to achieve the State's climate goals], one can reasonably argue that the project's impact is not cumulatively considerable, because it is helping to solve the cumulative problem..." (*Center for Biological Diversity* [internal quotation marks omitted]; BAAQMD 2022).

Regarding short-term construction emissions, neither the City nor the BAAQMD has thresholds of significance for construction-related GHG emissions. The most recent BAAQMD CEQA Thresholds Justification Report (April 2022) states that GHG "emissions from construction represent a very small portion of a project's lifetime GHG emissions" and that the BAAQMD's GHG "thresholds for land use project are designed to address operational GHG emissions which represent the vast majority of project GHG emissions." Nonetheless, in order to provide a more comprehensive assessment of cumulative GHG emissions-related effects, the proposed project's construction related emissions were amortized over the estimated lifetime of the project and added to the operational emissions; the functional lifetime of project features varies from approximately 10 years for internal features like plumbing fixtures, HVAC control systems and equipment, and guestroom décor (e.g., carpet and wall coverings) to 50 years or more for the more structural features of the project like foundations, framing, floor structures, HVAC, electrical and plumbing distributions systems, and roofing, with many features anticipated to have a functional lifetime somewhere in-between. Therefore, an average of 30 years was used for as the amortization period of construction-related emissions, noting that the more construction-intensive features have a longer functional lifetime.

BAAQMD adopted recommended thresholds of significance on April 20, 2022 for evaluating a project's impacts under CEQA related to the generation of GHG emissions and climate change. BAAQMD's approach was to identify what project design features and transportation performance standards "will be required of new land use development projects to achieve California's long-term climate goal of carbon neutrality goal by 2045" (BAAQMD 2022, page 2). BAAQMD's recommendations for thresholds are laid out in the BAAQMD's Justification Report: *CEQA Thresholds for Evaluating the Significance of Climate Impacts*. Specifically, the recommended design elements are intended to allow a new land use development project to demonstrate its 'fair share' of what would be required to achieve the State's long-term 2045 climate goal. From BAAQMD's document:

- Projects must include, at a minimum, the following project design elements:
  - Buildings:
    - The project will not include natural gas appliances or natural gas plumbing (in both residential and nonresidential development).
    - The project will not result in any wasteful, inefficient, or unnecessary electrical usage as determined by the analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the State CEQA Guidelines.
  - Transportation:

- Achieve a reduction in project-generated vehicle miles traveled (VMT) below the regional average consistent with the current version of the California Climate Change Scoping Plan (currently 15 percent) or meet a locally adopted SB 743 VMT target, reflecting the recommendations provided in the Governor's Office of Planning and Research's Technical Advisory on Evaluating Transportation Impacts in CEQA:
    - Residential projects: 15 percent below the existing VMT per capita.
    - Office projects: 15 percent below the existing VMT per employee.
    - Retail projects: no net increase in existing VMT.
- Achieve compliance with EV requirements in the most recently adopted version of CALGreen Tier 2.[4]

As described above, lead agencies also have flexibility to develop their own significance thresholds or to determine significance thresholds on a case-by-case basis. For development projects, particularly when considering more near-term targets, such as that of the State's 2030 target for 40 percent below 1990 levels, it is also important to evaluate whether a subject project "incorporates efficiency and conservation measures sufficient to contribute its portion of the overall greenhouse gas reductions necessary" for the State to achieve its own mandates (*Center for Biological Diversity*). If a project or plan demonstrates that the rate of GHG emissions is efficient enough to provide its share of State emissions reduction targets, the impact is not cumulatively considerable (*Center for Biological Diversity*; Crockett 2011). Therefore, as an additional point of reference for evaluation of the project's GHG emissions, and for an evaluation under the State's shorter-term goal of SB 32 (achieve 40 percent below 1990 levels by 2030), the City has also chosen to use a GHG efficiency metric that is tailored for a new development project, to the proposed project, and to the proposed project location to assess the GHG efficiency of the proposed project, such that the proposed project will allow for consistency with the reduction mandate embodied within SB 32.

The GHG emissions efficiency of a project or plan is measured as the amount of emission per specified unit of measurement. For development projects and plans, an appropriate metric is service population. Service population is the sum of residential population and employment. When dividing total GHG emissions by service population, a community is able to evaluate its overall growth and consider whether emissions will decrease on a per-unit basis in a way that is consistent with the State's emissions reduction targets.

To develop the efficiency target, the statewide mass emissions target for 2030 were divided by the forecast population and employment statewide for the same year. This yields an emissions "budget" for each resident/employee, and allows a community to assess whether or not its emissions rate is consistent with the statewide emissions reduction legislation. To make this relevant to the proposed project, however, the statewide mass emissions target, population and employment were tailored to focus on the emissions sources that are relevant for the project; the non-land use-related emissions and jobs were be removed from consideration. Since the efficiency target is a ratio, with emissions in the numerator and service population in the denominator, it was appropriate to remove inapplicable emissions sources from the numerator and inapplicable employment estimates associated with these emissions sources from the denominator. By removing these emissions and jobs from the calculation of statewide GHG efficiency, the efficiency target is tailored for the proposed project. For example, as

[4] As noted previously, CALGreen energy efficiency requirements are updated over time and some components of voluntary tiers in past versions of CALGreen can become mandatory in newer vintages of CALGreen energy efficiency requirements.

explained in the note to Table 4.7-1, geological and petroleum technicians, aircraft mechanics, and service technicians jobs were removed from consideration since these jobs do not exist within Sonoma. Emissions, for example, related to agriculture and forestry, mining, petroleum refining, and waterborne transportation emissions were removed from consideration since these emissions do not exist within Sonoma. Tailoring the efficiency target in this way ensures that the efficiency target is appropriate for use by the proposed project and the project site.

Table 4.7-1. Local Greenhouse Gas Efficiency Target

Metric	1990 State Inventory	2030 Land-Use-Based Target
Statewide Emissions (MMT CO_2e/yr) [1]	431	258.60
Adjusted Land Use-Related Emissions (MMT CO_2e/yr) [1]	293.47	176.08
Percent Mass Emissions Reduction	n/a	40% below 1990
Population [2]	-	41,860,459
Adjusted Land Use-Related Employment [3]	-	20,611,658
Total Service Population (SP)	-	61,042,493
Per Service Population Emissions Efficiency Target (MT CO_2e/SP)	**-**	**2.88**

Notes to Table 4.7-1: MMT CO_2e = million metric tons of carbon dioxide equivalent; n/a = not applicable, Service Population (SP) = population + employment

[1] California 1990 Greenhouse Gas Emissions Level and 2030 Limit by Sector, ARB: <http://www.arb.ca.gov/cc/inventory/1990level/1990level.htm>; targets for 2030 based upon percent mass emissions reduction targets established by SB 32.

[2] DOF Table P-1 Total Estimated and Projected Population for California and Counties: July 1, 2010 to July 1, 2060 in 5-year increments. July 2021. Available online at: http://www.dof.ca.gov/Forecasting/Demographics/projections/

[3] 2028 Employment Data from EDD Labor Market Information Division (July 2020) Long Term Projections 2018-2028 <https://www.labormarketinfo.edd.ca.gov/data/employment-projections.html> . 2030 Data is extrapolated based upon Employment to Population Ratio for 2028, and assumes consistent ratio. Sorted to remove jobs from: 11-9013 Farmers, Ranchers, and Other Agricultural Managers; 19-4041 Geological and Petroleum Technicians; 19-4093 Forest and Conservation Technicians; 45-000 Farming, Fishing, and Forestry Occupations; 47-5000 Extraction Workers; 49-3011 Aircraft Mechanics and Service Technicians; 49-3041 Farm Equipment Mechanics and Service Technicians; 49-9041 Industrial Machinery Mechanics; 49-9043 Maintenance Workers, Machinery; 49-9044 Millwrights; 51-0000 Production Occupations; 53-2000 Air Transportation Workers; 53-4000 Rail Transportation Workers; and 53-5000 Water Transportation Workers.

See Appendix C for detailed calculations and inputs. Please see the City's website for the appendix: https://www.sonomacity.org/hotel-project-sonoma/.

The emissions rate, when combined with the methodology for estimating project-related emissions is also designed to be appropriate for *new* development (as opposed to existing, on-the-ground development). All emissions sources related to the proposed project are evaluated as if they are created by the proposed project. In other words, while it is understood that the proposed project will accommodate demand for lodging services, and will likely serve demand that would otherwise be served in another facility, the analysis does not attempt to estimate such displaced emissions. All emissions associated with the proposed project's construction and operation are attributed to the proposed project, and no displaced emissions are subtracted from this estimate, allowing existing development to be relatively *less* GHG-efficient, while still allowing the State as a whole to meet GHG legislative mandates.

Table 4.7-1 presents the land use-related statewide emissions, population, and employment figures, and calculates the proposed 2035 GHG efficiency target to quantitatively evaluate the proposed project's GHG emissions. For the purposes of analysis in this RDEIR, the GHG efficiency threshold was calculated to be 2.88 MT CO_2e per

service population; additional calculations and inputs beyond the methodology explained above and data provided in Table 4.7-1 is available in Appendix C to this RDEIR.[5]

If the proposed project would achieve this threshold, it would demonstrate that implementation of the proposed project would generate GHG emissions at a level that would be consistent with State legislation (i.e., SB 32). Similarly, consistency with the BAAQMD criterion for significance demonstrate consistency with actions identified by BAAQMD as necessary of a new development project to do its "fair share" for the State to achieve its long-term goal of carbon neutrality by 2045 and consistency with the State Scoping Plan. Therefore, both of the CEQA Guidance Appendix G checklist questions for GHG emissions are evaluated under a single impact discussion using the above detailed GHG efficiency metric.

Issues Not Discussed Further

None.

Impact Analysis

Impact 4.7-1: GHG emissions generation.

GHG emissions have the potential to adversely affect the environment because such emissions contribute cumulatively to global climate change. It is unlikely that a single project will contribute significantly to climate change, but cumulative emissions from many projects could affect global GHG concentrations and the climate system. Therefore, impacts are analyzed within the context of the proposed project's potential contribution to the cumulatively significant impact of climate change. The proposed project would generate GHG emissions as a result of short-term construction and long-term operational activities.

The analysis for GHG emissions in this section is unique in relation to the environmental baseline. Instead of focusing on the difference between the existing baseline and conditions with implementation of the proposed project, the analysis considers GHG emissions with implementation of the proposed project in relation to State targets and goals for GHG emissions reduction. To ensure a conservative analysis (that would tend to overestimate the actual impact) emissions associated with on-site uses were not subtracted.

In order to calculate the GHG efficiency of the proposed project, GHG emissions from construction and operation of the proposed project were calculated using the California Emissions Estimator Model (CalEEMod), Version 2022.1, using the same methodology described in Section 4.3, Air Quality. The proposed project's emissions are divided by the proposed project's service population to determine whether the proposed project is efficient enough to provide its fair share of the State's emissions reduction mandates. The service population for the proposed project is the total residents and employees that would be accommodated by the proposed project.[6] Please see Appendix C of this RDEIR for modeling details, assumptions, inputs, and outputs.[7]

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5 Please see the City's website for the appendix: https://www.sonomacity.org/hotel-project-sonoma/.

6 As noted elsewhere, since hotel guests are temporary residents, arguably, an average number of hotel guests could have been included as a part of the service population. However, to ensure conservative results (that will overestimate the actual impact), hotel guests were not included as a part of the service population, though all emissions associated with the hotel portion of the proposed project, including guest activity were included in the emissions estimates.

7 Please see the City's website for the appendix: https://www.sonomacity.org/hotel-project-sonoma/.

During construction of the proposed project, exhaust GHG emissions would be generated from a variety of sources such as heavy-duty construction and clearing equipment, haul trucks, material delivery trucks, and construction worker vehicles. Construction would be short term, anticipated to last approximately 18 months, and the generation of construction-related GHG emissions would cease at the end of construction. However, as noted above in the discussion of *Thresholds of Significance*, total construction-related GHG emissions were amortized over 30 years and added to the total project annual operational emissions. This approach accounts for the persistence of GHG emissions in the environment (in other words, the temporary emission sources result in emissions that persist over many years), and also ensures that mitigation measures account for construction GHG emissions as part of the total emissions considered in the establishment of operational GHG reduction strategies.

Operational GHG emissions can be direct and indirect. Direct GHG emissions are generated at the location of consumption or use; for example, mobile-source emissions are direct emissions because GHG emissions are generated as a vehicle begins to move. Other direct emissions sources include on-site natural gas use, wood-burning fireplaces, landscape equipment, a backup generator, and fugitive emissions from refrigerant use in equipment such as air conditioning units and freezers. Conversely, indirect emissions occur at a different time or location from the point of consumption or use. For example, electricity-related GHG emissions are indirect emissions because, as consumers use electricity at their workplace, the fuel combustion and emissions associated with creating that electricity likely occurred off-site or at a different time. Other indirect GHG emissions include emissions from solid waste disposal and water consumption.

Although there are existing operational land uses on-site that would be demolished as part of the proposed project, it was not assumed that this would result in a reduction in GHG emissions from existing conditions. As noted, to ensure conservative results for this analysis, emissions associated with existing on-site operations were not subtracted from the emissions estimates presented in this RDEIR.

As noted above, the proposed project's GHG emissions are evaluated against an efficiency threshold for 2030 based on the emissions reduction mandate in SB 32. This GHG emissions efficiency threshold was derived to be specific for this location, tailored for this specific project, and appropriate for *new* development. In creating this efficiency threshold, emissions sources not relevant to Sonoma County or to the proposed project were removed from consideration in building the emissions efficiency threshold. Similarly, inapplicable employment estimates were removed when building the efficiency threshold, so that the threshold was tailored to apply to emissions sources related to the proposed project. For example, as noted earlier, geological and petroleum technicians, aircraft mechanics, and service technicians jobs were removed from consideration and emissions related to agriculture and forestry, mining, petroleum refining, and waterborne transportation emissions were removed from consideration in the efficiency threshold since these jobs and emissions do not exist within the City. The emissions rate, when combined with the methodology for estimating project-related emissions is also designed to be appropriate for new development (as opposed to existing, on-the-ground development).

All emissions sources related to the proposed project are evaluated as if they are created by the proposed project. In other words, while it is understood that the project will accommodate demand for lodging services, and will likely serve demand that would otherwise be served in another facility, as well as include daily activity by hotel guests that would otherwise occur at their places of residence, the analysis does not attempt to estimate such displaced emissions. In other words, this analysis assigns all emissions to the proposed project. This analysis does not subtract mobile source emissions or energy emissions that would be reduced when hotel guests are not in their residences. This analysis does not subtract emissions that would otherwise occur at another hotel in Sonoma

County. All emissions associated with the proposed project's construction and operation are attributed to the proposed project, and no displaced emissions are subtracted from this estimate, allowing existing development to be relatively less GHG-efficient, while still allowing the State as a whole to achieve legislative GHG reduction mandates.

Table 4.7-2 presents the maximum annual construction-related GHG emissions for each year of construction, as well as the amortized construction emissions, and the annual operational emissions by source. Total proposed project emissions are provided, summing the amortized construction and total annual operational emissions.

If the proposed project construction would begin in 2024, it is reasonable to assume that operations would continue through to 2055, assuming operations to begin in 2025 and an approximately 30-year operational lifespan. As explained above in the Thresholds of Significance discussion, BAAQMD thresholds of significance were intended to provide a method for demonstrating consistency with the State's long-term goal of carbon neutrality by 2045. While implementation of the BAAQMD-recommended actions in the present do not likely achieve carbon neutrality during the first year of operations, the concept is based upon the fact that State and federal regulations, policies to influence community behavior, and advances in technology, both market-based and regulation-incentivized, will act in tandem with the design features and best management practices recommended by BAAQMD in order to realize the State's carbon neutrality goal. Therefore, as stated in the *Thresholds to Significance* subsection, the proposed project was also evaluated against the BAAQMD criteria, as shown in Table 4.7-2 to demonstrate consistency with the State's longer-term 2045 goal.

Table 4.7-2. Project GHG Efficiency in the Year 2025

Proposed Project Emissions Source	Total GHG Emissions in 2025 (MT CO_2e)
Construction 2024	561
Construction 2025	440
Total Construction	*1,001*
Annual Construction Amortized over 30 years	33
Annual Operational Mobile Activity	1,224
Annual Operational Area Sources	149
Annual Operational Energy Sources	371
Annual Operational Water Use	7
Annual Operational Waste Generation	38
Annual Operational Refrigerant Use	17
Annual Operational Stationary Source (i.e., backup generator)	9
Total Annual Operational Emissions	*1,817*
Total Project Annual Emissions (Operational + Amortized Construction)	**1,850**
Proposed Project Service Population (Employees + Residents)[1]	95
Proposed Project GHG Efficiency (MT CO_2e per service population)	**19.48**
Local GHG Efficiency Target for 2030 (MT CO_2e per service population)	**2.88**
Project within GHG Efficiency Target for 2030?	**No**

Notes:

GHG = greenhouse gas emissions; MT CO_2e = metric tons of carbon dioxide equivalents

[1] Service population reflects approximation of 2.56 persons per dwelling unit for eight residential units plus 75 employees (60 full-time and 30 part-time employees, assuming the part-time employees are half time). Service population does not account for hotel guests, although the

total emissions reflect the hotel operational emissions to serve guests and the guest-related vehicle miles travelled, as developed as part of the traffic study prepared to support the City's evaluation of the proposed project.

Table 4.7-3. Proposed Project's Consistency with BAAQMD June 2022 Recommended Design Features and Transportation Efficiency Performance Standard

BAAQMD Significance Criteria	Project Consistency
The project will not include natural gas appliances or natural gas plumbing (in both residential and nonresidential development).	**Inconsistent.** Existing natural gas infrastructure is within the proposed project site. The proposed project would minimize the use of natural gas. For example, the proposed project design includes the use of heat pumps, which are all-electric systems, rather than natural gas for water heating requirements. However, the proposed project design does not omit the inclusion of natural gas for the purposes of hotel or residential fireplaces, nor for the restaurant operations.
The project will not result in any wasteful, inefficient, or unnecessary energy usage as determined by the analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the State CEQA Guidelines.	**Consistent.** The proposed project is an infill development project on an existing developed site. The proposed project has access to existing utilities and transportation infrastructure, and would not require extension of such utilities or transportation infrastructure or energy use associated with such extensions in order to serve the project's demands. The project which would replace older, less energy efficient buildings; provide for a mixed-use development Downtown, thereby reducing the average trip rates and travel distances of the proposed project's residents, employees, and visitors, and associated fuel use; incorporate electric powered, rather than natural gas, pumps for water heating purposes; and include circulation improvements and proposed project design features to support ease of access and safety for alternative transportation modes, including walking, biking, and use of transit.
Achieve a reduction in project-generated VMT below the existing average consistent with the current version of the California Climate Change Scoping Plan (currently 15 percent) or meet a locally adopted SB 743 VMT target, reflecting the recommendations provided in the Governor's Office of Planning and Research's Technical Advisory on Evaluating Transportation Impacts in CEQA.	**Inconsistent.** See Section 4.13, Transportation, of this RDEIR. As discussed in more detail in that section, the proposed project's residential portion would achieve a VMT that is 15 percent below the citywide residential VMT per capita, and therefore would be consistent with the SB 743 VMT target. However, the City cannot presently demonstrate that the non-residential component of the proposed project would have daily VMT that is 15 percent less than the citywide average, and therefore cannot demonstrate consistency with this criterion. It should be noted that, while not able to be quantified for the purposes of analysis in this RDEIR, the proposed project is responding to demand and to the extent that some demand for hotel uses in higher-VMT areas supplanted by this project, the net change in VMT associated with implementation of the project may provided a beneficial reduction in VMT.
Achieve compliance with EV requirements in the most recently adopted version of CALGreen Tier 2.	**Inconsistent (Consistent with Mitigation).** The proposed project will meet California Green Building Code standards required by regulation, but does not propose additional electric vehicle charging infrastructure to meet current Tier 2 standards of the California Green Building Code (though this is required through mitigation – please see below).

Notes:
BAAQMD = Bay Area Air Quality Management District
CALGreen = California Green Building Standards
CEQA = California Environmental Quality Act
EIR = Environmental Impact Report
EV = electric vehicle
SB = Senate Bill
VMT = vehicle miles travelled

As shown in Table 4.7-2, the proposed project's emissions would be higher than the local GHG efficiency threshold of 2.88 MT CO_2e per service population. The primary emission source associated with the proposed project is mobile activity, which is primarily the result of hotel guest travel. As explained above, the proposed project's GHG efficiency assumes all emissions sources related to the proposed project are created by the proposed project, regardless of whether the hotel component of the proposed project would serve demand that

would otherwise be served in another facility, and does not account for any displaced emissions associated with daily activity by hotel guests that would otherwise occur at their places of residence. In addition, the service population accounted for in the denominator of the calculation to determine the project's GHG efficiency ***only*** accounts for the proposed project's employees and residents, not the hotel guests, whose use of the facility generate the majority of the GHG emissions.

As described in Chapter 3 of this RDEIR, the proposed project objectives include adding residential units in the Downtown area through mixed-use development combining housing with non-residential development, providing local employment opportunities, supporting safe and convenient bicycling, and minimizing vehicle trips while ensuring access to nearby activities and maintaining the City's small-town character. Mixed-use, infill development is generally consistent with land use planning and transportation strategies[8] to reduce mobile source emissions. Similarly, providing employment and hotel lodging opportunities in Downtown Sonoma further supports strategies to reduce employee commute travel distances and visitor passenger vehicle miles traveled.

As shown in Table 4.7-3, while the proposed project will not require natural gas for some of its operations, the proposed project's operations would include some natural gas infrastructure and use for operations. As noted, the City cannot as of the writing of this document provide evidence that the non-residential VMT associated with the proposed project would be 15 percent below the citywide VMT average, and the project design does not include EV infrastructure that would achieve compliance with EV parking infrastructure requirements of the most current CALGreen Tier 2 standards (though this is required through mitigation – please see below).[9] Therefore, the proposed project has the potential to result in long-term emissions associated with operations that are not consistent with BAAQMD's recommended design features and transportation performance standards. Therefore, GHG emissions attributable to the proposed project are considered to result in a **cumulatively considerable** contribution to the significant cumulative impact of climate change.

Mitigation Measures:

> Mitigation Measure 4.7-1a: Minimize the inclusion of natural gas infrastructure and use of natural gas in all buildings and supporting operations.
>
> The City of Sonoma shall require the project applicant to prohibit natural gas infrastructure for the residential portion of the proposed project; limit natural gas infrastructure for the hotel portion of the proposed project to that which is necessary to meet the requirements of backup generators required for the proposed hotel operations; and minimize the use of natural gas in restaurant operations, including requiring the use of electric powered pumps for any water heating requirements. Natural gas infrastructure and operational equipment that would requiring the use of natural gas shall be submitted to the City for review prior to the issuance of any demolition or grading permit.

[8] Bay Area Air Quality Management District, 2017, Clean Air Plan 2017, pages 1/15, 4/4, 4/23, 5/9 – 5/13, A/4, F/18.

[9] The most current California Green Building Standards Code (CALGreen) are the 2019 standards, effective January 1, 2020; the Tier 2 standards require 20 percent of total parking spaces serving multi-family dwellings to be EV capable (i.e., Installation of the enclosed conduit that forms the physical pathway for electrical wiring and adequate panel capacity to accommodate future installation of a dedicated branch circuit and charging station[s]), and 12 of up to 150 non-residential parking spaces be EV capable.

Mitigation Measure 4.7-1b: Implement Mitigation Measure 4.14-a, Transportation Demand Management for Project Guests and Employees.

Mitigation Measure 4.7-1c: Incorporate CALGreen Tier 2 Standards for Electric Vehicle Infrastructure Into Project Design – Non-Residential.

The City of Sonoma shall require the project applicant to include provide electric vehicle (EV) capable parking at the rate consistent with California Green Building Standards Code (CALGreen) Tier 2 standards for the proposed non-residential uses based on the proposed size and scale of development. EV capable parking will include the installation of the enclosed conduit that forms the physical pathway for electrical wiring and adequate panel capacity to accommodate future installation of a dedicated branch circuit and charging station(s). As applicable to the proposed project, 2019 CALGreen Tier 2 standards require 20 percent of total parking spaces serving multifamily dwellings to be EV capable and 12 of up to 150 non-residential parking spaces be EV capable.

Mitigation Measure 4.7-1d: Incorporate CALGreen Tier 2 Standards for EV Infrastructure Into Project Design - Residential.

The City of Sonoma shall require the project applicant to include provide EV capable parking at the rate consistent with CALGreen Tier 2 standards for the proposed residential uses based on the proposed size and scale of development. EV capable parking will include the installation of the enclosed conduit that forms the physical pathway for electrical wiring and adequate panel capacity to accommodate future installation of a dedicated branch circuit and charging station(s).

Mitigation Measure 4.7-1e: Purchase Electricity from a Power Mix that is 100 Percent Renewable.

The City of Sonoma shall require the project applicant to subscribe to the Sonoma Clean Power 100 percent renewable electricity (EverGreen) program, or another program that provides 100 percent renewable electricity and achieves a comparably reduced GHG intensity in terms of pounds of carbon dioxide equivalents per megawatt-hour of electricity.

Mitigation Measure 4.7-1f: Purchase and Retire GHG Emissions Credits.

The project applicant shall purchase and retire greenhouse gas (GHG) emissions credits for the proposed project. Prior to the issuance of a building permit, the project applicant shall provide documentation for review and approval by the City of Sonoma, that demonstrates consistency with the requirements of this mitigation measure, including the specific performance standards outlined below regarding the credit program selected.

The project applicant shall purchase and retire GHG emissions credits in an amount sufficient to reduce the proposed project's annual amortized construction and operational emissions to a level considered less than cumulatively considerable based upon the 2030 target of 2.88 MT CO_2e per service population and the State's goal of carbon neutrality by 2045. The project applicant shall purchase and retire GHG emissions credits sufficient to meet such requirements for operations through 2055, which reflects the assumed 30-year lifetime of the proposed project. Total operational emissions and required GHG credits were estimated for each year of operations over the 30-year project lifetime using incremental emissions estimates for the years 2025 through 2029, 2030 through 2049, and 2050 through 2055. Operational

emissions for each incremental period of operations were based upon emissions estimates for the first year of each period (e.g., emissions for each year 2025 through 2029 were based upon 2025 emissions estimates). This approach provided consideration for the fact that mobile source emissions would decline in future years due to cleaner vehicles from fleet turnover and increasingly stringent emissions regulations. Although energy-related emissions would also decline due to increasingly stringent RPS standards, energy-related emissions were conservatively held constant for all operational years. Similarly, increased technological opportunities to reduce natural gas use in the proposed restaurant was not included in this analysis. Based on these timelines and the project's operational for the incremental blocks between 2025 and 2055, the total required credits is 32,903 MT CO_2e for the life of the project.

The purchase and retirement of credits may occur through one of the following programs, which are all developed consistent with ARB's offset protocols: (i) a California Air Resources Board (CARB) approved registry, such as the Climate Action Reserve, California Offsets through the American Carbon Registry, and the Verified Carbon Standard; (ii) any registry approved by CARB to act as a registry under the California Cap and Trade program; or (iii) through the California Air Pollution Control Officers Association (CAPCOA) GHG Rx. Such credits shall be based on protocols approved by CARB, consistent with Section 95972 of Title 17 of the California Code of Regulations, and shall not allow the use of offset projects originating outside of California. Off-site mitigation credits shall be real, additional, quantifiable, verifiable, enforceable, permanent, consistent with the standards set forth in Health and Safety Code section 38562, subdivisions (d)(1) and (d)(2) and that satisfy all of the following criteria:

- Real: emission reduction must have actually occurred, yielding quantifiable and verifiable reductions or removals determined using appropriate, accurate, and conservative methodologies that account for all GHG emissions sources, GHG sinks, and GHG reservoirs within the offset project boundary and account for uncertainty and the potential for activity-shifting leakage and market-shifting leakage.
- Additional: an emission reduction cannot be required by an existing law, rule, or other requirement that applies directly to the proposed project, or otherwise have occurred in a conservative business-as-usual scenario, consistent with CEQA Guidelines Section 15126.4(c)(3) and Health and Safety Code section 38562(d)(2). One carbon offset credit shall mean the past reduction or sequestration of one metric ton of carbon dioxide equivalent that is 'not otherwise required', consistent with CEQA Guidelines Section 15126.4(c)(3).
- Quantifiable: reductions must be quantifiable through tools or tests that are reliable, based on applicable methodologies, relative to the proposed project baseline in a reliable and replicable manner for all GHG emission sources and recorded with adequate documentation. Verifiable: the action taken to produce credits can be audited by an accredited verification body and there is sufficient evidence to show that the reduction occurred and was quantified correctly.
- Enforceable: an enforcement mechanism must exist to ensure that the reduction project is implemented correctly.
- Permanent: emission reductions or removals must continue to occur for the expected life of the reduction project (i.e., not be reversible, or if the reductions may be reversible, that mechanisms are in place to replace any reversed GHG emissions reductions).

The purchase and retirement of credits shall be prior to the start of each operational year at a level necessary to ensure that annual operational emissions and amortized construction emissions remain below the project-specific 2030 GHG efficiency threshold for each year for the operational life of the project plus emissions associated with natural gas use after 2030 and mobile source emissions for non-residential uses as required to be 15 percent lower than citywide emissions per service population. Purchase and retirement of credits can also occur for multiple years in advance up to the total purchase requirement described above.

The applicant shall provide the City of Sonoma with evidence of the purchase and retirement of credits in adequate amounts and appropriate timing. If the entire amount is retired up-front, the applicant shall provide the City evidence of the purchase and retirement prior to approval of any building permit associated with the project. If the reduction credits are purchased annually, the applicant shall provide evidence to the City prior to the annual renewal of the business license. The evidence of purchase and retirement of credits shall include (i) the applicable protocol(s) and methodologies associated with the carbon offsets, (ii) the third-party verification report(s) and statement(s) affiliated with the carbon offset projects, and (iii) the unique serial numbers assigned by the registry(ies) to the carbon offsets to be retired, which serves as evidence that the registry has determined the carbon offset project to have been implemented in accordance with the applicable protocol or methodology and ensures that the offsets cannot be further used in any manner.

Significance after Mitigation

Mitigation Measures 4.7-1a, 1b, 1c, 1d, and 1e would reduce emissions associated with natural gas use, transportation, and electricity consumption associated with proposed project, and support alignment with the BAAMQD-recommended proposed project design features and transportation performance standards, and would ensure that the proposed project contributes its fair-share of emissions reductions toward the State GHG reduction mandates and the State's goal of statewide carbon neutrality. Mitigation Measure 4.7-1f further reduces the proposed project's impacts related to the generation of GHG emissions, as it requires the purchase and retirement of GHG emissions credits based on protocols approved by CARB, consistent with Section 95972 of Title 17 of the California Code of Regulations. Mitigation Measure 4.7-1f also requires the project applicant to provide documentation demonstrating that the mitigation credits are real, additional, quantifiable, verifiable, enforceable, permanent, and consistent with the standards set forth in Health and Safety Code section 38562, subdivisions (d)(1) and (d)(2). Mitigation Measure 4.7-1f would not only offset any remnant GHG emissions associated with the operational use of natural gas and project-generated VMT that would be in excess of the BAAQMD-recommended transportation performance standards, but would also ensure that the project's GHG emissions efficiency would be consistent with that of the State SB 32 regulatory GHG emissions reduction target for 2030. Therefore, with implementation of Mitigation Measures 4.7-1a through 1f, the generation of GHG emissions associated with the proposed project would not result in a substantial contribution to the significant impact of climate change or conflict with an applicable plan, policy, or regulation adopted for the purposes of reduction GHG emissions. However, the City cannot guarantee the availability of emissions credits meeting the standards outlined in the mitigation presented above. There is no additional feasible mitigation available. Therefore, the impact is **cumulatively considerable and significant and unavoidable**.

Impact 4.7-2: Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation, or conflict with or obstruction of a state or local plan for renewable energy or energy efficiency.

Implementation of the proposed project would result in energy consumption for the duration of the proposed project's construction phases in the form of electricity, natural gas, and fossil fuels (e.g., gasoline, diesel fuel). Implementation of the proposed project would also require energy for operational phases. The proposed project would not result in an unnecessary or wasteful use of energy and would not conflict with a state or local plan for renewable energy or energy efficiency.

Construction-Related Energy Consumption

Implementation of the proposed project would increase the consumption of energy for the duration of construction in the form of electricity, natural gas, and fossil fuels (*e.g.,* gasoline, diesel fuel). The primary energy demands during construction would be associated with construction equipment and vehicle fueling. Energy in the form of fuel and electricity would be consumed during this period by construction vehicles and equipment operating on-site, trucks delivering equipment and supplies to the site, and construction workers driving to and from the site. Table 4.7-4 presents the total fuel consumption anticipated for the proposed construction activities. The calculations in Table 4.7-4 are based on the CalEEMod emissions calculations for proposed construction activities and application of the United States Energy Information Administration CO_2 emissions coefficients (EIA 2022) to estimate fuel consumption for each phase of construction activities. Over the anticipated 18-month construction period, the proposed project would require a total of approximately 90,982 gallons of diesel and 9,060 gallons of gasoline. The proposed project could also involve the use of on-site electric-powered equipment, the use of which would supplant the need for gasoline and diesel fuel.

Table 4.7-4. Modeled Construction Fuel Consumption

Phase	Source	GHG Emissions (MT CO_2e/Year [a])	Fuel Type	Factor (MT CO_2/Gallon) [b]	Gallons/Year
Demolition	Off-Road Equipment & On-Site Trucks	81.71	Diesel	1.02E-02	8,042
Demolition	Hauling	2.00	Diesel	0.01016	197
Demolition	Vendor	0.00	Diesel	0.01016	-
Demolition	Worker	1.15	Gas	0.008887	129
Site Prep	Off-Road Equipment & On-Site Trucks	28.18	Diesel	1.02E-02	2,774
Site Prep	Hauling	26.95	Diesel	0.01016	2,653
Site Prep	Vendors	0.00	Diesel	0.01016	-
Site Prep	Workers	0.29	Gas	0.008887	33
Grading	Off-Road Equipment & On-Site Trucks	150.77	Diesel	0.01016	14,840
Grading	Hauling	0.18	Diesel	0.01016	18
Grading	Vendors	0.00	Diesel	0.01016	-
Grading	Workers	1.48	Gas	0.008887	167
Trenching	Off-Road Equipment & On-Site Trucks	3.87	Diesel	0.01016	381
Trenching	Hauling	0.00	Diesel	0.01016	-
Trenching	Vendors	0.00	Diesel	0.01016	-
Trenching	Workers	0.19	Gas	0.008887	21
Building Construction	Off-Road Equipment & On-Site Trucks	509.40	Diesel	0.01016	50,138
Building Construction	Hauling	0.00	Diesel	0.01016	-

Phase	Source	GHG Emissions (MT CO_2e/Year [a])	Fuel Type	Factor (MT CO_2/Gallon) [b]	Gallons/Year
Building Construction	Vendors	94.10	Diesel	0.01016	9,262
Building Construction	Workers	74.00	Gas	0.008887	8,327
Paving	Off-Road Equipment & On-Site Trucks	9.48	Diesel	0.01016	933
Paving	Hauling	0.00	Diesel	0.01016	-
Paving	Vendors	0.18	Diesel	0.01016	18
Paving	Workers	0.33	Gas	0.008887	37
Architectural Coating	Off-Road Equipment & On-Site Trucks	13.49	Diesel	0.01016	1,328
Architectural Coating	Hauling	0.00	Diesel	0.01016	-
Architectural Coating	Vendors	0.00	Diesel	0.01016	-
Architectural Coating	Workers	3.08	Gas	0.008887	347
All Phases	**All Sources**	-	**Total Gallons Diesel**	**-**	90,582
All Phases	**All Sources**	-	**Total Gallons Gasoline**	**-**	9,060

Notes:
CO_2 = carbon dioxide; CO_2e = carbon dioxide equivalent; MT = metric tons
Sources:
[a] Modeled by AECOM in 2023
[b] U.S. Energy Information Administration 2022

The proposed project does not include unusual characteristics that would necessitate the use of construction equipment that would be less energy-efficient than at comparable construction sites. Material resulting from demolition and any trenching and site preparation would be reused to the extent feasible, in accordance with CALGreen standards for the diversion of non-hazardous waste. Construction equipment and personnel would be staged within the boundaries of the project site, and on-site idling of heavy-duty equipment would be limited to no more than 5 minutes, in accordance with California Code of Regulations Title 13, Sections 2485 and 2449. The proposed project is located on an infill site with access to required utilities and transportation infrastructure without the need to extend such facilities to support project demands or use the energy required to construct such utilities or transportation infrastructure.

State plans adopted for the purpose of promoting energy efficiency include the California Renewable Portfolio Standard, the Clean Energy and Pollution Reduction Act of 2015 (SB 350), the California Energy Efficiency Standards for Nonresidential Buildings, and the CALGreen Code. Construction activities under the proposed project would be conducted in accordance with all applicable laws and regulations, including applicable federal, state, and local laws that are intended to promote efficient utilization of resources and minimize environmental impacts.

Therefore, construction activities associated with the proposed project would not result in inefficient, wasteful, or unnecessary use of fuel or other energy sources and would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. This impact would be **less than significant.**

Operational Energy Consumption

Energy use associated with operation of the proposed project would include electricity and natural gas use associated with the proposed residential and hotel buildings and parking structures and fuel for vehicle travel.

The proposed buildings would be constructed to meet all applicable energy efficiency standards at the time of construction and would be required to comply with the current energy performance standards found Title 24 of

the California Code of Regulations, including the Green Building Code (Part 11 of Title 24) Building Energy Efficiency Standards.

Using CalEEMod, electrical and natural gas demands were modeled to estimate building (and parking area) energy use based on the proposed land uses; these are presented in Table 4.7-5. Energy demands of the proposed project would be approximately 896,653 kilowatt-hours per year for electricity and 2,731,818 thousand British thermal units of natural gas, based on default energy consumption rates developed for CalEEMod.

Table 4.7-5. Project Building Operational Electricity and Natural Gas Demand

Structure	Electrical (kWh/year)	Natural Gas (kBtu/year)
Hotel	374,859	1,692,801
Restaurant	314,829	949,168
Residential	25,542	89,849
Parking	181,423	-
Total Proposed Project	896,653	2,731,818

Notes: kBtu = thousand British thermal units; kWh = kilowatt-hours

Source: Modeled by AECOM in 2023; CEC 2020a, b

Energy efficiency requirements for new construction have increased over time. In addition, older buildings tend to decrease in energy efficiency as infrastructure begins to degrade with time. Therefore, the space heating and cooling, lighting, and other operational-related energy uses for the proposed project's buildings would be more efficient than existing on-site buildings that are proposed for demolition. It should also be noted that existing natural gas infrastructure is within the proposed project site. The project design does not omit the inclusion of natural gas for the purposes of hotel or residential fireplaces, nor for the restaurant operations. However, the proposed project would limit the use of natural gas. For example, the proposed project design includes the use of heat pumps, which are all-electric systems, rather than natural gas for water heating requirements, which would reduce the proposed project's anticipated natural gas consumption relative to the estimates modeled using CalEEMod. In addition, with implementation of Mitigation Measure 4.7-1 identified to reduce GHG emissions and support consistency with State goals toward carbon neutrality, natural gas would not be used by the hotel or residential land uses and electrical demand would increase slightly to serve those operational activities otherwise assumed to be powered by natural gas. In addition, Mitigation Measure 4.7-1 requires the use of 100 percent renewable electricity as the electrical source for the project site. Both of these actions would increase the reliance on renewable energy sources. Finally, the proposed building electrical power supply would be augmented by an approximately 8,704-square-foot rooftop photovoltaic (solar) generation system, increasing reliance on renewable energy sources. Therefore, energy consumption associated with the proposed project building operations would not be inefficient, wasteful, or unnecessary.

Transportation-related energy consumption would be in the form of both fuel (e.g., diesel and gasoline) and electricity for electric and hybrid vehicles. Operations of the proposed project would generate daily trips for staff, guests, and vendors of the hotel and restaurant, and residents and related vehicles to the residential units. Transportation fuel consumption associated with operational trips to and from the proposed project were estimated based on the VMT analysis developed to support the transportation section of this RDEIR, and the use of the EMFAC2021 vehicle fuel and electricity consumption data. Table 4.7-6 shows the estimated diesel and gasoline fuel consumption during proposed project operations, anticipated to begin in 2025.

Table 4.7-6. Operational Transportation-related Energy Consumption

Fuel Source	Energy Consumption (Gallons per Year for Diesel and Gasoline; KWh per Year for Electricity)
Diesel Fuel	3,714
Gasoline	116,052
Electricity	88,457

Notes: KWh = kilowatt per hour, VMT = vehicle miles traveled
Sources: EMFAC2021 (v1.0.2) web database
Modeled by AECOM in 2023

The proposed project is an infill development project on an existing developed site. The proposed project which would provide for a mixed-use development in the Downtown area, thereby reducing the average trip rates and travel distances of the proposed project's residents, employees, and visitors, and associated fuel use, and includes circulation improvements and project design features to support ease of access and safety for alternative transportation modes, including walking, biking, and use of transit. Proposed parking would include EV capable infrastructure in accordance with California Green Building Code standards required by regulation for electric vehicle charging infrastructure. In addition, vendor deliveries to and from the project site would be coordinated with surrounding business, thereby limited additional individual vendor trips associated specifically with the proposed project. Therefore, the fuel consumption associated with the proposed project would not be wasteful or inefficient.

In California, energy consumption in buildings is regulated by California Code of Regulations, Title 24. Title 24 includes standards that regulate energy consumption for the heating, cooling, ventilation, and lighting of residential and nonresidential buildings. The City has adopted and amended CALGreen to require CALGreen+ Tier 1 level of compliance for all new buildings (except Tier 1 Energy Efficiency measures need not be met). The City requires that project applicants verify compliance with CALGreen requirements as amended by the City . The proposed project would be required to comply with the standards of Title 24 and the City CALGreen+ code, which incorporates all mandatory elements of the 2019 CALGreen Code and stricter local requirements in accordance with the CALGreen Tier 1 measures.

Therefore, due to the proposed project design features, on-site production of renewable energy to reduce reliance on nonrenewable energy resources, compliance with energy efficiency standards that exceed CALGreen requirements, and project siting within the City's Downtown area as a mixed-use infill development, and the proposed project's energy consumption associated with building operations and operational transportation would not be inefficient, wasteful, or unnecessary, and 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 Measure: No mitigation measures are required.

4.8 HAZARDS AND HAZARDOUS MATERIALS

4.8.1 ENVIRONMENTAL SETTING

PAST AND PRESENT LAND USES AT THE PROJECT SITE

The project site was part of a vineyard in the late 1800s. In the early 1900s, the project site was occupied by buildings identified as a hotel, laundry, saloon, and a plumbing company. A gasoline service station was constructed on the 135 West Napa Street portion of the project site in the 1920s. In 1998 the service station was dismantled and all underground storage tanks (USTs), hydraulic lifts, and other fuel-related piping were removed from the site. In 2002, the current 3-story, mixed-use commercial building (i.e., the Lynch Building) was constructed on the 135 West Napa Street portion of the site. Additionally, a metal-clad warehouse building was constructed on the southern half of the 135 West Napa Street portion of the site in the late 1980s (Geologica Inc. [Geologica] 2015).

The current building located at 117 West Napa Street was constructed in 1928, enlarged in 1958, and a metal-clad warehouse was added on to southern end of the building in 1977. This building has been used for the offices and printing press for the Sonoma Index Tribune, previously a daily newspaper (currently bi-weekly). Printing operations at the Sonoma Index Tribune ceased in 2008 and all piping related to printing ink was removed from the site in 2009 (Geologica 2015).

The former Chateau Sonoma building, at 153 West Napa Street, was constructed around 1910 and was originally used as a blacksmith's shop (Knapp Architects 2015). The building has accommodated a variety of commercial tenants over the years; most recently, it was used as an antique shop.

HAZARDOUS MATERIALS

Phase I Environmental Site Assessment (2015)

In 2015, Geologica was retained to prepare a Phase I Environmental Site Assessment (ESA) for the properties located at 117 and 135 West Napa Street, which are part of the project site. The results of that Phase I ESA are summarized below.

Soil and Groundwater Contamination

As noted above, a gasoline service station was constructed on the 135 West Napa Street portion of the project site in the 1920s. A hazardous materials case for the service station was opened through the Local Oversight Program in 1987, as a result of soil and groundwater contamination from leaking USTs. Service station features removed from the site in 1998 included (Geologica 2015):

- three 10,000-gallon fiberglass gasoline USTs,
- one 10,000-gallon fiberglass diesel UST,
- one 1,000-gallon waste oil UST,
- one previously abandoned-in-place 1,000-gallon waste oil UST (previously filled with sand), and
- two in-ground hydraulic lifts.

A total of 32 soil borings, 15 monitoring wells, 7 soil gas probes, and 4 sub-slab vapor probes were advanced and sampled at the site. Remedial excavations conducted from 1997 through 2002 resulted in the removal of approximately 6,000 cubic yards of soil contaminated with petroleum hydrocarbons; it was subsequently determined that most of the contaminated soil had likely been removed, but residual contamination at low levels may still be present. Other remediation activities conducted at the site included groundwater extraction, excavation, phase-separated hydrocarbon removal, and enhanced in-situ biodegradation (Geologica 2015).

Groundwater monitoring at the site began in 1986. The primary constituents of concern (COCs) historically detected in groundwater from site monitoring wells consisted of: total petroleum hydrocarbons as gasoline (TPHg), total petroleum hydrocarbons as diesel (TPHd), benzene, toluene, ethylbenzene, xylenes, and methyl tert-butyl ether (MTBE). Over time, the concentrations of residual petroleum hydrocarbons in groundwater were shown to be decreasing as a result of remedial activities and natural attenuation; at the time the case was closed, the COC concentrations were all below primary and secondary maximum contaminant levels (Geologica 2015).

Soil vapor and vapor intrusion assessments were conducted from 1997 through 2010. The results of a 2008 soil vapor survey indicated that the only COC of concern detected above San Francisco Bay Regional Water Quality Control Board (San Francisco Bay RWQCB) Environmental Screening Levels (ESLs) or California Human Health Screening Levels (CHHSLs) was TPHg. The final sub-slab soil vapor survey conducted in 2010 included collection of an indoor air sample from the inside of the Sonoma Index Tribune building at 117 West Napa Street. The results indicated a detection of toluene at 9.2 micrograms per cubic meter ($\mu g/m^3$), with no other petroleum hydrocarbon constituents detected. This result was well below the indoor air screening CHHSL of 438 $\mu g/m^3$. Therefore, petroleum vapor intrusion to indoor air was considered low threat for this potential pathway (Geologica 2015).

The Sonoma County Department of Health Services required that a *Soil and Groundwater Management Plan* (AECOM 2014) be prepared and placed on file to govern any future reuse of the site prior to case closure. The hazardous materials case was closed by the Sonoma County Department of Health Services in September 2014.

Asbestos-Containing Materials and Lead-Based Paint

Asbestos is designated as a hazardous substance when the fibers become friable and therefore have potential to come in contact with air, because the fibers are small enough to lodge in lung tissue and cause health problems. People exposed to asbestos may develop lung cancer and mesothelioma. Emissions of asbestos fiber to the ambient air, which can occur during activities such as demolition or renovation of structures made with Asbestos-Containing Materials (ACMs) (e.g., insulation, surfacing materials, and asphalt and vinyl flooring), are regulated in accordance with U.S. Environmental Protection Agency's (EPA) Asbestos National Emission Standards for Hazardous Air Pollutants and the BAAQMD's Regulation 11, Rule 2.

Lead is a highly toxic metal that was used until the late 1970s in a number of products, most notably paint. The use of lead as an additive to paint was discontinued in 1978 because human exposure to lead was determined by EPA and the Occupational Health and Safety Administration (OSHA) to be an adverse human health risk, particularly to young children. Although lead-based paint in residential structures was banned in 1978, this restriction did not apply to commercial and industrial structures (e.g., buildings and bridges); therefore, any commercial or industrial structure (including facilities used for agricultural production), regardless of construction date, could have surfaces that have been coated with lead-based paint.

Due to the age of the existing on-site structures that are scheduled for demolition, there is a potential that asbestos-containing material and/or lead-based paint could be present. Geologica (2015) recommended that a survey of all on-site structures for ACMs and lead-based paint be conducted prior to the start of project-related demolition activities.

Updated Hazards Materials Database Search (2021)

In 2021, AECOM performed an updated site-specific search of several databases maintained as part of the Cortese List. The Hazardous Waste and Substances Site List (the "EnviroStor" database) is maintained by the California Department of Toxic Substances Control (DTSC) as part of the requirements of Public Resources Code Section 65962.5. The State Water Resources Control Board (SWRCB) maintains the GeoTracker database, an information management system for groundwater. Data on leaking USTs and other types of soil and groundwater contamination, along with associated cleanup activities, are part of the information that the SWRCB must maintain under PRC Section 65962.5. AECOM also performed a search of the EPA's Search Superfund database (which includes records maintained under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 [CERCLA], commonly known as Superfund).

The results of records searches from the EnviroStor and GeoTracker databases indicated there are there several closed and one open hazardous materials site within one mile of the project site boundaries (DTSC 2021, SWRCB 2021). These sites all involve leaking USTs. Since the direction of groundwater flow is towards the southwest, the hazardous materials sites that are situated west of the project site would not result in hazardous materials issues at the project site. The results of groundwater monitoring conducted for the open and closed sites east of the project site demonstrated that no COCs were present in groundwater adjacent to the project site underneath 1st Street West (SWRCB 2021). The contaminated groundwater plume associated with the one open hazardous materials site (Royal Crown Cleaners located at 568 Broadway) is confined to the east side of Broadway and is undergoing remediation; therefore, this site would not represent a hazard for the proposed project (PANGEA Environmental Services, Inc. 2021). Finally, there are no Superfund sites in or near the project site or the City (EPA 2021).

Schools

The closest K–12 public school is Sassarini Elementary School, operated by the Sonoma Unified School District, located at 652 Fifth Street West, approximately 0.35 miles southwest of the project site.

The closest K–12 private school is St. Francis Solano Catholic School, located at 342 West Napa Street, approximately 0.2 mile west of the project site.

Airports and Airstrips

The project site is approximately 2.5 miles northwest of the Sonoma Skypark airport, and is not within the area included in the *Sonoma Skypark Airport Land Use Compatibility Plan* (Sonoma County Airport Land Use Commission 2021).

EMERGENCY RESPONSE AND EVACUATION

Sonoma County Local Multi-Hazard Mitigation Plan

The *Sonoma County Multijurisdictional Hazard Mitigation Plan Update* (Tetra Tech 2021), of which the City is a participant, identifies hazard risks and vulnerabilities for the Sonoma County Operational Area (including the County and the incorporated cities, such as the City of Sonoma) and identifies mitigation projects and actions to help reduce those risks. It also provides for the integration and coordination of planning efforts of multiple jurisdictions within the county. The intent of the Local Hazard Mitigation Plan is to provide the County with a blueprint for hazard mitigation planning to better protect the people and property of the County from the effects of future natural hazard events.

City of Sonoma Emergency Evacuation Zones

Sonoma County and the City have developed specific evacuation zones by geographic area to aid in emergency preparedness and response. The City is divided into four zones, all of which utilize SR 12 (West Napa Street) as the primary regional evacuation route. The project site is located in evacuation zone SO-D01, which includes all areas in the City limits that are west of Broadway and south of West Napa Street (Sonoma County 2021).

4.8.2 REGULATORY FRAMEWORK

FEDERAL PLANS, POLICIES, REGULATIONS AND LAWS

U.S. Environmental Protection Agency

The Federal Toxic Substances Control Act (1976) and the Resource Conservation and Recovery Act of 1976 (RCRA) established a program administered by EPA for the regulation of the generation, transportation, treatment, storage, and disposal of hazardous waste. The RCRA was amended in 1984 by the Hazardous and Solid Waste Act. CERCLA, commonly known as Superfund, was enacted in 1980. This law provided broad federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. CERCLA established requirements concerning closed and abandoned hazardous waste sites; provided for liability of persons responsible for releases of hazardous waste at these sites; and established a trust fund to provide for clean up when no responsible party could be identified.

Emergency Planning and Community Right-To-Know Act

The Emergency Planning Community Right-to-Know Act of 1986 was included under the Superfund Amendments and Reauthorization Act (SARA) law and is commonly referred to as SARA Title III. The Act was passed in response to concerns regarding the environmental and safety hazards proposed by the storage and handling of toxic chemicals. The Act establishes requirements for federal, state, and local governments, Indian Tribes, and industry regarding emergency planning and Community Right-to-Know reporting on hazardous and toxic chemicals. SARA Title III requires states and local emergency planning groups to develop community emergency response plans for protection from a list of Extremely Hazardous Substances (40 Code of Federal Regulations [CFR] Appendix B). The Community Right-to-Know provisions help increase the public's knowledge of and access to information on chemicals at individual facilities, their uses, and their release into the environment.

Occupational Safety and Health Administration

The Occupational Safety and Health Administration is the federal agency responsible for enforcing and implementing federal laws and regulations pertaining to worker health and safety. The administration's Hazardous Waste Operations and Emergency Response regulations require training and medical supervision for workers at hazardous waste sites (29 CFR Section 1910.120). Additional regulations have been developed regarding exposure to lead (29 CFR Section 1926.62) and asbestos (29 CFR Section 1926.1101) to protect construction workers.

STATE PLANS, POLICIES, REGULATIONS, AND LAWS

California Environmental Protection Agency

The California Environmental Protection Agency (CalEPA) was established in 1972 by the State of California to establish a cabinet-level voice for the protection of human health and the environment and to assure the coordinated deployment of state resources. CalEPA administers and enforces many of the laws, rules, and regulations promulgated by EPA. CalEPA also oversees various other state agencies involved with hazardous materials regulation and cleanup, including DTSC, California Department of Pesticide Regulation (DPR), and SWRCB.

California Department of Toxic Substances Control

The DTSC has primary regulatory responsibility, with delegation of enforcement to local jurisdictions that enter into agreements with the State agency, for the management of hazardous materials and the generation, transport and disposal of hazardous waste under the authority of the Hazardous Waste Control Law. Since August 1, 1992, DTSC has been authorized to implement the state's hazardous waste management program for CalEPA.

State Water Resources Control Board

The SWRCB was established in 1967. The San Francisco Bay RWQCB is authorized by the SWRCB to enforce provisions of the Porter-Cologne Water Quality Control Act of 1969. This act gives the San Francisco Bay RWQCB authority to require groundwater investigations when the quality of groundwater or surface waters of the state is threatened and to require remediation of the site, if necessary.

California Occupational Safety and Health Administration

California Occupational Safety and Health Administration (Cal OSHA) assumes primary responsibility for developing and enforcing workplace safety regulations within California. Regulations pertaining to the use of hazardous materials in the workplace (Title 8 of the CCR) include requirements for safety training, availability of safety equipment, accident and illness prevention programs, hazardous substance exposure warnings, and preparation of emergency action and fire prevention plans. Cal OSHA also enforces occupational health and safety regulations specific to lead and asbestos investigation and abatement. Cal OSHA enforces hazard communication program regulations that contain training and information requirements, including procedures for identifying and labeling hazardous substances, communicating hazard information related to hazardous substances and their handling, and preparation of health and safety plans to protect workers and employees at hazardous-waste sites. The hazard communication program requires that employers make Safety Data Sheets available to employees, and requires documentation of informational and training programs for employees.

Senate Bill (SB) 1082 – California Environmental Protection Agency's Unified Program

In 1993, SB 1082 gave CalEPA the authority and responsibility to establish a unified hazardous waste and hazardous materials management and regulatory program, commonly referred to as the Unified Program. The purpose of this program is to consolidate and coordinate six different hazardous materials and hazardous waste programs (such as the Hazards Material Business Plan, Underground Storage Tank Program, and California Accidental Release Prevention Program), and to ensure that they are consistently implemented throughout the state. The Unified Program is overseen by CalEPA with support from DTSC, RWQCBs, the Office of Emergency Services (OES), and the State Fire Marshal.

State law requires county and local agencies to implement the Unified Program. The agency in charge of implementing the program is called the Certified Unified Program Agency (CUPA). The Sonoma County Department Environmental Health Services is the designated CUPA for the City. In addition to the CUPA, other local agencies, such as the Sonoma Valley Fire District, help to implement the Unified Program.

Cortese List, California Government Code Section 65962.5

The provisions of Section 65962.5 of the California Government Code are commonly referred to as the "Cortese List" (after the legislator who authored the legislation that enacted it). The Cortese List is a planning document used by state and local agencies to comply with CEQA's requirement to provide information about the location of hazardous-materials release sites. Government Code Section 65962.5 requires CalEPA to develop an updated Cortese List at least annually. DTSC is responsible for a portion of the information contained on the Cortese List. Other state and local government agencies, including the SWRCB and RWQCBs, are required to provide additional information for the Cortese List about releases of hazardous materials.

In addition, Section 65962.5 requires all project applicants to consult the Cortese List and determine whether any site-specific project is within a hazardous materials site on the list. If so, the project applicant is required to notify the lead agency in writing prior to the issuance of a building permit, so the lead agency can determine the appropriate course of action (which generally would include preparation of Phase I and [if necessary] Phase II environmental site assessment, along with site-specific remediation).

AB 2185 and AB 2189, Hazardous Materials Business Emergency Response Plan Program, CA Health and Safety Code Chapter 6.95

The State of California requires an owner or operator of a facility to complete and submit a Hazardous Materials Business Plan (HMBP) to the Governor's Office of Emergency Services if the facility handles a hazardous material or mixture containing a hazardous material in amounts greater than specified threshold quantities. The HMBP is also required to include an inventory of hazardous materials used at the business, site plan showing hazardous material storage areas and ingress and egress points for emergency vehicles, and documentation of employee training in the safe handling of hazardous materials. Sonoma County Department of Environmental Health is responsible for the implementation of the HMBP program in Sonoma County.

Hazardous Materials Transport

The California Highway Patrol, Caltrans, and DTSC are responsible for enforcing federal and State regulations pertaining to the transport of hazardous materials. If a discharge or spill of hazardous materials occurs during transportation, the transporter is required to take appropriate immediate action to protect human health and the

environment (e.g., notify local authorities and contain the spill); the transporter is also responsible for cleanup (22 Cal. Code Regs. Section 66260.10 et seq.).

REGIONAL AND LOCAL PLANS, POLICIES, REGULATIONS, AND ORDINANCES

Bay Area Air Quality Management District Asbestos Regulations

The Bay Area Air Quality Management District (BAAQMD) regulates the demolition and renovation of buildings and structures that may contain asbestos, based on the EPA's Asbestos National Emission Standards for Hazardous Air Pollutants. BAAQMD Regulation 11, Rule 2, Section 11-2-303 (BAAQMD 1998) requires preparation of a pre-construction survey for ACMs, including laboratory analyses. Section 11-2-303 requires demolition of buildings containing asbestos to follow a variety of procedures designed to reduce associated asbestos hazards. These procedures include methodology options such as wetting or exhaust and collection, removal options, and containment requirements. Sections 11-2-304 and 11-2-305 regulate disposal of ACMs.

The BAAQMD must be notified at least 10 business days before the start of the following activities:

- any renovation involving the removal of 100 square feet or more, 100 linear feet or more, or 35 cubic feet or more of asbestos; and
- every demolition regardless of asbestos content.

Sonoma County Hazardous Materials Unit

The Sonoma County Hazardous Materials Unit Division of the Permit and Resource Management Department (PRMD) serves as the local CUPA, and regulates hazardous waste, aboveground petroleum storage and risk management plans, hazardous materials business plans and chemical inventories, risk management plans, and underground storage tanks. The Sonoma Valley Fire District works cooperatively with the Sonoma County Hazardous Materials Unit to regulate hazardous materials in the City.

City of Sonoma General Plan

The City General Plan (City of Sonoma 2006) contains the following policies related to hazards and hazardous materials that are applicable to the proposed project.

Public Safety Element

- **Policy 1.1:** Require development to be designed and constructed in a manner that reduces the potential for damage and injury from natural and human causes to the extent possible.
- **Policy 1.6:** Ensure that all operations that use, store, and/or transport hazardous materials to comply with all applicable regulations.
- **Policy 2.2:** Promote awareness of the City Emergency Plan and effective public response to a major event.

4.8.3 ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Based on Appendix G of the CEQA Guidelines, the proposed project would have a significant impact related to hazards and hazardous materials if it 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.

Wildland fire hazards are addressed in Section 4.1, "Topic Areas Not Carried Forward for Further Analysis," of this RDEIR.

ISSUES NOT DISCUSSED FURTHER

Result in a Safety Hazard for Projects within Two Miles of an Airport or Within an Airport Land Use Plan—The project site is approximately 2.5 miles northwest of the Sonoma Skypark Airport, and is not within the area included in the *Sonoma Skypark Airport Land Use Compatibility Plan* (Sonoma County Airport Land Use Commission 2021). Thus, there would be **no impact**, and this issue is not evaluated further in this 2021 RDEIR.

IMPACT ANALYSIS

Impact 4.8-1: Routine Transport, Use, or Disposal of Hazardous Materials.

Construction associated with the proposed redevelopment at the project site would involve the routine storage, use, transport, and disposal of small quantities of hazardous materials such as fuels, oils and lubricants, paints and paint thinners, glues, and cleaning fluids (e.g., solvents). In addition, operation of the proposed project would require the routine use, transport, and disposal of basic household and commercial cleaning products, along with

fertilizer and pesticides for landscape maintenance, and small amounts of chemicals for spa and swimming pool maintenance.

Federal and State regulations require adherence to specific guidelines regarding the use, transportation, disposal, and accidental release of hazardous materials, as described in the "Regulatory Framework" section above. The EPA is responsible for administering the Federal Toxic Substances Control Act and RCRA, which regulate the generation, transportation, treatment, storage, and disposal of hazardous waste. The Sonoma County Department of Resource Management Hazardous Materials Unit is the CUPA for the County and is responsible for implementing hazardous waste and materials State standards, including preparation of Hazardous Materials Business Program, California Accidental Release Prevention Program, and managing hazardous material storage tanks. Caltrans and the California Highway Patrol regulate and manage routine transport of hazardous materials on SR 12 (West Napa Street). The Sonoma Valley Fire District works cooperatively with the Sonoma County Environmental Health Services Division to regulate hazardous materials in the City and to respond to local hazardous materials emergencies.

The construction contractor, along with the future hotel and restaurant owner, are required by law to comply with the provisions of the California Hazardous Materials Regulations and other federal, State, and local regulations and requirements discussed in the "Regulatory Framework" section above. Therefore, this impact would be **less than significant**.

Mitigation Measure: No mitigation measures are required.

Impact 4.8-2: Exposure to Hazardous Materials from Upset and Accident Conditions.

The proposed uses at the project site would not include the manufacturing of potentially hazardous materials, and would not involve the use, handling, or storage of large quantities of hazardous materials. Compliance with federal, State, and regional/local regulations, which are presented in detail in the "Regulatory Framework" section above (e.g., federal regulations such as RCRA, CERCLA, the Clean Air Act, SARA Title III, and OSHA), would reduce the risk or severity of an accident from the proposed project construction and operation. In addition, state regulations enforced by CalEPA, Cal OSHA, SB 1082 (Unified Program), AB 2185 and AB 2189 (Hazardous Materials Business Emergency Response Plan Program); and State and County Local Hazard Mitigation Plans are all designed to reduce the risk of hazardous materials release from upset and accident conditions.

As discussed in more detail in Section 4.9, "Hydrology and Water Quality," coverage under the SWRCB's Construction General Permit would be obtained for the proposed project, which would require preparation and implementation of a SWPPP. The SWPPP would include best management practices design to prevent spills of hazardous materials; for example, servicing, refueling, and staging of construction equipment would take place only at designated areas where a spill would not flow to drainages. The Sonoma County Operational Area Emergency Operations Plan (Sonoma County Fire and Emergency Services Department 2014), of which the City is a participant, provide the necessary coordination among emergency providers and procedures to be implemented to safeguard the public in the event of an emergency situation. In addition, the City has designated emergency evacuation zones and evacuation routes to be used in the event of an emergency. Compliance with these regulations and City/County implementation of operational plans would reduce the risk of accidental hazardous materials release from the proposed project construction and operation to a **less-than-significant** level.

Mitigation Measure: No mitigation measures are required.

Impact 4.8-3: Use or Emissions of Hazardous Materials within One-Quarter Mile of a School.

Projects that involve handling or emission of hazardous or acutely hazardous materials near schools must consider potential health effects on children, who are considered sensitive receptors. The St. Francis Solano Catholic School, located at 342 West Napa Street, is approximately 0.2 mile west of the project site. Minor amounts of hazardous materials used during project-related construction and operation (such as fuels, oils, solvents, cleaning products, chemicals for spa and pool maintenance, and pesticides for landscape maintenance) would be managed in accordance with applicable laws and regulations and would not create a hazard to human health, including the health of school children or school employees. None of the substances used would be acutely hazardous. Furthermore, as discussed in Section 4.3, "Air Quality," the proposed project would not result in exposure to toxic air contaminants from project-related construction emissions at a distance of 0.2 mile from the project site, and therefore would not have the potential to result in substantial health risks. Therefore, the proposed project would have a **less-than-significant** impact related to the use or emission of hazardous materials within 0.25 mile of a school.

Mitigation Measure: No mitigation measures are required.

Impact 4.8-4: Exposure of People and the Environment to Existing Hazardous Materials, Including Cortese-listed Sites.

Contaminated Soil and Groundwater

As previously described in detail in the Environmental Setting subsection, the project site is on the Cortese list as a result of multiple leaking USTs from a former Chevron service station. Remedial excavations conducted from 1997 through 2002 resulted in the removal of approximately 6,000 cubic yards of soil contaminated with petroleum hydrocarbons, and replacement with clean fill dirt to depths of approximately 3–5 feet below the ground surface. It was subsequently determined that most of the contaminated soil had likely been removed, and natural attenuation was ongoing; however, it was also determined that residual soil contamination at low levels could still be present (AECOM 2014). Groundwater remediation was conducted, and the results of groundwater monitoring demonstrated that over a 20-year period, the concentrations of residual petroleum hydrocarbons in groundwater were decreasing as a result of remedial activities and subsequent natural attenuation.

At the time the case was closed, the concentrations of COCs in groundwater were all below primary and secondary maximum contaminant levels (Geologica 2015). Soil vapor assessments determined that only one COC was present (toluene), and the measured concentration was well below threshold levels (Geologica 2015); therefore, indoor air quality would not represent a hazard. The hazardous materials case was closed in 2014, assuming continuation of the existing land uses and no new excavation or earthmoving activities. Prior to case closure, the Sonoma County Department of Health Services required that a *Soil and Groundwater Management Plan* (AECOM 2014) be prepared and placed on file to govern construction-related excavation and earthmoving activities associated with any future reuse of the site. The soil and groundwater management plan requires the following, which is also required as Mitigation Measure 4.8-4a. Without implementation of this mitigation, the impact is considered **potentially significant**.

Mitigation Measure 4.8-4a: Implement Soil and Groundwater Management Plan Recommendations.

- Prior to the start of earthmoving activities, the project applicant must notify Chevron Environmental Management Company (CEMC), provide CEMC with copies of proposed constructions plans, and coordinate with CEMC regarding the potential to encounter contaminated soil and/or groundwater. The presence of a CEMC-authorized representative may be required on site during construction-related earthmoving activities.

- If evidence of stained or odiferous soils is encountered during project-related construction activities, CEMC must immediately be notified (if a CEMC-authorized representative is not already on site). Samples of the soil and/or groundwater (either in situ or from a segregated stockpile) must be collected by the property owner (or representative) for profiling purposes. If, based on a review of the profiling results, the Sonoma County Department of Resource Management Hazardous Materials Unit prohibits excavated soil from being reused on site due to the presence of petroleum hydrocarbons, then CEMC will coordinate with the property owner regarding the proper off-site disposal of the excavated soil.

- All excavated soil from the area affected by the former Chevron service station (which consists primarily of the proposed entry from SR 12 [West Napa Street] and the associated drive aisle; see AECOM 2014: Figure 2) must be stockpiled, or otherwise containerized, in a separate location from non-Chevron service station soil to allow for proper soil profiling, management, and disposal.

Significance after Mitigation

Because the project applicant and its construction contractor are required by the Sonoma County Department of Resource Management Hazardous Materials Unit to implement the requirements of the Soil and Groundwater Management Plan (AECOM 2014), which are specifically designed to protect human health and the environment, this impact is considered **less than significant with mitigation**.

Asbestos-Containing Materials and Lead-Based Paint

Due to the age of the existing on-site buildings that would be demolished, they may contain ACMs and/or lead-based paint. Exposure to asbestos fibers (in a friable state) or exposure to lead-based paint could result in human health and environmental hazards. However, the project applicant and its construction contractor are required by law to comply with BAAQMD Rules 11-2-303 through 11-2-305, which require preparation of an ACM survey prior to the start of construction activities and submitting the survey results for BAAQMD review, and which govern the methods for removing, handling, and disposing of ACMs. The project applicant and its construction contractor are also required to implement Cal OSHA requirements related to handling and disposal of lead-based paint. Without implementation of these requirements, the impact would be considered **potentially significant**.

Mitigation Measure 4.8-4b: Implement BAAQMD and Cal OSHA Requirements for Asbestos and Lead Paint

- The project applicant and its construction contractor/s shall comply with BAAQMD Rules 11-2-303 through 11-2-305. The project applicant and its construction contractor/s shall prepare an ACM survey prior to the start of construction activities and submit the survey results for BAAQMD review.

The project applicant and its construction contractor/s shall implement all BAAQMD-recommended methods for removing, handling, and disposing of ACMs.

- The project applicant and its construction contractor/s shall implement Cal OSHA requirements related to handling and disposal of lead-based paint.

Significance after Mitigation

These BAAQMD Rules and Cal OSHA requirements are specifically designed to protect human health and the environment to the maximum extent practicable. Therefore, this impact is considered **less than significant with mitigation**.

Impact 4.8-5: Interference with Emergency Response or Evacuation Plans.

The adopted Sonoma County Emergency Operations Plan (of which the City is a participant) addresses the County and incorporated cities' evacuation plans and planned responses to extraordinary emergency situations associated with any type of natural disaster, technological incident, or state of war emergency. Furthermore, the City has developed evacuation zones and designated evacuation routes. Redevelopment of the project site is subject to design review by the City, including the Sonoma Valley Fire District for review of appropriate ingress and egress, and is required to comply with City Standard Plans (City of Sonoma 2015) relating to appropriate drive aisle design to accommodate emergency vehicles and emergency evacuation thoroughfares.

Project-related construction activities would result in increased short-term temporary truck traffic, but would not require lane closures that could slow or stop emergency vehicles or impede emergency evacuation routes. Construction equipment would be staged on site, and therefore would not impede emergency access or emergency evacuation routes on the surrounding local roadways.

The project site already includes commercial land uses, which are subject to existing emergency response and evacuation plans. Redevelopment of the project site with the proposed hotel/spa/restaurant, and 8-unit residential building, would be subject to the same emergency response and evacuation plans. The City has a grid network of streets that provide emergency evacuation locally, including First Street West. SR 12 (West Napa Street) serves as the regional emergency evacuation route. The proposed project would provide two connections to the public street network: one on SR 12 (West Napa Street) and one on First Street West. These proposed driveways would provide adequate access to the street network both for emergency vehicles to respond to and depart from the site, and for emergency evacuation. Therefore, the proposed project construction and operation would not impair or interfere with emergency response or evacuation plans, and this impact would be **less than significant**.

Mitigation Measure: No mitigation measures are required.

4.9 HYDROLOGY AND WATER QUALITY

4.9.1 ENVIRONMENTAL SETTING

SURFACE WATER RESOURCES

Climate and Watersheds

The City has a Mediterranean climate with cool, wet winters and hot, dry summers. Precipitation occurs mainly between October and April with only light amounts reported during the rest of the year. The topography within the project site and vicinity is generally flat with a slight gradient to the southwest. The elevation of the project site is approximately 80 feet above mean sea level (Huffman Engineering and Surveying 2012).

The project site is in the San Francisco Bay Drainage Province, which covers approximately 4,500 square miles and encompasses 10 counties, including parts of Sonoma County. The San Francisco Bay Drainage Province is composed of a complex network of watersheds, marshes, rivers, creeks, reservoirs, and bays mostly draining into the San Francisco Bay and the Pacific Ocean. The project region is within the San Pablo Basin Hydrologic Unit (San Francisco Bay Regional Water Quality Control Board [RWQCB] 2019).

The project site is located within the Sonoma Creek Watershed, which totals 170 square miles and drains into San Pablo Bay. Sonoma Creek flows 31 miles southwest from its headwaters in Sugarloaf Ridge State Park to the agricultural bay land north of San Pablo Bay. Other tributaries within the City that discharge into Sonoma Creek include Fryer Creek, Nathanson Creek, and Schell Creek. The Sonoma Creek Watershed includes a diverse range of habitats from redwood/fir forests in the headwaters, to chaparral, oak woodland, and inland bay areas (Sonoma Resource Conservation District 2021).

The Fryer Creek subwatershed, which includes the project site, is approximately 1,379 acres at the southern edge of the City limits. Fryer Creek is a channelized creek that flows generally south through the City from the northern foothills. For portions of its reach, it has been contained in a closed conduit system. The channel is heavily confined by development on both sides of the creek. The creek's gradient is modest along the entire reach within the City, with an average slope of 0.3 percent. Sediment deposition is increasing in the downstream reach (according to Sonoma Water). The creek has flooded its banks, south of the project site, on several prior occasions (Winzler & Kelly 2011). Fryer Creek flows south into Nathanson Creek, which eventually discharges into Sonoma Creek, and thence into San Pablo Bay.

There are no surface water bodies within or immediately adjacent to the project site.

Stormwater Drainage

The City's storm drainage network includes nearly 46 miles of pipeline. The total combined watershed drainage area is approximately 4,800 acres and contributes flow to Sonoma, Fryer, Nathanson, and Schell creeks, with the majority of flows routed to Nathanson Creek via contributing watersheds (2,800 acres). Additionally, water is conveyed in roadside ditch drainages and cross culverts totaling 7,200 linear feet (Winzler & Kelly 2011).

The City maintains the storm drainage pipe system, along with roadside ditches and associated cross-culverts. The Sonoma County Water Agency (Sonoma Water) maintains easements (primarily for channel maintenance) for

Nathanson Creek, while most of Fryer Creek (within the City limits) is owned and maintained by Sonoma Water (a small portion of the East Fork of Fryer Creek is maintained through an easement) (Winzler & Kelly 2011).

Existing stormwater drainage from the project site is discharged through an existing private storm drain at the southwestern corner of the project site, which, in turn, discharges to a City-owned 36-inch collector (Line F-9-1) in the Second Street West right-of-way. This collector discharges to the east fork of Fryer Creek, approximately 1,500 feet southwest of the project site (Exhibit 4.9-1).

Surface Water Quality

Section 303(d) of the federal Clean Water Act requires each state to periodically prepare a list of all surface waters in the state for which beneficial uses of the water (e.g., drinking, recreation, aquatic habitat, and agricultural use) are impaired by pollutants. Beneficial uses for waters in the project region are identified in the *Water Quality Control Plan for the San Francisco Bay Basin* (Basin Plan), updated and adopted by the San Francisco Bay RWQCB in 2019 (San Francisco Bay RWQCB 2019).

As noted above, stormwater from the project site is discharged into Fryer Creek, which flows south into Nathanson Creek, and then into Sonoma Creek. Beneficial uses assigned to Nathanson and Sonoma Creeks consist of cold freshwater habitat, fish migration, preservation of rare and endangered species, fish spawning, warm freshwater habitat, wildlife habitat, and water and non-water contact recreation (San Francisco Bay RWQCB 2019). The San Francisco Bay RWQCB's "tributary rule" states that the beneficial uses of any specifically identified water body generally apply to all its tributaries (for example, Fryer Creek). In some cases, a beneficial use may not be applicable to the entire body of water; in these cases, the San Francisco Bay RWQCB's judgment regarding water quality control measures necessary to protect beneficial uses will be applied. In addition, beneficial uses of streams that only have intermittent flows must also be protected throughout the year (San Francisco Bay RWQCB 2019).

Section 303(d) of the Clean Water Act also requires states to identify waters where the permit standards, any other enforceable limits, or adopted water quality standards are still unattained. The law requires states to develop Total Maximum Daily Loads (TMDLs) to improve the water quality of impaired water bodies. TMDLs are the quantities of pollutants that can be safely assimilated by a water body without violating water quality standards. TMDLs are developed for impaired water bodies to maintain beneficial uses, achieve water quality objectives, and reduce the potential for future water quality degradation. National Pollutant Discharge Elimination System (NPDES) permits for water discharges (for both construction and operation) must take into account the pollutants for which a water body is listed as impaired.

Sonoma Creek is on the Clean Water Act Section 303(d) list of impaired waterbodies for pathogens and sedimentation/ siltation; TMDLs for both pollutants have been adopted. San Pablo Bay is on the 303(d) list for chlordane, dichlorodiphenyltrichloroethane (DDT), dieldrin, dioxin compounds, furan compounds, invasive species, mercury, polychlorinated biphenyls (PCBs), dioxin-like PCBs, and selenium (SWRCB 2021). TMDLs have been adopted for PCBs, dioxin-like PCBs, selenium, and mercury. Even if a specific stream is not included in the SWRCB's 303(d) list, any upstream tributary to a 303(d)-listed stream (such as Fryer Creek) could contribute pollutants to the listed segment.

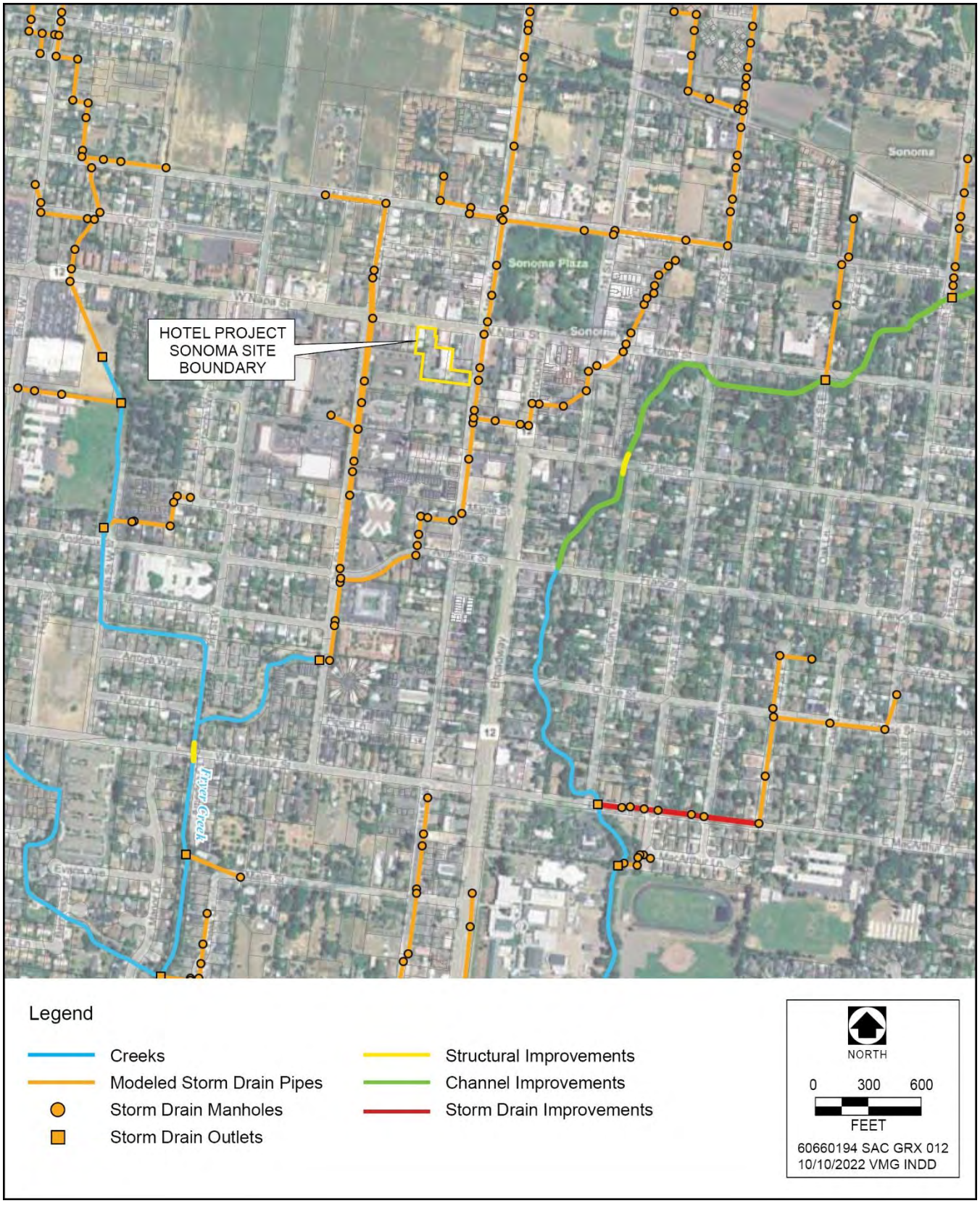


Exhibit 4.9-1. Storm Drain Facilities in the Vicinity of the Project Site

Flooding

Based on a review of flood insurance rate maps (FIRMs) prepared by the Federal Emergency Management Agency (FEMA 2008), the project site is not located in a flood zone (100-year or 500-year).

The most recent *Storm Drain Master Plan*, prepared for the City by Winzler & Kelly (2011), included modeling to identify areas where localized flooding was either known to occur or could occur in the future due to constraints in the existing storm drainage system. The results of the hydraulic modeling indicated that storm drainage line F-9-1 does not contain any hydraulic constraints and that surcharging is not occurring. Hydraulic modeling results also demonstrated that the project site would not be subject to flooding in the future under any of the modeled scenarios (i.e., 10-year, 25-year, and 100-year storm events).

A tsunami is an ocean wave usually created by undersea fault movement or by a coastal or submerged landslide. As the displaced water moves to regain equilibrium, waves are formed and radiate across the open water. When the waveform reaches the coastline, it quickly raises the water level, with accompanying high water velocities that can damage structures and sweep away objects and people. The project site is not in a tsunami inundation zone (California Emergency Management Agency et al. 2009). The project site is more than 10 miles north of San Pablo Bay and is approximately 80 feet above mean sea level. Therefore, tsunamis would not represent a hazard at the project site.

A seismic seiche causes standing waves to set up on rivers, reservoirs, ponds, and lakes when seismic waves from an earthquake pass through the area. Because they occur in an enclosed waterbody, standing waves continue to slosh back and forth over a period of time that may range from a few minutes to several hours. The nearest waterbody with potential for seiches is San Pablo Bay, approximately 10 miles south of the project site, and approximately 80 feet lower in elevation. Therefore, seiches would not represent a hazard at the project site.

GROUNDWATER RESOURCES

Groundwater Basin

The project site and the surrounding area are within the Napa-Sonoma Valley Groundwater Basin, Sonoma Valley Plain Groundwater Subbasin (Basin ID 2-2.02). The Sonoma Valley Subbasin covers an area of approximately 44,626 acres (70 square miles) and occupies a northwest-trending structural depression in the coastal mountain ranges immediately north of San Pablo Bay. The Sonoma Valley Subbasin is bounded on the west by the Sonoma Mountains and on the east by the Mayacamas Mountains. The Sonoma Valley Subbasin extends from San Pablo Bay northward to about 2 miles south of the town of Kenwood, where the alluvial plain terminates (EKI Environment & Water [EKI] 2021).

Sustainability

The Sustainable Groundwater Management Act (SGMA) and corresponding regulations require that each groundwater basin designated as a “high” or “medium” priority be operated to a sustainable yield, balancing natural and artificial groundwater recharge with groundwater use to ensure that undesirable results—such as chronic lowering of groundwater levels, loss of storage, water quality impacts, land subsidence, and impacts to hydraulically connected streams—do not occur. California’s groundwater basins are classified into one of four categories; high-, medium-, low-, or very low priority based on components identified in the California Water Code Section 10933(b). Groundwater agencies located within high- or medium-priority basins must adopt

groundwater sustainability plans (GSP) by January 31, 2020 (if the basin was determined by the California Department of Water Resources [DWR] to be a condition of critical overdraft), or by January 31, 2022 for all other high and medium priority basins. Groundwater sustainability plans may be adopted, but are not required, for low and very low priority basins.

In late 2019, DWR released its final basin prioritizations and determined that the Sonoma Valley Groundwater Subbasin is not in a state of overdraft, but should be classified as a high priority basin (DWR 2020). The Sonoma Valley Groundwater Sustainability Agency (Sonoma Valley GSA) was formed in June 2017 through a Joint Powers Agreement entered into by the County of Sonoma, the City, Valley of the Moon Water District, Sonoma Resource Conservation District, Sonoma Water, and North Bay Water District. The Sonoma Valley Subbasin GSP was completed in 2021 (Sonoma Water 2021) and submitted to DWR for approval in January 2022. The City is a member of the Sonoma Valley GSA and has been actively involved in GSP development activities and will continue to be involved throughout SGMA implementation (EKI 2021). The GSP includes water for projected development through the year 2050, which includes agricultural use, rural domestic use, and municipal and industrial supply based on land uses projected in City and County general plans. A brief summary of pertinent results from the GSP (Sonoma Water 2021) is provided below.

There are two aquifers in the Sonoma Valley Subbasin: a shallow aquifer and a deep aquifer. Modeling conducted for the GSP found that long-term declines in groundwater levels are occurring, to a greater degree within the deep aquifer system. In the deep aquifer, approximately 46 percent of the monitored wells exhibited a groundwater level decline of one foot, 24 percent exhibited a decline of 2–3 feet, and 11 percent exhibited a decline of more than 3 feet. The areas where groundwater levels are declining are not within the City. There is no evidence that land-surface subsidence due to groundwater extraction has occurred. The primary sources of inflows to groundwater in the Sonoma Valley Subbasin consist of surface water inflow from streams, surface water percolation from overland flow, and mountain-front runoff. The primary outflows from the groundwater aquifers include groundwater pumping, discharge to the surface, and discharge to streams. GSP modeling indicates there has been an overall decline in groundwater storage during both historic (1971–2018) and current (2010–2018) periods. Over the long term (historic) period, the decline in groundwater storage has been approximately 14,000 acre-feet (AF). Modeling conducted for the GSP projected that the cumulative groundwater storage change would exhibit a modest decline from 2021 through 2050, with stable or even brief increases in groundwater storage associated with wet and very wet periods in the projected climate. Another extended drought period was assumed to begin after 2050, and therefore cumulative groundwater storage loss would increase from 2050 through 2070. The total cumulative storage change between 2021 and 2070 is projected to be -14,600 AF with the selected climate change projections and assumed water demand increases. The average annual change in groundwater storage over this period (2021–2070) is expected be -290 acre-feet per year (AFY) without any future management actions (EKI 2021).

The GSP includes a variety of programs and management actions designed to promote groundwater sustainability. Current GSP modeling results (which will be subject to evaluation in future iterations of the GSP), indicate that with implementation of the proposed programs and management actions, groundwater storage would improve by approximately 220 AFY. This would still result in a groundwater storage deficit of 70 AFY. However, the proposed programs and management actions provide a pathway for reaching sustainability and preparing for future changed conditions in the Subbasin to meet GSP requirements (EKI 2021).

As discussed in detail in Section 4.14, “Utilities and Service Systems,” the City serves as a water purveyor, and potable water for the proposed project would be primarily supplied by water purchased through the City’s

agreement with Sonoma Water. The City uses its local groundwater supply wells to help meet demand. It is the City's intent to use its wells to meet peak summer month demands rather than on a year-round basis. Over the 5-year time period between 2016 and 2020, the City pumped an average of 178 AFY and a maximum of 276 AFY in 2019. The available groundwater supply and the purchased water supply have been sufficient to meet all of the City's demands in the past 5 years and all prior years, as a supplement to purchases from Sonoma Water (EKI 2021).

Groundwater Quality

The City currently extracts groundwater from a total of six active local wells. The City owns two additional wells (Well 5 and Well 7), but does not run them due to poor water quality, poor well condition, and/or permitting issues. Groundwater quality for the City's six active wells is generally good. The total estimated capacity from the City's groundwater wells is approximately 1,225 gallons per minute (gpm). Well 5, which has elevated levels of arsenic, is available for use as an emergency standby well, and can be used for up to 15 days per year with notification to the California Department of Public Health (EKI 2021).

Based on water quality data contained in the Sonoma Valley Subbasin GSP (Sonoma Water 2021), all of the existing operational wells in the vicinity of the project site showed constituent concentrations that were below the respective maximum contaminant levels.

4.9.2 REGULATORY FRAMEWORK

FEDERAL PLANS, POLICIES, REGULATIONS AND LAWS

Clean Water Act

The Clean Water Act of 1972 (33 U.S.C. Section 1251 et seq.) is the primary federal law that governs and authorizes water quality control activities by the U.S. Environmental Protection Agency (EPA), the lead federal agency responsible for water quality management. By employing a variety of regulatory and non-regulatory tools, including establishing water quality standards, issuing permits, monitoring discharges, and managing polluted runoff, the Clean Water Act seeks to restore and maintain the chemical, physical, and biological integrity of surface waters to support the protection and propagation of fish, shellfish, and wildlife, and recreation in and on the water.

The EPA is the federal agency with primary authority for implementing regulations adopted pursuant to the Clean Water Act, and has delegated the State of California as the authority to implement and oversee most of the programs authorized or adopted for Clean Water Act compliance through the Porter-Cologne Water Quality Control Act of 1969, described below.

Water Quality Criteria and Standards

Pursuant to federal law, the EPA published water quality regulations under Volume 40 of the Code of Federal Regulations (CFR). Section 303 of the Clean Water Act requires states to adopt water quality standards for all surface waters of the United States. As defined by the Clean Water Act, water quality standards consist of two elements: (1) designated beneficial uses of the water body in question, and (2) criteria that protect the designated uses. Section 304(a) requires the 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. Section 303(d) requires states to develop lists of the water bodies and associated pollutants that exceed water quality criteria.

National Pollutant Discharge Elimination System Permit Program, Section 402

The National Pollutant Discharge Elimination System (NPDES) permit program was established as part of the Clean Water Act to regulate municipal and industrial discharges to surface waters of the U.S. Federal NPDES permit regulations have been established for broad categories of discharges, including point source municipal waste discharges and nonpoint source stormwater runoff. NPDES permits generally identify limits on the concentrations and/or mass emissions of pollutants in effluent discharged into receiving waters; prohibitions on discharges not specifically allowed under the permit; and provisions that describe required actions by the discharger, including industrial pretreatment, pollution prevention, self-monitoring, and other activities.

In November 1990, the EPA published regulations establishing NPDES permit requirements for municipal and industrial stormwater discharges. Phase I of the permitting program applied to municipal discharges of stormwater in urban areas where the population exceeded 100,000 persons.[1] Phase II of the NPDES stormwater permit regulations became effective in March 2003 and required NPDES permits be issued for construction activity for projects that disturb between one and five acres. Phase II of the municipal permit system required small municipality areas of less than 100,000 persons to develop stormwater management programs.

California's RWQCBs are responsible for implementing the NPDES permit system (refer to additional details in the section, "State Regulations," below).

Federal Antidegradation Policy

The federal antidegradation policy (40 CFR 131.12) is designed to protect existing water uses, water quality, and national water resources. The federal policy directs states to adopt a statewide policy to protect water quality associated existing instream uses.

Federal Emergency Management Agency National Flood Insurance Program

FEMA administers the National Flood Insurance Program (NFIP) (42 U.S.C. 4016a]) to provide flood insurance to individuals within communities that adopt and enforce NFIP regulations that limit development in floodplains; federally backed flood insurance is only available within NFIP communities. FEMA also develops and issues Flood Insurance Rate Maps (FIRMs) that identify which land areas are subject to flooding. The design standard for flood protection covered by the FIRMs is established by FEMA with the minimum level of flood protection for new development determined to be the 1-in-100 annual exceedance probability (AEP) (i.e., the 100-year flood event).

[1] Phase I also applies to storm water discharges from a large variety of industrial activities, including general construction activity if the project would disturb more than 5 acres.

STATE PLANS, POLICIES, REGULATIONS, AND LAWS

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Porter-Cologne Act) of 1969 is California's statutory authority for the protection of water quality. Under the Act, the State must adopt water quality policies, plans, and objectives that protect the State's waters for the use and enjoyment of the people. Regional authority for planning, permitting, and enforcement is delegated to the nine RWQCBs. The RWQCBs are required to formulate and adopt water quality control plans for all areas in the region and establish beneficial uses, water quality objectives, and implementation programs in the plans.

The act also requires waste dischargers to notify the RWQCBs of such activities through the filing of Reports of Waste Discharge (RWD) and authorizes the SWRCB and RWQCBs to issue and enforce waste discharge requirements (WDRs), NPDES permits, Clean Water Act Section 401 water quality certifications, or other approvals. The RWQCBs also have authority to issue waivers to RWD requirements and WDRs for broad categories of "low threat" discharge activities that have minimal potential for adverse water quality effects when implemented according to prescribed terms and conditions.

Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan)

The *Water Quality Control Plan for the San Francisco Bay Basin* (Basin Plan) (San Francisco Bay RWQCB 2019) identifies the beneficial uses of water bodies and provides water quality objectives and standards for waters of the San Francisco Bay hydrologic region. State and federal laws mandate protecting designated "beneficial uses" of water bodies. State law defines beneficial uses as "domestic; municipal; agricultural and industrial supply; power generation; recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves" (Water Code Section 13050[f]).

As noted previously, the beneficial uses of any specifically identified water body generally apply to all tributary streams to that water body. Those water bodies not specifically designated for beneficial uses in the Basin Plan are assigned the Municipal and Domestic Supply (MUN) use, in accordance with the State Water Board Resolution No. 88-63. Although specific surface waters have not been identified for groundwater recharge or freshwater replenishment in the Basin Plan, these additional protected beneficial uses are designated in the Basin Plan. Unless otherwise designated by the San Francisco Bay RWQCB, all groundwater is considered suitable or potentially suitable for municipal or domestic water supply (MUN).

The Basin Plan describes a set of designated beneficial uses for each water body. Beneficial uses help to define the resources, services, and qualities of the aquatic systems. Beneficial uses also serve as a basis for establishing water quality objectives and discharge prohibitions. The Basin Plan contains specific numeric water quality objectives that are applicable to each water body or portions of water bodies. Objectives have been established for bacteria, dissolved oxygen, pH, pesticides, electrical conductivity, total dissolved solids, temperature, turbidity, and trace elements. Numerous narrative water quality objectives have also been established. Finally, the Basin Plan contains a set of implementation plans, which represent the San Francisco Bay RWQCB's programs and specific plans of action for meeting water quality objectives and protecting beneficial uses.

National Pollutant Discharge Elimination System Permit System

Waste Discharge Requirements for Construction

The SWRCB's General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order 2009-009-DWQ as amended by Order Nos. 2010-0014-DWQ and 2012-0006-DWQ) (Construction General Permit), the statewide stormwater general permit for construction activity, is applicable to all construction activities that would disturb one acre of land or more (SWRCB 2012). Construction activities subject to the general construction activity permit include clearing, grading, stockpiling, and excavation. Dischargers are required to eliminate or reduce non-stormwater discharges to storm sewer systems and other waters.

Through the NPDES and WDR process, SWRCB seeks to ensure that the construction and post-construction conditions at a project site do not cause or contribute to direct or indirect impacts on water quality (i.e., pollution and/or hydromodification) upstream and downstream. To comply with the requirements of the Construction General Permit, project applicants must file a notice of intent with the SWRCB to obtain coverage under the permit; prepare a Storm Water Pollution Prevention Plan (SWPPP); and implement inspection, monitoring, and reporting requirements appropriate to the project's risk level as specified in the SWPPP. The SWPPP includes a site map, describes construction activities and potential pollutants, and identifies Best Management Practices (BMPs) that would be employed to prevent soil erosion and discharge of other construction-related pollutants that could contaminate nearby water resources, such as petroleum products, solvents, paints, and cement. 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. The Construction General Permit also requires dischargers to consider the use of post-construction permanent BMPs that will remain in service to protect water quality throughout the life of the project. All NPDES permits also have inspection, monitoring, and reporting requirements.

Municipal Regional Stormwater Discharge (MS4) Permit

The SWRCB's Phase II Small Municipal Separate Storm Sewer System (MS4) permit (SWRCB Water Quality Order 2013-0001-DWQ as amended, NPDES General Permit No. CAS000004), which includes the City as one of the permittees, specifies the actions necessary to reduce the discharge of pollutants in stormwater to the maximum extent practicable, in a manner designed to achieve compliance with water quality standards and objectives, and methods to effectively prohibit non-stormwater discharges into municipal storm drain systems and watercourses within the permittees' jurisdictions (SWRCB 2019).

Sustainable Groundwater Management Act

In 2014, the California Legislature enacted a three-bill law (Assembly Bill 1739, Senate Bill [SB]1168, and SB 1319), known as the Sustainable Groundwater Management Act (SGMA). The SGMA was created to provide a framework for the sustainable management of groundwater supplies, and to strengthen local control and management of groundwater basins throughout the state with little State intervention. The SGMA is intended to empower local agencies to adopt groundwater sustainability plans that are tailored to the resources and needs of their communities, such that sustainable management would provide a buffer against drought and climate change, and ensure reliable water supplies regardless of weather patterns. The SGMA and corresponding regulations require that each high and medium priority groundwater basin is operated to a sustainable yield, balancing natural and artificial groundwater recharge with groundwater use to ensure undesirable results such as chronic lowering

of groundwater levels, loss of storage, water quality impacts, land subsidence, and impacts to hydraulically connected streams do not occur. The SGMA is considered part of the statewide, comprehensive California Water Action Plan that includes water conservation, water recycling, expanded water storage, safe drinking water, and wetlands and watershed restoration. The SGMA protects existing surface water and groundwater rights and does not affect current drought response measures.

As noted previously, California's 515 groundwater basins are classified into one of four categories; high-, medium-, low-, or very low-priority based on components identified in the California Water Code Section 10933(b). Basin priority determines which provisions of California Statewide Groundwater Elevation Monitoring (CASGEM) and the SGMA apply in a basin. In 2019, DWR completed its prioritization of the groundwater basins.

The SGMA requires that local agencies form one or more groundwater sustainability agencies (GSAs) within 2 years (i.e., by June 30, 2017). Agencies located within high- or medium-priority basins must adopt groundwater sustainability plans (GSP) by January 31, 2020 or January 31, 2022.[2] The time frame for basins determined by DWR to be in a condition of "critical overdraft" is by January 31, 2020, all other high and medium priority basin have until January 31, 2022. Local agencies will have 20 years to fully implement GSPs after the plans have been adopted. Intervention by the SWRCB would occur if a GSA is not formed by the local agencies, and/or if a GSP is not adopted or implemented.

The SGMA requires local agencies to develop and implement groundwater sustainability plans in high and medium priority groundwater basins throughout the state. Groundwater sustainability plans are not required for low or very low priority basins. As noted previously, the Sonoma Valley Groundwater Subbasin is not in a state of overdraft, but has been classified as a high priority basin (DWR 2020).

REGIONAL AND LOCAL PLANS, POLICIES, REGULATIONS, AND ORDINANCES

City of Sonoma General Plan

The City General Plan (City of Sonoma 2006) contains the following policies and program related to hydrology and water quality that are applicable to the proposed project.

Public Safety Element

- **Policy 1.1:** Require development to be designed and constructed in a manner that reduces the potential for damage and injury from natural and human causes to the extent possible.
    - **Implementation Program 1.1.1**: Require development to incorporate measures that mitigate risks associated with seismic, geologic, fire, or flood hazards to acceptable levels.

Environmental Resources Element

- **Policy 2.4**: Protect Sonoma Valley watershed resources, including surface and ground water supplies and quality.

[2] Unless the local agency has submitted an Alternative, as defined in the SGMA, which has been approved by DWR.

- **Policy 2.5:** Require erosion control and soil conservation practices that support watershed protection.

City of Sonoma Excavation, Grading, and Fills Ordinance

The City Municipal Code, Title 14, Section 14.20, regulates excavation, grading, and fill throughout the City to preserve and enhance the natural beauty of the land, streams, and creek banks, and reduce or eliminate the hazards of earthslides, mud flows, rock falls, undue settlement, erosion, siltation, and flooding. A grading permit is required for excavations that would involve more than 50 cubic yards of material. Grading permit applications must include existing and proposed contours, the location of all waterbodies, surface and subsurface drainage facilities and retaining walls, trees with a diameter of 6 inches or more, and the following plans:

- Stormwater runoff to and from the site and adjacent areas, along with a complete hydraulic analysis including the location, width, direction, and quantity of flow of each watercourse;
- Soils Report;
- Geotechnical Report; and
- Erosion and Sediment Control Plan that includes the placement of structural and nonstructural stormwater pollution prevention controls that will prevent erosion during construction and post construction.

Sonoma Municipal Code Title 13, Chapter 13.32—Stormwater Management and Discharge Control Ordinance

The City's Stormwater Management and Discharge Control Ordinance is intended to protect water resources and to improve water quality, and to reduce the adverse effects of polluted runoff discharges on waters of the state, through the following mechanisms:

- Prohibiting illicit discharges to the stormwater conveyance system;
- Implementing requirements for stormwater management, including source control requirements, to prevent and reduce pollution;
- Implementing requirements for development projects to reduce stormwater pollution and erosion both during construction and after the project is complete;
- Implementing requirements for the management of stormwater flows from development projects, both to prevent erosion and to protect existing water-dependent habitats; and
- Adopting standards for the use of off-site facilities for stormwater management to supplement on-site practices at new development sites.

The ordinance requires preparation of a Stormwater Pollution Prevention Plan; the incorporation of best management practices in all new development to control the volume, rate, and pollutant load of stormwater runoff; and submittal of an Erosion Control Plan for City approval prior to the start of construction activities. At the City's discretion, monitoring, analysis, and reporting of discharges from any premises to the stormwater conveyance system may be required.

Sonoma Municipal Code Title 14, Chapter 14.25—Flood Damage Prevention Ordinance

The City of Sonoma Municipal Code, Title 14, Chapter 14.25, is intended to protect public safety and minimize losses due to flood conditions. In addition to regulating development in designated flood zones, Chapter 14.25 includes methods and provisions to:

- Restrict or prohibit uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or flood heights or velocities;
- Control the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel flood waters; and
- Control filling, grading, dredging, and other development which may increase flood damage.

Sonoma Municipal Code Title 14, Chapter 14.32—Water-Efficient Landscaping

The provisions of the Sonoma Municipal Code Title 14, Chapter 14.32 are intended to protect local water supplies through the implementation of a whole system approach to design, construction, installation, and maintenance of the landscape resulting in water-conserving, climate appropriate landscapes, improved water quality, and the minimization of natural resource inputs. This chapter applies to all new landscape projects. The goals of this chapter are enforced through the requirement that the City review landscape plan designs to ensure that they comply with the minimum standards contained in the chapter. The chapter also requires preparation and submittal for review by the City of a soil analysis report, landscape design plan, irrigation design plan, and grading design plan (where slopes exceed 10 percent). A maximum applied water allowance must be calculated for each site.

City of Sonoma Water Conservation Programs

The City offers financial incentives to business and residential customers to implement water conservation measures. These incentives include High-Efficiency Toilet Rebate Program, High Efficiency Faucet Aerator/ Showerhead Giveaway, High-Efficiency Clothes Washer Rebate Program, and a Turf Rebate Program. The City also implements a variety of public outreach and educational programs at local schools and through its departmental websites (EKI 2021).

Sonoma Recycled Water Program

The Sonoma Valley County Sanitation District is in the final stages of constructing a recycled water pipeline (the 5th Street East Recycled Water Pipeline Project) in collaboration with the Sonoma Valley Unified School District to provide recycled water for irrigation purposes to Sonoma Valley High School, Adele Harrison Middle School, and Prestwood Elementary schools (in the City). Recycled water will also be used in the future to offset irrigation demands at the City's Engler Street Park. The City expects that 50 acre-feet/year (AFY) of recycled water will be available for use during the first half of 2021 and a total of 55 AFY by 2025. The City anticipates utilizing recycled water for landscape irrigation to offset groundwater pumping (EKI 2021).

4.9.3 ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Based on Appendix G of the CEQA Guidelines, the proposed project would have a significant impact related to hydrology and water quality if it 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 or through the addition of impervious surfaces, in a manner which would:
  - i) result in substantial erosion or siltation on- or off-site;
  - ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;
  - iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or
  - iv) impede or redirect flood flows;
- 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

Impede or Redirect Flood Flows—The project site is not located in a FEMA flood hazard zone or a City-designated area where stormwater drainage surcharging could result in flooding. Thus, the proposed project would not impede or redirect flood flows, and there would be no impact. This issue is not evaluated further in this RDEIR.

Risk Release of Pollutants from Inundation in a Tsunami, Seiche, or Flood Hazard Zone—The project site is not located in tsunami, seiche, or flood hazard zone. Thus, there would be no impact from pollutants released during inundation, and this issue is not evaluated further in this RDEIR.

IMPACT ANALYSIS

Impact 4.9-1: Violate Water Quality Standards or Waste Discharge Requirements.

The proposed project involves redeveloping an approximately 1.24-acre project site that is currently almost completely covered with impervious surfaces consisting of existing buildings and paved parking lots. As indicated previously in Section 4.9.1 "Environmental Setting," there are no surface water features at the project site.

Stormwater from the project site is discharged into a City-owned collector line, which discharges to the east fork of Fryer Creek approximately 1,500 feet southwest of the project site. Fryer Creek flows south into Nathanson Creek, which eventually discharges into Sonoma Creek, and thence into San Pablo Bay. Sonoma Creek and San Pablo Bay are included on the SWRCB's 303(d) list of impaired water bodies for a variety of pollutants (SWRCB 2021). The proposed redevelopment would include construction activities such as grading and excavation that would disturb soils and could result in off-site sediment transport, and also operational changes in stormwater discharge that could carry pollutants into downstream waterbodies. Construction and operational water quality degradation can interfere with Basin Plan implementation and with achievement of TMDL objectives required by the Clean Water Act, and can adversely affect wetland ecosystems, and sensitive plant and animal species, as well as humans. Several existing regulations would apply to the proposed project that would reduce or avoid construction and operational impacts related to erosion, sedimentation, and water quality degradation, as described below.

Construction-Related Water Quality

To receive a building permit from the City, a grading and erosion control plan must be submitted to the Engineering Department that must incorporate stormwater pollution control, as well as storm drainage design features to control increased runoff from the project site. As described in Section 4.9.2, the City's Excavation, Grading, and Fills Ordinance requires implementation of a site-specific Erosion and Sediment Control Plan that includes the placement of structural and nonstructural stormwater pollution prevention controls designed to prevent erosion and subsequent degradation of water quality during construction and post construction. Groundwater quality can be affected either by direct contact during construction-related earthmoving activities, or by indirect contact as a result of percolation of stormwater. Earthmoving activities that could encounter groundwater are issued permits by the San Francisco Bay Area RWQCB through the project-specific permitting process; the permits contain provisions (in form of permit terms and conditions) that are specifically intended to protect groundwater quality.

Because the proposed project would disturb more than one acre of land during the construction process, the project applicant must comply with the requirements in the SWRCB's Construction General Permit. Through the NPDES and WDR process, SWRCB seeks to ensure that the construction and post-construction conditions at a project site do not cause or contribute to direct or indirect impacts on water quality. The Construction General Permit requires preparation and implementation of a SWPPP with associated BMPs that are specifically designed to reduce construction-related erosion, sedimentation, and pollutant transport. The Construction General Plan includes a numeric, two-part, risk-based analysis process. It also identifies the need to address changes in the hydrograph, defined as hydrograph modification or hydromodification, which could result from urbanization of a watershed, and requires low impact development (LID) controls to more closely mimic the pre-developed hydrologic condition. Examples of BMPs for erosion and sediment control relating to construction activities and stormwater runoff that could be implemented include mulch, re-seeding, straw wattles, check dams, sediment traps, silt fencing, sediment basins, placement of rip rap under drain outfalls, and stabilizing construction entrances and exits.

Operation-Related Water Quality

Urban contaminants from operation typically accumulate during the dry season and may be washed off when adequate rainfall returns in the fall to produce a "first flush" of runoff. The amount of contaminants discharged in stormwater drainage from developed areas during project operation varies based on a variety of factors, including

the intensity of urban uses such as vehicle traffic, types of activities occurring (e.g., office, commercial, industrial), types of contaminants used at a given location (e.g., pesticides, herbicides, cleaning agents, petroleum byproducts), contaminants deposited on paved surfaces, and the amount of rainfall.

The City's Stormwater Management and Discharge Control Ordinance requires preparation of a Stormwater Pollution Prevention Plan, and the incorporation of best management practices in all new development to control the volume, rate, and pollutant load of stormwater runoff. At the City's discretion, monitoring, analysis, and reporting of discharges from any premises to the stormwater conveyance system may be required. The City's operational NPDES MS4 Permit specifies the actions necessary to reduce the discharge of pollutants in stormwater to the maximum extent practicable, in a manner designed to achieve compliance with water quality standards and objectives, and methods to effectively prohibit non-stormwater discharges into municipal storm drain systems and watercourses within the permittees' jurisdictions. Projects within the City are required to address stormwater quality during development review. Projects must implement BMPs during construction to reduce impacts from construction work, and also during project operation to reduce post-construction impacts to water quality. Long-term water quality impacts must be reduced using site design and source control measures to help keep pollutants out of stormwater. Examples of long-term stormwater quality design elements include Bay Area Stormwater Management Agencies Association (BASMAA) solutions – such as bioretention, rain catchment, and other site design elements as needed including permeable surfaces and pavement.

Approximately 74 percent (40,008 square feet) of the existing impervious surfaces at the 54,000-square-foot project site would be redeveloped as part of the proposed project. The remaining 26 percent (13,992 square feet) of the project site would be redeveloped with bioretention areas or other stormwater solution meeting the permit requirements per BASMAA and the City of Sonoma to offset stormwater impacts for the entire impervious surfaces at a rate of 0.04x impervious area, totaling four percent. Therefore, the amount of impervious surfaces at the project site after the proposed redevelopment would be similar to or slightly less than the existing impervious surfaces, and stormwater runoff would be retained/detained/treated to code requirements. Therefore, urban stormwater runoff during the project's operational phase, which may contain sediment, trash, organic contaminants, nutrients, trace metals, and oil and grease compounds that can affect receiving water quality, would be similar to existing conditions. Activities that are known to cause these contaminants would be prohibited or reduced on-site through sewer connections, service release timing, or stormwater treatment, or other process, temporal, structural or nature-based treatment.

Conclusion

The construction and operation-related measures discussed above to protect water quality and support designated beneficial uses of waterbodies are part of the City's and the project applicant's required compliance with the *Water Quality Control Plan (Basin Plan) for the San Francisco Bay Basin* (San Francisco Bay RWQCB 2019); and BASMAA Post-Construction Manual (BASMAA 2019).

Compliance with the aforementioned regulations also ensures that projects are consistent with City General Plan policies that are designed to protect water quality. City General Plan Policy 2.4 requires protection of Sonoma Valley watershed resources, including surface and ground water supplies and quality. Policy 2.5 requires implementation of erosion control and soil conservation practices that support watershed protection.

In summary, compliance with the above-listed policies, plans, ordinances, and permit terms will require the project to reduce pollution and runoff generated in the proposed development area through implementation of

operation-related LID technologies, BMPs, and pollutant source control measures, along with preparation of a SWPPP with associated BMPs designed to control construction-related erosion and pollutants. These measures would protect water quality as required by the Basin Plan. Therefore, construction and operation associated with proposed redevelopment of the approximately 1.24-acre project site would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality, and this impact would be **less than significant**.

Mitigation Measure: No mitigation measures are required.

Impact 4.9-2: Substantially Decrease Groundwater Supplies or Interfere with Groundwater Recharge.

Potential impacts related to decreases in groundwater supplies or interference with groundwater recharge are inherently operational in nature; therefore, construction activities associated with the proposed project would have **no impact**.

As discussed in detail in Chapter 4.14, "Utilities and Service Systems," and Impact 4.14-2 of this RDEIR, water supply for the proposed project would be provided by the City, which serves as a water purveyor and purchases water from Sonoma Water. Most of the Sonoma Water's supply is surface water diverted from the Russian River; less than two percent of Sonoma Water's supply is obtained from groundwater wells located in the central Santa Rosa Groundwater Subbasin. The City also owns and operates six active groundwater wells, in the Sonoma Valley Groundwater Subbasin, which are used to meet peak summer demands.

The Sonoma Valley GSA submitted a GSP to DWR in January 2022 for approval, and a brief summary of pertinent information from the GSP (Sonoma Water 2021) is provided above in Section 4.9.1, "Environmental Setting." The Sonoma Valley Subbasin GSP includes water for projected development through the year 2050, which includes agricultural use, rural domestic use, and municipal and industrial supply based on land uses projected in City and County general plans. As discussed above, groundwater levels and the amount of groundwater storage have declined during both the both historic (1971–2018) and current (2010–2018) periods, and this decline is projected to continue during the future conditions (2021–2070) modeling period. With implementation of the management programs and actions that are proposed in the GSP, the amount of yearly groundwater decline in the future is projected to be reduced, from -290 AFY to -70 AFY. The City is a member of the Sonoma Valley GSA and has committed to participate in future programs and actions designed to promote groundwater sustainability in the Sonoma Valley Subbasin.

The City's 2020 Urban Water Management Plan (UWMP) discusses the City's plans to continue purchasing the maximum yearly amount of water from Sonoma Water, continue utilizing its groundwater wells during summer months to supplement the surface water supply, implement its recycled water program for landscape irrigation, and implement its water conservation program. The City's 2020 UWMP demonstrates that, with the continuation of these operations, the City will be able to provide enough water to meet its projected existing and future demands (including the proposed project) in all water year types—normal, dry, and 5-year consecutive drought—through the year 2045 (EKI 2021:87–88).

As shown in Exhibit 3-3, "Existing Project Site Features" (Chapter 3, "Project Description") nearly all of the 1.24-acre project site (approximately 42,000 square feet) is already covered with impervious surfaces associated with existing commercial buildings, paved parking areas, paved drive aisles, and a courtyard beyond the Chateau Building. Existing buildings and landscaping already result in water usage for potable water consumption,

restrooms, and landscaping. A total of approximately 12,000 square feet of pervious soil planted with landscape trees and shrubs is present around the Chateau Building courtyard, and along the edges of the parking lots throughout the project site. Approximately 74 percent (40,008 square feet) of impervious surfaces at the 54,000 square-foot project site would be redeveloped as part of the proposed project. The remaining 26 percent (13,992 square feet) of the project site would be redeveloped with pervious planter areas containing landscaping. Therefore, the amount of impervious surfaces at the project site after the proposed redevelopment would be similar to or slightly less than the existing impervious surfaces.

Furthermore, the proposed project includes a voluntary water conservation program (J. Crowley Group, Inc. 2015). The program includes water conservation measures governing plumbing fixtures; landscape and irrigation systems; rainwater harvesting; restaurant and HVAC equipment; operational, laundry, and maintenance practices; employee training; and guest outreach. The program is designed to achieve an approximately 30 percent reduction in the proposed project's overall yearly water demands. The proposed project's voluntary water conservation program has been designed to comply with the City's water conservation program. As part of the program, the hotel's three landscaped courtyards would be partially irrigated with captured, stored, and recycled rainwater, to support the City's recycled water program. Landscaping at the project site will also be required to be designed to comply with the City's water efficient landscaping ordinance.

As described above, because the project implementation would not require drilling new groundwater wells, the City has adequate water to supply the proposed project, the proposed development is included in projected water demands considered in the GSP, and the total amount of impervious surfaces would be similar to (or slightly less than) existing conditions, operation of the proposed project would not substantially deplete groundwater supplies or substantially interfere with groundwater recharge such that sustainable management of the groundwater basin would be impeded, and this impact would be **less than significant**. (Please see Section 4.14, "Utilities and Service Systems," of this RDEIR for the detailed analysis related to water supply.)

Mitigation Measure: No mitigation measures are required.

Impact 4.9-3: Alter Drainage Patterns or Add Impervious Surfaces Resulting in Substantially Increased Erosion, Siltation, Downstream Flooding, or Increased Stormwater Runoff Volumes.

The approximately 1.24-acre project site in the City's Downtown area is flat and is completely developed with commercial buildings, parking lots, and landscaping. Furthermore, there are no surface water features at the project site or adjacent to the site. Therefore, although redevelopment of the project site would require grading and excavation activities, project-related construction would not substantially alter existing drainage patterns.

An existing stormwater drainage system is present, as described in detail in Section 4.9.1, "Environmental Setting," and the proposed redevelopment at the project site would tie into the existing drainage system. Preparation and implementation of a SWPPP and BMPs, along with the City requirements for preparation of and Erosion Control Plan would address project-related impacts during construction in compliance with the NPDES Construction General Permit. Preparation of a Stormwater Pollution Prevention Plan as required by the City's Stormwater Management and Discharge Control Ordinance and meeting BASMAA requirements, with incorporation of BMPs to control the volume, rate, and pollutant load of stormwater runoff, would address project-related operational impacts in compliance with the City's NPDES MS4 permit and would ensure that the project is designed so that increased stormwater runoff volumes (if any) are properly detained or retained on site

and infiltrated into BMP planters or retention, and downstream flooding impacts from redevelopment do not occur.

The proposed project would not substantially alter existing drainage patterns, and compliance with City and RWQCB permit terms and conditions would ensure that substantial increase in erosion, siltation, downstream flooding, or increased stormwater runoff volumes do not occur. Therefore, this impact would be **less than significant**.

Mitigation Measure: No mitigation measures are required.

Impact 4.9-4: Conflict with a Water Quality Control Plan or Sustainable Groundwater Management Plan.

For the reasons described in detail in Impacts 4.9-1 and 4.9-2 above, the proposed project would not conflict with the *Water Quality Control Plan (Basin Plan) for the San Francisco Bay Basin* (San Francisco Bay RWQCB 2019) or the *Groundwater Sustainability Plan for the Sonoma Valley Subbasin* (Sonoma Water 2021). Therefore, this impact would be **less than significant**.

Mitigation Measure: No mitigation measures are required.

4.10 LAND USE AND PLANNING

4.10.1 ENVIRONMENTAL SETTING

EXISTING PROJECT SITE LAND USES

The project site consists of approximately 1.24 acres of developed land in Downtown Sonoma. The site includes four existing commercial buildings, three of which (the former Chateau Sonoma building, a two-story metal warehouse and office building behind the Lynch Building, and a one-story metal warehouse behind the Sonoma Index Tribune Building) would be demolished as part of the proposed project. The remainder of the site comprises paved parking lots, with trees around the perimeter. The site includes portions of four parcels, which would be merged and redeveloped as a single parcel (see Exhibit 3-3 in Chapter 3, "Project Description").

SURROUNDING LAND USES

The Lynch Building, adjacent to the project site on the north side, houses retail tenants, offices, and seven market-rate studio apartments. The Sonoma Index Tribune Building, and the Feed Store Building (which includes a restaurant, wine tasting room, clothing boutique, and one loft residential rental unit), are both adjacent to the north and northeast sides of the project site, respectively. The project site is immediately surrounded by commercial land uses on all sides. The Best Western Sonoma Valley Inn and Krug Event Center is immediately southwest of the project site. The vicinity of the project site consists of boutique shops, a variety of restaurants, wine tasting rooms, a bank, and other primarily commercial uses. Other than the Sonoma Index Tribune Building and Lynch Building, the next nearest residential uses are approximately 100 feet to the southwest – two-story, multi-family units. The nearest detached single-family residences are approximately 500 feet north of the project site on Church Street.

LAND USE DESIGNATION AND ZONING

The City's General Plan (City of Sonoma 2006) land use designation for the project site is "Commercial." The Commercial land use designation is intended to:

> "...provide areas for retail, hotel, service, medical, and office development, in association with apartments and mixed-use developments and necessary public improvements. Schools, daycare facilities, fire stations, post offices, emergency shelters, and similar activities may be allowed subject to use permit review. Heavy manufacturing and industrial uses are not allowed." (City of Sonoma 2006:15)

The project site is zoned Commercial (C) and is located within the Historic Overlay District. Commercial zoning allows for a range of uses, some with a use permit, including hotel, retail, tourist, office, residential, and mixed uses. Allowable uses are outlined in Sonoma Municipal Code Chapter 19.10 (Zones and Allowable Uses).

The Historic Overlay District is intended to preserve structures that are historically or culturally significant. As discussed in Chapter 4.5, "Cultural and Tribal Resources," of this RDEIR, no historic structures would be demolished, and the proposed project would not affect the integrity or setting of any nearby historic structures such that there would be any potentially significant impact.

In addition to the General Plan Designation and zoning district, the Sonoma Municipal Code Chapter 19.16, Division III (Planning Area Standards) establishes 13 planning areas within the City, based on the time periods and types of development and land uses that characterize each area. Division III also establishes site planning and design standards for each planning area to ensure that proposed projects are designed to enhance and maintain the most desirable development and environmental characteristics of each unique area of the city. The planning areas are described in terms of three subtypes – areas, districts, and corridors – depending upon their function, geography, and the range of land uses within them. The project site is in the Downtown District Planning Area. Standards for the Downtown District can be found in Sonoma Municipal Code Chapter 19.34 (Downtown District). Sonoma Development Code Section 19.34.010 states that:

> "The primary objectives for the Downtown district are to preserve and enhance its historic character and to retain and promote its economic vitality as a commercial, cultural, and civic center attractive to residents and visitors. New construction and new uses should build upon the established character of the downtown. High quality architecture, pedestrian-friendly design, and uses which draw locals as well as tourists are reasonable expectations for Sonoma's most distinctive district. While commercial uses will remain preeminent, the downtown's housing stock should be preserved and extended. Multifamily and live-work development in the town center provide customers for downtown businesses and reduce automobile dependence. Higher density residential development at the edges of the district confers similar benefits and establishes a transition to lower density residential areas."

4.10.2 REGULATORY FRAMEWORK

FEDERAL PLANS, POLICIES, REGULATIONS AND LAWS

There are no federal plans, policies, regulations, or laws related to land use and planning that apply to the proposed project.

STATE PLANS, POLICIES, REGULATIONS, AND LAWS

California Government Code section 65300 requires each county and city to adopt a general plan to guide development decisions. Further, California planning law dictates that all land use decisions must be consistent with the implementing jurisdiction's adopted General Plan. Therefore, the proposed project must be consistent with the City's General Plan and the City's zoning ordinance, which the City calls its "Development Code." The City's 2020 General Plan (City of Sonoma 2006:2) establishes the City's development goals and policies; sets the land use, housing, and development policies for the City; and designates allowable land uses for all property throughout the City and its Sphere of Influence.

REGIONAL AND LOCAL PLANS, POLICIES, REGULATIONS, AND ORDINANCES

City of Sonoma General Plan

The City comprehensively updated its General Plan in 2006. The City Council Vision Statement, incorporated as part of the 2020 General Plan (City of Sonoma 2006:2), includes the following goals for the City as a place where:

- Innovative, creative and sustainably-designed development respects the availability of natural resources and enhances the scale, character, and natural setting of the community; and

- A vibrant, entrepreneurial economy is fueled largely by retention and incubation of locally-owned businesses that complement the small-town atmosphere and provide high-paying jobs.

The Community Development Element of the 2020 General Plan states, "Sonoma should continue to be characterized by variety in terms of land uses, building types, and housing, and this diversity should be consistent with preserving the town's small-scale and historic character" (City of Sonoma 2006:3).

The City's 2020 General Plan includes the following policies and implementation measures related to land use and planning:

Community Development Element

- **Policy 4.1:** Promote innovative design and mixed uses through the Development Code.
    - **Implementation Measure 4.1.1:** Implement the Development Code and update it as necessary to ensure the provision of appropriate street connections, lot patterns, site designs, building forms, and pedestrian and bicycle facilities in specific areas of the community and to encourage useful innovation, especially with regard to sustainability.
- **Policy 4.3:** Coordinate development on small contiguous lots to the extent possible.
- **Policy 4.4:** Require pedestrian and bicycle access and amenities in all development.
- **Policy 5.1:** Preserve and enhance the scale and heritage of the community without imposing rigid stylistic restrictions.
- **Policy 5.2:** Promote positive community interaction through provision of attractive public spaces.
- **Policy 5.5:** Promote higher density, infill development, while ensuring that building mass, scale, and form are compatible with neighborhood and town character.
- **Policy 5.6:** Pursue design consistency, improved pedestrian and bicycle access, and right-of-way beautification along the Highway 12 corridor.

Local Economy Element

- **Policy 1.1:** Focus on the retention and attraction of businesses that reinforce Sonoma's distinctive qualities—such as agriculture, food and wine, history and art—and that offer high-paying jobs.
- **Policy 1.2:** Encourage mixed use development that includes small-scale, local-serving commercial uses, provided it will be compatible with surrounding development. (Implemented through the Commercial and Mixed-Use land use designations.)
- **Policy 1.5:** Promote and accommodate year-round tourism that is consistent with the historic, small-town character of Sonoma.

- **Policy 1.6:** Ensure that city regulations do not unduly burden local business operation and development and provide incentives for business improvement.
- **Policy 1.8:** Preserve and enhance the historic Plaza area as a unique, retail-oriented commercial and cultural center that attracts both residents and visitors.
- **Policy 1.9:** Encourage a residential and pedestrian presence in commercial centers through mixed use and multi-family development.
- **Policy 1.10:** Promote ground-floor retail uses in commercial areas as a means of generating pedestrian activity.

Environmental Resources Element

- **Policy 3.2:** Encourage construction, building maintenance, landscaping, and transportation practices that promote energy and water conservation and reduce green-house gas emissions.

Circulation Element

- **Policy 2.1:** Promote bicycling as an efficient alternative to driving.
- **Policy 2.3**: Expand the availability of sheltered bicycle parking and other bicycle facilities.
- **Policy 2.5:** Incorporate bicycle facilities and amenities in new development.
- **Policy 3.2:** Encourage a mixture of uses and higher densities where appropriate to improve the viability of transit and pedestrian and bicycle travel.
- **Policy 3.3:** Promote transit use and improve transit services.

City of Sonoma Development Code—Commercial Zoning District and Residential Component

The City's Development Code was adopted in May of 2003 and last updated in May of 2023. Its purpose is to reinforce the policies of the General Plan by regulating the uses of land and structures within the City. Overall, the purpose of the Development Code is to guide growth that is compatible with the community's unique natural and historical character, and that reflects the residents' desire for enhancing the City's livability.

Chapter 19.10 (Zones and Allowable Uses) of the City's Municipal Code establishes the zoning districts within the City. The project site is zoned Commercial (C) within a Historic Overlay District. As stated in Section 19.10.020.B.1 of the Municipal Code, the Commercial zoning district is applied to areas appropriate for a range of commercial land uses, including retail, tourist, office, and mixed uses. The Historic Overlay District is intended to preserve structures that are historically or culturally significant.

In applications for new development on commercially zoned properties 0.5 acres or larger and for which a discretionary permit is required, a residential component is required, unless waived by the City Planning Commission. Section 19.10.020.B.3 of the City's Municipal Code addresses this requirement, as follow:

> Residential Component. In applications for new development on properties of one-half acre in size or larger for which a discretionary permit is required, a residential component shall be required, except in either of the following circumstances:

a. The replacement of a commercial use within an existing tenant space with another commercial use.

b. Additions up to 30 percent of existing historic structures that are listed, or eligible to be listed, on the National Register of Historic Places, the California Register of Historical Resources and/or the City of Sonoma Inventory of Historic Sites and Structures where the addition would not impact the historic designation.

A residential component shall be equal to 100 percent of the floor area of the commercial component. The residential component may be wholly or partially satisfied through payment of a residential component fee, subject to approval by the Planning Commission. The residential component fee shall be paid per square foot of required residential component and shall be established by resolution of the City Council and paid into the Housing Trust Fund. Circumstances in which the residential component may be wholly or partially satisfied by the residential component fee include, but are not limited to, the following:

a. The presence of existing uses or conditions incompatible with residential development on or adjacent to the property for which a new development is proposed.

b. Existing property characteristics, including size limitations and environmental characteristics, that constrain opportunities for residential development or make it infeasible.

c. Limitations imposed by other regulatory requirements, such as the Growth Management Ordinance.

Compliance with this section of the Municipal Code will be determined as part of the Use Permit process as it relates solely to policy and therefore there are no potentially significant environmental impacts based on this zoning code section not already discussed in this RDEIR.

City of Sonoma Development Code—Downtown District

The project site is in the City's Downtown District Planning Area. Sonoma Municipal Code Chapter 19.34 includes standards and guidelines to ensure that the appearance and function of proposed development preserves and enhances the desired character of the Downtown District. Municipal Code Chapter 19.34 contains a general overview of the Downtown District Planning Area, a statement of broad planning objectives, and a description of likely public improvements and other potential changes. Development Code Section 19.34.020, Project Planning and Design Standards, sets forth detailed and specific development standards and guidelines applicable to new development in the Downtown District Planning Area.

All new land uses and structures, and alterations to existing land uses and structures, must be designed, constructed, and/or established in compliance with the requirements of Sonoma Municipal Code Chapter 19.34, in addition to the development standards in Municipal Code Chapter 19.40, Division IV (General Site Planning and Development Standards).

City of Sonoma Development Code – Historic Preservation and Infill in the Historic Zone

Municipal Code Chapter 19.42 (Historic Preservation and Infill in the Historic Zone), included in the Development Code, outlines guidelines that would apply to preservation, adaptive reuse, and infill development within the Historic Overlay District. The guidelines apply to infill development within the Historic Overlay District for which a discretionary permit is required. The Design Review and Historic Preservation Commission administers the majority of key reviews associated with historic preservation regulations.

The guidelines are intended to encourage new infill development in the Historic Overlay District "to be compatible in scale and treatment with the existing, older development and to maintain the overall historic character and integrity of the community and to promote the visual variety that is characteristic of Sonoma, to allow for contemporary architectural designs, and to provide reasonable flexibility in accommodating the tastes, preferences, and creativity of applicants proposing new development…" (City Municipal Code Chapter 19.42, Section 19.42.050 (Guidelines for Infill Development)).

Following are excerpts from Section 19.42.050, Guidelines for Infill Development.

> B. Guidelines for Compatibility. The single most important issue of new infill development is one of compatibility, especially when considering larger structures. When new structures area developed adjacent to older single-family residences, there are concerns that the bulk and height of the infill structures may have a negative impact on the adjoining smaller-scale structures. The following considerations are intended to address this concern:
>
> 1. Site Plan Considerations.
>
> a. New development should continue the functional, on-site relationships of the surrounding neighborhood. For example, common patterns that should be continued are entries facing the public right-of-way, front porches, and garages/parking areas located at the rear of the parcel.
>
> b. Front setbacks for new infill development should follow either of the following criteria:
>
> i. Equal to the average front setback of all residences on both sides of the street within 100 feet of the property lines of the new project; or
>
> ii. Equal to the average front setback of the two immediately adjoining structures on each side of the new project.
>
> c. In cases where averaging between two adjoining existing structures is chosen, the new structure may be averaged in a stepping pattern. This method can work especially well where it is desirable to provide a large front porch along a portion of the front facade.
>
> 2. Architectural Considerations.
>
> a. New infill structures should support the distinctive architectural characteristics of development in the surrounding neighborhood, including building mass, scale,

proportion, decoration/detail, door and window spacing/rhythm, exterior materials, finished-floor height, porches, and roof pitch and style.

b. Because new infill structures are likely to be taller than one story, their bulk and height can impose on smaller-scale adjoining structures. The height of new structures should be considered within the context of their surroundings. Structures with greater height should consider providing greater setbacks at the second-story level, to reduce impacts (e.g., blocking or screening of air and light, privacy, etc.) on adjoining single-story structures.

c. The incorporation of balconies and porches is encouraged for both practical and aesthetic reasons. These elements should be integrated to break up large front facades and add human scale to the structures.

d. The proper use of building materials can enhance desired neighborhood qualities (e.g., compatibility, continuity, harmony, etc.). The design of infill structures should incorporate an appropriate mixture of the predominant materials in the surrounding neighborhood whenever possible. Common materials are brick, horizontal siding, shingles, stone, stucco, and wood.

e. Color schemes for infill structures should consider the color schemes of existing structures in the surrounding neighborhood in order to maintain compatibility and harmony. Avoid sharp contrasts with existing building colors.

…

4. Sustainable Construction Techniques.

a. Building forms that reduce energy use may be radically different than traditional architectural types. Careful and sensitive design is required in order to produce a contrast that is pleasing rather than jarring. The use of appropriate colors and textures on exterior materials is one method of linking a contemporary building design to a traditional neighborhood context.

b. Roof gardens, solar panels, and other sustainable construction features should be fully integrated into the design of new construction, rather than applied at the conclusion of the design process.

City of Sonoma Downtown Sonoma Historic Preservation Design Guidelines

The Downtown Sonoma Historic Preservation Design Guidelines (the "Guidelines") are intended to supplement the City's design review and preservation planning framework by establishing guidelines that manage change while also preserving the qualities that are most important to the Downtown Planning District's historic character. The Guidelines "seek to accommodate growth and change in the Downtown Planning District, while guiding alterations of existing buildings and new development with the goal of respecting the historic character of the community and promoting a level of excellence in the built environment" (City of Sonoma 2017, page 11). The Guidelines apply to the Downtown Planning District, which includes the project site and surrounding areas. While much of the content is directed to historic properties and adaptive reuse, Chapter 6 addresses the construction of

new buildings in the Downtown Planning District. Following are excerpts from Chapter 6 of the Guidelines for new buildings:

6.1 Architectural Design

6.1.1 New buildings should respect historic architectural influences already found in the Downtown Planning District, but avoid exact imitations of historic styles.

- New construction should reflect the time of its construction while honoring the key features of its surrounding context. The distinctive characteristics of the surrounding area can help to inspire appropriate massing, compatible scale, and architectural features.

- Repeat the patterns created by the buildings in the surrounding area by using and aligning various architectural elements such as fenestration, porches, entrances, balconies, roofs, belt courses, and cornices.

6.2 Scale and Massing

6.2.1 Honor the scale and massing of surrounding buildings and of the overall Downtown Planning District.

- Avoid scaling new construction larger than the immediate context. This is particularly important in Sub-Areas 1 and 2 where there is a predominance of one- and two-story historic buildings.

- Façade heights and widths of new buildings should fall within the established range and rhythm of façades on the block and respect the general proportions of existing buildings.

- If a building is taller than the predominant one- to two-story height in the Downtown Planning District, step back any floors that are taller than the average height of historic buildings, so that upper floors are partially concealed when viewed from the street.

- New buildings and additions should be designed with simple rectangular volumes; cylindrical, pyramidal, and other elaborate building forms are inappropriate.

6.2.2 Balance building elements to produce an appropriately-scaled building.

- Avoid over-scaled openings (i.e. windows, doors, and arches), unless appropriate to the architectural style and compatible with the surrounding context.

- Include human-scaled fenestration and entry systems, especially for new commercial and mixed-use buildings.

- Divide a large building mass by using setbacks and smaller modules to reduce perceived mass and height.

6.2.3 Consider including porches or balconies to break up large façades and introduce human scale to new buildings.

- Where new development includes porches and balconies, it should reference those features on nearby historic properties for scale and massing.

6.3 Exterior Materials and Treatment

6.3.1 Incorporate an appropriate mix of predominant materials from the surrounding neighborhood whenever possible in new design.

- Use high-quality materials such as wood, brick, quality stucco, and stone that are durable and enhance the overall quality of the Downtown Planning District and streetscape.
- Choose appropriate materials that correspond to downtown Sonoma's character and complement the building's architectural style. Natural materials commonly used in the existing built environment in downtown Sonoma are preferred over synthetic materials such as vinyl or aluminum siding.
- Avoid applying veneers such as brick or stone. Use these materials as structural elements.
- Highly reflective, darkly tinted, or mirrored glass is inappropriate.

6.3.2 Reference the color schemes appropriate for the surrounding neighborhood's historic character (see 4.1.3 and page 68) in order to maintain compatibility and harmony.

- Avoid sharp contrasts with the colors of existing buildings.
- Use a single base color against complementary accent colors to articulate and highlight architectural details.
- Keep color schemes simple, using the least amount of colors necessary to achieve an appropriate appearance that is sensitive to the surrounding area.
- Antique or faux finishes are inappropriate.
- Regularly maintain painted surfaces.

6.3.3 Window and door types and arrangements on new construction should complement traditional patterns within downtown Sonoma.

- Arrange windows on a new residence, commercial building, or mixed use building so that the building has a surface-to-void ratio similar to that of historic buildings (corresponding with the use of the new construction) in the Downtown Planning District. This helps to maintain the existing rhythm and avoid excessive transparency.
- Design the window opening pattern so that there is a rational hierarchy of window types from the base of the building to the top. Avoid window types, sizes, and locations that appear randomly assigned.
- Avoid oversized windows and doors that are out of character with the building and the openings of other buildings (particularly nearby historic properties) in the area.
- When feasible, select wood-sash windows with lite configurations that match windows found elsewhere in downtown Sonoma.
- Ensure the main entrance to the building is clearly identifiable.

- Arrange main entrances to face the street to match historic façade patterns within Sonoma. Additional entrances may be located on the side or rear façades.

6.4 Accessory Structures and Secondary Buildings

6.4.1 Locate accessory structures and secondary buildings at the rear of the lot and preserve the primacy of the main building.

- Set new secondary buildings far back from the main building to make the separation clear.

6.4.2 Secondary buildings on the rear portion of a lot should have a compatible scale and should not overwhelm the existing main building.

- Rear development should not be taller than the existing building and/or should not be visible above the existing building from the street level.

- Scale new parking structures to be subordinate to the main building.

6.4.3 Accessory structures and secondary buildings should be compatible with the main building's design.

- The architectural style does not have to match the existing building, but the design should be compatible and be subordinate to the main building. This can be accomplished through a modest scale and more restrained use of architectural style and features.

- Incorporate the distinctive architectural features, such as color, materials, roof pitch and style, of the main building into the design for accessory structures.

- Decorative features should be applied with less detail on the accessory structure so that it does not compete with the main building and is clearly subordinate to it.

6.5 Commercial and Mixed-Use Buildings

6.5.1 Balance building elements to produce an appropriately-scaled building.

- Incorporate the composition of traditional commercial and mixed-use buildings using a base, middle, and cap.

- Maintain the distinction between the street level and the upper floors through fenestration, materials, and detailing (i.e. belt courses).

6.5.1 Establish or maintain a wall plane at the sidewalk.

- Buildings in the core historic commercial area, especially Sub-Area 1, should align at the sidewalk edge to create (or continue) the pedestrian wall close to the front property line.

- Occasional offsets produced by entries, window projections, small planters, and entrances to courtyards or intra-block walkways should punctuate the wall so as not to be one single plane without relief.

6.5.2 Provide ground level transparency.

- Integrate more glass and less wall at ground level, balanced by more wall and less glass at the upper floors.

- More than half of the total building width at the ground level should be transparent and devoted to entrances and storefront windows.

- Where a length of windowless wall is unavoidable, various measures should be implemented to enhance the wall's visual interest and the pedestrian experience, including but not limited to a contrast in wall treatment, an offset wall line, decorative features, outdoor seating, or landscaping.

6.5.5 Locate mechanical equipment and service areas out of public view.

- Loading and service areas including refuse and recycling enclosures should be located out of public view whenever feasible and must not be located on a primary commercial street.

- Electrical and communication transformers or cabinets located in the city right-of-way must be installed below grade in the right-of-way or located on-site and screened from public view.

- Backflow prevention and anti-siphon valves must be integrated into the building design and concealed from public view. Such devices may not be located within the right-of-way on primary pedestrian streets.

- All other mechanical equipment must be located behind or on top of the building and screened from public view with parapet walls or landscaping

4.10.3 Environmental Impacts and Mitigation Measures

Thresholds of Significance

Based on Appendix G of the CEQA Guidelines, the proposed project would have a significant impact related to land use and planning if it 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

- **Physically Divide an Established Community**—The project site is approximately 1.24 acres in the City, within and surrounded by land in the Downtown District Planning Area. The proposed site is designated and zoned for commercial development on all sides. The proposed project consists of demolition of existing commercial buildings and parking lots, and redevelopment of the proposed site. There is no established community associated with the proposed project site, nor would the proposed redevelopment create any new physical divisions. Thus, the proposed project would have **no impact** related to physically dividing an established community. This issue is not addressed further in this RDEIR.

IMPACT ANALYSIS

Impact 4.10-1. Consistency with City of Sonoma General Plan Policies and Land Use and Zoning Designations.

Potential adverse environmental impacts are addressed in detail in each topic specific section of this RDEIR, including those topics that are also addressed by City policy or development regulations. The following is an additional detailed discussion of policy and regulatory consistency.

City of Sonoma General Plan: Land Use Designation

The General Plan land use designation for the project site is Commercial. The City's Commercial designation "is intended to provide areas for retail, hotel, service, medical, and office development, in association with apartments and mixed-use developments and necessary public improvements" (City of Sonoma 2006: 15). The density limit is up to 20 residential units per acre and according to the General Plan Community Development Element, the density limitation does not apply to hotels. The intensity limits include a height limit of 36 feet and lot coverage of between 70 and 100 percent, with a floor area ratio (FAR) between 0.6 and 2.0. The total building floor area calculated for the purpose of determining the floor area ratio for the proposed project is approximately 86,800 square feet and the total project site is approximately 54,700 square feet, so the floor area ratio of the proposed project is approximately 1.6, consistent with the range provided in the General Plan. The proposed lot coverage is within the range allowed by the General Plan – estimated by the project architect to be 74.2 percent. The proposed hotel building height is 35 feet, which is consistent with the height limit in the General Plan.

City of Sonoma General Plan: Policies and Programs

Overall, the proposed project would also be consistent with the City's vision for community development as described in the 2020 General Plan, which is to: (1) include pedestrian and bicycle access and amenities in all development (Policy CD 4.4); (2) preserve and enhance the scale and heritage of the community without imposing rigid stylistic restrictions (Policy CD 5.1); and (3) promote higher density, infill development, while ensuring that building mass, scale, and form are compatible with neighborhood and town character (Policy CD 5.5).

The proposed project would be consistent the City's plans for the local economy as described in the 2020 General Plan, which is to: (1) focus on the retention and attraction of businesses that reinforce Sonoma's distinctive qualities (Policy LE 1.1); (2) promote and accommodate year-round tourism consistent with the historic, small-town character of Sonoma (Policy LE 1.5); (3) encourage a residential and pedestrian presence in commercial centers through mixed use and multi-family development (Policy LE 1.9); and (4) promote ground-floor retail uses in commercial areas to generate pedestrian activity (Policy LE 1.10).

The proposed project would be consistent with policies in the Environmental Resources Element. The site has been previously developed and is urban in nature. Potential impacts on wildlife and other biological were determined to be less than significant (see RDEIR Section 4.4, Biological Resources). In addition, Mitigation Measures have been identified to reduce potential impacts on Air Quality to a less-than-significant level (see Section 4.3 of the RDEIR).

Related to Circulation Element policies, the proposed project would maintain a fleet of bicycles and is located on an infill property in the Downtown area where land uses are mixed in proximity, facilitating pedestrian and

bicycle travel. The proposed project is located adjacent to an existing transit stop (see RDEIR Section 4.13, Transportation).

The proposed project would comply with policies in the Public Safety Element. As required through the conditions of approval, the proposed project would comply with all building and engineering requirements associated with seismic safety and other safety considerations. As indicated in Sections 4.6 and 4.8 of this RDEIR, the proposed project would not result in a significant safety or hazards impacts. The proposed project has been reviewed by the Sonoma Valley Fire District and has been designed to meet the requirements for fire protection, as required through the conditions of project approval. Former uses on the site (printing plan, gas station) did make use of hazardous materials, which have been fully evaluated in the Phase I Environmental Site Assessment and related studies and also discussed and analyzed in Section 4.8 of this RDEIR. Remediation has already occurred, and additional recommendations associated with new development will be implemented as required through the proposed project's conditions of approval.

As required by the Noise Element, a noise assessment was conducted for the proposed project utilizing the required standards. The EIR evaluated potential construction and operation impacts and includes mitigation measures to reduce construction noise and noise from long-term operation of the hotel (see RDEIR Section 4.11, Noise and Vibration).

The City recently updated the 2015-2023 Housing Element (adopted March 16, 2015). On April 13, 2023, the 6th Cycle 2023 – 2031 Housing Element was certified by the California Department of Housing and Community Development (HCD) and was determined to be in full compliance with State Housing Element Law (Gov, Code, Article 10.6). The proposed project would retain the seven existing market units on site and proposes the construction of eight new residential units, in addition to the hotel. The proposed project would be required to meet the inclusionary housing requirements outlined in Municipal Code Chapter 19.44 (Affordable Housing and Density Bonuses), which requires that 25 percent of the units be deed restricted for affordable housing in perpetuity. As applied to the proposed project, two units would be deed restricted for affordable housing in perpetuity. The proposed project is consistent with the 6th Cycle 2023-2031 Housing Element.

Development Code

Use: The proposed project site is located in the Commercial zoning district, which is intended for a range of uses, including retail, tourist, office, and mixed uses. The project proposes a hotel, restaurant, spa, and eight residential units, which is allowed in the Commercial zoning district with a Use Permit. As described in detail in this RDEIR Section 3.4 and Table 3-3, the proposed project would be consistent with the Commercial zoning district in the City's Municipal Code and the site's Commercial land use designation in the City's 2020 General Plan (City of Sonoma Municipal Code Title 19, Chapter 19.10, Division II (Community Design); City of Sonoma 2006).

Residential Component: As described in detail in this RDEIR Chapter 3 (Project Description), in applications for new development on commercially zoned properties 0.5 acre or larger and for which a discretionary permit is required, a residential component is required, unless this requirement is waived by the City Planning Commission.

The residential component is required to be equal to 100 percent of the floor area of the commercial component. The residential component may be wholly or partially satisfied through payment of a residential component fee, subject to approval by the Planning Commission. The residential component fee shall be paid per square foot of required residential component and shall be established by resolution of the City Council and paid into the

Housing Trust Fund. However, the residential component would be also limited on dwelling unit basis according to the allowable density for the zoning district, which is 20 units per acre. At the maximum allowable density of 20 units per acre (1.24 acres x 20 units per acre = 24 units), a total of 24 residential units could be developed at the project site. The applicant is requesting this requirement be reduced and is proposing eight residential units to meet the proposed project objectives. As currently codified as of the publishing of this RDEIR, the Planning Commission has the ability to waive or reduce the residential component. Circumstances in which the residential component may be reduced or waived include, but are not limited to, the following:

a. The presence of existing uses or conditions incompatible with residential development on or adjacent to the property for which a new development is proposed.

b. Existing property characteristics, including size limitations and environmental characteristics, that constrain opportunities for residential development or make it infeasible.

c. Limitations imposed by other regulatory requirements, such as the Growth Management Ordinance.

The proposed project would be required to comply with this requirement through the Use Permit process by either providing the required housing or by the Planning Commission granting a reduction or a waiver or payment of a fee.

Development Standards: The proposed project would comply with the quantified zoning standards applicable to new development in the Downtown District as follows:

HOTEL PROJECT SONOMA LAND USE DATA			
LAND USE DATA	**EXISTING**	**PROPOSED**	**COMMENT**
GENERAL PLAN DESIGNATION	Commercial	Commercial	Unchanged
ZONING DISTRICT	Downtown District/ Historic Overlay/ Commercial	Downtown District/ Historic Overlay/ Commercial	Unchanged
SITE AREA	54,663 SF	54,663 SF	1.24 ACRES
TOTAL SITE COVERAGE AREA	40,008 SF	**40,395 SF**	**Excludes basement parking garage**
HOTEL BUILDING AREA			
HOTEL BASEMENT PARKING GARAGE AREA	N/A	52,110 SF	
HOTEL FIRST FLOOR AREA	N/A	21,830 SF	
HOTEL SECOND FLOOR AREA	N/A	22,264 SF	
HOTEL THIRD FLOOR AREA	N/A	**21,512 SF**	
SUB-TOTAL HOTEL AREA	N/A	**117,716 SF**	
RESIDENTIAL BUILDING AREA			
FIRST FLOOR PARKING DECK	N/A	8,258 SF	
SECOND FLOOR RESIDENTIAL	N/A	6,786 SF	
THIRD FLOOR RESIDENTIAL	N/A	6,177 SF	
SUB-TOTAL RESIDENTIAL BUILDING AREA	N/A	**21,221 SF**	
TOTAL COMBINED HOTEL & RESIDENTIAL BUILDING AREA	N/A	**138,937 SF**	

HOTEL PROJECT SONOMA LAND USE DATA			
ZONING REQUIREMENTS			
ALLOWABLE SITE COVERAGE	100% = 54,663 SF	40,395 SF	Compliant
ACTUAL SITE COVERAGE	74.1%	73.9%	Compliant
ALLOWABLE FAR	2.0	1.58	Compliant
SETBACKS	Zero Lot Line Site Street/Front side: 0' Side yard: 0' Rear yard: 0'	Zero Lot Line Site Street/Front side: 0' Side yard: 0' Rear yard: 0'	Compliant
HEIGHT	35'	35'	Compliant. Additional height allowed for mechanical equipment, equipment screens and elevator penthouse structures.
ON-SITE PARKING SPACES	+/- 87 surface parking spaces	130 Spaces	Staff self-park and guest valet parking. 113 Basement Parking 9 Surface Parking 8 Residential Parking
OVERFLOW STAFF SPACES AVAILABLE AT 144 W. NAPA STREET	Up to 25 spaces available	25 spaces	Overflow Parking Staff use only

Setbacks: The Commercial zoning district has no required front, street side setback, or rear setback. No side setback is required unless the property abuts a residential zoning district. Therefore, the proposed project would comply with all setback standards.

Floor Area Ratio (FAR): The maximum FAR in the Commercial zoning district is 2.0 (or 200% of the total lot area) and the project would have a FAR of 1.588.

Site Coverage: The maximum site coverage in the Commercial zoning district is 100 percent of the total lot area and the project site has a 73.9 percent site coverage.

Open Space: 10 percent of the site for commercial and 300 square feet per residential unit.

Height: Maximum allowable height in the Commercial zoning district is 35 feet and the project proposes a maximum height of 35 feet, in compliance with this standard.

Parking and Loading: Parking and loading standards are contained in Municipal Code Chapter 19.48 (Parking and Loading Standards). Based on the parking standards contained in Chapter 19.48 Table 4-4 (Parking Requirements by Land Use), the proposed project requires 200 parking spaces. Pursuant to Municipal Code Section 19.48.050 (Adjustments to parking requirements), parking requirements for a second use within a single building (e.g., a restaurant in a hotel or a shop within a sports facility) may be reduced by up to one-half the normal parking requirement upon the determination by the Planning Commission that a reduction is justified. Adjusting the required parking for the restaurant, spa, and bank by one-half would result in 164 required parking spaces on site.

The proposed project would provide a total of 130 on-site parking spaces between the basement parking garage and surface parking spaces. The combined hotel, restaurant and bar, spa, and residential uses would be provided 97 parking spaces. In addition, 33 parking spaces for the Sonoma Index-Tribune Building and Lynch Building's existing residential, retail, and office uses (which are not changing as part of the proposed project) would continue to be provided. The hotel's basement parking garage would total 113 parking spaces and would be managed by a valet parking service on a 24-hour basis. Parking space types will include accessible, van accessible, standard, compact, and sub compact spaces. The other 17 spaces would consist of surface parking, 9 of which are hotel surface spaces and 8 of which are covered residential spaces.

PARKING ANALYSIS

Land Use	Units	Rate	Parking Spaces
CITY REQUIRED PARKING			
Proposed			
Hotel	62 rooms	1 space/room 1 space/2 employees (max shift)	82
Restaurant	80 seats	1 space/4 seats	20
Residential	8 dwelling units	1.5 spaces/unit plus 25% of required resident spaces for guests	15
Spa	4,900 square feet	1 space/300 square feet	16
Existing			
Office	14,400 square feet	1 space/300 square feet	47
Residential	7 dwelling units	1.5 spaces/unit plus 25% of required resident spaces for guests	13
Bank	2,100 square feet	1 space/300 square feet	7
City Required Parking Total*			**200**
ULI Parking Demand Estimate – Shared Parking**			**139**
Proposed Parking Supply			**130**

Notes: * Per the Planning Commission, requirements may be reduced for mixed use projects;
** 8 spaces assumed designated for proposed residential units

Based on the number of spaces required by Chapter 19.48 (Parking and Loading), the proposed project would not provide adequate on-site parking. However, additional considerations are set forth in Section 19.48.050.B (Shared Use of Parking Facilities), which allows the Planning Commission to reduce parking requirements for commercial and residential mixed uses located in a commercial zone upon determination that the reduction is justified. The Traffic Impact Study (TIS) evaluated the parking demand from the proposed project using a shared parking model from the Urban Land Institute (ULI). The TIS estimated parking demand at 139 parking spaces, which is more than the number of parking spaces proposed by the project.

In addition to the 130 on-site parking spaces, the applicant has proposed to satisfy the parking requirement with the dedication of 9 spaces of the available 25 off-site parking spaces within an existing parking lot, located across West Napa Street approximately 50 feet north of the project site, for the exclusive use of the hotel. The parking lot subject to the offer of dedication lies within 300-feet of the project site, which is consistent with the location requirements of the City's parking standards (SMC 19.48.050.B). Based upon the foregoing, the Planning

Commission may find that the amount of off-street parking complies with the requirements of the Development Code, pursuant to Section 19.48.050.B.

With the proposed on-site and off-site parking spaces, the proposed project would provide 139 parking spaces, which is consistent with the parking demand estimated using the ULI methodology but less than the 164 parking spaces required by Development Code. A condition of project approval would require the preparation of a Parking Management Plan to oversee the management of parking at the hotel and provide a plan for accommodating parking during peak season and for large events. Additionally, the proposed project would require payment of an in lieu parking fee. Under Municipal Code Section 19.48.050.C (In-Lieu Parking Fee), a developer need not provide all of the parking spaces required for a commercial use if an in-lieu fee is approved by the Planning Commission and contributed by the developer to a parking improvement trust fund. A condition of project approval would require payment of the in-lieu fee prior to issuance of an occupancy permit.

Historic Preservation and Infill in the Historic Zone: The project site has a Historic Overlay District, which is intended to preserve structures that are historically or culturally significant. However, as discussed in Chapter 4.5, "Cultural and Tribal Resources," of this RDEIR, no historic structures would be demolished, and the proposed project would not affect the integrity or setting of any nearby historic structures (see also, *Historic Resource Evaluation for the Hotel Project Sonoma,* Knapp Architects 2015). Compliance with the standards and guidelines in City's Development Code Chapter 19.34 would ensure that the appearance and function of proposed development preserves and enhances the desired character of the Downtown District.

The proposed project would be subject to Design Review prior to issuance of a building permit as a condition of approval. As detailed in this RDEIR Section 4.5, Chapter 19.42 (Historic Preservation and Infill in the Historic Zone) of the City's Municipal Code is intended to safeguard the historic character of the City by recognizing and preserving historic and cultural resources by providing incentives and rehabilitation of historically and culturally significant resources, and by ensuring that development in the historic overlay zone is architecturally compatible. Development within the Historic Overlay District is subject to the provisions and guidelines set forth in Municipal Code Chapter 19.42, as well as the City-required design review to ensure development within the Historic Overlay District is compatible with the historic character of the City. The project site is within the Sonoma Historic Overlay District. The proposed project would be reviewed against the guidelines in Municipal Code Section 19.42.050 and conditioned, as needed.

Related to Municipal Code Section 19.42.050 (Guidelines for Infill Development), the proposed project would keep existing access points and addresses the West Napa Street right-of-way. While this section suggests that parking should be at the rear of the parcel, the project proposes most of the parking as subterranean, with a relatively small number of surface spaces near West Napa Street and First Street West. The building setback along West Napa Street is essentially the same as neighboring properties and others in the vicinity. The project proposes to incorporate materials and decorative elements found in historic buildings in the Downtown District including but not limited to: troweled plaster, natural stained wood, stone veneer-clad walls, board and batten siding, corrugated metal roofing, and split-faced, cut stone features similar to Sonoma City Hall, the Swiss Hotel, and other historic buildings along East Napa Street. To break down the overall height, massing, and scale of the hotel, the design staggers the upper floor plates and third floor roof surfaces back from the street and hotel plaza courtyard. The project proposes balconies and porches.

Affordable Housing: The project proposes the construction of eight residential units. The proposed project would be required to comply with Chapter 19.44 (Affordable Housing and Density Bonuses), which requires 25 percent of the units to be deed restricted affordable housing units in perpetuity.

Downtown Sonoma Historic Preservation Design Guidelines: Related to the City's Downtown Sonoma Historic Preservation Design Guidelines, as noted, the proposed project would use materials and decorative elements found in historic buildings in the Downtown District including but not limited to troweled plaster, natural stained wood, stone veneer-clad walls, board and batten siding, corrugated metal roofing, and split-faced, cut stone features similar to Sonoma City Hall, the Swiss Hotel, and other historic buildings along East Napa Street. Exterior detailing would include custom stone, steel, and plaster finishes, timber and precast corbel blocks and miscellaneous running trim. Guest rooms would include exterior custom metal balconies and railing systems. The project site is adjacent to the existing three-story Lynch Building and across West Napa Street from a variety of tall street-wall type buildings. To break down the overall height, massing, and scale of the hotel, the design staggers the upper floor plates and third floor roof surfaces back from the street and hotel plaza courtyard. Sloped roofs with dormers will fold over the third story of the building façade to lower the appearance of the third-story roofline. As recommended in the Guidelines, other scale reduction strategies would be implemented as a part of the proposed project, including articulation of the exterior facades with exterior wooden arcades, dormers, balconies, awnings, recessed entry doors, porches, and window seats. The hotel's street frontage and courtyards would include street trees in planters, fountains, and other landscaping features.

Specific impacts and project consistency issues associated with other resource and issue areas are addressed in each topic area section of this RDEIR. These topic area sections (e.g., air quality, biological and cultural resources, noise, and transportation) analyze other relevant physical environmental effects that could result from implementation of the proposed project, and identify mitigation measures, as necessary, to reduce impacts.

Development of the proposed project would not conflict with adopted City General Plan policies, land use designations, or City zoning in any way that would lead to any adverse physical environmental impacts beyond those identified and addressed in the environmental topic area sections of this RDEIR. Thus, this impact is considered **less than significant**.

Mitigation Measure: No mitigation measures are required.

4.11 NOISE AND VIBRATION

This section includes a description of ambient noise conditions, a summary of applicable regulations related to noise and vibration, and an analysis of the potential impacts resulting from the implementation of the proposed project. Mitigation measures are recommended, as necessary, to reduce potentially significant noise and vibration impacts.

4.11.1 ENVIRONMENTAL SETTING

ACOUSTIC FUNDAMENTALS

Noise is generally defined as sound that is loud, disagreeable, unexpected, or unwanted. Sound, as described in more detail below, is mechanical energy transmitted in the form of a wave because of a disturbance or vibration, and as any pressure variation in air that the human ear can detect.

Sound Properties

A sound wave is introduced into a medium (air) by a vibrating object. The vibrating object (e.g., vocal cords, the string and sound board of a guitar, the diaphragm of a radio speaker) is the source of the disturbance that moves through the medium. Regardless of the type of source that creates the sound wave, the particles of the medium through which the sound moves are vibrating in a back-and-forth motion at a given frequency (pitch).[1] A commonly used unit for frequency is cycles per second, called hertz (Hz).[2]

A wave is an energy transport phenomenon that transports energy along a medium. The amount of energy carried by a wave is related to the amplitude (loudness) of the wave. A high-energy wave is characterized by high amplitude; a low-energy wave is characterized by low amplitude. The amplitude of a wave refers to the maximum amount of displacement of a particle from its rest position. The energy transported by a wave is directly proportional to the square of the amplitude of the wave. This means that a doubling of the amplitude of a wave is indicative of a quadrupling of the energy transported by the wave.

1 The frequency of a wave refers to how often the particles vibrate when a wave passes through the medium. The frequency of a wave is measured as the number of complete back-and-forth vibrations of a particle per unit of time. If a particle of air undergoes 1,000 longitudinal vibrations in two seconds, then the frequency of the wave would be 500 vibrations per second.

2 Each particle vibrates as a result of the motion of its nearest neighbor. For example, the first particle of the medium begins vibrating at 500 Hz and sets the second particle of the medium into motion at the same frequency (500 Hz). The second particle begins vibrating at 500 Hz and sets the third particle into motion at 500 Hz. The process continues throughout the medium; hence each particle vibrates at the same frequency, which is the frequency of the original source. A guitar string vibrating at 500 Hz will set the air particles in the room vibrating at the same frequency (500 Hz), which carries a sound signal to the ear of a listener that is detected as a 500-Hz sound wave. The back-and-forth vibration motion of the particles of the medium would not be the only observable phenomenon occurring at a given frequency. Because a sound wave is a pressure wave, a detector could be used to detect oscillations in pressure from high to low and back to high pressure. As the compression (high-pressure) and rarefaction (low-pressure) disturbances move through the medium, they would reach the detector at a given frequency. For example, a compression would reach the detector 500 times per second if the frequency of the wave were 500 Hz. Similarly, a rarefaction would reach the detector 500 times per second if the frequency of the wave were 500 Hz. Thus, the frequency of a sound wave refers not only to the number of back-and-forth vibrations of the particles per unit of time, but also to the number of compression or rarefaction disturbances that pass a given point per unit of time. A detector could be used to detect the frequency of these pressure oscillations over a given period of time. The period of the sound wave can be found by measuring the time between successive high-pressure points (corresponding to the compressions) or the time between successive low-pressure points (corresponding to the rarefactions). The frequency is simply the reciprocal of the period; thus, an inverse relationship exists so that as frequency increases, the period decreases, and vice versa.

Sound and the Human Ear

Because of the ability of the human ear to detect a wide range of sound-pressure fluctuations, sound-pressure levels are expressed in logarithmic units called decibels (dB) to avoid a very large and awkward range in numbers. The sound-pressure level in decibels is calculated by taking the log of the ratio between the actual sound pressure and the reference sound pressure squared. The reference sound pressure is considered the absolute hearing threshold (Caltrans 2013). Use of this logarithmic scale reveals, for example, that the total sound from two individual sources, each measured at 65 A-weighted decibels (dBA), is 68 dBA, not 130 dBA; that is, doubling the source strength increases the sound pressure by 3 dBA.

Because the human ear is not equally sensitive to all sound frequencies, a specific frequency-dependent rating scale was devised to relate noise to human sensitivity. A dBA scale performs this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear. The basis for compensation is the faintest sound audible to the average ear at the frequency of maximum sensitivity. This dBA scale has been chosen by most authorities to regulate environmental noise. Typical indoor and outdoor noise levels using the A-weighted scale are presented in Exhibit 4.11-1.

With respect to how humans perceive and react to changes in noise levels, a 1-dBA increase is imperceptible, a 3-dBA increase is barely perceptible, a 6-dBA increase is clearly noticeable, and a 10-dBA increase is subjectively perceived as approximately twice as loud (Caltrans 2013), as presented in Table 4.11-1.[3]

Table 4.11-1. Subjective Reaction to Changes in Noise Levels of Similar Sources

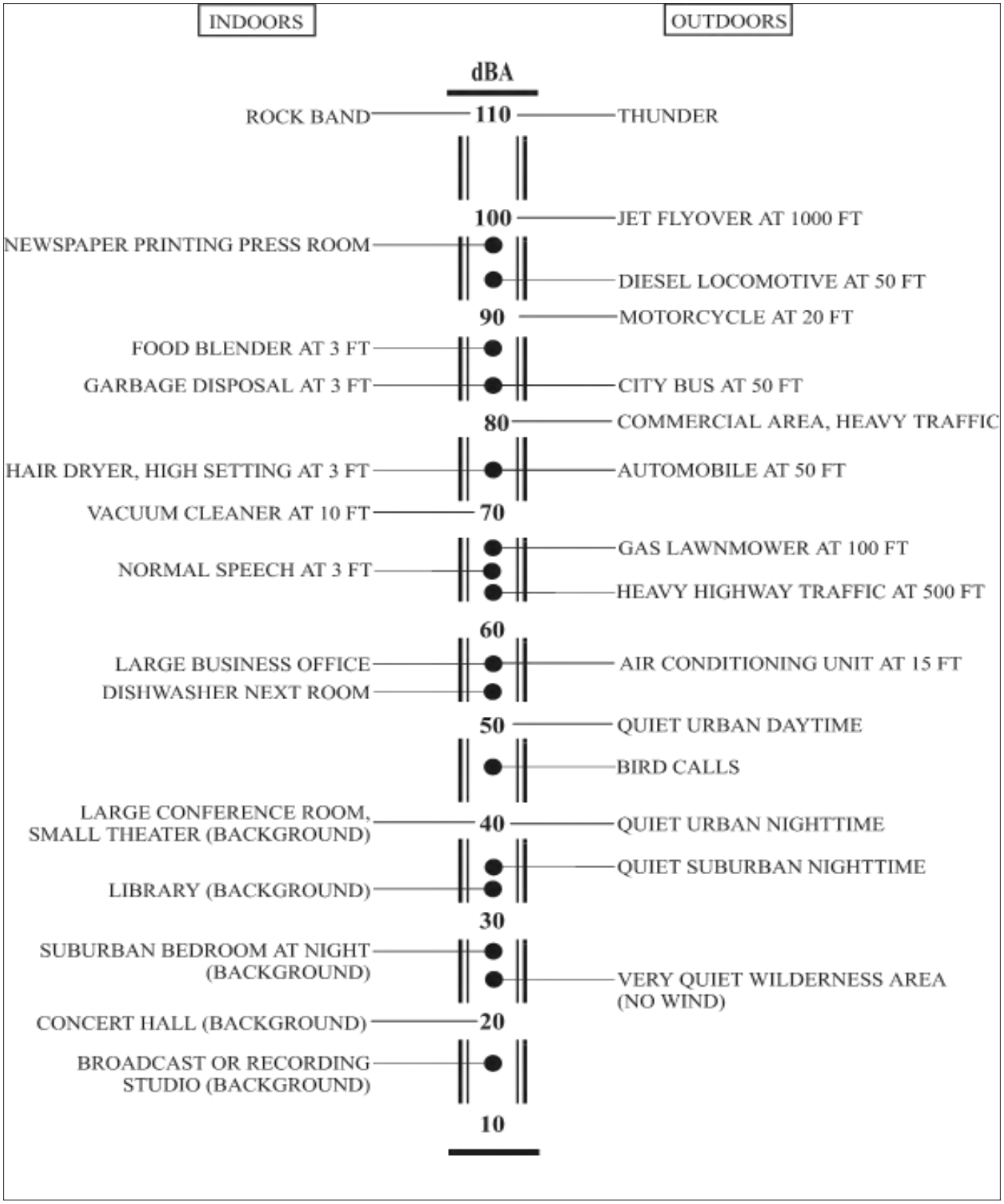
Change in Level, dBA	Subjective Reaction	Factor Change in Acoustical Energy
1	Imperceptible (except for tones)	1.3
3	Just barely perceptible	2.0
6	Clearly noticeable	4.0
10	About twice (or half) as loud	10.0

Note: dBA = A-weighted decibels
Source: Caltrans 2013

Sound Propagation and Attenuation

As sound (noise) propagates from the source to the receptor, the attenuation, or manner of noise reduction in relation to distance, is dependent on surface characteristics, atmospheric conditions, and the presence of physical barriers. The inverse-square law describes the attenuation caused by the pattern in which sound travels from the source to the receptor. Sound travels uniformly outward from a point source in a spherical pattern with an attenuation rate of 6 dBA per doubling of distance (dBA/DD). However, from a line source (e.g., a road), sound travels uniformly outward in a cylindrical pattern with an attenuation rate of 3 dBA/DD. The characteristics of the surface between the source and the receptor may result in additional sound absorption and/or reflection.

3 Table 4.11-1 was developed on the basis of the reactions of test subjects to changes in the levels of steady-state pure tones or broadband noise and to changes in levels of a given noise source. It is probably most applicable to noise levels in the range of 50–70 dBA, as this is the usual range of voice and interior noise levels.



Notes:
dBA = A-weighted decibels
Source: Caltrans 2013

Exhibit 4.11-1. Typical Noise Levels

Atmospheric conditions such as wind speed, temperature, and humidity may affect noise levels. The presence of a barrier between the source and the receptor may also attenuate noise levels. The actual amount of attenuation depends on the size of the barrier and the frequency of the noise. A noise barrier may be any natural or human-made feature such as a hill, tree, building, wall, or berm (Caltrans 2013).

All buildings provide some exterior-to-interior noise reduction. A building constructed with a wood frame and a stucco or wood sheathing exterior typically provides an approximate exterior-to-interior noise reduction of 25 dB with its windows closed, and 15 dB with its windows open (EPA 1974).

Noise Descriptors

The selection of a proper noise descriptor for a specific source depends on the spatial and temporal distribution, duration, and fluctuation of the noise. The noise descriptors most often encountered when dealing with traffic, community, and environmental noise are defined below (Caltrans 2013).

- **L_{max} (Maximum Noise Level):** The maximum instantaneous noise level during a specific period of time. The L_{max} may also be referred to as the "peak (noise) level."
- **L_{min} (Minimum Noise Level):** The minimum instantaneous noise level during a specific period of time.
- **L_{eq} (Equivalent Noise Level):** The energy mean (average) noise level. The instantaneous noise levels during a specific period of time in dBA are converted to relative energy values. From the sum of the relative energy values, an average energy value is calculated, which is then converted back to dBA to determine the L_{eq}. In noise environments that are determined by major noise events, such as aircraft overflights, the L_{eq} value is heavily influenced by the magnitude and number of single events that produce the high noise levels.
- **L_{dn} (Day-Night Noise Level):** The 24-hour L_{eq} with a 10-dBA "penalty" for noise events that occur during the noise-sensitive hours between 10:00 p.m. and 7:00 a.m. In other words, 10 dBA is "added" to noise events that occur in the nighttime hours, and this generates a higher reported noise level when determining compliance with noise standards. The L_{dn} attempts to account for the fact that noise during this specific period of time is a potential source of disturbance with respect to normal sleeping hours.
- **CNEL (Community Noise Equivalent Level):** Similar to the L_{dn} described above, but with an additional 5-dBA "penalty" added to noise events that occur during the noise-sensitive hours between 7:00 p.m. and 10:00 p.m., which are typically reserved for relaxation, conversation, reading, and television. When the same 24-hour noise data are used, the reported CNEL is typically approximately 0.5 dBA higher than the L_{dn}.
- **SENL (Single-Event [Impulsive] Noise Level):** A receiver's cumulative noise exposure from a single impulsive noise event, which is defined as an acoustical event of short duration and involves a change in sound pressure above some reference value. SENLs typically represent the noise events used to calculate the L_{eq}, L_{dn}, and CNEL.

Community noise is commonly described in terms of the ambient noise level, which is defined as the all-encompassing noise level associated with a given noise environment. A common statistical tool to measure the ambient noise level is the average, or equivalent, sound level L_{eq}, which corresponds to a steady-state, A-weighted sound level containing the same total energy as a time-varying signal over a given time period (usually 1 hour).

The L_{eq} is the foundation of the composite noise descriptors such as L_{dn} and CNEL, as defined above, and correlates well with community response to noise.

Negative Effects of Noise on Humans

Negative effects of noise exposure include physical damage to the human auditory system, interference, and disease. Exposure to noise may result in physical damage to the auditory system, which may lead to gradual or traumatic hearing loss. Gradual hearing loss is caused by sustained exposure to moderately high noise levels over a period of time; traumatic hearing loss is caused by sudden exposure to extremely high noise levels over a short period. Gradual and traumatic hearing loss both may result in permanent hearing damage. In addition, noise may interfere with or interrupt sleep, relaxation, recreation, and communication. Although most interference may be classified as annoying, the inability to hear a warning signal may be considered dangerous. Noise may also be a contributor to diseases associated with stress, such as hypertension, anxiety, and heart disease. The degree to which noise contributes to such diseases depends on the frequency, bandwidth, and level of the noise, and the exposure time (Caltrans 2013).

Fundamental Noise Control Options

Any noise problem is generally composed of three basic elements: the noise source, a transmission path, and a receiver. The appropriate acoustical treatment for a given project should consider the nature of the noise source and the sensitivity of the receiver. The problem should be defined in terms of appropriate criteria (L_{dn}, L_{eq}, or L_{max}); the location of the sensitive receiver (inside or outside); and the time that the problem occurs (daytime or nighttime). Noise control techniques should then be selected to provide an acceptable noise environment for the receiving property while remaining consistent with local accessibility, safety, and aesthetic standards, as well as practical structural and economic limits. Fundamental noise control options are described below.

Setbacks

Noise exposure may be reduced by increasing the distance between the noise source and the receiving use. Setback areas can, for example, take the form of open space, frontage roads, recreational areas, and storage yards. The available noise attenuation from this technique is limited by the characteristics of the noise source but depending on the size of the setback can typically be approximately 4–6 dBA.

Barriers

Shielding by barriers can be obtained by placing walls, berms, or other structures (such as buildings) between the noise source and the receiver. The effectiveness of a barrier depends on blocking the line of sight between the source and receiver; effectiveness is improved when the sound must travel a longer distance to pass over the barrier than if it were traveling in a straight line from source to receiver. The difference between the distance over a barrier and a straight line between source and receiver is called the “path length difference,” and is the basis for calculating barrier noise reduction.

Barrier effectiveness depends upon the relative heights of the source, barrier, and receiver. In general, barriers are most effective when placed close to either the receiver or the source. An intermediate barrier location yields a

smaller path length difference for a given increase in barrier height than does a location closer to either source or receiver.[4] Earth, in the form of berms or the face of a depressed area, is also an effective barrier material.

There are practical limits to the noise reduction provided by barriers. For vehicle traffic or railroad noise, a noise reduction of 5–10 dBA is generally feasible. A 15-dBA noise reduction is sometimes possible, but a 20-dBA noise reduction is extremely difficult to achieve. Barriers usually are provided in the form of walls, berms, or berm/wall combinations.

Site Design

Buildings can be placed on a project site to shield noise-sensitive structures or areas from noise and uses and spaces that are less sensitive noise can be placed in areas with higher noise, while uses and spaces that are more noise sensitive can be placed away from nearby sources. Site design should guard against creating reflecting surfaces that may increase on-site noise levels. For example, two buildings placed at an angle facing a noise source may cause noise levels within that angle to increase by up to 3 dBA. The open end of U-shaped buildings should point away from noise sources for the same reason.

Building Façades

When interior noise levels are of concern in a noisy environment, noise reduction may be obtained through acoustical design of building façades. Standard construction practices provide a noise reduction of 10–15 dBA for building façades with open windows and a noise reduction of approximately 25 dBA when windows are closed. Thus, an exterior-to-interior noise reduction of 25 dBA can be obtained by requiring that building design include adequate ventilation systems, which allows windows on a noise-affected façade to remain closed under any weather condition.

Where greater noise reduction is required, acoustical treatment of the building façade is necessary. Reducing relative window area is the most effective control technique, followed by providing acoustical glazing (thicker glass or increased air space between panes) in frames with low air infiltration rates, using fixed (non-movable) acoustical glazing, or eliminating windows. Noise transmitted through walls can be reduced by increasing wall mass (using stucco or brick in lieu of wood siding), isolating wall members by using double or staggered stud walls, or mounting interior walls on resilient channels. Noise control for exterior doorways is provided by reducing door area, using solid-core doors, and by acoustically sealing door perimeters with suitable gaskets. Roof treatments may include the use of plywood sheathing under roofing materials.

Vegetation

Trees and other vegetation are often thought to provide significant noise attenuation. However, approximately 100 feet of dense foliage (so that no visual path extends through the foliage) is required to achieve a 5-dBA attenuation of traffic noise (Caltrans 2013). Thus, the use of vegetation as a noise barrier should not be considered a practical method of noise control unless large tracts of dense foliage are part of the existing landscape.

[4] For maximum effectiveness, barriers must be continuous and relatively airtight along their length and height. To ensure that sound transmission through the barrier is insignificant, barrier mass should be about four pounds per square foot, although a lesser mass may be acceptable if the barrier material provides sufficient transmission loss. Satisfaction of the above criteria requires substantial and well-fitted barrier materials, placed to intercept the line of sight to all significant noise sources.

Vegetation can be used to acoustically "soften" intervening ground between a noise source and a receiver, increasing ground absorption of sound and thus increasing the attenuation of sound with distance. Planting trees and shrubs also offers aesthetic and psychological value, and it may reduce adverse public reaction to a noise source by removing the source from view, even though noise levels will be largely unaffected. However, trees planted on the top of a noise-control berm can slightly degrade the acoustical performance of the barrier. This effect can occur when high-frequency sounds are diffracted (bent) by foliage and directed downward over a barrier.

The effects of vegetation on noise transmission are minor and are primarily limited to increased absorption of high-frequency sounds and to reducing adverse public reaction to the noise by providing aesthetic benefits.

Vibration Fundamentals

Vibration is the periodic oscillation of a medium or object. The rumbling sound caused by the vibration of room surfaces is called structure borne noise. Similar to noise, groundborne vibration and groundborne noise can be generated from construction and operational sources. If vibration levels are high enough, groundborne vibration has the potential to damage structures, cause cosmetic damage (e.g., crack plaster), or disrupt the operation of vibration-sensitive equipment. Groundborne vibration and groundborne noise can also be a source of annoyance to individuals who live or work close to vibration-generating activities. Ground-borne noise is the noise generated by the indoor movement of room surfaces, such as walls, resulting from groundborne vibration.

Vibration Descriptors

As is the case with airborne sound, groundborne vibration may be described by amplitude and frequency. Vibration levels are usually expressed as a single-number measure of vibration magnitude in terms of velocity or acceleration, which describes the severity of the vibration without the frequency variable. Vibration amplitudes are usually expressed in peak particle velocity (PPV) or root mean square (RMS), as in RMS vibration velocity. PPV is defined as the maximum instantaneous positive or negative peak of a vibration signal. PPV is defined as the maximum instantaneous positive or negative peak of a vibration signal. PPV and RMS are normally described in inches per second (in/sec). PPV is often used in monitoring of vibration because it is related to the stresses that are experienced by buildings (Federal Transit Administration [FTA] 2018).

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 period of one second. Like airborne sound, the RMS velocity is often expressed in decibel notation, as vibration decibels (VdB), which serves to compress the range of numbers required to describe vibration (FTA 2018). This is based on a reference value of one microinch per second (μin/sec).

Human response to ground vibration has been correlated best with the velocity of the ground. The velocity of the ground is expressed on the decibel scale. The reference velocity is 1×10^{-6} inch/second RMS, which equals zero VdB, and one inch/second equals 120 VdB. The abbreviation "VdB" is used in this document for vibration decibels to reduce the potential for confusion with sound decibels. One of the problems with developing suitable criteria for groundborne vibration is the limited research into human response to vibration and, more importantly, human annoyance inside buildings. The U.S. Department of Transportation, Federal Transit Administration has

developed vibration limits that can be used to evaluate human annoyance to groundborne vibration. These criteria are discussed in greater detail in the Regulatory Framework section below.

Vibration Sources

Sources of groundborne vibration include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) or human-made causes (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous, or transient, or random. Continuous vibrations result from operating factory machinery, vibratory pile drivers, large pumps, horizontal directional drilling, and compressors. Transient vibrations are generated by explosions, blasting, impact pile driving, and wrecking balls. Random vibration can result from jackhammers, pavement breakers, and heavy construction equipment.

The primary vibration sources associated with transportation system operations include heavy truck and bus traffic along roadways and train traffic along rail lines. Vehicle traffic, including heavy trucks traveling on a highway, rarely generates vibration amplitudes high enough to cause structural or cosmetic damage. In some cases, however, heavy trucks traveling over potholes or other discontinuities in the pavement have caused vibration high enough to result in complaints from nearby residents; these complaints typically can be resolved by smoothing the roadway surface.

Construction activities can generate groundborne vibrations, which can pose a risk to nearby structures. Constant or transient vibrations can weaken structures, crack facades, and disturb occupants (FTA 2018). Heavy construction operations can cause substantial groundborne vibration in proximity to the source. Construction operations generally include a wide range of activities that can generate groundborne vibration, which varies in intensity depending on several factors. In general, blasting and demolition of structures, as well as pile driving and vibratory compaction equipment generate the highest vibrations. Because of the impulsive nature of such activities, the use of the PPV has been routinely used to measure and assess groundborne vibration and almost exclusively to assess the potential of vibration to induce structural damage and the degree of annoyance for humans. Vibratory compactors or rollers, pile drivers, and pavement breakers can generate perceptible amounts of vibration at up to 200 feet. Heavy trucks can also generate groundborne vibrations, which can vary, depending on vehicle type, weight, and pavement conditions. Potholes, pavement joints, discontinuities, differential settlement of pavement, etc., all increase the vibration levels from vehicles passing over a road surface. Construction vibration is normally of greater concern than vibration from normal traffic flows on streets and freeways with smooth pavement conditions.

Effects of Vibration

The effects of groundborne vibration include movement of building floors, rattling of windows, shaking of items that sit on shelves or hang on walls, and rumbling sounds. In extreme cases, vibration can damage buildings, although this is not a factor for most projects. Human annoyance from groundborne vibration often occurs when vibration exceeds the threshold of perception by only a small margin. A vibration level that causes annoyance is generally well below the damage threshold for normal buildings.

Vibrations transmitted through the ground during construction equipment operations or transportation system operations may annoy people and detrimentally affect structures and sensitive devices. Where construction vibration does cause structural damage, it is through direct damage and/or vibration-induced settlement. Structural damage depends on the frequency of the vibration at the structure, as well as the condition of the structure and its

foundation. Human annoyance by vibration is related to the number and duration of events. The more events or the greater the duration, the more annoying it will be to humans.

Table 4.11-2 displays the reactions of people and the effects on buildings that vibration levels produce. The annoyance levels shown in Table 4.11-2 should be interpreted with care since vibration may be found to be annoying at much lower levels than those shown, depending on the level of activity or the sensitivity of the individual. To sensitive individuals, vibrations approaching the threshold of perception can be annoying. Low-level vibrations frequently cause irritating secondary vibration, such as a slight rattling of windows, doors, or stacked dishes. The rattling sound can give rise to vibration complaints, though there is little or no risk of structural damage.

Table 4.11-2. Reaction of People and Damage to Buildings from Vibration Levels

Velocity Level, PPV (in/sec)	Vibration Level, VdB	Human Reaction	Effect on Buildings
0.01	68	Barely perceptible	No effect
0.04	80	Distinctly perceptible	Vibration unlikely to cause damage of any type to any structures
0.08	86	Distinctly perceptible to strongly perceptible	Recommended upper level of the vibration to which ruins and ancient monuments should be subjected
0.1	88	Strongly perceptible	Virtually no risk of damage to normal buildings
0.3	98	Strongly perceptible to Severe	Threshold at which there is a risk of damage to newer residential structures
0.5	102	Severe – Vibration considered unpleasant	Threshold at which there is a risk of damage to newer residential structures

Notes: in/sec = inches per second; PPV = peak particle velocity; VdB = Vibration Decibel
Source: Caltrans 2020

"Architectural" damage can be classified as cosmetic only, such as minor cracking of building elements, while "structural" damage may threaten the integrity of a building. Safe vibration limits that can be applied to assess the potential for damaging a structure vary by researcher and there is no general consensus as to what amount of vibration may pose a threat for structural damage to a building. Construction-induced vibration that can be detrimental to the building is very rare and has only been observed in instances where the structure is in a high state of disrepair and the construction activity occurs immediately adjacent to the structure. Table 4.11-3 shows the criteria established by the Federal Transit Administration (FTA) for the likelihood of structural damage due to vibration.

Table 4.11-3. Groundborne Vibration Damage Criteria

Building Category	PPV (in/sec)	Lv (VdB)[a]
I. Reinforced concrete, steel, or timber (no plaster)	0.5	102
II. Engineered concrete and masonry (no plaster)	0.3	98
III. Non-engineered timber and masonry buildings	0.2	94
IV. Buildings extremely susceptible to vibration damage	0.12	90

Notes: in/sec = inches per second; PPV = peak particle velocity; Lv = Vibration Level; VdB = Vibration Decibel.
[a] RMS velocity calculated from vibration level (VdB) using the reference of one micro-inch/second.
Source: FTA 2018.

EXISTING NOISE ENVIRONMENT

Sensitive Receptors

Noise-sensitive land uses are generally considered to include those uses where quiet is an essential element of their intended purpose. This typically would include residences, schools, hospitals, nursing homes, retirement residences, places of worship, libraries, and sometimes parks, historic sites, cemeteries, and other places where low interior noise levels are essential.

There are multi-family homes to the south of the project site, a hotel to the west/southwest of the project site, restaurants with outdoor seating areas to the east and west of the project site, offices and apartments to the east of the project site, and retail and office uses to the east and north of the project site.

Community Noise Survey

A community noise survey was conducted on April 27 through April 28, 2022, to document the existing noise environment at various locations within the proposed project area. The dominant noise source identified during the ambient noise survey was traffic from State Route 12 (SR 12) and 1st Street West to the east of the project site.[5]

Community noise survey locations are shown in Exhibit 4.11-2. The L_{eq}, and L_{max} values were taken at each ambient noise measurement location presented in Table 4.11-4. During the survey, average daytime ambient noise levels ranged from 51 dB to 60 dB L_{eq}, with maximum noise levels that ranged from 66 dB to 75 dB L_{max}.

Table 4.11-4. Summary of Measured Ambient Noise Levels, dBA

Site	Location	Date	Duration	L_{dn}	Daytime (7 a.m.–10 p.m.) $L_{eq} \setminus L_{max}$	Nighttime (10 p.m.–7 a.m.) $L_{eq} \setminus L_{max}$
LT-1	Within Project Site (Northern Boundary)	4/27/22 – 4/28/22	24 Hour	55.5	54.0 \ 73.2	47.3 \ 67.7
LT-2	Within Project Site (Southern Boundary)	4/27/22 – 4/28/22	24 Hour	50.5	50.5 \ 68.8	40.4 \ 57.9
ST-1	East of Project Site (Krave Jerky Outside Seating Area)	4/28/22	17 Minutes	--	52.4 \ 65.5	--
ST-2	West of Project Site along 1st West Street	4/28/22	15 Minutes	--	55.3 \ 67.5	--
ST-3	North of the Project Site along SR 12	4/28/22	15 Minutes	--	59.8 \ 74.8	--

Notes: dB = A-weighted decibels; L_{dn} = day-night average noise level; L_{eq} = the equivalent hourly average noise level; L_{max} = maximum noise level.

Monitoring locations correspond to those depicted in Exhibit 4.11-2.

Source: Data collected by AECOM 2022.

5 Measurements of noise levels were taken in accordance with ANSI standards. Continuous 24-hour, long-term monitoring of noise levels was conducted at three locations in the City using Larson Davis Laboratories (LDL) Model 820 sound-level meters. The sound-level meters were calibrated before and after use with an LDL Model CAL200 acoustical calibrator to ensure that the measurements would be accurate. The equipment used meets all pertinent specifications of the ANSI for Type 1 sound-level meters (ANSI S1.4-1983[R2006]).

Existing Noise Sources

Existing vehicle traffic noise levels in the proposed project area were modeled using the Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model (FHWA-RD-77-108)[6] and traffic data was used from the traffic study for the proposed project (W-Trans 2022).

Table 4.11-5 summarizes the modeled traffic noise levels at 50 feet from the centerline of roadways for existing weekday conditions, and lists distances from the roadway centerlines to the 60 dB, 65 dB, and 70 dB L_{dn} traffic noise contours. As shown in Table 4.11-5, the location of the 60 dB L_{dn} contour ranges from 15 to 208 feet from the centerline of the modeled surface street roadways.

Table 4.11-5. Summary of Modeled Levels of Existing (Weekday) Traffic Noise and Distance (feet) from Roadway Centerline to L_{dn} Contour

Roadway Segment	From	To	L_{dn} (dB) 50 Feet	Distance to 70 dB Contour	Distance to 65 dB Contour	Distance to 60 dB Contour
First Street West	West Spain Street	North of West Spain Street	59.1	4	13	41
First Street West	West Spain Street	South of West Spain Street	58.2	3	11	33
West Spain Street	First Street West	East of First Street West	62.2	8	26	83
West Spain Street	First Street West	West of First Street West	62.8	9	30	95
Fifth Street West	West Napa Street (SR 12)	North of West Napa Street (SR 12)	63.1	10	32	101
Fifth Street West	West Napa Street (SR 12)	South of West Napa Street (SR 12)	64.9	16	49	156
West Napa Street (SR 12)	Fifth Street West	East of Fifth Street West	65.1	16	51	160
West Napa Street (SR 12)	Fifth Street West	West of Fifth Street West	66.2	21	66	208
Second Street West	West Napa Street (SR 12)	North of West Napa Street (SR 12)	58.3	3	11	34
Second Street West	West Napa Street (SR 12)	South of West Napa Street (SR 12)	62.4	9	28	87
West Napa Street (SR 12)	Second Street West	East of Second Street West	64.1	13	40	128
West Napa Street (SR 12)	Second Street West	West of Second Street West	64.9	15	49	154
First Street West	West Napa Street (SR 12)	North of West Napa Street (SR 12)	58.5	4	11	35
First Street West	West Napa Street (SR 12)	South of West Napa Street (SR 12)	54.8	2	5	15
West Napa Street (SR 12)	First Street West	East of First Street West	64.2	13	41	130
West Napa Street (SR 12)	First Street West	West of First Street West	64.0	13	40	126
Broadway (SR 12)	Napa Street	North of Napa Street	55.9	2	6	20
Broadway (SR 12)	Napa Street	South of Napa Street	64.6	14	45	143
Napa Street	Broadway (SR 12)	East of Broadway (SR 12)	62.4	9	27	87
Napa Street	Broadway (SR 12)	West of Broadway (SR 12)	64.2	13	41	131
First Street East	East Napa Street	North of East Napa Street	60.0	5	16	50
First Street East	East Napa Street	South of East Napa Street	55.5	2	6	18
East Napa Street	First Street East	East of First Street East	60.7	6	18	58
East Napa Street	First Street East	West of First Street East	62.2	8	26	83

Notes: dB = A-weighted decibels; L_{dn} = day-night average noise level.
Source: Data modeled by AECOM in 2022

6 The FHWA model is based on CALVENO reference noise factors for automobiles, medium trucks, and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receptor, and ground attenuation factors.

Table 4.11-6 summarizes the modeled traffic noise levels at 50 feet from the centerline of roadways for existing weekend conditions, and lists distances from the roadway centerlines to the 60 dB, 65 dB, and 70 dB L_{dn} traffic noise contours. As shown in Table 4.11-6, the location of the 60 dB L_{dn} contour ranges from 5 to 189 feet from the centerline of the modeled surface street roadways.

The extent to which noise-sensitive uses in the area are affected by existing traffic noise depends on their respective proximity to the roadways and their individual sensitivity to noise. These traffic noise modeling results are based on existing average daily traffic (ADT) volumes obtained from the traffic study for the proposed project (W-Trans 2022).

Table 4.11-6. Summary of Modeled Levels of Existing (Weekend) Traffic Noise and Distance (feet) from Roadway Centerline to L_{dn} Contour

Roadway Segment	From	To	L_{dn} (dB) 50 Feet	Distance to 70 dB Contour	Distance to 65 dB Contour	Distance to 60 dB Contour
First Street West	West Spain Street	North of West Spain Street	59.9	5	16	49
First Street West	West Spain Street	South of West Spain Street	59.4	4	14	44
West Spain Street	First Street West	East of First Street West	61.5	7	23	71
West Spain Street	First Street West	West of First Street West	61.9	8	25	78
Fifth Street West	West Napa Street (SR 12)	North of West Napa Street (SR 12)	61.9	8	25	78
Fifth Street West	West Napa Street (SR 12)	South of West Napa Street (SR 12)	64.4	14	43	137
West Napa Street (SR 12)	Fifth Street West	East of Fifth Street West	64.3	13	43	134
West Napa Street (SR 12)	Fifth Street West	West of Fifth Street West	65.8	19	60	189
Second Street West	West Napa Street (SR 12)	North of West Napa Street (SR 12)	57.8	3	9	30
Second Street West	West Napa Street (SR 12)	South of West Napa Street (SR 12)	61.1	6	20	65
West Napa Street (SR 12)	Second Street West	East of Second Street West	63.8	12	38	120
West Napa Street (SR 12)	Second Street West	West of Second Street West	64.2	13	41	130
First Street West	West Napa Street (SR 12)	North of West Napa Street (SR 12)	59.1	4	13	41
First Street West	West Napa Street (SR 12)	South of West Napa Street (SR 12)	54.1	1	4	13
West Napa Street (SR 12)	First Street West	East of First Street West	63.7	12	37	118
West Napa Street (SR 12)	First Street West	West of First Street West	63.9	12	38	122
Broadway (SR 12)	Napa Street	North of Napa Street	49.7	0	1	5
Broadway (SR 12)	Napa Street	South of Napa Street	64.6	14	46	144
Napa Street	Broadway (SR 12)	East of Broadway (SR 12)	62.3	9	27	85
Napa Street	Broadway (SR 12)	West of Broadway (SR 12)	63.7	12	37	116
First Street East	East Napa Street	North of East Napa Street	60.1	5	16	51
First Street East	East Napa Street	South of East Napa Street	53.5	1	4	11
East Napa Street	First Street East	East of First Street East	60.6	6	18	58
East Napa Street	First Street East	West of First Street East	62.3	9	27	85

Notes: dB = A-weighted decibels; L_{dn} = day-night average noise level.
Source: Data modeled by AECOM in 2022

Source: AECOM 2022

Exhibit 4.11-2. Noise Monitoring Locations Map

Aircraft Noise

The nearest airport is the Sonoma Skypark Airport located approximately 2.3 miles to the southeast of the project site. Although the City may receive some noise from aircraft using these facilities, it does not fall within the airport land-use planning areas, runway protection zones, or the 55 dBA CNEL noise contours of any of these airports. Although single-event noise from over-flights could momentarily elevate noise levels, aircraft noise from these airports is considered to contribute minimally to the community noise environment.

Other Sources of Noise

Stationary sources of noise typically emanate from commercial and industrial activities and equipment. Whereas mobile-source noise affects many receptors along an entire length of roadway, stationary noise sources typically affect areas adjacent to the uses. Commercial noise is generated from HVAC systems, and loading dock activity. The nearest commercial uses are located immediately adjacent to the project site. Noise from commercial uses is audible at the project site due to the small distances from the sources.

4.11.2 REGULATORY FRAMEWORK

Various private and public agencies have established noise guidelines and standards to protect citizens from potential hearing damage and other adverse physiological and social effects associated with noise and vibration.

FEDERAL PLANS, POLICIES, REGULATIONS, AND LAWS

Although not directly applicable to the proposed project, the research that supported the development of federal community noise standards is broadly applicable in understanding human response to different noise levels and is summarized below for the reader's edification.

U.S. Environmental Protection Agency Noise Control Act

The Federal Noise Control Act of 1972 (Public Law 92-574) established a requirement that all federal agencies administer their programs to promote an environment free of noise that would jeopardize public health or welfare.[7] Although the EPA was given a major role in disseminating information to the public and coordinating federal agencies, each federal agency retains authority to adopt noise regulations pertaining to agency programs.[8]

In 1974, in response to the requirements of the federal Noise Control Act, the EPA identified indoor and outdoor noise level limits to protect public health and welfare (communication disruption, sleep disturbance, and hearing damage). Outdoor and indoor noise exposure limits of 55 dB L_{dn} and 45 dB L_{dn}, respectively, are identified as desirable to protect against speech interference and sleep disturbance for residential, educational, and healthcare areas. The sound-level criterion identified to protect against hearing damage in commercial and industrial areas is 70 dB 24-hour L_{eq} (both outdoors and indoors).

7 The U.S. Environmental Protection Agency (EPA) was given the responsibility for providing information to the public regarding identifiable effects of noise on public health and welfare, publishing information on the levels of environmental noise that will protect the public health and welfare with an adequate margin of safety, coordinating federal research and activities related to noise control, and establishing federal noise emission standards for selected products distributed in interstate commerce. The Noise Control Act also directed that all federal agencies comply with applicable federal, State, interstate, and local noise control regulations.

8 The EPA can, however, require other federal agencies to justify their noise regulations in terms of the Noise Control Act requirements.

The EPA's Office of Noise Abatement and Control was established to coordinate federal noise control activities. In 1981, EPA administrators determined that noise would be better addressed at lower levels of government. Consequently, in 1982 responsibilities for regulating noise control policies were transferred to state and local governments.

U.S. Department of Housing and Urban Development Noise Abatement and Control

The U.S. Department of Housing and Urban Development (HUD) has established guidelines for evaluating noise impacts on residential projects seeking financial support under various grant programs (HUD 2015), as summarized below:

- **Acceptable ≤ 65 dB.** Sites are generally considered acceptable for residential use if they are exposed to outdoor noise level of 65 dB L_{dn} or less.
- **Normally Unacceptable 65-75 dB.** Sites are considered "normally unacceptable" if they are exposed to outdoor noise levels of 65-75 dB L_{dn}.
- **Unacceptable > 75 dB.** Sites are considered "unacceptable" if they are exposed to outdoor noise levels above 75 dB L_{dn}.

The HUD goal for the interior noise levels in residences is 45 dB L_{dn} or less.

Federal Aviation Administration Airport Noise Compatibility Planning

14 CFR Part 150, "Airport Noise Compatibility Planning" prescribes the procedures, standards, and methodology to be applied to airport noise compatibility planning activities. Noise levels below 65 dB L_{dn} are normally considered to be acceptable for noise-sensitive land uses.

Federal Highway Administration Procedures for Abatement of Highway Traffic Noise and Construction Noise Regulations

FHWA regulations (23 CFR 772) specify procedures for evaluating noise impacts associated with federally funded highway projects and determining whether these impacts are sufficient to justify funding noise abatement. The FHWA noise abatement criteria are based on worst hourly L_{eq} sound levels, not 24-hour average values (e.g., L_{dn} or CNEL). The worst-hour L_{eq} criteria for residential, educational, and healthcare facilities are 67 dB outdoors and 52 dB indoors. The worst-hour L_{eq} criterion for commercial and industrial areas is 72 dB (outdoors).

U.S. Department of Transportation and U.S. EPA Vibration Guidelines

To address the human response to groundborne vibration, the FTA of the U.S. Department of Transportation has set forth guidelines for maximum-acceptable vibration criteria for different types of land uses. These include 65 VdB referenced to one µin/sec and based on RMS velocity amplitude for land uses where low ambient vibration is essential for interior operations (e.g., hospitals, high-tech manufacturing, laboratory facilities); 80 VdB for residential uses and buildings where people normally sleep; and 83 VdB for institutional land uses with primarily daytime operations (e.g., schools, churches, clinics, offices) (FTA 2018).

Standards have also been established to address the potential for groundborne vibration to cause structural damage to buildings. These standards were developed by the Committee of Hearing, Bio Acoustics, and Bio Mechanics

(CHABA) at the request of the U.S. Environmental Protection Agency (FTA 2018). For fragile structures, CHABA recommends a maximum limit of 0.25 in/sec PPV (FTA 2018).

STATE PLANS, POLICIES, REGULATIONS, AND LAWS

In 1971, the State required cities and counties to include noise elements in their general plans (Government Code Section 65302 et seq.). The State of California General Plan Guidelines (Office of Planning and Research 2017) identify guidelines for the noise elements of local general plans, including a sound level/land-use compatibility chart. The noise element guidelines identify the "normally acceptable" range of noise exposure for low-density residential uses as less than 60 dB L_{dn}, and the "conditionally acceptable" range as 55-70 dB L_{dn}. The "normally acceptable" range for high-density residential uses is identified as below 65 dB L_{dn}, and the "conditionally acceptable" range is identified as 60-70 dB L_{dn}. For educational and medical facilities, levels below 70 dB L_{dn} are considered "normally acceptable," and levels of 60-70 dB L_{dn} are considered "conditionally acceptable." For office and commercial land uses, levels below 70 dB L_{dn} are considered "normally acceptable," and levels of 67.5–77.5 dB L_{dn} are considered "conditionally acceptable." Overlapping noise level ranges are intended to indicate that local conditions (existing sound levels and community attitudes toward dominant sound sources) should be considered in evaluating land use compatibility at specific locations. The State's guidance for land use/noise compatibility is summarized in Table 4.11-7.

Table 4.11-7. Land Use Noise Compatibility Guidelines, Community Noise Exposure (CNEL/L_{dn}, dBA)

Land Use Category	Normally Acceptable[1]	Conditionally Acceptable[2]	Normally Unacceptable[3]	Clearly Unacceptable[4]
Residential-Low Density Single Family, Duplex, Mobile Home	<60	55–70	70–75	75+
Residential-Multiple Family	<65	60–70	70–75	75+
Transient Lodging, Motel, Hotel	<65	60–70	70–80	80+
School, Library, Church, Hospital, Nursing Home	<70	60–70	70–80	80+
Auditorium, Concert Hall, Amphitheater		<70	65+	
Sports Arenas, Outdoor Spectator Sports		<75	70+	
Playground, Neighborhood Park	<70		67.5–75	72.5+
Golf Courses, Stable, Water Recreation, Cemetery	<75		70–80	80+
Office Building, Business Commercial, and Professional	<70	67.5–77.5	75+	
Industrial, Manufacturing, Utilities, Agriculture	<75	70–80	75+	

Notes: CNEL = Community Noise Equivalent Level; dBA = A-weighted decibels; L_{dn} = day-night average noise level.

1 Specified land use is satisfactory, based on the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

2 New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features are included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

3 New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design. Outdoor areas must be shielded.

4 New construction or development should generally not be undertaken.

Source: OPR 2017

In 1984, State noise element provisions were revised to "recognize" guidelines prepared by the Office of Noise Control of the California Department of Health Services and to analyze and quantify, "to the extent practicable, as determined by the legislative body," noise from the following sources: highways and freeways; primary arterials and major local streets; passenger and freight online railroad operations and ground rapid transit systems; commercial, general aviation, heliport, helistop, and military airport operations, aircraft overflights, jet engine test stands, and other ground facilities and maintenance functions related to airport operation; local industrial plants, including, but not limited to, railroad classification yards; and other ground stationary noise sources identified by local agencies as contributing to the community noise environment. As noted in the draft update to the General Plan Guidelines, the Office of Planning and Research notes that the Department of Health Services Office of Noise Control no longer exists, and the guidelines have been incorporated into the General Plan Guidelines for Noise Elements (OPR 2017).

Also, a part of the draft General Plan Guidelines is a discussion regarding the balance between environmental noise and other planning objectives, including the recognition that developed infill locations may experience higher levels of noise but are often desirable places to live and work for the very reason that they are active. Moreover, there are design strategies that can reduce adverse exposure to noise even in areas with relatively higher ambient noise levels (OPR 2017).

State of California Building Code

The State of California's noise insulation standards are codified in the California Code of Regulations, Title 24, Building Standards Administrative Code, Part 2, California Building Code. These noise standards are applied to new construction in California for the purpose of ensuring that the level of exterior noise transmitted to, and received within the interior living spaces of buildings is compatible with their comfortable use. For new residential dwellings, hotels, motels, dormitories, and school classrooms, the acceptable interior noise limit for new construction is 45 dBA CNEL or L_{dn}. Title 24 requires acoustical studies for development in areas exposed to more than 60 dBA CNEL to demonstrate that the structure has been designed to limit interior noise in habitable rooms to acceptable noise levels. Where exterior noise levels are projected to exceed 60 dBA CNEL or L_{dn} at the façade of a building, a report must be submitted with the building plans describing the noise control measures that have been incorporated to meet the 45 dBA noise limit.

California Department of Transportation

For the protection of fragile, historic, and residential structures, Caltrans recommends a threshold of 0.2 in/sec PPV for normal residential buildings and 0.08 in/sec PPV for old or historically significant structures (Caltrans 2020). Table 4.11-8 shows structural responses to vibration levels for different types of structures.

Table 4.11-8. Structural Responses to Vibration Levels, Peak Vibration Threshold (in/sec PPV)

Structure and Condition	Peak Vibration Threshold (in/sec PPV) Transient Sources	Peak Vibration Threshold (in/sec PPV) Continuous/Frequent Intermittent Sources
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some old buildings	0.5	0.25
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5

Notes: in/sec = inches per second; PPV = peak particle velocity

Source: Caltrans 2020

REGIONAL AND LOCAL PLANS, POLICIES, REGULATIONS, AND ORDINANCES

City of Sonoma General Plan Noise Element

The City General Plan contains policies related to noise in its Noise Element. The relevant goal, policies, and implementation measures are listed in Table 4.11-9. The Noise Element describes how ambient noise should influence land use and development decisions and includes a table of normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable uses at different noise levels expressed in CNEL. The City's land use-noise compatibility guidelines are shown in Table 4.11-10.

Table 4.11-9. Sonoma General Plan Goal, Policies, and Implementation Measures

Goal/Policy/ Implementation Number	Goal/Policy/ Implementation Text
Goal PS-1	Achieve noise compatibility between existing and new development to preserve the quiet atmosphere of Sonoma and quality of life.
Policy 1.1	Apply the following standards for maximum L_{dn} levels to citywide development: 45 L_{dn}: For indoor environments in all residential units. 60 L_{dn}: For outdoor environments around all residential developments and outdoor public facilities (e.g., parks). 65 L_{dn}: For outdoor environments around commercial and public buildings (libraries and churches). 70 L_{dn}: For outdoor environments around industrial buildings.
Implementation Measure 1.1.1	Require all acoustical analyses necessary to demonstrate project compliance with City standards to contain: A summary of noise data collected, including identification of noise sources and their characteristics, a description of the methodology used to determine noise levels, and quantification of existing and future L_{dn} on the site. Figures illustrating the spatial relationship of noise sources and the project site. A description of project-related impacts on noise levels in the surrounding area, based on the standards adopted in this element. Specifications for noise mitigation measures and an analysis of their effectiveness in mitigating noise levels to accepted standards.
Policy 1.2	Consider imposing more restrictive standards in locations that may be especially sensitive to noise.
Implementation Measure 1.2.1	Monitor noise complaint reports annually to determine if existing regulations are maintaining acceptable community-wide noise levels and/or sensitivity thresholds.
Policy 1.3	Require adequate mitigation of potential noise from all proposed development.
Implementation Measure 1.3.1	Require project design modifications as necessary to adequately mitigate potential noise impacts, including: ► Locating usable outdoor areas (yards, patios, balconies) and noise-sensitive indoor areas (bedrooms, living rooms, windows) where noise levels will be lowest. ► Locating noise-compatible uses (open space, parking garages, other buildings) to shield noise-sensitive uses (e.g., residences, hospitals, convalescent homes) from major noise sources. ► Using berms, walls, fences, setbacks, dense plantings, and other buffers to shield projects from noise sources.
Policy 1.4	Evaluate proposed development using the Noise Assessment Guide and require an acoustical study when it is not certain that a proposed project can adequately mitigate potential noise impacts.
Implementation	Implemented through the project review process and the Noise Assessment Guide.
Policy 1.5	Encourage all development to minimize noise intrusions through project design.
Implementation	See measure 1.3.1, above.
Policy 1.6	Minimize noise impacts of vehicle idling.
Implementation Measure 1.6.1	Require buses and trucks parked anywhere in the city for longer than five minutes to shut off their engines, except when they are actively unloading or loading passengers or goods.

Source: Sonoma General Plan, 2006, Chapter 6, Noise Element.

Table 4.11-10. Acceptable Outdoor Noise Levels

Facility	Clearly Acceptable 55	Normally Acceptable 60	Conditionally Acceptable 65	Normally Unacceptable 70	Clearly Unacceptable 75
Residential Single-family dwellings, duplexes, condominiums, apartments, hotels					
Outdoor Public Facilities Neighborhood Parks, amphitheaters, cemeteries					
Public Buildings Schools, Libraries, Churches, nursing homes					
Commercial Offices, retail businesses, and professional facilities					
Industrial Manufacturing, utilities, and agricultural facilities					

Clearly Acceptable: The activities associated with the specified use can be carried out with virtually no interference from noise.
Normally Acceptable: Occasional slight interference with outdoor activities may occur. Conventional structures will ensure that interior noise levels are compatible with indoor activities and with indoor activities if windows are open. New construction should only be undertaken following a noise study and subject to implementation of noise reduction measures to upgrade conditions to normally acceptable levels.
Conditionally Acceptable: The indicated noise levels will cause moderate interference with outdoor activities and with indoor activities if windows are open. New construction should only be undertaken following a noise study and subject to the implementation of noise reduction measures to upgrade conditions to normally acceptable levels.
Normally Unacceptable: Noise will create substantial interference with indoor and outdoor activities. New construction should be discouraged. If construction does occur, noise mitigation should be required to bring exterior levels up to normally acceptable levels and interior levels in compliance with state law.
Clearly Unacceptable: Unacceptable noise intrusion upon land-use activities will occur. Adequate structural insulation will be impractical under most circumstances. New construction is generally not recommended.

Note: Although not specifically defined in the Sonoma Noise Element, the above chart is assumed to be in terms of dBA CNEL.
Source: Sonoma General Plan, 2006, Chapter 6, Noise Element. Adapted from California General Plan Guidelines, 2003.

Sonoma Municipal Code

Chapter 9.56 of the City's Municipal Code provides additional provisions for restrictions and regulations for noise within the City. The following regulations shown in Table 4.11-11 are provided in the City's Municipal Code, which addresses construction and stationary operational noise.

Table 4.11-11. City of Sonoma Municipal Code Noise Standards

Property Type or Zone	Daytime Limits	Nighttime Limits
Residential	Intermittent: 60 dBA Constant: 50 dBA	Intermittent: 50 dBA Constant: 40 dBA
Mixed Use	Intermittent: 65 dBA Constant: 55 dBA	Intermittent: 55 dBA Constant: 45 dBA
Commercial	Intermittent: 65 dBA Constant: 55 dBA	Intermittent: 65 dBA Constant: 55 dBA
Public Property	Most restrictive noise limit applicable to adjoining private property	Most restrictive noise limit applicable to adjoining private property

9.56.050 Standard exceptions to general noise limits.

The following standard exceptions to the provisions of the Sonoma Municipal Code Section 9.56.050 shall be allowed as of right, to the extent, and during the hours specified.

> A. Construction. Except as otherwise provided in subsection (B) of this section, or by the planning commission or city council as part of the development review for the Project, on any construction project on property within the city, construction, alteration, demolition, maintenance of construction equipment, deliveries of materials or equipment, or repair activities otherwise allowed under applicable law shall be allowed as follows: (1) between 8:00 a.m. and 6:00 p.m., Monday through Friday, (2) between 9:00 a.m. and 6:00 p.m. on Saturday, and (3) between 10:00 a.m. and 6:00 p.m. on Sundays and holidays; however, the noise level at any point outside of the property plane of the Project shall not exceed 90 dBA.

9.56.060 Exceptions allowed with permit.

> A. In addition to the standard exceptions permitted pursuant to [Sonoma Municipal Code] SMC 9.56.050, the city planner or his designee may grant a permit allowing an exception from any or all provisions of this chapter where the applicant can show that a diligent investigation of available noise abatement techniques indicates that compliance with the requirements of this chapter would be impractical or unreasonable. Any such permit shall be issued with appropriate conditions to minimize the public detriment caused by the permitted exceptions. Any such permit shall be of such duration as approved by the city planner or [their] designee, up to a maximum period of three months, but shall be renewable upon a showing of good cause, and shall be conditioned by a schedule for compliance and details of methods thereof in appropriate cases. At the discretion of the city planner or [their] designee, an exception permit may be issued and reissued for successive short periods of time in order to allow monitoring of the adverse noise impacts of the excepted activity, and additional conditions may be imposed upon issuance of the permit, if the city planner or [their] designee determines that such additional conditions are necessary to mitigate noise impacts from the excepted activity to a level he deems acceptable under all the circumstances.
>
> B. Any application for an exception permit under this section shall be accompanied by a fee to be set by resolution of the city council.
>
> C. Any person aggrieved with the decision of the city planner or [their] designee may appeal to the city council, by writing filed with the city clerk within 10 business days after the date of such decision, however, such appeal shall not stay the effective date of the permit. (Ord. 03-2006 § 2, 2006).

Vibration Standards

Neither the City nor the County of Sonoma has quantitative regulatory standards for construction or operational vibration sources. For the purposes of this analysis, the FTA standards are used. The FTA provides criteria for acceptable levels of groundborne vibration for various types of land uses that are sensitive to vibration. These criteria can be separated into annoyance effects and architectural damage effects due to vibration. The limit for human annoyance is 80 VdB, and the limit for architectural damage is 0.200 in/sec PPV (FTA 2018).

4.11.3 ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

METHODOLOGY

Data included in RDEIR Chapter 3 (Project Description) and obtained during on-site noise monitoring was used to determine potential locations of sensitive receptors and potential noise- and vibration-generating uses in the proposed project area. Noise-sensitive uses and noise sources near the proposed project area were identified based on existing documentation (e.g., equipment noise levels and attenuation rates) and site reconnaissance.

To assess the impacts of potential short-term construction noise on sensitive receptors, the sensitive receptors and their relative exposure to the impacts were identified. Construction noise was predicted by using the Federal Highway Construction Noise Model (RCNM, FHWA 2006). The noise levels referenced, and the usage factors were based on the Federal Highway Administration Roadway Construction Noise Model. Construction vibration was estimated using Federal Transit Noise and Vibration Impact Assessment methodology (FTA 2018). Groundborne vibration impacts were assessed based on existing documentation (e.g., vibration levels produced by specific construction equipment operations) and the distance of sensitive receptors from the given source. The noise and vibration levels of the specific construction equipment that would be used and the resulting noise levels where sensitive receptors are located were calculated.

Traffic noise modeling was conducted based on average daily traffic volumes obtained from the analysis of a previous project request that included this proposed project area, as well as other areas. This is discussed in more detail in Section 4.13, "Transportation." The FHWA Highway Traffic Noise Prediction Model (FHWA RD 77-108) was used to calculate traffic noise levels along affected roadways, based on the trip distribution estimates as discussed in Section 4.13, "Transportation." The proposed project's contribution to the existing traffic noise levels along area roadways was determined by comparing the predicted noise levels at a reference distance of 50 feet from the roadway centerline for the baseline and cumulative conditions with and without project-generated traffic.

Potential noise impacts from long-term (operation-related) stationary sources were assessed based on existing documentation (e.g., equipment noise levels) and site reconnaissance data. This analysis also included an evaluation of noise-generating uses that could affect noise-sensitive receptors near the proposed project area.

THRESHOLDS OF SIGNIFICANCE

Based on Appendix G of the CEQA Guidelines, the proposed project would have a significant impact related to noise and vibration if it would:

- Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies: *(City of Sonoma Policies 1.1 through 1.6);*

- Generation of excessive groundborne vibration or groundborne noise levels (Vibration impacts would be significant if vibration levels would exceed the FTA's recommended standard of 0.2 in/sec PPV with respect to the prevention of structural damage for normal buildings and FTA's maximum-acceptable vibration standard of 80 VdB with respect to human response (i.e., annoyance) at nearby vibration-sensitive land uses, such as residences);

- For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, exposure for people residing or working in the project area to excessive noise levels *(Significant if the proposed project would expose people to excessive noise levels from an airport or private airstrip, or if located within the 55 dB L_{dn}/CNEL contour of any airport).*

ISSUES NOT DISCUSSED FURTHER

Excessive Noise from an Airport—Future development would not expose people to excessive noise levels from an airport or private airstrip. The nearest airport is the Sonoma Skypark Airport located approximately 2.3 miles to the southeast of the project site. Because the proposed project site is not in an area exposed to aircraft-generated noise levels (e.g., not within the 55 dB L_{dn}/CNEL contour of any airport), there would be no impact related to aircraft noise, and therefore this issue is not discussed further in this RDEIR.

IMPACT ANALYSIS

Impact 4.11-1 Temporary, short-term exposure of sensitive receptors to construction noise.

Implementation of the proposed project would have a significant impact if it would result in a substantial temporary or periodic increase in ambient noise levels above levels existing without implementation of the proposed project. Such temporary or periodic increases are typically associated with construction activity, which would last for approximately 18 months for the proposed project.

Temporary or periodic increases in ambient noise levels under implementation of the proposed project would chiefly result from construction activities associated with demolition, site preparation, grading, and construction.

Table 4.11-12 below shows typical noise levels generated by commonly used pieces of construction equipment. Typical equipment to be used for demolition and construction includes backhoes, cranes, excavators, graders, dozers, loaders, generators, welders, pavers, and loaders. As shown, construction equipment generates high levels of noise with maximums ranging from 71 dBA to 101 dBA. Noise from construction equipment dissipates with distance at a rate of 6 dBA per doubling distance. The loudest activities generally occur during demolition and site preparation where heavy earthmoving equipment is employed. The project site is in an area primarily developed with relatively less sensitive commercial uses, but there are uses in the vicinity that could be noise sensitive, including the apartments on the third floor of the Lynch Building; the Best Western Hotel; Krug Event Center; residences across West Napa Street, 1st Street, and 2nd Street; the Sonoma Valley Museum of Art; the Plaza; and Sonoma City Hall. These properties range in distance from adjacent to the proposed project site 715 feet from the boundary of the project site.

Table 4.11-12. Construction Equipment Noise Levels

Construction Equipment	Typical Noise Level (dBA) at 50 Feet	Construction Equipment	Typical Noise Level (dBA) at 50 Feet
Air Compressor	81	Pile-Driver (Impact)	101
Backhoe	80	Pile-Driver (Sonic)	96
Ballast Equalizer	82	Pneumatic Tool	85
Ballast Tamper	83	Pump	76
Compactor	82	Rail Saw	90
Concrete Mixer	85	Rock Drill	98
Concrete Pump	71	Roller	74
Concrete Vibrator	76	Saw	76
Crane, Derrick	88	Scarifier	83
Crane, Mobile	83	Scraper	89
Dozer	85	Shovel	82
Generator	81	Spike Driver	77
Grader	85	Tie Cutter	84
Impact Wrench	85	Tie Handler	80
Jack Hammer	88	Tie Inserter	85
Loader	85	Truck	88
Paver	89		

Source: Federal Transit Administration, Transit Noise, and Vibration Impact Assessment, 2018.

Construction of the proposed project would temporarily increase the ambient noise environment and would have the potential to affect noise-sensitive land uses in the vicinity. Significant noise impacts may occur from operation of heavy earthmoving equipment and truck hauling that would occur with demolition and construction of the proposed project.

Construction noise impacts typically occur when construction activities take place during noise-sensitive times of the day (e.g., early morning, evening, or nighttime hours) when construction activities occur immediately adjacent to noise-sensitive land uses, or when construction durations last over extended periods of time. Although construction activities may briefly or occasionally serve to elevate ambient noise levels at adjoining sensitive receptors, these impacts would generally be limited to the temporary demolition, site preparation, excavation, and grading periods. Construction would be localized and would occur intermittently for varying periods of time. Noise levels expected to be experienced by nearby sensitive receptors during construction activities are presented below in Table 4.11-13 and Table 4.11-14.

Average daytime ambient noise levels ranged from 51 dB to 60 dB L_{eq}, (see Table 4.11-4, above). Construction of the proposed project would temporarily increase the ambient noise environment in the vicinity of the project site. Limiting construction activities to daytime hours is a standard method to reduce the potential for construction noise impacts. As discussed previously, the City's Municipal Code prohibits construction activities except between 8:00 a.m. and 6:00 p.m. Monday through Friday, between 9:00 a.m. and 6:00 p.m. on Saturday, and between 10:00 a.m. and 6:00 p.m. on Sundays and holidays (Sonoma Municipal Code section 9.56.050.B). Additionally, the Municipal Code specifies that the noise level at any point outside of the subject property shall not exceed 90 dBA.

Table 4.11-13. Energy-Average (L_{eq}) Construction Noise Levels, dBA, By Phase, at Sensitive Receptors (Distances to Center of Construction)

Equipment	Krug Event Center, Lynch Bldg. Apartments (within 25 Feet)	Best Western (50 Feet)	Houses Across Napa Street (275 Feet)	Art Museum (375 Feet)	City Hall (715 Feet)	Apts. On 2nd St. (275 Feet)	House on Broadway (700 Feet)
Demolition	83	77	62	59	54	62	54
Site Prep	89	83	68	66	60	68	60
Rough Grading	86	80	65	62	57	65	57
Utility Trenching	84	78	64	61	55	64	55
Building Construction	87	81	66	64	58	66	58
Fine Grading	86	80	65	62	57	65	57
Architectural Coating	80	74	59	56	51	59	51
Site Paving	83	77	62	59	54	62	54
Finishing/ Landscaping	80	74	59	56	50	59	51

Source: PlaceWorks 2015.

Table 4.11-14. Maximum (L_{max}) Construction Noise Levels, dBA, by Phase at Sensitive Receptors (Distances to Edge of Construction)

Equipment	Best Western (50 Feet)	Krug Event Center and Lynch Bldg. Apartments (within 25 Feet)	Houses Across Napa St. (80 Feet)	Art Museum (160 Feet)	City Hall (580 Feet)	Apts. On 2nd St. (100 Feet)	House on Broadway (500 Feet)
Demolition	81	87	77	71	59	75	61
Site Prep	85	**91**	81	75	64	79	65
Rough Grading	84	**90**	80	74	63	78	64
Utility Trenching	81	87	77	71	59	75	61
Building Construction	81	87	77	70	59	75	61
Fine Grading	84	90	80	74	63	78	64
Architectural Coating	78	84	74	68	56	72	58
Site Paving	80	86	76	70	59	74	60
Finishing/Landscaping	78	84	74	67	56	72	58

Notes: Maximum noise level allowed outside of construction zone = 90 dBA.
Source: PlaceWorks 2015.

Even with this daytime-only restriction, construction-related activities would be a source of elevated noise levels around the project site. As shown in Table 4.11-14, above, locations within 25 feet from the project site could be exposed to noise levels above 90 dBA L_{max} without appropriate mitigation. Maximum noise levels would be sporadic and temporary. These activities could result in sound levels that would be discernible and potentially annoying for nearby residents (depending on the particular construction activity taking place and where each receptor is located with respect to the project site). Because construction activities will occur near noise-sensitive receptors and construction is expected to last for approximately 18 months, construction noise is considered a **significant** impact.

Mitigation Measure 4.11-1: Reduce Construction Noise

The project applicant and contractor(s) shall implement the following measures, which shall be identified in construction contracts and acknowledged by the contractor(s):

- Noise generating construction activities are prohibited on-site except between 8:00 a.m. and 6:00 p.m. Monday through Friday, between 9:00 a.m. and 6:00 p.m. on Saturday, and between 10:00 a.m. and 6:00 p.m. on Sundays and holidays.
- Construction equipment shall be properly maintained according to manufacturer specifications.
- All noise generating equipment used on-site shall use the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds);
- All air compressors and other stationary noise sources used on-site shall be "quiet" models, where commercially available. Select hydraulically- or electrically-powered equipment and avoid pneumatically powered equipment where commercially available. Impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for project demolition or construction shall be hydraulically- or electrically-powered wherever commercially available to avoid noise associated with compressed air exhaust from pneumatically powered tools. Where it is demonstrated to the City that the use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used. Quieter procedures shall be used, such as drills rather than impact equipment, whenever such procedures are available;
- Use all available quieter procedures and equipment (e.g., using welding instead of riveting, mixing concrete off-site instead of on-site);
- Locate stationary noise-generating equipment as far as possible from sensitive receptors adjacent to the project site. Construct temporary noise barriers or partial enclosures to acoustically shield on-site noise-generating stationary equipment located within 50 feet of the edge of the project site boundary;
- Prohibit unnecessary idling of internal combustion engines;
- Prior to initiation of on-site construction-related demolition or earthwork activities, a minimum 12-foot-high temporary sound barrier shall be erected along the property line adjacent to operational businesses and occupied residences. These temporary sound barriers shall be constructed with sound shielding properties and shall be constructed so that vertical or horizontal gaps are eliminated. These temporary barriers shall remain in place while heavy construction equipment, such as excavators, dozers, scrapers, loaders, rollers, pavers, and dump trucks, are operating within 50 feet of the edge of the construction site in any area adjacent to noise-sensitive uses;
- All construction-related traffic shall be limited to SR 12/West Napa Street in the vicinity of the project site and shall avoid streets with fronting noise-sensitive uses;
- Notify all businesses, residences or other noise-sensitive uses within 500 feet of the perimeter of the construction site of the construction schedule prior to the beginning of demolition and prior to each construction phase change that could potentially result in a temporary increase in ambient noise levels in the project vicinity;
- Signs shall be posted at the construction site that include permitted construction days and hours, a day and evening contact number for the job site, and a day and evening contact number for the on-site manager, and the City's Building Official, in the event of problems;

- An on-site manager shall be available to respond to and track noise and vibration complaints. The manager will determine the cause of any complaints (e.g., starting too early, bad muffler, etc.) and coordinate with the construction team to implement effective measures (considered technically and economically feasible) warranted to correct the problem. The telephone number of the manager shall be posted at the construction site and provided to properties within 500 feet of the project site in a notification letter. The manager shall notify the City's Building Official of all complaints within 24 hours. The manager will be trained to use a sound level meter and shall be available during all construction hours to respond to complaints; and
- A pre-construction meeting shall be held with the City's Building Official and the general contractor/on-site manager to confirm that noise measures and practices (including construction hours, neighborhood notification, posted signs, etc.) are fully operational.

Significance after Mitigation

With the implementation of Mitigation Measure 4.11-1, construction would be limited to daytime hours and impacts from temporary, short-term exposure of sensitive receptors to increased equipment noise from the project would be reduced. Where possible, construction equipment activity would occur in locations away from the edges of the project site, at a relatively greater distance from adjacent properties, which would attenuate noise levels by 5 dB or more based on the distance. Properly maintaining the equipment and equipping with noise-reduction intake and exhaust mufflers and engine shrouds; shutting down all motorized equipment when not in use to prevent idling; using available quieter procedures and equipment (e.g., using welding instead of riveting, mixing concrete off-site instead of on-site); and using noise-reducing enclosures around stationary noise-generating equipment (e.g., compressors and generators) could further reduce project construction noise levels by at least 5 dB. When installed properly, acoustic barriers can reduce construction noise levels by approximately 8–10 dB (EPA 1971). Residential receptors in the third-floor apartments of the Lynch Building would not be expected to experience reductions of this magnitude due to this temporary sound barrier. However, they will receive benefits in construction noise reductions from the other portions of this mitigation measure. The resulting combined noise levels of approximately 20 dB would reduce proposed project noise levels to below the threshold of 90 dB at the edge of the project site. However, construction of the proposed project would temporarily generate noise above existing ambient levels that would be perceptible at nearby properties. As discussed in Chapter 3 (Project Description) and elsewhere in this RDEIR, construction is expected to last approximately 18 months. There is no additional feasible mitigation, and therefore the City has determined that this impact would be **significant and unavoidable**.

Impact 4.11-2: Temporary, short-term exposure of sensitive receptors to increased traffic noise levels from project construction.

The proposed project would increase traffic volumes due to the addition of construction-generated traffic. Traffic noise levels associated with the proposed project were calculated for roadway segments in the vicinity of the proposed project area. Traffic noise levels were modeled using the FHWA Highway Noise Prediction Model (FHWA-RD-77-108) under existing conditions, with and without construction traffic. Additional input data included day/night percentages of autos, medium and heavy trucks, vehicle speeds, ground attenuation factors, and roadway widths.

Construction-generated traffic on the local roadway network was analyzed based on a maximum assumed construction-related traffic volume of 200 vehicles daily and assuming 8-hour construction periods, the proposed

project would result in 63 construction vehicles per hour. This is a conservative assumption used for the purposes of analysis and reporting, as the proposed project is not anticipated to generate this level of construction traffic volume.

All materials would be transported using the local roadway network, thus increasing traffic volumes along affected roadway segments. Typically, an increase of 100 percent in traffic volumes along a roadway segment would result in a 3-dB increase in traffic noise along that segment of the roadway (Caltrans 2013). SR 12/West Napa Street carries approximately 15,000 vehicles per day. Broadway/SR-12, approximately 500 feet east of the site, is a 4-lane road with a posted speed limit of 35 miles per hour. Within the vicinity of the project site, Broadway carries a daily traffic volume of approximately 13,000. On-road vehicles, including cars, trucks, and buses, contribute to the noise environment of the area. The assumed maximum construction-related traffic volume of 200 vehicles per day would not cause an increase of more than 1 dB in traffic noise along the roadways surrounding the project site. Thus, implementation of the proposed project would not result in a substantial temporary or periodic increase in ambient noise levels in the vicinity of the proposed project area associated with construction traffic. As a result, this impact would be **less than significant**.

Mitigation Measures: No mitigation measures are required.

Impact 4.11-3: Temporary, short-term exposure of sensitive receptors to potential groundborne noise and vibration from project construction.

For the purpose of this analysis, the FTA general vibration assessment methodology was used – this methodology was developed to guide analysis of rail and other transit-related project impacts, but the methods are appropriate for use in assessing the impact of other types of projects, as well. As such, a significant impact would occur if:

- Implementation of the project would exceed 80 VdB, the criteria for being distinctly perceptible by humans as presented in Table 4.11-2, at off-site sensitive receptors.
- Implementation of the project would result in vibration exceeding the criteria presented in Table 4.11-3 that could cause building architectural damage. For instance, for extremely fragile buildings, the criteria is 0.12 in/sec, for non-engineered timber and masonry buildings, the criteria is 0.2 in/sec; and for engineered concrete and masonry buildings, the criteria is 0.3 in/sec.

Construction Vibration Impacts

General Construction Vibration

Construction vibration would vary depending on the specific location and type of construction activity within the project site. Construction activities would include demolition of existing structures and parking lots, site preparation work, excavation for underground parking, grading, and building construction. Site preparation, excavation, and rough grading for the project are expected to last approximately three months and, at times, may produce substantial vibration. The proposed project would require demolition of existing buildings and existing hardscape would be demolished from the project site as part of the proposed project.

The effect on buildings in the vicinity of a construction site varies depending on soil type, ground strata, and receptor-building construction. The results from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibrations at moderate levels, to slight structural damage

at the highest levels. Vibration from construction activities rarely reaches levels that can damage structures, but groundborne vibration and groundborne noise can reach perceptible and audible levels in buildings that are very close to the construction site. This is especially true for grading activities, including bulldozers, that could cause a potential impact depending on their proximity to existing buildings.

Table 4.11-15 provides vibration levels at 25 feet for impact and heavy construction equipment, in terms of PPV (for structural damage) and VdB (for human annoyance). As shown, construction activities, such as caisson drilling, the use of jackhammers, rock drills, and other high-power or vibratory tools, and the use of rolling stock equipment (tracked vehicles, compactors, etc.) may potentially generate substantial vibration in the immediate vicinity of the project site. Pile driving is not necessary and will not be employed as a part of the proposed project.

Table 4.11-15. Typical Vibration Levels for Construction Equipment

Equipment	PPV at 25 Feet (in/sec)	Approximate L_v (VdB) at 25 Feet
Vibratory Roller	**0.21**	94
Large Bulldozer	0.089	87
Caisson Drilling	0.089	87
Jackhammer	0.035	79
Small Bulldozer	0.003	58
Loaded Trucks	0.076	86
Significance Threshold	0.2/0.08 [1]	80

Notes: in/sec = inches per second; Lv = the velocity level in decibels referenced to 1 microinch per second and based on the root mean square velocity amplitude; PPV = peak particle velocity; VdB = Vibration Decibel.
[1] For normal residential buildings and for buildings more susceptible to structural damage, respectively.
Sources: FTA 2018.

Vibration levels during construction would be highest during the grading and demolition phases. Maximum vibration levels measured at a distance of 25 feet from an individual piece of typical construction equipment rarely exceed the levels where they become strongly perceptible (0.1 PPV in inches per second, see Table 4.11-2, above) or the thresholds for damage at typical building structures (i.e., 0.2 to 0.5 PPV in inches per second).

In general, construction would be localized, would occur intermittently and variably, and would only occur for relatively short periods of time. Vibration-intense activities, such as the use of vibratory rollers, occurring in proximity of vibration sensitive receptors, such as residences and hotels, would have the potential to cause annoyance to persons in these buildings or to cause architectural damage in nearby buildings. As shown above, in Table 4.11-15, typical construction equipment such as bulldozers, jackhammers, and loaded trucks do not generate vibration levels above the applicable thresholds for vibration annoyance (0.1 in/sec) and damage (0.2 in/sec). However, if they are used, vibratory rollers would have the potential to generate vibration levels above the thresholds of annoyance and damage to existing and future buildings.

Architectural Damage

In addition to vibration-induced annoyance, proposed project-related construction vibration was evaluated for its potential to cause structural damage based on FTA's architectural damage criteria. The FTA threshold of 0.2 PPV inch per second is the point at which there is a risk of architectural damage to normal structures with plastered walls and ceilings. Since the potential architectural damage to structures is directly related to the amount of vibrational energy at the source being transmitted through the ground to the receptor structure, this assessment uses the maximum vibration velocity at a specific distance to the receptor (rather than the average vibration level, in VdB, on an area-wide basis; as with the vibration annoyance assessment above).

Table 4.11-16 shows the potential vibration levels (in PPV in inches/sec) that can be generated by heavy construction equipment at the nearest receptors, located within 25 feet from the boundary of the project site and project building construction.

Table 4.11-16. Construction Maximum Vibration Velocity (PPV), Inches/Sec at Distance (Feet)– Potential for Architectural Damage

Equipment	Krug Event Center, Commercial (to east), and Lynch Bldg. Apartments (within 25 Feet)	Restaurant to west (40 Feet)	Best Western (50 Feet)	Commercial Across Napa Street (60 Feet)	Salon to East (65 Feet)	Bank of America (75 Feet)	Homes Across Napa Street (80 Feet)
Vibratory Roller	**0.210**	0.104	0.074	0.056	0.050	0.040	0.037
Caisson Drill	0.089	0.044	0.031	0.024	0.021	0.017	0.016
Large bulldozer	0.089	0.044	0.031	0.024	0.021	0.017	0.016
Small bulldozer	0.003	0.001	0.001	0.001	0.001	0.001	0.001
Jackhammer	0.003	0.017	0.012	0.009	0.008	0.007	0.006
Loaded trucks	0.076	0.038	0.027	0.020	0.018	0.015	0.013

Notes: PPV = peak particle velocity. All distances show in the table above are from the center of the area of equipment use.
Thresholds for vibration damage = 0.200 PPV for non-engineered timber and masonry buildings; and 0.12 for buildings extremely susceptible to vibration damage. Bold indicates vibration levels that exceed the threshold.
Source: PlaceWorks 2015.

Typically, only construction equipment generating extremely high levels of vibration, such as pile drivers, has the potential for vibration-induced structural damage. No pile driving is required for construction of the proposed project. However, excavation will be required for underground parking. Hawker Home at 158 West Napa Street and the Griffith Block at 101-103 West Napa Street are historic buildings. The nearest historic building to the project site (Griffith Block at 101-103 West Napa Street) is located more than 40 feet from the nearest project boundary as measured at the closest point. At this distance, Table 4.11-16, above, the vibration levels would be 0.104 PPV or more, which would be below the threshold of 0.12 PPV (for buildings extremely susceptible to vibration damage). Operation of large, off-road construction equipment (vibratory rollers) very close to immediately adjacent buildings could exceed the FTA's 0.2 PPV in/sec criteria. This impact is considered **potentially significant**.

Vibration Annoyance

Vibration is typically not perceptible in outdoor environments, but it is sensed when objects inside structures generate noise, such as rattling windows or picture frames. Therefore, impacts are evaluated in terms of indoor receptors (FTA 2018). Levels of vibration produced by construction equipment are based on the FTA's significance threshold for vibration annoyance of 80 VdB for barely perceptible levels of vibration during the daytime. The nearest sensitive receptor structures subject to annoyance from construction activities are the apartments on the third floor of the Lynch Building, the Best Western Plus Sonoma Valley, the Krug Event Center, the residences across West Napa Street,[9] and the Sonoma Valley Museum of Art.

Table 4.11-17 shows the potential vibration levels (VdB) that can be generated by heavy construction equipment at receptors from the closest ones immediately adjacent to the site, to the homes across Napa Street and the Art Museum. Construction activity would reach the 80 VdB threshold for vibration annoyance at the Best Western

9 These residences have been used as offices, most recently, and are currently vacant. They are being converted to vacation rental use and therefore are anticipated to be sensitive receptors; similar to the Best Western.

and the Krug Event Center if a vibratory roller was operated within 150 feet. Likewise, the use of vibratory rollers would exceed the annoyance threshold at the third-floor apartments in the Lynch Building.

Table 4.11-17. Construction Equipment Average Vibration Levels, VdB at Distance (Feet) – Potential for Annoyance

Equipment	Lynch Building Apartments (within 50 Feet)[a]	Best Western and Krug Event Center (150 Feet)	Residences North of Napa Street (275 Feet)	Art Museum (375 Feet)
Vibratory Roller	**84**	78	73	70
Caisson Drill	77	71	66	63
Large bulldozer	77	71	66	63
Small bulldozer	48	37	37	34
Jackhammer	69	58	58	55
Loaded trucks	76	65	65	62

Note: Threshold for vibration annoyance = 80 VdB.
a. Includes floor-to-floor attenuation adjustment to account for receptor apartments being on the third floor. Distances are to assumed vibration sensitive areas from center of anticipated equipment use. The receiver is assumed to be in the center of a room.
Source: PlaceWorks 2016.

The City's Municipal Code prohibits construction activities except between 8:00 a.m. and 6:00 p.m. Monday through Friday, between 9:00 a.m. and 6:00 p.m. on Saturday, and between 10:00 a.m. and 6:00 p.m. on Sundays and holidays (Sonoma Municipal Code Section 9.56.050.B). Nevertheless, this restriction alone would be insufficient to prevent potentially significant vibration impacts if the use of vibration-intensive equipment occurs. Implementation of the project could result in the exposure of persons to or generation of excessive groundborne vibration during portions of project construction. Without mitigation, the impact is considered **potentially significant**.

Mitigation Measure 4.11-3: Reduce Construction-Related Vibration

During site preparation, demolition, and construction activities, the following controls to reduce potential vibration impacts shall be implemented:

- The use of vibratory rollers is prohibited. The construction contractor shall identify alternative soil compaction methods such as static rollers.
- The construction contractor shall utilize small- to medium-sized bulldozers that would produce less vibration than using large bulldozers.
- Prior to the issuance of building permits the applicant and/or construction contractor shall inspect and report on the current structural condition of the existing buildings within 50 feet from where vibratory rollers, large bulldozers, and the like would be used.
- During construction, if any vibration levels cause cosmetic or structural damage to existing buildings in close proximity to a project site, the applicant shall immediately issue "stop-work" orders to the construction contractor to prevent further damage. Work shall not restart until the building is stabilized and/or preventive measures are implemented to relieve further damage to the building(s).

Significance after Mitigation

Most of the construction equipment activity would occur in locations away from the edges of the project site, closer to the interior of the site, and at a relatively greater distance from adjacent properties, which would attenuate vibration levels by at least 9 VdB per doubling of the distance. The use of vibratory roller, which generates the highest vibration level compared to other typical construction equipment, would be prohibited. Shutting down all motorized equipment when not in use to prevent idling; using available smaller equipment could further reduce project construction vibration levels. Contractors are required to utilize small-sized bulldozers, which would generate a vibration level of 0.003 PPV at 25 feet and 0.012 PPV at 10 feet. With implementation of the mitigation measures listed above, the proposed project would reduce potential vibration impacts. The impact is **less than significant with mitigation**.

Operational Vibration

Operation of the proposed project would not include any long-term vibration sources. Therefore, no significant vibration effects or impacts from operations sources would occur and no mitigation measures are required.

Impact 4.11-4: Long-term traffic noise levels at existing noise-sensitive receivers.

The proposed project would result in an increase in traffic volumes on the local roadway network and, consequently, an increase in noise levels along affected roadway segments. To assess the impact of proposed project-generated traffic increases, traffic noise levels associated with the proposed project were calculated for roadway segments in the proposed project study area using the FHWA Highway Noise Prediction Model (FHWA-RD-77-108). Traffic noise levels were modeled under existing weekday and weekend conditions, with and without project implementation. Average daily traffic (ADT) volumes and the distribution were obtained from the traffic study for the proposed project (W-Trans 2022). Additional input data included day/night percentages of autos, medium and heavy trucks, vehicle speeds, ground attenuation factors, and roadway widths. Refer to Appendix F of this RDEIR for modeling inputs and results. Please see the City's website for the appendix: https://www.sonomacity.org/hotel-project-sonoma/.

The proposed project's contribution to the existing and future traffic noise levels along area roadways was determined by comparing the predicted noise levels with and without project-generated traffic. Table 4.11-18 and Table 4.11-19 summarize the modeled traffic noise levels for weekday conditions and weekend conditions, respectively, at 50 feet from the centerline of affected roadway segments in the vicinity of the proposed project site. Modeled roadway noise levels assume no natural or artificial shielding between the roadway and the receptor.

As shown in Table 4.11-18, the modeling conducted shows that future development, in addition to existing weekday conditions, would result in traffic noise level increases up to 1 dBA, compared to noise levels without the proposed project. Similarly, the modeling conducted shows that future development, in addition to existing weekend conditions, would result in traffic noise level increases up to 1 dBA, compared to noise levels without the proposed project, as shown in Table 4.11-19. As noted previously, a 1-dBA increase is imperceptible. Therefore, long-term noise levels from project-generated traffic sources would not result in a substantial permanent increase in ambient noise. As a result, this impact is considered **less than significant**.

Mitigation Measures: No mitigation measures are required.

Table 4.11-18. Predicted Traffic Noise Levels, Existing Weekday Plus Project Conditions, L_{dn} at 50 Feet, dB

Roadway Segment	Segment Location	No Project	Plus Project	Net Change	Significant Impact?
First Street West	West Spain Street	59.14	59.14	0.00	No
First Street West	West Spain Street	58.25	58.26	0.02	No
West Spain Street	First Street West	62.17	62.19	0.01	No
West Spain Street	First Street West	62.78	62.79	0.02	No
Fifth Street West	West Napa Street (SR 12)	63.06	63.06	0.00	No
Fifth Street West	West Napa Street (SR 12)	64.93	64.94	0.00	No
West Napa Street (SR 12)	Fifth Street West	65.05	65.09	0.03	No
West Napa Street (SR 12)	Fifth Street West	66.19	66.22	0.03	No
Second Street West	West Napa Street (SR 12)	58.31	58.36	0.05	No
Second Street West	West Napa Street (SR 12)	62.41	62.42	0.01	No
West Napa Street (SR 12)	Second Street West	64.08	64.14	0.06	No
West Napa Street (SR 12)	Second Street West	64.88	64.92	0.03	No
First Street West	West Napa Street (SR 12)	58.47	58.49	0.02	No
First Street West	West Napa Street (SR 12)	54.79	55.61	0.81	No
West Napa Street (SR 12)	First Street West	64.16	64.29	0.13	No
West Napa Street (SR 12)	First Street West	64.00	64.12	0.12	No
Broadway (SR 12)	Napa Street	55.93	55.93	0.00	No
Broadway (SR 12)	Napa Street	64.56	64.63	0.07	No
Napa Street	Broadway (SR 12)	62.40	62.46	0.06	No
Napa Street	Broadway (SR 12)	64.19	64.28	0.09	No
First Street East	East Napa Street	59.98	60.00	0.02	No
First Street East	East Napa Street	55.51	55.51	0.00	No
East Napa Street	First Street East	60.67	60.76	0.09	No
East Napa Street	First Street East	62.18	62.26	0.07	No

Source: AECOM 2022 Notes: dB = A-weighted decibels; L_{dn} = day-night average noise level

Table 4.11-19. Predicted Traffic Noise Levels, Existing Weekend Plus Project Conditions, L_{dn} at 50 Feet, dB

Roadway Segment	Segment Location	No Project	Plus Project	Net Change	Significant Impact?
First Street West	West Spain Street	59.95	59.95	0.00	No
First Street West	West Spain Street	59.44	59.45	0.01	No
West Spain Street	First Street West	61.54	61.56	0.02	No
West Spain Street	First Street West	61.93	61.95	0.02	No
Fifth Street West	West Napa Street (SR 12)	61.94	61.94	0.00	No
Fifth Street West	West Napa Street (SR 12)	64.37	64.38	0.00	No
West Napa Street (SR 12)	Fifth Street West	64.30	64.31	0.02	No
West Napa Street (SR 12)	Fifth Street West	65.77	65.79	0.01	No
Second Street West	West Napa Street (SR 12)	57.77	57.84	0.07	No
Second Street West	West Napa Street (SR 12)	61.12	61.15	0.03	No
West Napa Street (SR 12)	Second Street West	63.81	63.86	0.05	No
West Napa Street (SR 12)	Second Street West	64.15	64.17	0.02	No
First Street West	West Napa Street (SR 12)	59.14	59.15	0.01	No
First Street West	West Napa Street (SR 12)	54.07	55.08	1.01	No
West Napa Street (SR 12)	First Street West	63.72	63.88	0.16	No
West Napa Street (SR 12)	First Street West	63.86	64.00	0.14	No
Broadway (SR 12)	Napa Street	49.68	49.68	0.00	No
Broadway (SR 12)	Napa Street	64.60	64.68	0.09	No
Napa Street	Broadway (SR 12)	62.33	62.40	0.07	No
Napa Street	Broadway (SR 12)	63.66	63.77	0.12	No
First Street East	East Napa Street	60.08	60.10	0.02	No
First Street East	East Napa Street	53.46	53.46	0.00	No
East Napa Street	First Street East	60.65	60.75	0.10	No
East Napa Street	First Street East	62.32	62.40	0.08	No

Source: AECOM 2022 Notes: dB = A-weighted decibels; L_{dn} = day-night average noise level

Impact 4.11-5: Long-term non-transportation noise levels at existing noise-sensitive receivers.

The proposed project, as described in Section 3.2 (Project Description) proposes development of a hotel, restaurant, and related uses, parking, and an 8-unit residential building. The primary noise sources from hotel use are landscaping, maintenance activities, deliveries, and air conditioning (HVAC) systems.

Landscape and Building Maintenance Activities

Landscape maintenance activities include the use of leaf blowers, power tools, and gasoline-powered lawnmowers, which could result in intermittent combined noise levels that range from approximately 88.3 dB at 6.5 feet. Based on an equipment noise level of 88.3 dB, the use of such equipment, assuming a noise attenuation rate of 6 dB per doubling of distance from the source, would result in exterior noise levels of approximately 70.1 dB at 50 feet. Although such activities would occur during the daytime hours, the exact hours and locations are unknown at this time. The use of such equipment is not so frequent that applicable daily noise standards or maximum single-event noise standards would be exceeded for noise-sensitive land uses. This impact is considered **less than significant**.

Solid Waste Collection Activities

Solid waste collection activities (e.g., emptying dumpsters, possibly multiple times per week, and the shaking of containers with a hydraulic lift), could result in instantaneous maximum noise levels of approximately 89 dB L_{max} at 50 feet. Such activities are anticipated to be very brief, intermittent, and would occur during daytime hours, which are considered to be less noise-sensitive times of the day. Solid waste collection activities are infrequent, and therefore would not be expected to exceed daily noise standards. Trash and recycling staging and storage would be located in an enclosed, ventilated trash enclosure fronting First Street West. Recycling staging would take place in the basement of the hotel. Recyclables would be transferred to the street side trash and recycle enclosure on the regularly scheduled days of pick-up by the Sonoma Garbage Collector. Noise associated with garbage collection would not be expected to create single-event noise that would be substantially disruptive to daily activities or cause sleep disturbance. This impact is considered **less than significant**.

Parking Lots

Parking lots and parking structures include noise sources such as vehicles entering/exiting the lot, alarms/radios, and doors slamming. The proposed project would introduce approximately 130 off-street parking spaces (consisting of a 113-stall basement parking garage, 9 surface parking spaces, and 8 covered residential parking spaces). The sound exposure level (SEL) associated with a vehicle parking is approximately 71 dB SEL at 50 feet. Assuming that each parking stall were to fill and empty (a total of 17 instances of a surface parking) during the peak hour, the noise level is predicted to be 48 dBA L_{eq} at 50 feet, and 42 dBA L_{eq} at 100 feet from the center of the parking area. Existing ambient noise levels at the residential uses to the north of the project site were measured at 51 to 60 dBA L_{eq}. Therefore, noise levels associated with parking would not be distinguishable from the existing ambient noise levels. As a result, this impact would be **less than significant**.

Commercial Activities

Commercial noise sources include loading dock activities and delivery areas and high single-event noise levels from backup alarms from delivery trucks during the more noise-sensitive hours of the day. There are two delivery loading and unloading area options available for the proposed project depending on the delivery vehicle size. For

smaller vehicles such as vans, the loading zone would be in the basement garage receiving area, which would be accessed from SR 12 (West Napa Street). There will be 37 deliveries per week that will include two large trucks per week in the courtyard and 18 box trucks/UPS trucks per week in the courtyard and 17 van deliveries in the basement per week. For larger vehicles such as box trucks, deliveries would be received at the hotel courtyard, where deliveries would be met by a hotel forklift and transferred into the hotel basement receiving area. Such activities could result in intermittent noise levels of approximately up to 91 dB L_{max} at 50 feet (EPA 1971), and 75 dB at 300 feet, the distance which the delivery and loading area is located from the nearest sensitive uses. Existing buildings will provide shielding as acoustic barriers from project-related loading and delivery area and would reduce the project noise to 60 dB at 100 feet (EPA 1971). As detailed in Appendix B, the proposed project site is in an area with restaurants and hotels which use common vendors that schedule deliveries to City hotels and restaurants as common trips. As described previously, the City's Municipal Code provides additional provisions for restrictions and regulations for noise within the City. While the Municipal Code provides for exceptions for cases where it is impractical to avoid an exceedance of noise standards, the additional loading in the hotel courtyard could result in intermittent noise levels up to the City standard of 60 dBA for residential properties. Therefore, this impact would be **less than significant**.

Mechanical HVAC Equipment

HVAC equipment is often mounted on rooftops, located on the ground, or located within mechanical equipment rooms. The noise sources could take the form of fans, pumps, air compressors, and chillers. Packaged rooftop units contain all necessary mechanical equipment, such as fans, pumps, condensers, and compressors, within a single enclosure. Noise levels from commercial HVAC equipment can reach 100 dBA at a distance of three feet (EPA 1971). This would result in noise level of 76 dB at a distance of 50 feet. This impact is considered **potentially significant**.

> Mitigation Measure 4.11-5: Implement Measures to Reduce Potential Exposure of Sensitive Receptors to Non-Transportation Source–Generated Noise.
>
> The project applicant and contractor(s) shall implement the following measures, which shall be identified in construction contracts and acknowledged by the contractor(s):
>
> - Air conditioning units shall be shielded with continuous, solid material, with no gaps, and shall block the line of sight between the project and adjacent buildings and properties and shall be located at least 100 feet from the existing noise-sensitive uses.
> - Routine testing and preventive maintenance of emergency electrical generators shall be conducted during the less sensitive daytime hours of between 8:00 a.m. and 6:00 p.m. Monday through Friday.
> - All electrical generators shall be equipped with noise control (e.g., muffler) devices in accordance with manufacturers' specifications.
> - On-site landscape maintenance equipment shall be equipped with properly operating exhaust mufflers and engine shrouds, in accordance with manufacturers' specifications.

- For landscape maintenance areas located within 400 feet of any occupied noise-sensitive land uses, the operation of on-site landscape maintenance equipment shall be limited to the least noise-sensitive periods of the day, between 8:00 a.m. and 6:00 p.m. Monday through Friday.

Significance after Mitigation

The HVAC systems would be enclosed and/or shielded to reduce exterior noise. The enclosure would reduce the HVAC noise by at least 25 dB (EPA 1974). Based on the cooling capacity of the packaged systems and their locations with respect to sensitive uses (at least 100 feet), noise levels for mechanical HVAC systems would be less than 50 dBA L_{eq} at the nearest noise-sensitive receptors to the project site. On-site landscape maintenance equipment will be equipped with properly operating exhaust mufflers and engine shrouds, that could further reduce project noise levels by at least 5 dB. Testing of emergency electrical generators will be conducted during the less sensitive daytime hours. Mitigation requiring enclosure of HVAC systems and noise control for generators would reduce noise level exposure for noise sensitive uses and the impact would be **less than significant with mitigation**.

4.12 PUBLIC SERVICES

4.12.1 ENVIRONMENTAL SETTING

FIRE PROTECTION SERVICES

On February 1, 2002, the City and Valley of the Moon Fire Protection District entered into a Joint Powers Agreement (JPA) creating a public entity known as the Sonoma Valley Fire & Rescue Authority (SVFRA). On December 19, 2011, the City entered into a contract for fire and emergency medical services with the Valley of the Moon Fire Protection District to further eliminate duplication of administrative services. The fire district served as the employer of both employee groups. On July 1, 2020, the Sonoma Valley Fire District (SVFD) was formed through a consolidation of the Valley of the Moon and Glen Ellen Fire Districts, as well as the Mayacamas Volunteer Fire Company service area (SVFD 2021). The contract for fire and EMS services, now issued through SVFD, has been renewed in 5-year increments in 2017 and again in March of 2022 with the SVFD.

The SVFD maintains four career-staffed fire stations, three volunteer-staffed stations, an administrative office, and a maintenance facility. The SVFD has 60 full-time employees who provide daily staffing and support for six companies: four Paramedic Engine Companies and two advanced life support (paramedic) ambulances. The SVFD also staffs an assortment of specialized equipment through the supplemental staffing of 50 dedicated volunteer firefighters. This equipment includes a ladder truck, two rescues, three water tenders, and nine additional fire engines, including six specialized wildland engines (SVFD 2021).

The SVFD serves an area of approximately 74 square miles with a resident population of approximately 48,000, including the City of Sonoma. The SVFD also provides ambulance service to the greater Sonoma Valley, an area of approximately 100 square miles (SVFD 2021).

The nearest SVFD fire station is Station No. 1, which is approximately 350 feet southwest of the project site.

POLICE PROTECTION SERVICES

In 2004 the City entered into a contract with the Sonoma County Sheriff's Office to provide law enforcement services for the City. The Sonoma Police Department (SPD), managed by the County Sheriff's Office, is responsible for the area within the City limits and is staffed by 14 personnel: one chief, two sergeants, nine patrol deputies, a community services officer, and one administrative position. The police department operates a "store front" type operation within the City limit, with dispatching, record and property management, and investigative services provided by resources at the Sheriff's main office in Santa Rosa. The police facility also serves as the City's Emergency Operation Center. The SPD is organized into the following divisions: Traffic Division, Animal Control, School Resource Officer, Sonoma Valley Youth and Family Services, Volunteers in Policing, and a K9 Unit (City of Sonoma Police Department 2021).

The proposed project would be served by the police station located at 175 First Street West in the City, approximately 0.5 mile north of the proposed project site.

SCHOOLS

The Sonoma Valley Unified School District (SVUSD) operates 11 schools that provide public educational opportunities for grades K-12 for residents of the City and the greater SVUSD service area. The project site is served by Prestwood Elementary School, Adele Harrison Middle School, and Sonoma Valley High School. All three schools are approximately 0.5 mile southeast of the project site.

PARKS

The Parks, Cemeteries, and Facilities Division of the City Public Works Department administers the City's 17 parks encompassing nearly 40 acres, nine play structures, two public restrooms, Class I bike trails, hiking trails, a duck pond, and a rose garden. Please see Section 4.1, "Topic Areas Not Carried Forward for Further Analysis," for additional information and impacts related to parks and recreation.

4.12.2 REGULATORY FRAMEWORK

FEDERAL PLANS, POLICIES, REGULATIONS AND LAWS

No federal plans, policies, regulation, or laws pertaining to public services are applicable to the proposed project.

STATE PLANS, POLICIES, REGULATIONS, AND LAWS

California Occupational Safety and Health Administration

In accordance with California Code of Regulations, Title 8 Sections 1270 "Fire Prevention" and 6773 "Fire Protection and Fire Equipment," the California Occupational Safety and Health Administration (Cal OSHA) has established minimum standards for fire suppression and emergency medical services. The standards include but are not limited to guidelines on the handling of highly combustible materials; fire hose sizing requirements; restrictions on the use of compressed air; access roads; and the testing, maintenance, and use of all firefighting and emergency medical equipment.

California Fire Code

The California Fire Code (CFC), which is contained in Title 24, Part 9 of the California Code of Regulations, and adopted by reference and amended by the City in Sonoma Municipal Code Section 14.10.045, contains regulations relating to construction, maintenance, and use of buildings. Topics addressed in the code 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 and those have been incorporated into the City Building Code.

California Health and Safety Code

State fire regulations are set forth in California Health and Safety Code Section 13000, et seq., which includes regulations for building standards (as set forth in the California Building Code); fire protection and notification systems; fire protection devices such as extinguishers and smoke alarms; high-rise building and childcare facility standards; and fire suppression training.

Per the California Health and Safety Code, the Fire Code Official is both authorized to perform life safety inspections, and responsible for the enforcement of and life safety regulations adopted by the California State Fire Marshal in the California Buildings Standards. The Fire Prevention Bureau performs plan reviews and provides comments and field inspection on all construction projects within the jurisdiction. The Fire Inspectors also inspect occupancies and hazardous operations as required by the California Health and Safety Code.

State of California Emergency Medical Services regulations are set forth in Division 2.5 of the Health and Safety Code (Sections 1797-1799), which is known as the Emergency Medical Service System and the Prehospital Emergency Medical Care Personnel Act. The regulations include system administration, certification, medical control, facilities, and other facets of emergency medical care.

State School Funding

California Education Code Section 17620 authorizes school districts to levy a fee, charge, dedication, or other requirement against any development project for the construction or reconstruction of school facilities, provided that the school district can show justification for levying of fees. California Government Code Section 65995 limits the fee to be collected to the statutory fee unless a school district conducts a School Facility Needs Assessment (California Government Code Section 65995.6) and meets certain conditions.

Senate Bill 50 (Chapter 407, Statutes of 1998) instituted a school facility program by which school districts can apply for state construction and modernization funds. This legislation imposed limitations on the power of cities and counties to require mitigation of school facilities impacts as a condition of approving new development. It also provided the authority for school districts to levy fees at three different levels:

- Level I fees are the current statutory fees allowed under Education Code Section 17620. As mentioned above, this code section authorizes school districts to levy a fee against residential and commercial construction to fund school construction or reconstruction. These fees are adjusted every 2 years in accordance with the statewide cost index for Class B construction as determined by the State Allocation Board.
- Level II developer fees are outlined in Government Code Section 65995.5. This code section allows a school district to impose a higher fee on residential construction if certain conditions are met. These conditions include having a substantial percentage of students on multitrack year-round scheduling, having an assumed debt equal to 15 to 30 percent of the district's bonding capacity (the percentage is based on revenue sources for repayment), having at least 20 percent of the district's teaching stations housed in relocatable classrooms, and having placed a local bond on the ballot in the past 4 years that received at least 50 percent plus one of the votes cast. A facility needs assessment must demonstrate that the need for new school facilities for unhoused pupils is attributable to projected enrollment growth from the construction of new residential units over the next 5 years.
- Level III developer fees are outlined in Government Code Section 65995.7. This code section authorizes a school district that has been approved to collect Level II fees to collect a higher fee on residential construction if State funding becomes unavailable. This fee is equal to twice the amount of Level II fees. However, if a school district eventually receives State funding, this excess fee may be reimbursed to the developers or subtracted from the amount of State funding.

REGIONAL AND LOCAL PLANS, POLICIES, REGULATIONS, AND ORDINANCES

City of Sonoma General Plan

The City's General Plan includes the following policy and implementation programs related to public services.

Public Services Element

- **Policy PS-1.3:** Ensure that all development projects provide adequate fire protection.
  - **Implementation Program 1.3.1:** Review all proposed projects for adequacy of fire equate fire protection. protection, including:
    - Response time
    - Emergency access, water supply, and fire flow,
    - Vegetation clearance and visible addressing,
    - Spacing between buildings,
    - Construction materials, and
    - Refuse removal.
  - **Implementation Program 1.3.3:** Implement fire sprinkler requirements in new development and redevelopment.

4.12.3 ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Based on Appendix G of the CEQA Guidelines, the proposed project would have a significant impact related to public services if it would:

- result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for:
  - fire protection;
  - police protection;
  - schools;
  - parks; or
  - other governmental facilities.

Impacts related to parks and recreational facilities are evaluated in Section 4.1, "Topic Areas Not Carried Forward for Further Analysis," of this RDEIR.

ISSUES NOT DISCUSSED FURTHER

Increased Demand for Other Governmental Facilities— The proposed project would not require the provision or construction of other public facilities. Thus, there would be no impact, and this topic is not evaluated further in this RDEIR.

IMPACT ANALYSIS

Impact 4.12-1: Increased Demand for Fire Protection Facilities and Services.

The proposed project would result in the demolition of two existing buildings at the project site. The site would be redeveloped with a hotel, restaurant, spa, and an eight-unit residential building. This would represent an intensification of uses on the project site. Although the relationship is not directly proportional, more intense uses of land typically result in the increased potential for fire and emergency incidents. Thus, the proposed project is assumed to create a minor increased demand for fire protection services.

In accordance with Implementation Measure PS-1.3.1 from the City General Plan (City of Sonoma 2006), which requires that all proposed projects are reviewed for adequacy of fire protection, the proposed project plans were reviewed by SVFRA on September 4, 2014. SVFRA determined that although the proposed project may increase the number and frequency of calls for service for the SVFRA, because the project site would be located approximately 0.2 miles from Fire Station 1, which was built in 2002 and would have primary responsibility for responding to calls on the project site, response times for project site emergencies would be expected to fall within the SVFRA's goals. Therefore, the proposed project would not require the construction or expansion of SVFRA facilities. Furthermore, the required incorporation of California Fire Code, California Health and Safety Code, and OSHA requirements would reduce the dependence on fire department equipment and personnel by reducing fire hazards, assisting in fire suppression, and promoting fire safety in the City. Therefore, project implementation would result in a **less than significant** impact from increased demand for fire protection services and facilities.

Mitigation Measure: No mitigation measures are required.

Impact 4.12-2: Increased Demand for Law Enforcement Services and Facilities.

Demolition of two of the existing on-site buildings and redevelopment of the site with a hotel, restaurant, spa, and eight-unit residential building would represent an intensification of uses on the project site. Although the relationship is not directly proportional, more intense uses of land typically result in an increased potential for emergency incidents and an increase in the number of calls to police departments. Thus, the proposed project is assumed to create a minor increased demand for law enforcement services.

Because the proposed project consists of a new hotel and new residential units, and since the project site is currently surrounded with commercial development of a similar intensity, there is no evidence to suggest that the proposed project would lead to any meaningful increase in the amount of crime in the project area. The proposed project would add lighting and would have a similar degree of casual surveillance. The proposed project's effect on emergency response would be minimal.

The proposed project plans were reviewed by the SPD in August 2015, and SPD indicated that the proposed project would not require the SPD to construct new facilities or expand existing facilities in order to accommodate the proposed project's demand for police protection services and maintain acceptable service ratios, response times, or other performance objectives. The additional eight-unit residential building, which would generate approximately 17 new residents, would not change this determination. The proposed project would not generate demand for law enforcement services that would require new facilities, the construction or operation of which

could have a significant adverse physical environmental impact. Therefore, project implementation would result in a **less than significant** impact from increased demand for law enforcement services and facilities.

Mitigation Measure: No mitigation measures are required.

Impact 4.12-3: Increased Demand for Schools.

The proposed hotel would not generate new K-12 students. However, the proposed project also includes development of an eight-unit residential building with up to 17 new residents. This level of additional demand would not generate the need for an additional school, the construction or operation of which could lead to any significant adverse physical environmental effect.

Pursuant to SB 50, the project applicant would be required to pay all applicable State-mandated school impact fees to SVUSD. The SVUSD would determine the assessable square footage that would be subject to the fee at the time of development. The California Legislature has declared that payment of the applicable school impact fee is deemed to be full and adequate mitigation under CEQA for impacts on school facilities (California Government Code Section 65996). Therefore, this impact would be **less than significant**.

Mitigation Measure: No mitigation measures are required.

4.13 TRANSPORTATION

4.13.1 INTRODUCTION

This section describes potential transportation impacts associated with development of the proposed project. The transportation study area was defined to include locations most likely to be affected by project-generated trips. The impact analysis addresses the vehicular, transit, bicycle, and pedestrian components of the transportation system. More detailed information and analysis is provided in the *Transportation Impact Study for the Sonoma Hotel*, 2022, provided in Appendix G was prepared by W-Trans. Please see the City's website for the appendix: https://www.sonomacity.org/hotel-project-sonoma/.

4.13.2 ENVIRONMENTAL SETTING

The automobile is the most widely used mode of transportation in the City. According to the US Census Bureau, 2016-2020 American Community Survey, about 76.6 percent of City residents commute to work by car, truck, or van.[1] Approximately 3.6 percent of commuters walk to work, while 0.6 percent commute by bike. Additionally, about 2.1 percent of commuters were determined to use public transportation to commute to work. The American Community Survey also documented the amount of time it takes commuters to travel to work. Based on 2016–2020 data, 57.3 percent of workers living in the City traveled to work in less than 25 minutes with an average travel time estimated to be 22 minutes.

ROADWAY SYSTEM

The City General Plan includes a description of its functional classification system. Descriptions of each roadway classification are provided below.

- State Highway— Highway 12 is not only a primary route for through traffic, commuters, and tourists, it also carries many longer-distance and regional trips.
- Arterials—These streets carry traffic to and from the highway and to major commercial and public destinations. Volumes are heavy compared to collectors and local streets.
- Collectors—These roads link arterials to local streets and commercial and public destinations. In some cases, a collector may also serve as a lesser link to the highway.
- Local Streets—Typically residential streets, these streets provide access to neighborhoods and individual parcels within them. They are generally developed with curb, gutter, and sidewalk.
- Rural—These routes carry traffic to outlying districts. They are generally not developed with curb, gutter, or sidewalk.

The City's system of arterials, collectors, and local streets connect neighborhoods, employment centers, and other destinations. The following major roadways would provide access to the project site.

[1] U.S. Census Bureau. American Community Survey 5-Year Estimates.

- **Highway 12** is a two-lane east-west highway that traverses the City along the alignments of three local streets and changes alignment twice. Designated as an arterial street in Figure CE-4 of the Circulation Element, the highway enters the City at the north as "Sonoma Highway," a north-south street, turns easterly as "West Napa Street," which is oriented east to west, and turns south to "Broadway," which is oriented north to south. The Sonoma Highway and West Napa Street segments generally have one lane in each direction and a center turn lane or dedicated turn lanes at intersections. Along West Napa Street near the Plaza and the project site, Highway 12 carried approximately 15,000 vehicles per day on average according to counts collected in 2017. Broadway was recently realigned between the Sonoma Plaza and East MacArthur Street and has one lane in each direction with a bike lane on each side and a center turn lane. South of East MacArthur Street to Leveroni Road, Broadway alternated between one lane and two lanes in each direction with a center turn lane or dedicated intersection turn lanes. Broadway carried an average of 13,000 vehicles daily based on 2017 counts. Parallel parking is permitted in both directions along West Napa Street between West Second Street and Broadway, and also on Broadway. The route has posted speed limits of 30 miles per hour (mph) on Sonoma Highway and 25 mph on West Napa Street and Broadway.

- **Spain Street** (designated West Spain Street west of the Plaza and East Spain Street to the east) and is identified as a collector in the Circulation Element and connects the historic Plaza to Sonoma Highway (Highway 12) along an east-west alignment. This street has a posted speed limit of 30 mph and one lane in each direction and carried an estimated 9,100 vehicles per day in 2017.

- **Fifth Street West** is a collector street with a north-south orientation connecting Leveroni Road, south of the City, with Verano Avenue to the north. It has one lane in each direction, as well as a center turn lane south of West Napa Street, and a speed limit of 25 mph. Traffic volumes were estimated to be 14,700 vehicles per day in 2017.

- **Second Street West** is a north-south collector with one lane in each direction. Parallel parking is allowed in select locations along the corridor. The speed limit is 25 mph.

- **First Street West** is a two-lane, north-south street that provides access to the Sonoma Plaza north of Napa Street and is designated as a collector north of West Napa Street and as a local street to the south. In general, the street parking is parallel except adjacent to the Plaza, where there is diagonal parking. The speed limit for the road is 25 mph.

- **First Street East** borders the east side of Sonoma Plaza. In general, the street parking is parallel except adjacent to the Plaza, where there is diagonal parking. It is designated as a local street, and has two lanes and a speed limit of 25 mph.

PEDESTRIAN FACILITIES

Pedestrian facilities include sidewalks, crosswalks, pedestrian signal phases, curb ramps, curb extensions, and various streetscape amenities such as lighting and benches. In general, a network of sidewalks, crosswalks, pedestrian signals, and curb ramps provide access for pedestrians in the vicinity of the proposed project site. The proposed project frontages, as well as all arterials and all collectors in the vicinity of the project site have sidewalks along both sides of the street; there are several segments of local streets in the Downtown area where sidewalks are present along only one side of the street. Curb ramps are generally present at intersection crossings, although truncated domes are intermittent (see Exhibit 4.13-1 through Exhibit 4.13-3).

Exhibit 4.13-1. Looking northeast along SR 12/West Napa Street from intersection of West Napa Street and First Street West

Exhibit 4.13-2. Looking north along First Street West from intersection of First Street West and SR 12/West Napa Street

Exhibit 4.13-3. Looking West along West Napa Street from 135 West Napa Street

BICYCLE FACILITIES

The Highway Design Manual, Caltrans, 2020, classifies bikeways into four categories:

- Class I Multi-Use Path – a completely separated right-of-way for the exclusive use of bicycles and pedestrians with cross flows of motorized traffic minimized.
- Class II Bike Lane – a striped and signed lane for one-way bike travel on a street or highway.
- Class III Bike Route – signing only for shared use with motor vehicles within the same travel lane on a street or highway.
- Class IV Bikeway – also known as a separated bikeway, a Class IV Bikeway is for the exclusive use of bicycles and includes a separation between the bikeway and the motor vehicle traffic lane. The separation may include, but is not limited to, grade separation, flexible posts, inflexible physical barriers, or on-street parking.

In the project area, there are bike lanes on the south leg of the Fifth Street West/West Napa Street intersection and bike routes on Third Street West and Second Street East. The Sonoma City Trail, a Class I multi-use path, is located approximately one-third of a mile north of the project site and provides an east-west connection across the northern portion of the City.

As presented in the *Sonoma Countywide Bicycle and Pedestrian Master Plan*, 2014, Class II bicycle lanes are planned for West Napa Street west of Broadway, including along the along the proposed project frontage, and Class III bicycle routes are proposed east of Broadway. Bike lanes are also proposed on Broadway south of Napa Street. No designated bicycle facilities are planned for First Street West; however, given the relatively low volume and low speed nature of the street, it is expected that bicyclists would be able to ride comfortably with vehicular traffic.

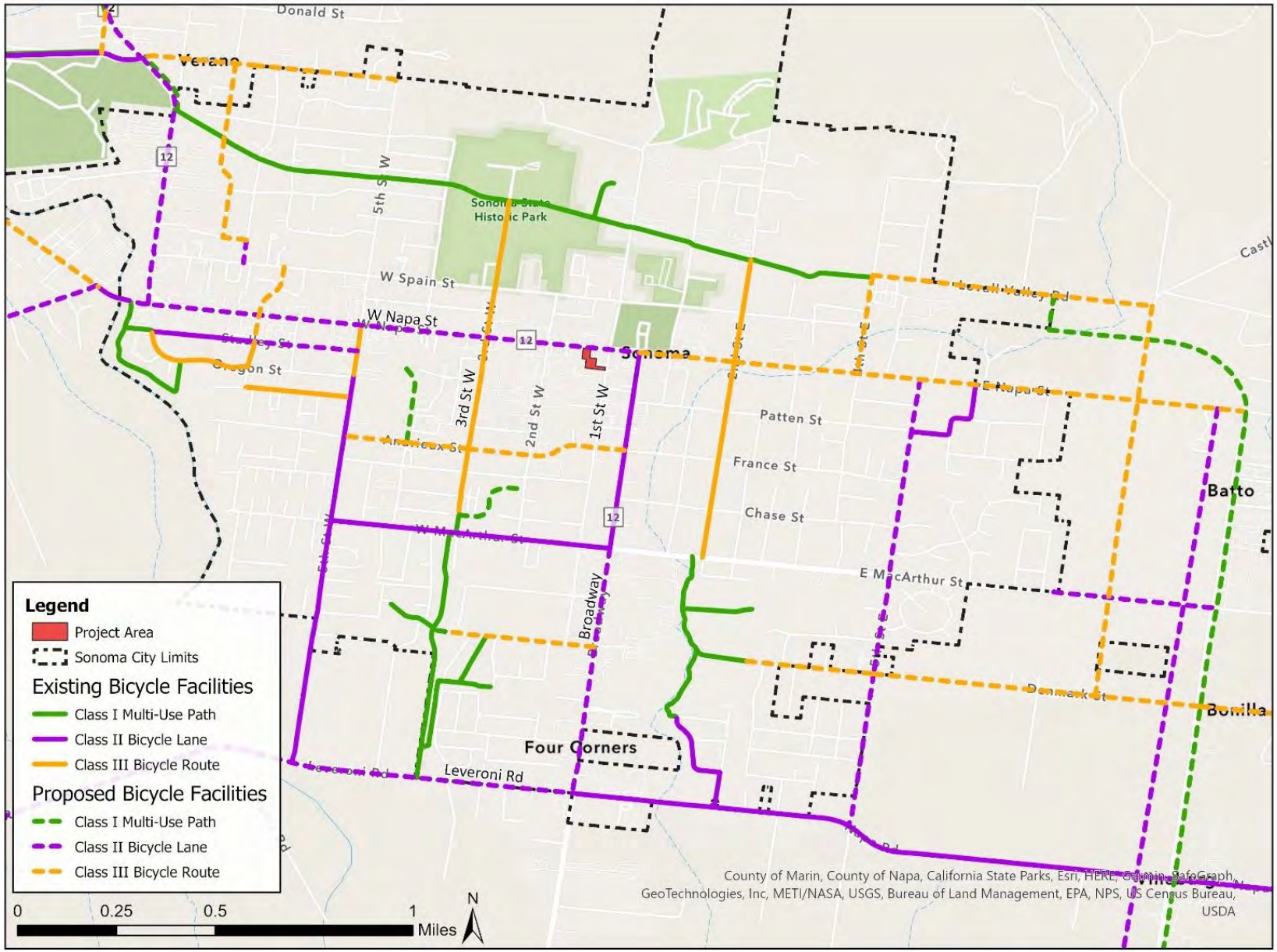
The map of proposed and existing bicycle facilities in the City is shown in Exhibit 4.13-4.

TRANSIT FACILITIES

Sonoma County Transit

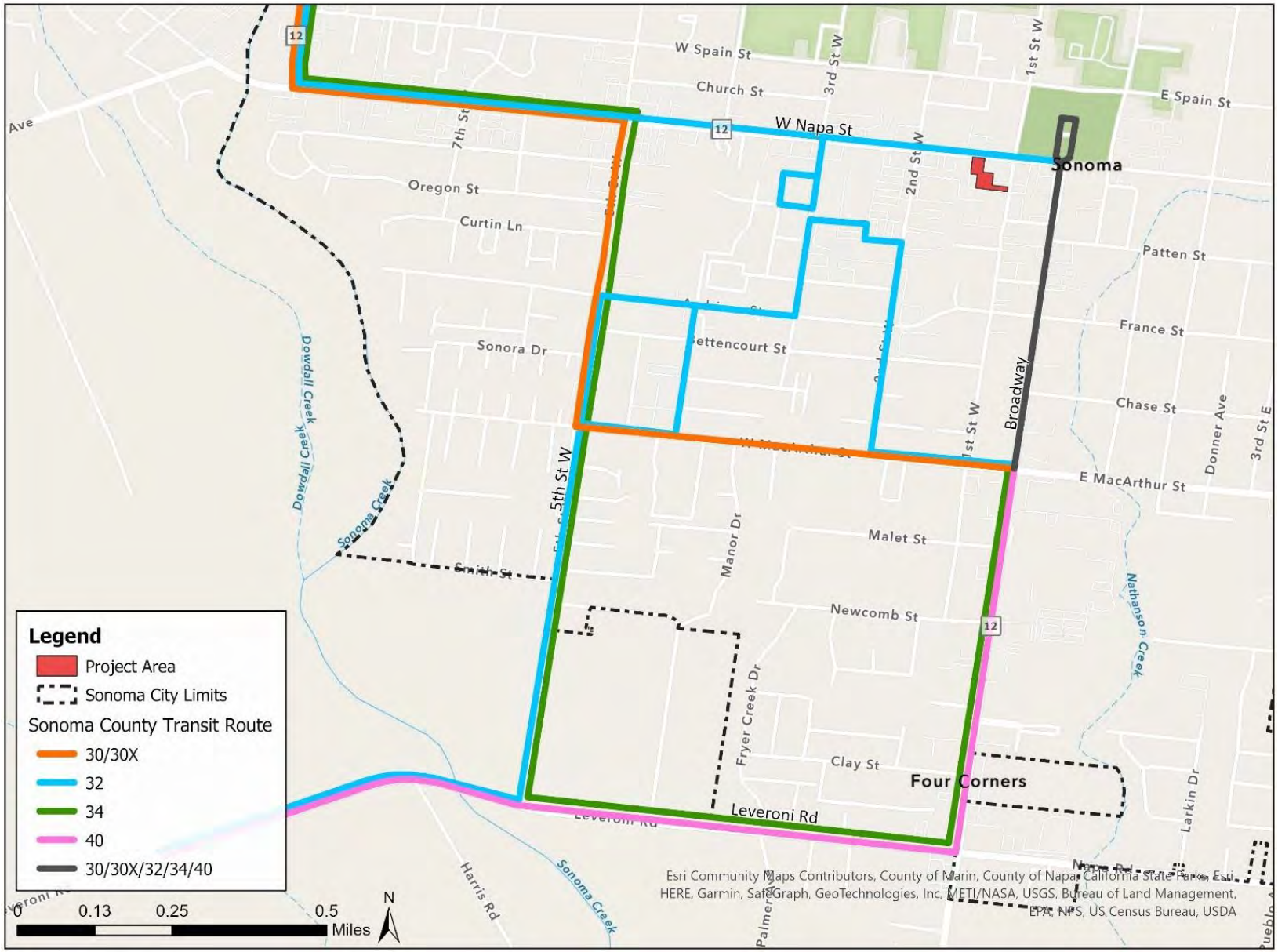
Sonoma County Transit (SCT) provides fixed route bus service in the City. SCT Route 32 provides local service to destinations within the City and stops on West Napa Street approximately one block west of the project site. Regional Routes 30 and 34 provide service along the Highway 12 corridor connecting to Santa Rosa, while Route 40 connects the City with Petaluma. Route 32 operates Monday through Saturday from 8:00 a.m. to 4:00 p.m. on approximately 45 to 60-minute headways. Route 30 connects to Santa Rosa and operates daily on headways ranging from approximately 45 minutes to two hours between 6:00 a.m. and 7:00 p.m.; Route 30X provides one westbound trip along the corridor with limited stops each weekday at 7:40 p.m. Route 34 operates one round trip on weekdays, serving commuters from Santa Rosa to the City. Route 40 operates on weekdays from 6:00 a.m. to 7:30 p.m., with six eastbound buses and seven westbound buses.

All SCT buses are equipped with racks that can accommodate at least two bicycles. Bike rack space is on a first come, first served basis. Bus service on these routes is illustrated in Exhibit 4.13-5.



Source: W-Trans 2022

Exhibit 4.13-4. Existing and Proposed Bicycle Facilities in the Vicinity of the Project Site



Source: W-Trans 2022

Exhibit 4.13-5. Transit Facilities in the Vicinity of the Project Site

Service for Patrons with Limited Mobility

Dial-a-ride, also known as paratransit, or door-to-door service, is available for those who are unable to independently use the transit system due to a physical or mental disability. SCT Paratransit is designed to serve the needs of individuals with disabilities within three-quarters of a mile of all SCT fixed route service during their hours of operation.

4.13.3 REGULATORY FRAMEWORK

FEDERAL PLANS, POLICIES, REGULATIONS AND LAWS

There are no federal plans, policies, regulations, or laws related to traffic and transportation that apply to the proposed project.

STATE PLANS, POLICIES, REGULATIONS, AND LAWS

Guides and Plans for Operating Conditions of Caltrans Facilities

Caltrans is responsible for planning, design, construction and maintenance of all interstate freeways and state routes. In the project vicinity, Napa Street (Highway 12) is under the jurisdiction of Caltrans. Caltrans requirements are described in its *Vehicle Miles Traveled-Focused Transportation Impact Study Guide* (TISG) 2020, which includes an approach for evaluating the transportation impacts of land use projects and plans on state highway facilities. This document does not address the impacts of transportation projects. In accordance with current CEQA requirements, the TISG does not consider vehicle delay in its evaluation of transportation impacts, instead focusing on vehicle miles traveled (VMT). The purposes of the TISG include providing guidance to lead agencies regarding when they should analyze potential impacts to the state highway system, to aid Caltrans staff in reviewing projects, and to ensure consistency in the assessment of impacts and identification of non-capacity increasing mitigation measures.

Senate Bill 743

On September 27, 2013, Senate Bill (SB) 743 was signed into law, supporting previous climate-focused and transportation legislation, including the Sustainable Communities and Climate Protection Act of 2008 (SB 375), the California Global Warming Solutions Act of 2006 (Assembly Bill (AB) 32), as well as the Complete Streets Act (AB 1358), which requires local governments to plan for a balanced, multimodal transportation network that meets the needs of all users. In December 2018, the Governor's Office of Planning and Research (OPR) issued a final advisory to guide lead agencies in implementing SB 743, Technical Advisory on Evaluating Transportation Impacts in CEQA. Key guidance includes:

- VMT is the most appropriate metric to use in evaluating a project's transportation impact under CEQA.
- VMT for residential and office projects is generally assessed using efficiency metrics, i.e. on a "per rate" basis. Specifically, the OPR-recommended metrics are VMT per capita for residential projects and VMT per employee for office projects. Recommended metrics for visitor-serving uses are not provided in the Technical Advisory.

- The recommended threshold of significance for residential projects is VMT per capita that is 15 percent below the city or regional average (whichever is applied). In other words, a residential project that generates VMT per capita that is more than 85 percent of the citywide or regional VMT per capita could result in a significant impact. This threshold is intended to support statewide greenhouse gas (GHG) emission reduction targets.

- Lead agencies have the discretion to set or apply their own significance thresholds in lieu of those recommended in the Technical Advisory, provided they are based on substantial evidence.

- Cities and counties still have the ability to use metrics such as level of service (LOS) for other plans, studies, or network monitoring. However, LOS and similar metrics are not considered to be significant environmental impacts under CEQA.

California Complete Streets Act, AB 1358 (Statutes of 2008)

The California Complete Streets Act requires Sonoma's City Council to identify how facilities will be provided for the routine accommodation of all users of the roadway (i.e., complete streets) including motorists, pedestrians, bicyclists, individuals with disabilities, seniors, and users of public transportation.

Regional and Local Plans, Policies, Regulations, and Ordinances

Plan Bay Area 2050

Plan Bay Area 2050 was adopted in October 2021 by the Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG). As a single plan for the nine-county San Francisco Bay Area that includes the Sustainable Communities Strategy (SCS), Regional Transportation Plan (RTP), and Regional Housing Needs Allocation (RHNA), Plan Bay Area 2050 sets forth regional transportation policy and provides capital program planning for all regional, State, and federally funded projects.

As the RTP, Plan Bay Area 2050 provides strategic investment recommendations to improve regional transportation system performance, including investments in regional highway, transit, local roadway, bicycle, and pedestrian facilities. These projects were identified through regional and local transportation planning processes, and for the City, this includes funding to increase frequency of SCT Route 30. Projects were selected based on their support for goals related to maintaining existing infrastructure, increasing transportation system efficiencies, improving traffic and transit operations, and providing strategic expansions of the regional transportation system (MTC and ABAG 2021).

Sonoma County Comprehensive Transportation Plan

The Sonoma County Transportation Authority (SCTA) acts as the countywide planning and programming agency for transportation-related issues in Sonoma County. SCTA plays a leading role in transportation by securing funds, providing project oversight, and initiating long term planning activities. Every four years SCTA updates the Sonoma Comprehensive Transportation Plan (CTP), a multi-modal transportation plan that documents existing conditions and prioritizes regional transportation needs throughout Sonoma County for the next 25 years. The current CTP, *Moving Forward 2050*, establishes countywide goals, objectives, and policies for improving mobility on Sonoma County's streets, highways, transit systems, and bicycle/pedestrian facilities, as well as

strategies to reduce transportation related impacts. CTP projects in the vicinity of project include Broadway streetscape enhancements and intersection improvements at the intersection of Broadway/West Napa Street.

City of Sonoma General Plan Circulation Element

The Circulation Element of the City General Plan, adopted in October 2016, identifies goals and policies outlining the City's vision for streets and transportation facilities in the City. While the City has primary responsibility for the maintenance and operation of transportation facilities within the City, City staff works on a continual basis with responsible regional, state, and federal agencies, including the County of Sonoma, SCTA, Metropolitan Transportation Commission (MTC), and California Department of Transportation (Caltrans) to maintain, improve, and balance the competing transportation needs of the community and the region.

The following City General Plan goals and policies are relevant to transportation and traffic within the City.

- **Goal 1.0** Maintain a citywide roadway system that provides for the safe and efficient movement of people and goods to all parts of Sonoma.
    - Policies 1.1-1.12 promote a well-connected transportation system that safely accommodates vehicle and non-vehicle traffic, respects the context of surrounding land uses, and considers the needs of all uses.
- **Goal 2.0** Create a circulation network that supports and encourages travel by non-automobile modes.
    - Policies 2.1 through 2.16 support and promote walking, bicycling, and transit, with plans to extend the bike facility network in the City, improve safety for pedestrians and bicyclists, and support expanded transit options. In the downtown, pedestrian safety and convenience are prioritized.
- **Goal 3.0** Coordinate circulation and land use patterns to ensure safe and convenient access to activity centers while maintaining Sonoma's neighborhoods and small-town character.
    - Policies 3.1-3.7 encourage higher density near transit, extension of the historic grid system, shared parking, and reduced traffic speeds in residential areas.
- **Goal 4.0** Effectively integrate the City's circulation system with surrounding regional networks.
    - Policies 4.1-4.3 encourage ongoing coordination and collaboration with Sonoma County and Caltrans.

Sonoma Systemic Safety Analysis Report

The *City of Sonoma Systemic Safety Analysis Report* (2019) presents the results of a citywide safety analysis, based on an assessment of 21 intersections and 11 roadway segments. The analysis included a quantitative assessment of collision frequency and collision rates to account for variations in traffic characteristics, as well as a qualitative assessment based on field reviews of each location. Countermeasures were identified to address high-priority locations, and the estimated benefits and costs of each countermeasure were calculated. Recommendations were developed for one-year, five-year, and ten-year time frames. Concept plans were developed for select projects, including pedestrian crossing enhancements at the intersection of West Napa Street/First Street West and a roundabout at the intersection of West Napa Street/Broadway.

City of Sonoma Municipal Code

The City Municipal Code provides regulations, requirements, and standards to protect the public's health, safety, and welfare.

Chapter 10.08.030 includes the definition of the Central traffic district. It encompasses Broadway, Napa Street, and First Street West within study area. (Ord. 99-9 § 1, 1999).

The purpose of Municipal Code Chapter 19 (Integrated Development Regulations and Guidelines) is to establish a development code that carries out the policies of the City's General Plan by classifying and regulating the uses of land and structures within the City. This development code is adopted to protect and promote the public health, safety, comfort, convenience, prosperity, and general welfare of residents, and businesses in the City.

The proposed project is located within the Downtown District planning area, which is described as follows in Chapter 19.34.010:

- Desired Future. The primary objectives for the Downtown district are to preserve and enhance its historic character and to retain and promote its economic vitality as a commercial, cultural, and civic center attractive to residents and visitors. New construction and new uses should build upon the established character of the Downtown. High quality architecture, pedestrian-friendly design, and uses which draw locals as well as tourists are reasonable expectations for Sonoma's most distinctive district. While commercial uses will remain preeminent, the Downtown's housing stock should be preserved and extended. Multifamily and live-work development in the town center provide customers for Downtown businesses and reduce automobile dependence. Higher-density residential development at the edges of the district confers similar benefits and establishes a transition to lower-density residential areas.

  Many locals prefer to walk to the Plaza rather than drive, a choice which should be made as convenient and enjoyable as possible. Pedestrian amenities and connections should be extended throughout the district. The continued development of readily accessible off-street parking is also needed, as by choice or necessity, many visitors, local shoppers, and those who live or work in the downtown area will drive. In developing new parking or renovating existing parking, the creation of driveway connections between parking areas and pedestrian connections to commercial destinations should be emphasized.

- Potential Changes. Opportunities to create additional off-street parking should be pursued and interior connections between existing off-street parking lots should be created…Additional plantings are needed to fill gaps in the layout of street trees. In terms of traffic improvements, West Napa Street between First Street West and Second Street West may need to be reconfigured as a three-lane street section…

Chapter 19.48.040 includes the number of parking spaces required per land use. For hotels, the parking requirement is one space for each guest room, plus one space for each two employees on the largest shift, plus required spaces for accessory uses.

Sonoma Bicycle and Pedestrian Master Plan

The 2008 *Sonoma Bicycle and Pedestrian Master Plan* was developed as a component of the *SCTA Countywide Bicycle and Pedestrian Master Plan* (Countywide Plan). The Countywide Plan, which was updated in 2014, was prepared to foster local and regional coordination, to plan primary facilities that connect Sonoma County's

communities, and to develop long-term system planning. The Countywide Plan establishes bicycle and pedestrian policy for the City, as well as a countywide bicycle system, including bicycle and pedestrian infrastructure projects and programmatic improvements.

Through a collaborative planning process, a vision, goals, and objectives were approved by all ten jurisdictions in Sonoma County, including the City. Each city's plan is distinct and tailored to the needs of that community. The plans are designed to guide the development and maintenance of bicycle and pedestrian facilities, to enhance non-motorized mobility, reduce traffic congestion, and improve safety, access, air quality, and the quality of life. The principal goal of the Countywide Plan is "to develop and maintain a comprehensive countywide bicycle and pedestrian transportation system, which includes projects, programs, and policies that work together to provide safe and efficient transportation opportunities for bicyclists and pedestrians." The Countywide Plan includes the following objectives and policies.

- **Objective 1.0** *The Countywide Bicycle and Pedestrian Network*. Establish a comprehensive countywide bicycle and pedestrian transportation system.
- **Objective 2.0** *Design*. Utilize accepted design standards and complete streets for the development of bicycle and pedestrian facilities.
- **Objective 3.0** *Multimodal Integration*. Develop and enhance opportunities for bicyclists and pedestrians to easily access other modes of public transportation.
- **Objective 4.0** *Comprehensive Support Facilities*. Encourage the development of comprehensive support facilities for walking and bicycling.
- **Objective 5.0** *Education and Promotion*. Develop programs and public outreach materials to promote bicycle and pedestrian safety and the benefits of bicycling and walking.
- **Objective 6.0** *Safety and Security*. Create countywide pedestrian and bicycle networks that are, and are perceived to be, safe and secure.
- **Objective 7.0** *Land Use.* Encourage smart growth land use strategies by planning, designing and constructing bicycle and pedestrian facilities in new development.
- **Objective 8.0** *Planning.* Plan for the ongoing expansion and improvement of the countywide bicycle and pedestrian system.
- **Objective 9.0** *Maintenance.* Maintain and/or improve the quality, operation, and condition of bicycle and pedestrian infrastructure.
- **Objective 10.0** *Funding.* Maximize the amount of funding for bicycle and pedestrian projects and programs throughout Sonoma County, with an emphasis on implementation of these objectives.

Downtown Parking Management Plan

The City's released a draft Downtown Parking Management Plan in Fall 2022 for public review and comment. The draft Downtown Parking Management Plan is intended to outline a plan to address parking challenges in

downtown Sonoma. The draft plan summarizes the most recent parking inventory, supply, and demand study, including counts of the public on- and off-street parking supply. These counts are used to examine actual parking data and establish key parking trends occurring throughout downtown. Based on the key findings from the parking data, this plan includes a coordinated set of recommendations and implementation measures designed to manage parking supply and demand. The current draft plan builds on a study of parking conditions in the downtown area that was prepared in 2017.

The Downtown Parking Management Plan identifies specific parking strategies, which represent a toolbox of measures available to the City. To prioritize their application, they are broken into two phases: Phase 1 and Phase 2. Implementation of the Parking Management Plan may introduce new requirements for the proposed project. As of the publishing of this RDEIR, the Draft Parking Management Plan has not been adopted by City Council. Adoption of the Parking Management Plan may result in required conditions of approval and will be addressed as part of the Use Permit for the proposed project.

4.13.4 Environmental Impacts and Mitigation Measures

Thresholds of Significance

The CEQA Guidelines Appendix G (14 California Code of Regulations 15000 et seq.) identifies significance criteria to be considered for determining whether a project could have significant impacts on transportation. For the purposes of this analysis, an impact is considered significant if the proposed project would:

1. Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities;
2. Conflict or be inconsistent with CEQA Guidelines Section 15064.3(b);
3. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); or
4. Result in inadequate emergency access.

The thresholds of significance in this analysis are based upon the current practice of the appropriate regulatory agencies. For most areas related to transportation and circulation, policies from the City General Plan 2020 have been used.

Metrics against which Significance Threshold 1 is analyzed include the following:

- An impact to the bicycle or pedestrian system would be considered significant if the proposed project would:
  - Disrupt existing bicycle or pedestrian facilities;
  - Interfere with planned bicycle or pedestrian facilities; or
  - Create an inconsistency with the bikeway or pedestrian policies or standards or plans adopted by the City or County of Sonoma.
- An impact to the transit system would be considered significant if the proposed project would:

- Create demand for public transit services above that which is provided, or planned to be provided;
- Disrupt existing transit services or facilities;
- Interfere with planned transit services or facilities; or
- Create an inconsistency with the transit policies or standards of plans adopted by the City or County of Sonoma.

The metric against which Significance Threshold 2 is analyzed is as follows:

- An impact to vehicle miles traveled (VMT) would be considered significant if the proposed project would result in a VMT impact if:
  - For the residential component of the proposed project, the VMT impact would be significant if the VMT per capita is greater than 85 percent of the citywide or regional average.
  - The VMT impact of the hotel and restaurant portion of the proposed project would be considered significant if it results in a total VMT that is greater than 85 percent of unmitigated product conditions.

The metric used to evaluate Significance Threshold 3 is as follows:

- An impact to roadway safety would be considered significant if the proposed project would:
  - Cause queuing in marked turn pockets to extend out of the available stacking space into a through travel lane;
  - Result in inadequate sight lines from a project driveway;
  - Result in the need for a left-turn lane at a site driveway;
  - Conflict with policies or standards adopted by the City, County of Sonoma, or Caltrans; or
  - Create conflicts between modes (e.g., vehicles and bicycles).

Metrics against which Significance Threshold 4 is analyzed include the following:

- The impact on emergency access would be considered significant if the proposed project would:
  - Provide inadequate space for emergency response vehicles to stage or turn around on-site, if necessary; or
  - Result in an increase in delay on the roadway system that would impede emergency responders.

IMPACTS NOT DISCUSSED FURTHER

None.

IMPACT ANALYSIS

Impact 4.13-1. The project would be consistent with programs, plans, ordinances, and policies addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.

In the Circulation Element of the City's General Plan, Policy 1.1 cites the need to effectively accommodate vehicular and non-vehicular traffic; Goal 2.0 of the Circulation Element calls for the establishment of a circulation network that supports non-vehicle modes of transportation. Other General Plan policies, as well as those included in the *Sonoma Bicycle and Pedestrian Master Plan* express further support for the City's efforts to enhance the transportation network to serve the needs of all users.

Impact 4.13-1a: The project would not conflict with any programs, plans, policies, or ordinances pertaining to pedestrian access.

Given that the proposed project site is located within the Downtown area, a location shown to have relatively low vehicular travel demand,[2] it is reasonable to assume that some hotel patrons and employees, as well as residents of the proposed project will want to walk, bicycle, and/or utilize transit to travel to or from the project site; this includes some employees who would drive to work. Pedestrian facilities in the project area are generally well-developed. Sidewalks currently exist along the project frontage and both sides of all streets connecting to the Sonoma Plaza, and marked crosswalks are provided across all legs of each of the six study intersections.

The City has recommended enhancements to the pedestrian crossing at West Napa Street and First Street West as a part of the *City of Sonoma Systemic Safety Analysis Report* in 2019. This includes the construction of curb extensions to reduce pedestrian crossing distances, as well as the installation of rectangular rapid flashing beacons (RRFBs), which have been demonstrated to increase rates of driver yielding to pedestrians. The City has not identified funding or selected a design for pedestrian enhancements at this location; one potential alternative would be a High-Intensity Activated crosswalk (HAWK) beacon, which would stop vehicle traffic when activated by pedestrians. Potential design considerations include both an assessment of traffic conditions, as well as consistency with the historic character of Sonoma Plaza, to ensure consistency with General Plan Circulation Element Policy 1.5. The proposed project does not include any changes to the existing sidewalks on the frontage and does not conflict with any proposed pedestrian enhancements at this intersection or any relevant programs, plans, policies, or ordinances related to pedestrian travel. As a result, the impact would be **less than significant**.

Mitigation Measure: No mitigation measures are required.

Impact 4.13-1b: The project would not conflict with any programs, plans, policies, or ordinances pertaining to bicycle access.

The *Sonoma Bicycle and Pedestrian Master Plan* recommends installation of Class II bicycle lanes along West Napa Street, including along the project frontage. Since the proposed project would not alter the fronting roads, the proposed project would have no impact on existing bicycle facilities or access.

As proposed, the hotel would provide, maintain, and encourage use of a fleet of bicycles for its guests and employees. Further, employees of the hotel would be encouraged to use bicycles for transportation to and from the hotel by providing employee showers. Secured employee bicycle parking would be provided in the parking

[2] Please see details provided as a part of Impact 4.13-2.

garage, and public bicycle racks would be provided at the front of the hotel. The inclusion of these project elements would support the use of non-vehicle modes of transportation, which is consistent with the City's General Plan Circulation Element Policies 2.11 and 2.14. These policies recommend the promotion of bicycling as an alternative to driving and the inclusion of bicycle amenities as part of new development. The proposed project does not conflict with any programs, plans, policies, or ordinances related to bicycling. The impact is **less than significant**.

Mitigation Measure: No mitigation measures are required.

Impact 4.13-1c: The project would not conflict with any programs, plans, policies, or ordinances pertaining to transit use or access.

Sonoma County Transit Routes 30, 32, 34, and 40 provide access to destinations throughout the City and connections to surrounding communities; all of these routes stop at Sonoma Plaza, one block from the project site. These existing transit routes are adequate to accommodate project-generated transit trips, and the existing stops to access these routes are within an acceptable walking distance of the site. The location of the project site in close proximity to existing transit service supports General Plan Circulation Element Policy 3.1, which encourages providing a mix of land uses and density that would support increased transit use. The proposed project supports and does not conflict with any program, plan, policy, or ordinance related to transit. The impact is **less than significant**.

Mitigation Measure: No mitigation measures are required.

Impact 4.13-2. Consistency with CEQA Guidelines Section 15064.3(b).

Guidance from OPR states that, when assessing VMT impacts under CEQA, lead agencies may evaluate each component of mixed-use projects separately, which was the approach adopted for the analysis of the proposed project. The analysis of travel demand associated with the proposed project is broken down below by the hotel component (Impact 4.13-2a) and the residential component (Impact 4.13-2b). The VMT analysis is based on: (1) the estimated number of trips, as determined through standard Institute of Transportation Engineers (ITE) trip generation rates, which account for the presence of associated uses such as the proposed restaurant and spa, and (2) the estimated trip lengths.

Impact 4.13-2a: The VMT generated by the proposed project would be potentially significant.

Hotel VMT[3]

As discussed in RDEIR Chapter 3 (Project Description), the hotel component of the proposed project includes the development of a 62-guestroom hotel, 80-seat restaurant and bar, a spa with 6 treatment rooms, raised swimming pool veranda, and basement parking garage. The VMT estimate for the proposed project is based on trip patterns of guests and staff at three hotels located near the project site, as their employees and guests were presumed to have similar travel patterns. Each of the three referenced hotels includes ancillary uses that are similar to those

[3] Following the preparation of the EIR for the Hotel Project Sonoma in 2018, the City contracted with Fehr & Peers to develop a quantitative VMT estimate, which was prepared in 2019. The hotel component of the proposed Hotel Project Sonoma is largely unchanged from the previous project, as it included a hotel with the same number of rooms, a restaurant/lounge with the same number of seats, and the spa treatment facility with the same number of treatment rooms. Therefore, the VMT estimate prepared at that time was used as the basis to estimate the VMT for the proposed project.

proposed by the project. The analysis employed anonymized trip data collected in 2018 from mobile devices (a.k.a. "big data"). As such, it represents actual trip data rather than model-based estimates. The mobile device data accounts for all arriving and departing trips, including guest trips, commute trips by employees, and deliveries.[4] Trip data was analyzed for the following hotels, which are located less than three miles from the project site:

- Fairmont Sonoma Mission Inn (100 Boyes Boulevard, Sonoma – 2.6 miles from the project site)
- The Lodge at Sonoma Renaissance Resort (1325 Broadway, Sonoma – 1.2 miles from the project site)
- MacArthur Place Hotel (29 East MacArthur Street, Sonoma – 0.7 miles from the project site)

The comparison hotels, in particular the Fairmont, are located outside downtown Sonoma; in such locations, hotel guests would be expected to be more reliant on personal vehicles to access amenities in comparison with the proposed project, which is walkable to destinations, including those near the Plaza. For the VMT analysis of the proposed project, the most recent trip generation rates available were applied (*Trip Generation,* Institute of Transportation Engineers, 11th Edition, 2021). To ensure conservative results (which would tend to overestimate the actual impact), VMT generated by existing office and warehouse uses that would be discontinued to accommodate the proposed project were not subtracted from the VMT results.

The location and destination accessibility of a project site can have a substantial impact on the total VMT generated by the project. Destination accessibility is measured in terms of the number of attractions reachable within a given travel time compared to the average for a standard suburban site in North America and tends to be highest at central locations and lowest at peripheral ones. According to *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity*, California Air Pollution Control Officers Association (CAPCOA) 2021, the destination accessibility of a project results in a negligible VMT reduction in rural settings, while it can result in a reduction of up to 15 percent in suburban areas and 20 percent in urban infill sites. The project proposes infill development in downtown Sonoma and as such would be expected to result in substantially less VMT than if located on the outskirts of the City or any relatively lower-density areas where destinations are located relatively farther apart, the transportation network does not provide as much connectivity, transit may be relatively less available, and the land use mix would be relatively less diverse. Employees living in the City may not need a vehicle to reach the site and hotel guests would be able to walk or ride a bicycle to surrounding restaurants, bars, and tasting rooms. Based on the land use context of the proposed project and proximity of the site to a wide range of destinations, a built-environment VMT reduction of 7.5 percent was applied to the proposed project, as shown in Table 4.13-1.

Table 4.13-1. Vehicle Miles Traveled (VMT) Estimate

Trip Type	Weekday	Saturday	Sunday
Trips per day	495	500	368
Built-Environment Reduction	-7.5%	-7.5%	-7.5%
Adjusted trips per day	458	463	340
Average hotel trip length (miles)	18.6	20.9	20.9
Daily VMT Estimate	8,516	9,666	7,114

Source: "Hotel Project Sonoma Vehicle-Miles of Travel (VMT) Estimate," Memorandum, Fehr & Peers, 2019; *Trip Generation*, Institute for Transportation Engineers (ITE), 11th Edition.

[4] Since travel demand models are not designed to develop VMT estimates for visitor-serving land uses, actual trip data collected from mobile devices is the most reliable available data source for estimating travel patterns.

The VMT is also considered in terms of consistency with the intent of SB 743. As noted in the OPR Technical Advisory, the use of the VMT metric to assess transportation impacts as specified in SB 743 was intended to support three statewide goals: (1) reduction of greenhouse gas (GHG) emissions, (2) development of multimodal transportation networks, and (3) diversity of land uses. The travel demand part of SB 743 was intended to "[m]ore appropriately balance the needs of congestion management with statewide goals related to infill development, promotion of public health through active transportation, and reduction of greenhouse gas emissions" (Senate Bill No. 743, CHAPTER 386). The project site's location in downtown Sonoma can be characterized as infill development, and given the land use context, visitors, employees, and residents would be able to access destinations throughout the downtown area using non-vehicular (active) modes of transportation. While hotels that include a major new attraction or convention component may act as a destination and generate new trips and VMT, most hotels will instead redistribute existing visitor trips to the City by providing additional lodging options. Based on the characteristics of the proposed project, it would fall into the latter category (redistributing existing visitor trips to the City). VMT impacts of the proposed project would generally be less than for other hotels in the City, as the Plaza and surrounding shops and restaurants are the most popular destinations in the City and would be most conveniently accessed by walking from the project site. As a result, given the proposed project's location, hotel guests choosing to stay at the proposed project would be expected to generate fewer vehicle trips than guests staying at lodgings in less central locations, such as the three local hotels used above for VMT data collection, resulting in reduced visitor VMT.

Residential VMT

VMT for the proposed residential portion of the proposed project was analyzed by comparing the residential-generated VMT per capita for the project to the Citywide residential-generated VMT per capita. Consistent with OPR's guidance, projects with VMT less than 85 percent of the citywide average may be presumed to have a less-than-significant VMT impact. Project VMT was estimated based on data generated by the SCTA travel demand model. The SCTA model includes traffic analysis zones (TAZ) covering geographic areas throughout Sonoma County, and new uses are presumed to generate similar VMT to similar existing uses in that TAZ.

As determined in the SCTA travel demand model, the Citywide daily VMT per capita is 28.9. Applying a 15-percent reduction to this level, the significance threshold is 24.6 VMT per capita. The project site is located in traffic analysis zone (TAZ) 830, which according to the SCTA model has a daily VMT per capita of 24.6. Since the proposed project's VMT per capita is the same as the significance threshold, and 15 percent lower than the citywide average, the residential VMT impact would be less than significant, as summarized in Table 4.13-2.

Table 4.13-2. Vehicle Miles Traveled Analysis Summary

VMT Metric	Citywide Baseline VMT Rate	Significance Threshold (15% below baseline)	Project TAZ VMT Rate	Resulting Significance
Residential VMT per Capita (Citywide)	28.9	24.6	24.6	Less than Significant

Note: TAZ = traffic analysis zone, VMT Rate is measured in VMT/capita, or the number of daily miles driven per resident

Summary of Project VMT

While the residential component of the proposed project would represent a less-than-significant impact, since the non-residential component of the proposed project cannot demonstrate based on its location that daily VMT would be 15 percent less than the Citywide average, the VMT impact of the project is considered **significant**, requiring mitigation.

OPR's recommended statewide goal is a 15-percent reduction in VMT. Since consideration of the land use context supported the built-environment reduction of 7.5 percent, additional VMT reduction strategies would be required to achieve an additional 7.5 percent reduction and reach the significance threshold. The expected VMT reductions for the strategies identified in the CAPCOA report are highly context-dependent and can therefore vary considerably, so they would need to be tailored to fit the characteristics and context of the proposed project. While trips to destinations within the Downtown area can often be shifted to non-vehicle transportation, many visitors also travel to destinations throughout the region, such as wineries, that are most easily reached by vehicle. So, while visitor trips are longer than employee trips and represent a greater opportunity for VMT reductions, fewer options are available for mitigating them given the Sonoma context.

Mitigation Measure 4.13-2a: Transportation Demand Management for project guests and employees.

Visitor-Focused VMT Mitigation Measures

The project shall implement the following measures to reduce the project's VMT from visitors.

- **Private Airport Shuttle:** During peak season, the hotel shall offer a private airport shuttle to encourage patrons to avoid use of private vehicles. This effort could be coordinated with other area hotels to improve cost efficiency.

- **Rental Car Service:** During peak season, facilitate the use of rental cars for a more limited duration by coordinating the pick-up and drop-off of rental cars at the hotel for guests.

- **Parking Price Incentives:** Many hotels include parking in the cost of a room and by doing so, inadvertently encourage guests to bring cars and generate more congestion. As an alternative, the hotel shall unbundle the cost of parking from the room rate, indicating at the time of purchase that guests who arrive at the hotel in a private vehicle would be assessed an additional fee to park vehicles on-site. In addition to encouraging trip reduction, this measure could also reduce demand for on-site guest parking.

- **Transportation Information:** Providing guests with information regarding transportation options to the hotel and for transportation to sites in the area can help encourage guests to consider non-auto or rideshare options. This information shall be provided to guests as part of their registration confirmation process so that guests have the information early on to assist in their logistics planning for transportation options during their stay at the hotel. In addition, the project shall include an on-site transportation board including bicycle maps, trails, transit routes and schedules, and contact numbers for taxi, town car, and ride-share services in the reception area to assist guests.

- **Bike Share Program:** The hotel shall provide a fleet of bicycles available for use by guests to encourage their use for local transportation, which would complement other trip reduction measures.

Employee-Focused VMT Mitigation Measures

The proposed project shall implement the following measures to reduce the project's VMT from employees.

- **Alternative Transportation Incentives:** The proposed project shall provide employees with subsidized transit passes or parking cash-out incentives. This measure includes options for providing incentives for carpooling, transit, and active transportation modes. In non-urban areas, carpooling is often a highly effective trip reduction measure, as commute distances tend to be longer, and providing incentives to carpoolers can increase participation. Subsidized transit passes can also incentivize transit use, particularly given the proposed project's location within walking distance of bus stops served by Sonoma County Transit routes. Sonoma County Transit has a monthly pass that is good for unlimited rides currently for $62.50 per month. Employees who agree to use transit to reach the site a minimum of 50 percent of the time shall be provided a monthly pass for Sonoma County Transit free of charge. Similarly, use of non-vehicle transportation can be further supported by offering cash payments to employees who choose not to drive (also known as a "parking cash-out"), based on a portion of the market value of a parking space. Cash payments can also be provided to employees who agree to walk or bicycle to work a minimum of 50 percent of the time. Parking cash-out or active transportation incentives shall be a minimum of $50 per month to generate the desired trip reduction. Estimated trip reduction: 4 percent.

- **Ride-matching:** The proposed project shall provide its employees with ridesharing information. The greatest barrier to workplace carpooling is often simply being able to identify and travel with other nearby employees. Fortunately, there are services that can assist in pairing employees within the same organization or across organizations. The most basic publicly available service is 511.org's free ride-matching service. As an alternative, the hotel may set up an internal ride-matching program among employees to facilitate carpooling. Estimated trip reduction: 4 percent.

- **Emergency Ride Home:** The proposed project shall provide employees with information about the Emergency Ride Home program. One of the reasons that many employees do not carpool or commute via alternative modes is the fear of being stranded should they need to leave in an emergency. Employees who carpool to work should be guaranteed a ride home in the case of an emergency or unique situation. SCTA offers an Emergency Ride Home (ERH) program for anyone who works or goes to school in Sonoma County and uses an alternative commute option such as carpooling, vanpooling, public transit, bicycling or walking. Through the ERH program, participants can receive reimbursement for a ride home via taxi, transportation network company (e.g. Uber or Lyft), rental car, or car share.

- **Trip Reduction Marketing:** The proposed project shall designate a transportation coordinator for the project site. This is not an additional position, but rather should fall under a manager's responsibilities. It is important to select someone to continually market the availability of travel demand management incentives and information, to oversee the different travel demand measures available, answer questions, pair carpoolers, and administer incentives. The transportation coordinator will oversee a marketing program that includes providing new employees with a welcome packet containing relevant transportation information. The packet could include material regarding ride-matching services, the guaranteed ride home program, the cash-out program, as well as resources for those walking or biking to work. Estimated trip reduction: 4 percent.

- **Bicycle Trip-End Facilities:** The project shall include bicycle trip-end facilities. Employees are more likely to ride their bicycle to work if secure and covered bicycle parking as well as showers and

changing rooms are provided on-site. These measures complement other trip reduction strategies. Estimated trip reduction: 0.1 percent.

Significance after Mitigation

The total estimated employee VMT reduction is summarized in Table 4.13-3.

Table 4.13-3. Estimated Employee VMT Reduction from Mitigation Measure

Trip Reduction Measure	Estimated Trip Reduction
Alternative transportation incentives	4%
Ride-matching	4%
Emergency ride home	N/A
Trip reduction marketing	4%
Bicycle trip-end facilities	0.1%
Total Trip Reduction	12.1%

Source: Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity (GHG Handbook), California Air Pollution Control Officers Association (2021).

Mitigation Measure 4.13-2a has the potential to fully mitigate the hotel's VMT impact. As an infill project in the densest part of the City and considering the context of a highly diverse mix of land uses, the project site supports the intent of SB 743 by enabling walking or bicycling access to a wide range of destinations and supporting reduced project VMT. However, the City does not currently offer the type of high-frequency transit service that would be a central component of a robust trip reduction program that would often be available in a more urbanized area. In addition, reduction of guest VMT is particularly challenging to implement since neither the City nor the project applicant can directly control the mode nor travel choices of future hotel guests.[5] While the implementation of some or all of the above measures would reduce VMT by employees and guests, it is uncertain whether a 7.5-percent VMT reduction could be achieved to reduce the impact to a less-than-significant level. Due to this uncertainty the project's VMT impact is therefore considered **significant and unavoidable**.

Impact 4.13-3. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

Impact 4.13-3a: Project would generate additional vehicle traffic resulting in queues that would impact through travel lanes in the project area.

Increases in queue lengths would be considered a potentially significant impact if they caused the queue to extend into a through lane or to a location where visibility was obstructed. The signalized intersections of West Napa Street/Fifth Street West and West Napa Street/Second Street West were analyzed to estimate vehicle queues under existing conditions, as well as with the addition of the proposed project. Under each scenario, the projected maximum queues in dedicated turn lanes were determined using the Synchro software package, based on the predicted 95th percentile queue lengths. The queuing capacity analysis is summarized in Table 4.13-4, and copies of the Synchro queuing outputs are contained in Appendix G. Please see the City's website for the appendix: https://www.sonomacity.org/hotel-project-sonoma/.

[5] As the CAPCOA report focuses on trip reduction for residential and employee-based projects, reduction of visitor trips could not be quantified using the standard trip reduction methodologies.

The northbound left-turn lanes at West Napa Street/Fifth Street West and West Napa Street/Second Street West were determined to provide inadequate vehicle storage under all scenarios, and the southbound left-turn lane at West Napa Street/Second Street West was also found to be inadequate for all scenarios. It is noted that on Fifth Street West, the southbound left-turn lane is preceded by a two-way left-turn lane that extends to Church Street, which can provide the additional storage required for the anticipated queues. At both locations the lack of adequate storage is an issue under existing conditions and not the result of project-related trips. The addition of project trips would therefore not result in any queuing impacts in terms of safety. It is noted that the addition of improvements identified in the General Plan were assumed in the future scenarios and would contribute to reductions in queue lengths. The project-related impact on safety due to existing queuing capacity issues would be **less than significant.**

Mitigation Measure: No mitigation is required.

Table 4.13-4. 95th Percentile Queues in Turn Lanes

Study Intersection Approach	Available Storage	E Available Storage	E+P Available Storage	F Weekday Peak Hour	F+P Weekday Peak Hour	E Weekday Peak Hour	E+P Weekday Peak Hour	F Weekend Peak Hour	F+P Weekend Peak Hour
W Napa St/Fifth St W									
Northbound Left	210	**535**	**537**	**532**	**534**	**399**	**400**	**577**	**579**
Northbound Right	110	27	27	25	25	13	13	20	**20**
Southbound Left	290*	157	157	151	151	122	122	142	**142**
Eastbound Right	220	155	157	199	201	115	115	174	**174**
Westbound Right	265	77	78	129	129	41	41	56	**57**
W Napa St/Second St W									
Northbound Left	170	**261**	**261**	**258**	**258**	**180**	**180**	**202**	**202**
Southbound Left	95	47	49	46	48	65	68	72	**74**
Eastbound Right	140	48	48	53	53	39	39	48	**48**
Westbound Left	**175**	**92**	**92**	**93**	**93**	**121**	**121**	**142**	**142**

Source: W-Trans 2022. Notes: 95th percentile queues based on Synchro output; all distances are measured in feet; * Left turn lane is 90 feet but is preceded by a two-way left turn lane, which provides additional storage; E = existing conditions; E+P = existing plus project conditions; F = future conditions; F+P = future plus project conditions; Bold text = queue length exceeds available storage

Impact 4.13-3b: The project would add pedestrian trips to an intersection that has been identified by the City as needing improvements to safely and efficiently accommodate pedestrian travel.

The West Napa Street/First Street West intersection was identified for an improved pedestrian crossing in the City's *Sonoma Systemic Safety Analysis Report*, 2019. While the project would add pedestrian crossing demand at a location where the need for improvements was previously identified, an analysis of the collision history at this intersection indicates that there were no recorded collisions involving pedestrians at this location from 2016 through 2021. There is no apparent safety concern for pedestrians at this location, and since the proposed project would not modify the infrastructure at the intersection, the incremental increase in pedestrian crossings associated with the project would not be expected to introduce any new safety concerns. The impact of the proposed project would therefore be **less than significant**.

Mitigation Measure: No mitigation is required.

Impact 4.13.-3c: The proposed project would add bicycle trips at a location with bicycle collisions.

The collision history was studied for a five-year period, and two bicycle collisions were identified at the intersection of West Napa Street and First Street West. A review of the collision records revealed that one of the collisions involved a bicyclist colliding with a vehicle that was stopped in the roadway, while the second collision was due to the vehicle making a prohibited maneuver, which would have been unexpected. As a result, there appears to be no underlying safety issue for bicyclists at this location, and the addition of bicycle trips at the intersection would not be contributing to an existing hazardous condition. As a result, the impact of these trips would be **less than significant.**

Mitigation Measure: No mitigation is required.

Impact 4.13-3d: Sight distance at the proposed project driveways would be inadequate.

At unsignalized intersections or driveways, a substantially clear line of sight should be maintained between the driver of a vehicle waiting at the crossroad or driveway and the driver of an approaching vehicle. Sight distances along West Napa Street and First Street West at the project driveways were evaluated based on sight distance criteria contained in the *Highway Design Manual* published by Caltrans. The recommended sight distances for minor street approaches that are either a private road or a driveway are based on stopping sight distance which is related to the approach travel speeds. For the posted 25 mile-per-hour (mph) speed limit on West Napa Street, 125 feet of stopping sight distance is required. There is not a posted speed limit on First Street West, but the commercial and residential uses result in a *prima facie* speed limit of 25 mph, so the same 125 feet of stopping sight distance would be required.

Although sight distance requirements are not technically applicable to urban driveways, as a safety consideration the stopping sight distance at the proposed driveway locations was measured using aerial photography and the site plan. All three driveway locations on West Napa Street and the one on First Street West currently have more than 150 feet of stopping sight distance in all directions, which exceeds the minimum required. The impact of the project is **less than significant**.

Mitigation Measure 4.13-3d: No mitigation required.

Impact 4.13-3e: Project-generated traffic safety concerns related to traffic operations at the West Napa Street project driveway.

The need for a westbound left-turn lane on West Napa Street at the project driveway was evaluated based on criteria contained in the Intersection Channelization Design Guide, National Cooperative Highway Research Program (NCHRP) Report No. 279, Transportation Research Board, 1985, as well as an update of the methodology developed by the Washington State Department of Transportation and published in the Method for Prioritizing Intersection Improvements, January 1997. The NCHRP report references a methodology developed by M. D. Harmelink that includes equations that can be applied to expected or actual traffic volumes to determine the need for a left-turn pocket based on safety issues. This methodology is consistent with the "Guidelines for Reconstruction of Intersections," August 1985, which was referenced in Section 405.2, Left-turn Channelization, of previous editions of the Caltrans *Highway Design Manual*, though this reference has been deleted from the most recent edition of this manual.

Trips generated by the existing uses that would share the parking lot with the proposed hotel were included in the analysis of the need for a left-turn lane on West Napa Street at the project driveway as they would also use the

project driveway. It was conservatively assumed that all the traffic coming from the east and north would enter via the driveway, and that all site-generated traffic would use the project driveway, though some trips would be to the parking lot on the north side of West Napa Street and the residential parking lot on First Street West. To access the driveway on West Napa Street from the south on First Street West, a restricted left-turn would be required, so this option was not assumed.

Based on the existing conditions with the addition of project trips, a left-turn lane is not warranted on West Napa Street at the project driveway during either of the peak periods evaluated. Future peak-hour volumes, including project-generated traffic, were also reviewed to determine if turn lanes would be warranted with anticipated increases in traffic on West Napa Street. Under these future conditions, which represent a worst-case scenario, with 70 percent of all project-generated inbound traffic turning left, a left-turn lane is not warranted on West Napa Street at the project driveway during either of the peak periods evaluated. The analysis was conservative, as some project trips would be oriented to the parking lot on the north side of West Napa Street rather than accessing the proposed project at the driveway.

The need for a turn lane into the off-site parking lot was also evaluated; however, as the volumes would be less than those used in the analysis for the project driveway while the volumes on West Napa Street would be the same, it is clear the turn lanes would not be warranted at that location either.[6] This impact is considered **less than significant**.

Mitigation Measure: No mitigation measures are required.

Impact 4.13-4. Emergency access.

The proposed project would provide three connections to the public street network. The West Napa Street driveway would provide the main access to the hotel and there would be two driveways on First Street West, one serving the residential building and an exit-only driveway from the hotel garage. These proposed driveways would provide adequate access to the street network and multiple options for access for emergency vehicles to both respond to and depart from the site. It is expected that fire trucks would access the site from either of the streets fronting the project site, so they would not need to navigate through the parking area. The project site is located in an area with a highly connected transportation network with many options for emergency vehicles to reach the vicinity of the project site. Smaller emergency vehicles, such as ambulances, would be able to gain access on-site as needed. Plans submitted to the City will be reviewed by the Sonoma Valley Fire District for compliance with applicable standards and requirements. The project will be required by the City based on existing code requirements to be designed to ensure adequate emergency vehicle access, including requirements for aerial fire apparatus access.

Thus, this impact is considered **less than significant**.

Mitigation Measure: No mitigation measures are required.

[6] Copies of the spreadsheets detailing this analysis are provided in Appendix G. Please see the City's website for the appendix: https://www.sonomacity.org/hotel-project-sonoma/.

4.14 UTILITIES AND SERVICE SYSTEMS

4.14.1 ENVIRONMENTAL SETTING

WATER SUPPLY AND CONVEYANCE

The City serves as the water purveyor for all residences, businesses, and institutional users, and landscape irrigation within the City limits, as well as portions of unincorporated Sonoma County east of the City limits, and several areas that have outside service area agreements with the City along Thornsberry Road, Lovall Valley Road, East Napa Road, East MacArthur Street, and Denmark Street. The City's service area is approximately 2.5 square miles (EKI 2021).

EKI Environment & Water (EKI) has recently prepared a *Draft 2020 Urban Water Management Plan* (2020 UWMP) for the City (EKI 2021). Relevant information from the 2020 UWMP as related to the proposed project is summarized below.

The City of Sonoma receives treated water from the Sonoma County Water Agency (Sonoma Water). Sonoma Water's primary source of water supply is surface water from the Russian River, via the Lake Sonoma and Lake Mendocino Reservoirs. The Russian River flows are augmented by PG&E's Potter Valley Project, which diverts a portion of the Eel River flows to the East Fork of the Russian River. Water is diverted and extracted from the stretch of the Russian River located just upstream of Wohler Bridge via six radial wells known as "Ranney collectors." The diverted river water percolates through sand and gravel and only needs the addition of chlorine to meet drinking water quality standards. The Sonoma Water supply also includes a relatively small amount of groundwater (less than 2 percent of its total supply) from groundwater wells located in the central Santa Rosa Plain Groundwater Subbasin.

Water supply from Sonoma Water is delivered to the City through the Sonoma Water aqueduct system. The City is one of eight water contractors under a contract with Sonoma Water, known as the Restructured Agreement for Water Supply. Under the Restructured Agreement, Sonoma Water is obligated to deliver up to 6.3 million gallons of water per day (mgd) during any month and 3,000 AF of water during a fiscal year. The term of the agreement is through 2037 and can be extended by amendment. The Restructured Agreement also provides for the financing, construction, and operation of diversion facilities, transmission lines, storage tanks, booster pumps, conventional wells, and appurtenant facilities.

Additional City water supply is derived from six active groundwater wells. It is the City's intent to use its wells to meet peak summer month demands rather than on a year-round basis. The City currently extracts groundwater from a total of six active local wells located just north of the Sonoma Valley Groundwater Subbasin boundary. The total estimated capacity is approximately 1,225 gallons per minute (gpm). The City pumped an average of 178 AFY over the 5-year time period between 2016 and 2020, and maximum of 276 AF in 2019. The City's available groundwater supply and the purchased water supply from Sonoma Water have been sufficient to meet all of the City's demands in the past 5 years and all prior years (EKI 2021:61).

The City's water distribution system contains three pressure zones that are each served by one or more storage tanks; the project site is located within pressure Zone 1 of the City's service area (CSW|ST2 2015a). The principal water mains in the distribution system range in size from 4 to 14 inches. Most of the distribution grid piping in the older sections of the City ranges in size from 1½ to 4 inches, while the newer areas are served by pipes 6 to 8

inches in diameter. There are three City-owned welded steel storage tanks within the distribution system: the Napa Street Tank (2.0 million gallon [MG] capacity), the Thornsberry Tank (0.5 MG capacity), and the Norrbom Tank (3.0 MG capacity) (EKI 2021:26).

The 2020 UWMP indicates that water demand within the City was 2,174 AFY on average between 2016 and 2020. Taking into account historical water use, expected population increase and other growth, climatic variability, and other assumptions, water demand within the City is projected to increase to 2,283 AFY by 2045—an increase of approximately 5 percent compared to the 2016–2020 average (EKI 2021:5). The Water Conservation Act of 2009 (Senate Bill X7-7) requires the State of California to achieve a 20 percent reduction in urban per capita water use by December 31, 2020. In order to achieve this, each urban retail water supplier was required to establish water use targets for 2015 and 2020 using methodologies established by the California Department of Water Resources (DWR). In 2020, the City reduced its yearly water use to 166 gallons per capita per day (GPCD), and therefore is in compliance with its 2020 water use target of 180 gallons GPCD (EKI 2021:5).

The Sonoma Valley County Sanitation District (SVCSD) has completed a recycled water pipeline (the 5th Street East Recycled Water Pipeline Project) in collaboration with the Sonoma Valley Unified School District to provide recycled water for irrigation purposes to Sonoma Valley High School, Adele Harrison Middle School, and Prestwood Elementary schools. Recycled water will also be used in the future to offset irrigation demands at the City's Engler Street Park. The City expects that 50 AF of recycled water will be available for use during the first half of 2021 and a total of 55 AFY by 2025. The recycled water will be used for landscape irrigation to offset groundwater pumping (EKI 2021:67, Sonoma Water 2022).

UWMPs were previously required to evaluate water supply reliability for "normal, dry, and multiple dry years." In 2018, AB 1668 and SB 606 (referred to as "Making Water Conservation a California Way of Life" or the "2018 Water Conservation Legislation") were enacted, which required substantial modifications to the way UWMPs are prepared. Among those changes was the requirement that instead of evaluating "multiple dry years," urban water suppliers must evaluate reliability during "a drought lasting five consecutive water years." The City plans to continue purchasing the maximum yearly amount of water from Sonoma Water, continue utilizing its groundwater wells to supplement the surface water supply, implement its recycled water program for landscape irrigation, and implement its water conservation program. With the continuation of these operations, the 2020 UWMP demonstrates that the City will be able to provide enough water to meet its projected existing and future demands in all water year types—normal, dry, and 5-year consecutive drought—through the year 2045 (EKI 2021:87–88).

As required by California Water Code Section 10632, the UWMP also includes a Water Shortage Contingency Plan. The Water Shortage Contingency Plan would take effect in the case of a water shortage event, such as a drought or supply interruption, and defines specific policies and actions that will be implemented at various shortage level scenarios. The primary objective of the Water Shortage Contingency Plan is to ensure that the City has in place the necessary resources and management responses needed to protect health and human safety, minimize economic disruption, and preserve environmental and community assets during water supply shortages and interruptions. The Water Shortage Contingency Plan includes six levels to address shortage conditions ranging from up to 10 percent to greater than 50 percent shortage, identifies a suite of measures to reduce water demand which the City would implement at each level, and identifies procedures for the City to annually assess whether a water shortage is likely to occur in the coming year, among other things (EKI 2021:93).

WASTEWATER COLLECTION, CONVEYANCE, AND TREATMENT FACILITIES

In addition to water supply, Sonoma Water also manages and operates eight sanitation (wastewater) districts and zones throughout Sonoma County. The project site is within the SVCSD service area, which is managed and operated by Sonoma Water.

The SVCSD service area extends from the unincorporated community of Glen Ellen in the north to Schellville in the south, and encompasses approximately 4,500 acres. The wastewater collection system consists of approximately 188 miles of pipeline and two lift stations. The collection system conveys wastewater to SVCSD treatment facility located at 22675 8th Street East, Sonoma. The treatment facility currently provides a tertiary level of treatment. The facility is permitted to treat an average dry weather flow of 3.0 mgd, and it currently treats 2.7 mgd. Between May 1 and October 30, recycled water from the treatment facility is used for irrigation and wetland habitat enhancement. Between November 1 and April 30, the recycled water is discharged into Schell Slough or Hudeman Slough (SVCSD 2018).

A *Sewer System Management Plan* for SVCSD has been prepared and was most recently updated in January 2021 (Woodard & Curran 2021). For each of the planning scenarios examined, projected dry and wet weather flows were simulated in the hydraulic model. A 24-hour duration, 10-year return period storm event based on historical rainfall statistics was selected as the design event for evaluating system capacity and sizing required system improvements, if needed. Model results were examined to determine system capacity needs, as indicated by areas where the flow in the pipes would exceed their capacity and cause surcharge conditions (water levels higher than the crowns of the pipes) to within 5 feet of manhole rims under peak wet weather flow (PWWF) conditions or above the crown of the pipe under peak dry weather flow (PDWF). Based on the model results, the Capacity Assessment study identified portions of SVCSD's sewer system with inadequate capacity to convey existing peak wet weather flows.

The SVCSD is also required to include a System Evaluation and Capacity Assurance Plan (SECAP) as part of its Sewer System Management Plan (SSMP). The SSMP addresses the overall management, operation, and maintenance of the sanitary sewer system and is required for all sewer system agencies under the Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, adopted in 2006 by the State Water Resources Control Board (Messenger 2022).

Sonoma Water has prepared a *2022–2027 Capital Improvement Plan*, which identifies projects that will be funded for construction over the 5-year time period in accordance with the agency's mission and strategic objectives (Sonoma Water 2022). A cease-and-desist order was issued to SVCSD by the San Francisco Bay Regional Water Quality Control Board in 2015 for wet weather discharges from its collection system between 2010 and 2015. The order requires SVCSD to complete certain capital improvements by 2024 to address capacity deficiencies in the collection system. The Capital Improvement Plan includes substantial investment in trunk main replacement and rehabilitation projects to comply with this order (Sonoma Water 2022). There are no collection system projects in the current five-year plan that are applicable to the proposed project or vicinity of the project site (Messenger 2022).

ELECTRICITY AND NATURAL GAS

PG&E is responsible for the provision of electricity and natural gas services to the existing development at the project site. After the project site is redeveloped, these services would continue to be provided by PG&E, through

modified underground on-site systems designed specifically to serve the proposed project, which would tie in to existing off-site lines in SR 12 (West Napa Street).

Electricity supply in California involves a complex grid of power plants and transmission lines located in the Western United States, Canada, and Mexico. In 2019, the total system power for California was 277,704 gigawatt-hours (GWh) of electricity, down 2 percent from 2017 and 2.7 percent from 2018 (California Energy Commission [CEC] 2020a). The overall decline observed in California's total system electric generation is consistent with the trends observed in energy demand, which has been flat or slightly declining as energy efficiency programs have resulted in end-use energy savings and as customers install behind-the-meter energy systems that directly displace utility-supplied generation. California's electricity is generated through a combination of nuclear power plants; natural gas-fired power plants; renewable energy sources, such as wind, solar, geothermal, and small hydroelectric facilities; and additional energy purchased from other energy suppliers.

PG&E's natural gas pipe delivery system includes over 42,000 miles of distribution pipelines, and over 6,000 miles of transportation pipelines. Gas delivered by PG&E originates in gas fields in California, the US Southwest, US Rocky Mountains, and from Canada. Transportation pipelines send natural gas from fields and storage facilities in large pipes under high pressure. The smaller distribution pipelines deliver gas to individual businesses or residences. In 2019, natural gas consumption in the PG&E service area totaled approximately 4,942 million therms (CEC 2020b), of which approximately 211 million therms was consumed in Sonoma County (CEC 2020c).

SOLID WASTE

Sonoma Garbage Collectors (2021) provides solid waste collection and operates recycling programs for all residents and businesses in the City.

The Central Disposal Site landfill operated by Republic Services, located at 500 Mecham Road in Petaluma, accommodates solid waste from the City (along with Sonoma County). The Central Disposal Site has a permitted capacity of 19.59 million tons (32.65 million cubic yards), a remaining capacity of 9.1 million cubic yards, and a maximum capacity of 2,500 tons per day (tpd). The estimated site closure date is 2043 (CalRecycle 2019).

4.14.2 REGULATORY BACKGROUND

FEDERAL PLANS, POLICIES, REGULATIONS AND LAWS

No federal plans, policies, regulation, or laws pertaining to utilities and service systems are applicable to the proposed project.

STATE PLANS, POLICIES, REGULATIONS, AND LAWS

California Urban Water Management Planning Act (California Water Code Sections 10610-10656)

In 1983, the California Legislature enacted the Urban Water Management Planning Act, which requires every urban water supplier that provides water to 3,000 or more customers, or over 3,000 acre-feet of water annually, to make every effort to ensure the appropriate level of reliability in its water service to meet the needs of its customers during normal, dry, and multiple-dry years. The UWMP is required in order for a water supplier to be eligible for state grants, loans, and drought assistance administered by the California Department of Water

Resources. The UWMP provides information on water use, water resources, recycled water, water quality, reliability planning, demand management measures, best management practices, and water shortage contingency planning for a specified service area or territory. In accordance with State requirements, the City recently prepared an update to its UWMP (EKI 2021), which details the City's water service area, treatment and distribution facilities, available water supplies, water reliability efforts, water conservation programs, and future systems to meet projected growth.

Senate Bill 610

The State of California has enacted legislation that is applicable to the consideration of larger projects under CEQA. SB 610 (Chapter 643, Statutes of 2001; Section 21151.9 of the Public Resources Code and Section 10910 et seq. of the Water Code) requires the preparation of "water supply assessments" for large developments (i.e., more than 500 dwelling units or nonresidential equivalent). These assessments, prepared by "public water systems" responsible for serving project areas, address whether existing and projected water supplies are adequate to serve the project, while also meeting existing urban and agricultural demands and the needs of other anticipated development in the service area in which the project is located. If the UWMP did not account for the project's water demand, or if the public water system has no UWMP, the project's WSA must discuss whether the system's total projected water supplies (available during normal, single-dry, and multiple-dry water years during a 20-year projection) would meet the project's water demand in addition to the system's existing and planned future uses, including agricultural and manufacturing uses. A water supply assessment for the proposed project was prepared in 2015 (CSW|ST2 2015a), and updated water demands from the proposed 8-unit residential building, which was added to the project after the water supply analysis was prepared, are factored into the impact analysis in Subsection 4.14.3, below.

Sustainable Groundwater Management Act

The Sustainable Groundwater Management Act (SGMA) of 2014 provides for local control of groundwater sustainability with State oversight. The law became effective January 1, 2015 and states that groundwater resources should be managed sustainably for long-term reliability and multiple economic, social, and environmental benefits for current and future beneficial uses. The SGMA requires local agencies to develop and implement groundwater sustainability plans in high and medium priority groundwater basins throughout California.

Local agencies must form groundwater sustainability agencies by 2017. Agencies in critically overdrafted basins must develop groundwater sustainability plans by 2020, while agencies in all other high and medium priority basins must prepare groundwater sustainability plans by 2022. (See Section 4.9, "Hydrology and Water Quality," for further discussion.)

California Green Building Standards Code

The California Green Building Standards Code (CALGreen Code) (Title 24, Part 11 of the California Code of Regulations) was developed to enhance the design and construction of buildings, and the use of sustainable construction practices, through planning and design, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and environmental air quality. Recent energy efficiency improvements to the residential standards include improvements for attics, walls, water heating, and lighting and

standards for residential plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) to reduce indoor demand for potable water.

Chapters 4 and 5 of the 2019 CALGreen Code require new development to comply with either a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient Landscape Ordinance, whichever is more stringent. Both chapters require all residential and nonresidential construction contractors to reduce construction waste and demolition debris by 65 percent. Code requirements include preparing a construction waste management plan that identifies the materials to be diverted from disposal by efficient usage, recycling, reuse on the project, or salvage for future use or sale; determining whether materials will be sorted on-site or mixed; and identifying diversion facilities where the materials collected will be taken. The code also specifies that the amount of materials diverted should be calculated by weight or volume, but not by both. In addition, the CALGreen Code requires that 100 percent of trees, stumps, rocks, and associated vegetation and soils resulting primarily from land clearing be reused or recycled.

California Integrated Waste Management Act

The California Integrated Waste Management Act (CIWMA) of 1989 is the result of two pieces of legislation, AB 939 and SB 1322. The CIWMA was intended to minimize the amount of solid waste that must be disposed of by transformation and land disposal by requiring all cities and counties to divert 25 percent of all solid waste from landfill facilities by January 1, 1995, and 50 percent by January 1, 2000.

The CIWMA created the California Integrated Waste Management Board (now known as CalRecycle). CalRecycle is the agency designated to oversee, manage, and track California's 92 million tons of waste generated each year. CalRecycle provides grants and loans to help cities, counties, businesses, and organizations meet the state's waste reduction, reuse, and recycling goals. In addition to many programs and incentives, CalRecycle promotes the use of new technologies for the practice of diverting resources away from landfills. CalRecycle is responsible for ensuring that waste management programs are primarily carried out through local enforcement agencies (LEAs).

The State Water Resources Control Board and the nine Regional Water Quality Control Boards also regulate waste disposal. In Sonoma County, Zero Waste Sonoma is responsible for municipal solid waste management planning and compliance efforts required by CalRecycle.

Assembly Bill 341—Solid Waste Diversion

AB 341 established a policy goal for California that at least 75 percent of the solid waste generated be source-reduced, recycled, or composted by 2020. In an effort to reduce greenhouse gas emissions from disposing of recyclables in landfills, AB 341 requires local jurisdictions to implement commercial solid waste recycling programs. Businesses that generate 4 cubic yards or more of solid waste per week or multifamily dwellings of 5 units or more must arrange for recycling services. In order to comply with AB 341, jurisdictions' commercial recycling programs must include education, outreach, and monitoring of commercial waste generators and report on the process to CalRecycle. Jurisdictions may enact mandatory commercial recycling ordinances to outline how the goals of AB 341 will be reached. For businesses to comply with AB 341, they must arrange for recyclables collection through self-haul, subscribing to franchised haulers for collection, or subscribing to a recycling service that may include mixed waste processing that yields diversion results comparable source separation.

Assembly Bill 1826/Senate Bill 1383—Mandatory Commercial/Residential Organics Recycling

In order to further reduce greenhouse gas emissions from disposal of organic materials in landfills, AB 1826 requires businesses to recycle their organic waste beginning on April 1, 2016, depending on the amount of solid waste they generate per week. Similar to AB 341, jurisdictions are required to implement an organic waste recycling program that includes the education, outreach and monitoring of businesses that must comply. Organic waste refers to food waste, green waste, landscaping and pruning waste, nonhazardous wood waste, and food-soiled paper that is mixed with food waste. AB 341 requires the following:

- By 2020, reduce the amount of organic material disposed in landfills by 50% from the 2014 level;
- By 2025, reduce the amount of organic material disposed in landfills by 75% from the 2014 level; and
- By 2025, no less than 20% of edible food currently disposed must also be recovered for human consumption.

SB 1383 requires residents to participate in organic waste recycling (in addition to businesses), and it requires some businesses to donate excess edible food to feed people, in addition to composting organic materials. SB 1383 imposes significant penalties for non-compliance.

Regional and Local Plans, Policies, Regulations, and Ordinances

Sonoma Valley County Sanitation District Sewer System Master Plan

On May 2, 2006, the State Water Resources Control Board issued Statewide General Waste Discharge Requirements (WDRs) for Sanitary Sewer Systems, Water Quality Order No. 2006-0003 (Order). This order requires any public agency that owns or operates a sanitary sewer system more than one mile in length comply with the requirements of the WDR in order to reduce the number of sanitary sewer overflows. One requirement of the WDR is that agencies must develop a Sewer System Management Plan which describes how each agency operates, maintains, and evaluates its collection system. A *Sewer System Management Plan* for SVCSD has been prepared and was most recently updated in January 2021 (Woodard & Curran 2021). As noted previously, the SVCSD is also required to include a System Evaluation and Capacity Assurance Plan (SECAP) as part of its Sewer System Management Plan (SSMP) to address the overall management, operation, and maintenance of the sanitary sewer system (Messenger 2022).

City of Sonoma General Plan

The City General Plan (City of Sonoma 2006), contains the following policies related to utilities and service systems.

Environmental Resources Element

- **Policy 3.1:** Increase the conservation-effectiveness and cost-effectiveness of the solid waste source reduction program through expanded recycling and composting.
- **Policy 2.4:** Protect Sonoma Valley watershed resources, including surface and ground water supplies and quality.

Community Development Element

- **Policy 3.2:** Work cooperatively with public agencies and citizens toward long-term, environmentally appropriate methods for providing services in the Sonoma Valley.

Sonoma Municipal Code Title 13, Chapter 13.10—Water Shortage and Conservation Plan

The purpose of Municipal Code Title 13, Chapter 13.10 is to conserve the water supply of the City for the greatest public benefit with particular regard to public health, fire protection, and domestic use; to conserve water by reducing waste; and to achieve water use reductions in response to water shortages that occur from time to time.

This ordinance prohibits the washing of sidewalks, walkways, driveways, parking lots, and other hard-surfaced areas by direct hosing; requires that the flow of water from water leaks must be stopped within 72 hours; prohibits excessive water runoff or overspray from irrigation systems; requires that washing cars, boats, trailers, or other vehicles and machinery directly with a hose must be equipped with a shutoff nozzle; and requires that all car washes must recirculate water use.

This ordinance also provides that the City Council may declare four different water shortage stages, each with different water conservation requirements.

Sonoma Municipal Code Title 14, Chapter 14.32—Water-Efficient Landscaping

The provisions of Municipal Code Title 14, Chapter 14.32 are intended to protect local water supplies through the implementation of a whole system approach to design, construction, installation and maintenance of the landscape resulting in water-conserving climate appropriate landscapes, improved water quality and the minimization of natural resource inputs. This chapter applies to all new landscape projects. The goals of this chapter are enforced through the requirement that the City review landscape plan designs to ensure that they comply with the minimum standards contained in the chapter. This ordinance requires preparation and submittal for review by the City of a soil analysis report, landscape design plan, irrigation design plan, and grading design plan (where slopes exceed 10 percent). A maximum applied water allowance must be calculated for each site.

City of Sonoma Water Conservation Programs

The City offers financial incentives to business and residential customers to implement water conservation measures. These incentives include High-Efficiency Toilet Rebate Program, High Efficiency Faucet Aerator/ Showerhead Giveaway, High-Efficiency Clothes Washer Rebate Program, and a Turf Rebate Program. The City also implements a variety of public outreach and educational programs at local schools and through its departmental websites (EKI 2021).

Sonoma Recycled Water Program

The Sonoma Valley County Sanitation District is in the final stages of constructing a recycled water pipeline (the 5th Street East Recycled Water Pipeline Project) in collaboration with the Sonoma Valley Unified School District to provide recycled water for irrigation purposes to Sonoma Valley High School, Adele Harrison Middle School, and Prestwood Elementary schools (in the City of Sonoma). Recycled water will also be used in the future to offset irrigation demands at the City's Engler Street Park. The City expects that 55 AFY of recycled water will be available for use by 2025. The City anticipates utilizing recycled water for landscape irrigation to offset groundwater pumping (EKI 2021).

City of Sonoma Will-Serve Requirement for Water Supply

In 2010, the City Council adopted a resolution (Resolution 46-2010) implementing a "will-serve" requirement for new developments having a projected demand of at least 0.5 Equivalent Single-Family Dwellings (ESDs), in which the City Engineer verifies that sufficient water capacity exists prior to the issuance of a building permit. This resolution was subsequently re-authorized and extended by the City in 2013. The will-serve requirement, as set forth in the resolution, is as follows: Prior to the issuance of any building permit, a water demand analysis must be submitted by the applicant and shall be subject to the review and approval of the City Engineer. The ordinance specifically requires that building permits for new development only be issued if the City Engineer finds, based on the water demand analysis in relation to the available water supply, that sufficient capacity is available to serve the proposed development. These findings must be documented in the form of a will-serve letter, prepared by the City Engineer. Any will-serve letter shall remain valid only so long as the use permit for the project remains valid.

4.14.3 Environmental Impacts and Mitigation Measures

Thresholds of Significance

Based on Appendix G of the CEQA Guidelines, the proposed project would have a significant impact related to utilities and service systems if it would:

- require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects;
- 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 which 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
- not comply with federal, State, or local management and reduction statutes and regulations related to solid waste.

Impact Analysis

Impact 4.14-1: Require or Result in the Relocation of or the Construction of New or Expanded Utilities and Service Systems Facilities, the Construction of Which Could Cause Significant Environmental Effects.

The proposed project would require the construction of new or expanded on-site water, wastewater, electrical, and natural gas facilities. The following discussion identifies these utilities and service systems that are required to serve the proposed project and the potential for construction of new or expanded systems to cause potentially significant environmental effects. Impacts related to stormwater drainage facilities are addressed in Section 4.9, "Hydrology and Water Quality."

Water System Facilities

The proposed project would receive domestic water service through modifications to the existing on-site water distribution system, which connects to existing adjacent infrastructure. The project site is located within pressure Zone 1 of the City's service area. Because the project site comprises portions of several different parcels that would be redeveloped as one lot, new on-site water supply distribution lines would be installed to serve the proposed development. To serve the proposed hotel/spa/restaurant, a connection to the existing 8-inch off-site water supply line located in the SR 12 (West Napa Street) right-of-way would be installed. To serve the proposed 8-unit residential building, a connection to the existing 8-inch off-site water supply line located in the First Street West right-of-way would be installed (Huffman Engineering & Surveying 2021). In addition, new fire department connections would be provided for each of the hotel/spa/restaurant buildings, the 8-unit residential building, and the basement parking garage. Finally, an existing fire hydrant on the west side of the proposed hotel driveway entrance would be removed, and a new hydrant would be installed on the east side of the proposed hotel entrance, closer to the Lynch Building (the other two existing fire hydrants would remain). All new connections would be subject to approval by the City Public Works Department. No new off-site water system facilities would be necessary to serve the proposed project.

Wastewater Collection and Conveyance Facilities

Because the project site comprises portions of several different parcels that would be redeveloped as one lot, new on-site wastewater collection lines would be installed to serve the proposed development. To serve the facilities on the garage/basement level, a 2-horsepower, 30-gallon-per-minute pump would be installed to lift waste to the gravity sewer at the first-floor level. The pump would be contained in a 1,000-gallon sump tank near the northwest corner of the proposed garage. A 1,500-gallon grease trap would be installed on the west side of the proposed auto court area to serve the new restaurant. A monitoring manhole would be installed at the outflow of the grease trap before the connection to the new on-site wastewater line. To serve the proposed hotel/spa/restaurant, a connection to the existing 8-inch off-site wastewater collection line in the SR 12 (West Napa Street) right-of-way would be installed. To serve the proposed 8-unit residential building, a connection to the existing 6-inch off-site wastewater collection line in the First Street West right-of-way would be installed (Huffman Engineering & Surveying 2021). Both new connections would be subject to approval by Sonoma Water (CSW|ST2 2015b).

Electrical and Natural Gas

PG&E is responsible for the provision of electricity and natural gas to the existing development at the project site and would continue to do so after the site is redeveloped. The project's electrical power supply would be augmented by an approximately 8,704-square-foot rooftop photovoltaic (solar) generation system installed as part of the proposed project. Electrical supply for the proposed project would originate from existing PG&E lines in SR 12 (West Napa Street); the new on-site electrical lines would be installed underground.

Natural gas service would be provided from an existing PG&E supply line in SR 12 (West Napa Street) right-of-way. An existing 3-inch natural gas line serving the Chateau Sonoma building and a lateral line from First Street West that serves the existing warehouse would be abandoned, and new service for these buildings would be provided from First Street West (Ross Drulis Cusenbery Architecture, Inc. 2015; Huffman Engineering & Surveying 2021).

The proposed project would not require the extension of new off-site electrical or natural gas infrastructure, and would be small enough such that new electrical or natural gas generation facilities would not be required.

Impact Conclusion

Environmental impacts related to demolishing the existing on-site infrastructure and redeveloping the on-site utilities infrastructure to serve the proposed project are analyzed throughout the various environmental topic specific sections of this RDEIR. The placement of these utilities has been considered in the other sections of this RDEIR, such as Section 4.3, "Air Quality," Section 4.4, "Biological Resources," Section 4.5, "Cultural and Tribal Cultural Resources," and other sections that specifically analyze the potential impacts from project site redevelopment. Where necessary, these sections include mitigation measures that would reduce or avoid the impacts of redeveloping the on-site infrastructure on the physical environment. Therefore, this impact is considered **less than significant**.

Mitigation Measure: No mitigation measures are required.

Impact 4.14-2: Increased Demand for Water Supplies.

Water supply for the proposed project would be provided by the City, which purchases water from Sonoma Water under the terms of the Restructured Agreement for Water Supply. Under the Restructured Agreement, Sonoma Water is obligated to deliver water up to 6.3 mgd per month and 3,000 AY of water during a fiscal year. In 2015, CSW|ST2 was retained to prepare a water supply analysis for the proposed project. At the time, the project did not include the proposed 8-unit residential building, just the hotel, spa, restaurant, and associated landscaping. In 2021, Huffman Engineering and Surveying was retained to provide updated project water demands that included the 8-unit residential building, in addition to the hotel, spa, restaurant, and associated landscaping (Huffman Engineering & Surveying 2021). The proposed project includes a voluntary Water Conservation Program (J. Crowley Group 2015). The program includes use of low-flow fixtures, drought-resistant landscaping, and a variety of operational practices, implementation of which would reduce the project's water demand. In addition, landscaping at the project site has been designed to comply with the City's Water-Efficient Landscaping Ordinance (Sonoma Municipal Code Title 14, Chapter 14.32), in order to further conserve water. After incorporating the potential water savings, the project's water demands were calculated to be 5.7 million gallons per year (CSW|ST2 2015a). Landscaping water would be supplemented by an on-site rainwater catchment system: roof downspouts and condensate from roof mounted condenser units would flow to an underground cistern below the parking garage, in addition to stormwater flows captured from flow through the biofilters in the on-site landscape planters. The addition of the rainwater catchment system is projected to result in a 50 percent reduction in annual landscape water demands. As updated in 2021, the proposed hotel/spa/restaurant would require 307 gallons per minute (gpm) during peak flows, and the 8-unit residential building would require 76 gpm during peak flows. The landscape irrigation system is expected to require 12 gpm during peak flows, for a total project demand of 395 gpm under peak flow conditions. (Huffman Engineering and Surveying 2021).

The City's 2020 UWMP (EKI 2021) identified water supply and demand through the year 2045. The UWMP states that the City plans to continue purchasing the maximum yearly amount of water from Sonoma Water, continue utilizing its groundwater wells to supplement the surface water supply, implement its recycled water program for landscape irrigation, and implement its water conservation program. With the inclusion of these operations, the 2020 UWMP found that the City's projected water supplies are sufficient to meet its projected existing and future demands in all water year types—normal, dry, and 5-year consecutive drought—through the

year 2045 (EKI 2021:87–88). The 2045 planning horizon of the UWMP includes assumed growth in the City, including a growth in the service population of 12 percent between 2020 and 2045. Sonoma County Water Agency (Sonoma Water), which supplies the City with treated water, also prepared an UWMP recently showing adequate supply to meet demand in normal, dry, and multiple dry years. In that UWMP, for the City of Sonoma, the UWMP assumed a growth in residential population of approximately 12 percent (Sonoma Water 2020). Furthermore, as required by California Water Code Section 10632, the City's UWMP also includes a Water Shortage Contingency Plan. The Water Shortage Contingency Plan would take effect in the case of a water shortage event, such as a drought or supply interruption, and defines specific policies and actions that will be implemented at various shortage level scenarios.

The City's Will-Serve Resolution requires that prior to the issuance of any building permit, a water demand analysis must be submitted by the applicant and shall be subject to the review and approval of the City Engineer. The resolution specifically requires that building permits for new development only be issued if the City Engineer finds, based on the water demand analysis in relation to the available water supply, that sufficient capacity is available to serve the proposed development. These findings must be documented in the form of a will-serve letter, prepared by the City Engineer.

Therefore, because sufficient water supplies would be available to serve the proposed project, this impact is considered **less than significant**.

Mitigation Measure: No mitigation measures are required.

Impact 4.14-3: Wastewater Capacity to Serve the Project's Projected Demand in Addition to the Provider's Existing Commitments.

Redevelopment of the project site would result in increased effluent discharge to the existing SVCSD sanitary sewer system and would require more wastewater treatment and disposal as compared to existing conditions.

As described in the *Sanitary Sewer Analysis* prepared by CSW|ST2 (2015b), each Equivalent Single-Family Dwelling (ESD) in the SVCSD's service area is assigned a sewer flow of 200 gallons per day. The proposed hotel and restaurant would generate 39.44 ESD, or 7,888 gallons per day. The proposed 8-unit residential building would generate 8.75 ESD, or 1,750 gallons per day (Huffman Engineering & Surveying 2022). Thus, the proposed project would generate a total dry-weather average flow of 9,638 gallons per day. The SVCSD wastewater treatment facility is permitted to treat an average dry weather flow of 3.0 million gallons per day (mgd), and it currently treats 2.7 mgd. The proposed project would result in 0.35 percent of the daily average dry weather flow at the wastewater treatment facility, and therefore would not exceed the wastewater treatment plant capacity. Therefore, a **less than significant** impact would occur.

The *Sanitary Sewer Analysis* (CSW|ST2 2015b) determined that the existing 8-inch sewer main in SR 12 (West Napa Street) would have sufficient capacity to serve the proposed project. However, the 2015 *Sanitary Sewer Analysis* also found that under both existing conditions and with the additional wastewater generated by the proposed project, surcharging[1] would occur in the sewer main line in SR 12 (West Napa Street), because the existing sewer main in Broadway (which ties into the main line in SR 12 east of the project site) was under

[1] Surcharging occurs when the sanitary sewer lines become overloaded from infiltration or discharge of clean water connected to sewer lines.

capacity. The SVCSD Sanitary Sewer Capacity Assessment and Master Plan assesses future conditions, finding overflow in the 10-inch sewer line in the vicinity of the proposed project site (RMC 2016).

The updated *Hotel Project Sonoma – Civil Design Basis* (Huffman Engineering & Surveying 2021:2) noted that "[T]he existing sewer system will be studied to verify capacity in accordance with Sonoma County Water Agency requirements." The project's off-site conveyance needs have not been determined and capacity has not been identified by the City, Sonoma Water, or SVCSD. Therefore, this impact is considered **potentially significant**.

Mitigation Measure 4.14-3: Provide Proof of Adequate Sewer Capacity Prior to Issuance of Building Permits.

Prior to issuance of a building permit by the City, the project applicant shall coordinate with Sonoma Valley County Sanitation District and Sonoma Water, and shall provide documentation to the City demonstrating that adequate wastewater conveyance capacity for the proposed project is available.

The project shall cause no new net increases in overflow, or threat of overflow, in the collection system. Prior to building permit issuance, and sewer permit issuance, this shall be accomplished through wet weather inflow/infiltration adequate reductions in the sewer-shed, dry weather (regular sewer discharge) reductions in the sewer-shed, by completing a portion of the future project as needed to maintain the pre-development hydraulic grade-lines, such as upsizing the sewer main in Broadway, or through another method approved by Sonoma Water. The project shall be reimbursed on a pro-rata basis by any other development in the future that uses any sewer conveyance capacity created by the project.

Significance after Mitigation

Implementation of Mitigation Measure 4.14-3 would reduce the project's impact related to capacity of the existing off-site sewer conveyance pipelines to a **less than significant** level because the project applicant would coordinate with SVCSD and would provide documentation to the City demonstrating that adequate wastewater conveyance capacity for the proposed project is available.

Impact 4.14-4: Increased Generation of Solid Waste and Compliance with Solid Waste Statutes and Regulations.

The project site is already developed with commercial uses. Demolishing the existing buildings and parking lots and redeveloping the site with the proposed hotel, restaurant, and 8-unit residential building would increase the amount of solid waste that would be generated.

Demolition and new construction would generate various construction-period wastes, including lumber, drywall, roofing materials, structural steel, asphalt, concrete, and organics (including soil and trees). The proposed project would comply with the CALGreen Code (Title 24, Part 11 of the California Code of Regulations), which requires all construction contractors to reduce construction waste and demolition debris by 65 percent. Code requirements include preparing a construction waste management plan that identifies the materials to be diverted from disposal by efficient usage, recycling, reuse on the project, or salvage for future use or sale; determining whether materials will be sorted on-site or mixed; and identifying diversion facilities where the materials collected will be taken. In addition, the CALGreen Code requires that 100 percent of trees, stumps, rocks, and associated vegetation and soils resulting primarily from land clearing be reused or recycled.

The City provides recycling programs, through the Sonoma Garbage Collectors, such as curbside recycling of paper, plastics, and bottles, to reduce the volume of solid waste transported to landfills. Project operation would include participation in the City's recycling programs.

Solid waste collection services in the city are provided by Sonoma Garbage Collectors. Solid waste is ultimately processed at the Central Disposal Site landfill, located at 500 Mecham Road in Petaluma. Based on CalRecycle's estimated 2019 annual per capita disposal rate (for the Sonoma County Waste Management Agency) of 5.1 pounds per resident per day, the estimated total population for the proposed project (17 residents plus an assumed 93 hotel guests [1.5 guests for every room]) would generate approximately 561 pounds per day (ppd) of solid waste, which equates to 0.28 tpd. Based on CalRecycle's estimated 2019 annual per capita disposal rate of 12.2 pounds per employee per day and an estimated 60 full-time and 30 part-time employees (assuming half time) for the proposed project, approximately 915 (ppd) of solid waste would be generated by the employees, which equates to 0.46 tpd (CalRecycle 2020).

Therefore, the total daily solid waste generation from the proposed project would equate to approximately 0.74 tpd, which would represent approximately 0.03 percent of the average daily tonnage accommodated by the Central Disposal Site. Thus, the landfill has sufficient capacity to accommodate the solid waste generated by the project. Furthermore, the proposed project would comply with all local and state regulations related to recycling. Therefore, a **less than significant** impact would occur.

Mitigation Measure: No mitigation measures are required.

5 ALTERNATIVES

5.1 INTRODUCTION

CEQA requires the consideration and analysis of alternatives to a proposed project. According to the CEQA Guidelines, the range of alternatives "shall include those that could feasibly accomplish most of the basic purposes of the project and could avoid or substantially lessen one or more of the significant impacts" (CEQA Guidelines Section 15126.6[c]; see also CEQA Guidelines Section 15126.6[a]).

Section 15126.6(a) of the CEQA Guidelines requires that an EIR describe:

> "…a range of reasonable alternatives to the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. An EIR is not required to consider alternatives which are infeasible. The lead agency is responsible for 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."

In defining "feasibility," CEQA Guidelines 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."

The CEQA Guidelines further require that the alternatives be compared to a proposed project's environmental impacts, and that a "no project" alternative be considered (CEQA Guidelines Section 15126.6[e]). The CEQA Guidelines provide guidance on defining and analyzing alternatives. Section 15126.6[b] states:

> "… 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."

5.2 SELECTION OF ALTERNATIVES

5.2.1 CRITERIA

Alternatives were selected for evaluation in this 2023 RDEIR based on criteria in the CEQA Guidelines Section 15126.6. These criteria include: (1) ability of the alternative to attain most of the basic project objectives; (2)

feasibility of the alternative; and (3) ability of the alternative to avoid or substantially reduce one or more significant environmental effects of the proposed project.

The City has evaluated potential alternatives relative to the objectives of the proposed project. For the purpose of alternatives analysis under CEQA, project objectives may not be defined so narrowly that the range of alternatives is unduly constrained. Alternatives that would impede to some degree the attainment of the project objectives or would be more costly may also be considered.

5.2.2 PROJECT PURPOSE AND OBJECTIVES

The project objectives are as follows:

- Develop a hotel at an economically viable scale with a restaurant and bar, pool veranda, spa, and residential dwelling units in Downtown Sonoma.
- Stimulate the local economy through hospitality uses, retail sales, and job creation.
- Provide aesthetically pleasing architecture to complement the existing character of the City of Sonoma.
- Promote economic vitality for the City through new Transient Occupancy Tax (TOT) generated by the hotel and capital investment on what is currently an underutilized site.
- Promote sustainability by designing and constructing a hotel that meets State of California CalGreen Requirements.
- Add a residential presence in the town center through mixed-use development that combines housing with non-residential uses.
- Provide full- and part-time local employment opportunities in the hotel and restaurant industry.
- Encourage quality, variety, and innovation in new development.
- Establish Sonoma as a place where bicycling is safe and convenient.
- Minimize vehicle trips while ensuring safe and convenient access to nearby activities and maintaining the City of Sonoma's small-town character.

5.3 ALTERNATIVES CONSIDERED BUT REJECTED FROM DETAILED ANALYSIS

5.3.1 OFF-SITE ALTERNATIVE

An off-site alternative was considered to be infeasible due to the lack of available sites in the Downtown area that could both accommodate the proposed facilities and meet the basic project objectives. Furthermore, developing the proposed project in a different location that fulfilled the project objective to locate the proposed project in the Downtown area would not avoid or substantially lessen any of the significant environmental effects of the project (CEQA Guidelines Section 15126.6[f][2][A]).

5.4 DESCRIPTION OF ALTERNATIVES CONSIDERED IN DETAIL

5.4.1 ALTERNATIVE 1: NO PROJECT ALTERNATIVE

CEQA Guidelines Section 15126.6(e)(2) states that a discussion of the "No Project" alternative must consider "what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans."

The project site is zoned and designated for Commercial land uses, and existing commercial buildings and associated parking lots are present at the project site. Under the No Project Alternative, the existing land uses, buildings, parking lots, and landscaping would remain unchanged, and the proposed hotel, restaurant, and residential building would not be developed. Furthermore, portions of the four different Assessor's Parcel Numbers that make up the project site would not be reconfigured into one lot, as would occur under the proposed project. These parcels include the Lynch Building, which houses retail tenants, offices, and seven market-rate studio apartments. The No Project Alternative contemplates the continued operation of the existing commercial and the existing seven market-rate studio apartments.

5.4.2 ALTERNATIVE 2: HOTEL/RESIDENTIAL (50%-50%) ALTERNATIVE

This alternative was developed to provide an expanded housing component as compared to the proposed project. Sonoma Municipal Code Title 19, Chapter 19.10, Section 19.10.020.B.3 requires incorporation of residential development as a part of commercial projects on parcels zoned commercial that are over 0.5 acre in size. The residential component is required to be 100 percent of the floor area of the commercial component. This alternative was also developed to reduce air quality, greenhouse gas emissions and energy, noise and vibration, and transportation impacts compared to the proposed project.

Based on a project site area of 54,000 square feet (or 1.24 acres), 25 residential units would be the maximum number of units permitted under the applicable Commercial Zoning District, which allows 20 units per acre. At an average of 800 square feet per unit, this is 20,000 square feet of space for residential development and a gross square footage of approximately 25,075 square feet (including hallways and other non-rented space). This alternative assumes 12 two-bedroom units and 13 one-bedroom units. Assuming 50 percent of the building floor area is available for hotel use, this would accommodate approximately 34 hotel rooms. The 60 full-time and 30 part-time employees required for the proposed project would be reduced to 18 full-time and 9 part-time employees under Alternative 2.

The City's parking requirements for this alternative would require 99 parking spaces and so the underground parking garage would be reduced in size to provide 99 rather than 113 parking spaces. The total (residential and hotel) building square footage would be approximately 50,500 square feet under this alternative, somewhat reduced compared to the proposed project, and three stories in height, as with the main building proposed under the proposed project. The anticipated number of truck deliveries per week would be reduced from 15 to 7. This alternative would remove the restaurant, bar, and spa from the proposed hotel.

All other project components would be the same as the proposed project, including demolition of the same existing buildings, reconfiguration of parking lots and underground utilities, and removal of existing trees.

5.4.3 ALTERNATIVE 3: HOTEL/RESIDENTIAL (75%-25%) ALTERNATIVE

Under the Hotel/Residential (75%-25%) Alternative, the number of hotel rooms would be reduced from 62 to 40. This alternative would provide 16 dwelling units and a restaurant, bar, and spa. The total building square footage under Alternative 3 would be approximately 65,000 (including residential and non-residential components), and the building is assumed to be three stories. The 60 full-time and 30 part-time employees required for the proposed project would be reduced to 49 full-time and 24 part-time employees under Alternative 3. Rather than underground parking, the approximately 94 parking spaces needed under this alternative would be provided in surface parking spaces. The anticipated number of truck deliveries per week would be reduced from 15 to 11. This alternative was developed to reduce air quality, greenhouse gas emissions and energy, noise and vibration, and transportation impacts compared to the proposed project.

5.4.4 ALTERNATIVE 4: HOTEL ONLY ALTERNATIVE

Under Alternative 4, the Hotel Only Alternative, the number of hotel rooms would be maintained at 62, and the alternative would also include an 80-seat restaurant and bar, a spa with 6 treatment rooms, raised swimming pool veranda, 130 off-street parking spaces (consisting of a 113-stall underground parking garage, 9 surface parking spaces). There would be no residential component under this alternative. The total building square footage under Alternative 4 would be approximately 66,000, and the building is assumed to be three stories with the same footprint as the hotel building under the proposed project. The 60 full-time and 30 part-time employees required for the proposed project would be the same for Alternative 4. Instead of the dwelling units contemplated as a part of the proposed project, this alternative would include a loading area on-site. The anticipated number of truck deliveries per week would be approximately 15 as under the proposed project. This alternative was developed to reduce air quality, greenhouse gas emissions and energy, and noise and vibration impacts compared to the proposed project.

5.4.5 ALTERNATIVE 5: FEWER HOTEL ROOMS ALTERNATIVE

Under this alternative, the number of hotel rooms would be reduced from 62 to 48. There would be no residential component. This alternative would also include an 80-seat restaurant and bar, a spa with 6 treatment rooms, raised swimming pool veranda, 94 surface parking spaces, and no subterranean parking garage. The total building square footage under Alternative 5 would be approximately 66,000, and the building is assumed to be three stories with the same footprint as the hotel building under the proposed project. This alternative would maintain the same building square footage as the hotel building proposed under the proposed project, but a fewer number of hotel guest rooms, with some rooms using a suite or other larger square footage format. The 60 full-time and 30 part-time employees required for the proposed project would be reduced to 50 full-time and 30 part-time employees under Alternative 5. Instead of the dwelling units contemplated as a part of the proposed project, this alternative would include a loading area on-site. This alternative was developed to reduce air quality, greenhouse gas emissions and energy, and noise and vibration impacts compared to the proposed project.

5.5 ALTERNATIVES ANALYSIS

5.5.1 ALTERNATIVE 1: NO PROJECT ALTERNATIVE

AESTHETICS

Under Alternative 1, redevelopment of the project site would not occur, and thus there would be no impact related to degradation of visual character or conflicts with applicable zoning and other regulations governing scenic quality. Therefore, Alternative 1 would have a lesser level of impact as compared to the proposed project.

AIR QUALITY

Under Alternative 1, the project site would continue to be used for commercial and residential uses. Air pollutant emissions associated with the existing uses include natural gas use for energy, heating and cooking; vehicle trips associated with each land use; and area sources such as landscaping equipment and consumer cleaning products. These emissions would still occur under Alternative 1. Because no construction or development would occur, the amount of construction-related air pollutants that would be generated under Alternative 1 would be reduced as compared to the proposed project.

As described in Section 4.3 (Air Quality), operational emissions can be distinguished according to their source: mobile-source emissions are associated with vehicle trips; area-source emissions are associated with consumer products, periodic architectural coatings, and landscape maintenance; energy use emissions are associated with building electricity and natural gas usage (non-hearth); and stationary source emissions are associated with the backup generator that would operate on an as-needed basis. These emission sources that would have a less than significant impact under the proposed project, would be further reduced under Alternative 1, since there would be no change to the amount of mobile-source, area-source, energy use, or stationary source emissions.

BIOLOGICAL RESOURCES

Because Alternative 1 involves the continuation of existing land uses, the Chateau Sonoma building would not be demolished, and therefore this alternative would result in a lesser potential level of impact as compared to the proposed project.

As described in Section 4.4 (Biological Resources), a site-specific bat survey determined that trees surrounding the buildings were very young and did not provide suitable cavities or crevices to support roosting bats. Potential bat roosting habitat was identified at the Chateau Sonoma building, although a bat survey found that no bats were present nor was there any evidence that bats had used the building in the past. Alternative 1 involves the continuation of existing land uses. Because no construction activities would occur under Alternative 1, though there is no evidence of bats at the project site, there would be no potential to disturb foraging bats that may be present in the proposed project area. This alternative would result in a similar level of impact as compared to the proposed project.

The project site is currently developed with buildings and associated parking lots and landscaping, which would remain in place and continue to be used under Alternative 1. Since there are no wildlife nursery sites or wildlife movement corridors present at the project site under existing conditions, which would continue under Alternative 1, this alternative would result in a similar level of impact as compared to the proposed project.

Alternative 1 would involve continuation of the existing on-site land uses, and all of the existing landscaping at the project site, including the 50 trees identified in the arborist's report (MacNair & Associates 2013), would therefore be retained. Because no trees would be removed under Alternative 1, this alternative would result in a lesser level of impact related to consistency with the City's Tree Preservation Ordinance (Sonoma Municipal Code Chapter 12.08) as compared to the proposed project.

CULTURAL AND TRIBAL CULTURAL RESOURCES

As described in Section 4.5 (Cultural and Tribal Cultural Resources), there are historic resources associated with the existing project parcels, portions of which would be combined into one lot for the proposed project. Additional historic resources are present within the line-of-sight of the project site. Because the project site would remain in its existing condition under Alternative 1, and demolition and redevelopment would not occur, this alternative would have a lesser level of impact on historic resources as compared to the proposed project.

Since the project site has been previously developed and is almost completely covered with impervious surfaces, ground-disturbing activities associated with the prior construction likely already disturbed or resulted in the discovery of any archeological resources, including Native American human remains, that may have existed on the site. After a gasoline service station closed on the 135 West Napa Street portion of the project site, service station features were removed, including large underground storage tanks, and 32 soil borings were taken, 15 monitoring wells were installed. Remedial excavations conducted from 1997 through 2002 resulted in the removal of approximately 6,000 cubic yards of soil.

However, archeological materials may still be present (buried underground) at the project site. Alternative 1 would involve continuation of the existing land uses, and since construction-related excavation and earthmoving activities would not occur under Alternative 1, this alternative would have a lesser level of impact related to potential damage to or destruction of previously unknown buried archaeological resources, including Native American human remains, as compared to the proposed project.

Similarly, no Tribal Cultural Resources were identified within the project site as a result of the records search, literature review, Native American consultation, or archaeological field survey and therefore, neither this alternative nor the proposed project would have any impact to Tribal Cultural Resources.

GEOLOGY, SOILS, AND PALEONTOLOGICAL RESOURCES

As discussed in Section 4.7 (Geology, Soils, and Paleontological Resources), the project site is located in a seismically active area. Under Alternative 1, the existing structures would remain on the project site in their existing condition. The Chateau Sonoma building was constructed in the 1910, and therefore is likely vulnerable to strong seismic ground shaking in the event of a large magnitude earthquake on one of the nearby active or potentially active faults. The current edition of the California Building Standards Code (CBC) requires that structures be designed for prevention of collapse for the maximum level of ground shaking that could reasonably be expected to occur at a site. Because the existing structures on the project site are likely vulnerable to strong seismic shaking, and there would not be plans to retrofit the structures consistent with the requirements of the current version of the CBC, Alternative 1 would have a greater level of impact as compared to the proposed project.

Because Alternative 1 involves continuation of the existing land uses, demolition and construction-related earthmoving activities associated with redevelopment would not occur; therefore, Alternative 1 would have a lesser level of impact related to potential soil erosion as compared to the proposed project.

Most of the project site is composed of unstable artificial fill to depths of approximately 3–5 feet below the ground surface. Because no new construction would occur under Alternative 1, this alternative would have a lesser level of impact related to construction in unstable soil as compared to the proposed project.

Paleontologically sensitive Pleistocene-age alluvial deposits are present at the project site below the artificial fill, to depths of at least 40 feet below the ground surface. Because Alternative 1 involves continuation of the existing land uses, construction-related excavation and earthmoving activities would not occur under this alternative and therefore would not encounter and potentially damage or destroy unique paleontological resources. Therefore, Alternative 1 would have a lesser level of impact related to destruction of unique paleontological resources as compared to the proposed project.

GREENHOUSE GAS EMISSIONS AND ENERGY

During construction of the proposed project, exhaust GHG emissions would be generated from a variety of sources such as heavy-duty construction and clearing equipment, haul trucks, material delivery trucks, and construction worker vehicles. Construction would be short-term, anticipated to last approximately 18 months in duration, and the generation of construction related GHG emissions would cease at the end of construction. These construction-related GHG impacts would not occur under Alternative 1, so the impacts would be reduced as compared to the proposed project.

As discussed in Section 4.8 (GHG and Energy), operational GHG emissions can be separated by direct and indirect GHG emissions. Direct GHG emissions include mobile-source emissions, on-site natural gas use, wood-burning fireplaces, landscape equipment, a backup generator, and fugitive emissions from refrigerant use in equipment such as air conditioning units and freezers. Indirect GHG emissions include electricity-related GHG emissions since the fuel combustion and emissions associated with creating that electricity likely occurred off-site or at a different time. Other indirect emissions include emissions from solid waste disposal and water consumption. Under Alternative 1, GHG emissions and energy usage associated with existing, on-site uses (including mobile source emissions associated with vehicle trips and natural gas used for energy, heating, and cooking) would continue to occur. However, the construction-related and operational GHG emissions associated with the proposed project detailed in Section 4.8 (GHG and Energy) would not occur under this alternative. Since the existing uses do not produce as many energy-related and transportation related GHG emissions as the proposed project, and since there would be no construction, GHG related impacts would be reduced under Alternative 1, as compared to the proposed project.

Under Alternative 1, existing, on-site uses would remain in place and the proposed project would not be built. Additional energy demand would be greater under the proposed project compared to Alternative 1, but due to increased energy efficiency requirements required in new construction, energy efficiency would be greater under the proposed project compared to Alternative 1.

It is worth noting that the proposed project will serve existing demand, as discussed in Section 4.8 (GHG and Energy). The GHG emissions and energy use associated with operation of the proposed project would likely occur elsewhere in the absence of the proposed hotel and residential facilities. While Alternative 1 would reduce the

GHG impacts associated with this specific project, it would likely not reduce the regional or local GHG or energy use impacts.

HAZARDS AND HAZARDOUS MATERIALS

Operation of the existing land uses at the project site currently results in the use, storage, disposal, transport, and potential for accidental spills of small quantities of hazardous materials such as pesticides and fertilizers associated with landscape maintenance, and commercial and residential cleaning products. The use, storage, and handling of these products is regulated at the local, state, and federal level by a variety of laws, regulations, and policies. Because a lesser level of use and exposure to these chemicals would occur under Alternative 1 as compared to the proposed project, and because Alternative 1 does not include the potential for hazardous material spills as part of construction activities, Alternative 1 would have a lesser level of impact as compared to the proposed project.

The St. Francis Solano Catholic School, located at 342 West Napa Street, is approximately 0.2 mile west of the project site. Minor amounts of hazardous materials are currently used and stored for the existing land uses at the project site. Because a lesser level of use and exposure to these chemicals would occur under Alternative 1 as compared to the proposed project, and because Alternative 1 does not include the potential for hazardous materials such as fuels, oils, and solvents as part of construction activities, Alternative 1 would have a lesser level of impact from use and emission of hazardous materials within 0.25 mile of a school as compared to the proposed project.

The project site is on the Cortese list as a result of leaking underground storage tanks that previously resulted in soil and groundwater contamination. Groundwater contaminant levels have been reduced through remedial activities and continue to attenuate over time, and most of the contaminated soil was previously removed and replaced with clean artificial fill. Because Alternative 1 does not involve any construction-related excavation or earthmoving activities, there is no potential for human contact or environmental exposure to contaminated soil or groundwater. Therefore, Alternative 1 would have a lesser level of impact as compared to the proposed project.

The existing development at the project site, which would continue under Alternative 1, is subject to City, County, and State emergency operation plans, multi-hazard mitigation plans, and emergency evacuation plans that are intended to address emergency situations. Because construction-related equipment and truck trips would not occur under Alternative 1, it would have a lesser potential level of impact related to interference with emergency response or evacuation plans as compared to the proposed project.

HYDROLOGY AND WATER QUALITY

Most of the project site is currently covered with impervious surfaces in the form of buildings and pavement. Operation of the existing land uses at the project site currently results in stormwater flow into a private 9-inch storm drain at the southwestern corner of the project site, which, in turn, discharges to a City-owned 36-inch collector (Line F-9-1) in the Second Street West right-of-way. This collector discharges to the east fork of Fryer Creek, which discharges to Nathanson Creek and then to Sonoma Creek. Under Alternative 1, the existing land uses at the project site would continue. There would be no potential for construction-related surface or groundwater quality degradation. Since the amount of long-term operational impervious surfaces would not change and the demand for water supplies would not change, there would be no potential for increased pollutants in operational stormwater discharges, and no change in the potential to reduce groundwater recharge or

substantially decrease groundwater supplies. Since redevelopment would not occur, there would be no potential for flooding from increased stormwater flows, and no potential conflicts with a water quality control plan or sustainable groundwater management plan. Therefore, Alternative 1 would have a lesser level of impact as compared to the proposed project.

Land Use and Planning

The existing land uses at the project site, which would continue under Alternative 1, are consistent with the Commercial zoning and land use designations in the City's 2020 General Plan (City of Sonoma 2006). Since Alternative 1 would not involve any construction, it would not have the potential to physically divide any existing community. The No Project Alternative would not require any discretionary permit, and so there is no need to comply with the City's General Plan or Municipal Code requirements that apply to discretionary actions. However, like the proposed project, the existing parcels would continue to provide both commercial and residential uses, consistent with the general intent of Sonoma Municipal Code requirements for Commercial zoning districts (see Sonoma Municipal Code section 19.10.020.B.3). Therefore, Alternative 1 would have a similar level of impact related to consistency with City General Plan policies and land use and zoning designations as compared to the proposed project.

Noise and Vibration

Under Alternative 1, no construction, demolition, or any other change would occur within the existing site. No on- or off-site construction related noise or vibration would occur. During operation, the implementation of the proposed project would cause an increase in noise due to the use of HVAC equipment, garbage collection, landscape maintenance, activity in the parking lot, and commercial activities. Because Alternative 1 would not involve any change to the existing use of the project site, there would be no changes to the existing noise levels. Thus, this alternative would have a reduced impact compared to the proposed project.

Public Services

Continuation of the existing land uses under Alternative 1 would not result in an increased demand for fire or police protection services, or an increased need for school services, and therefore would result in a lesser level of impact as compared to the proposed project.

Transportation

Under Alternative 1, there would be no change to the existing uses of the existing parcels. Thus, Alternative 1 would have a reduced impact to vehicle miles traveled (VMT) as compared to the proposed project.

The proposed project does not conflict with any programs, plans, policies, or ordinances, so, implementation of Alternative 1 would have a similar impact as compared to the proposed project.

The transportation analysis conducted to support this RDEIR determined that there were three locations where queuing capacity would be inadequate to accommodate turning vehicles, but at all three locations, the queuing issue occurs under existing conditions and is not the result of project-related trips. The addition of project trips would either not affect queue lengths or add a nominal amount, less than the length of a single vehicle, so implementation of Alternative 1 would have a similar impact as compared to the proposed project.

The proposed project does not involve any changes to pedestrian infrastructure. There would be an incremental increase in pedestrian traffic, but this would not be expected to result in any new safety concerns. Additionally, there is no underlying safety issue for bicyclists that would be exacerbated by project induced increase in bicyclists. Because these changes to the existing condition would be minimal, Alternative 1 and the proposed project would have similar impact related to pedestrian and bicycle travel.

UTILITIES AND SERVICE SYSTEMS

Under Alternative 1, redevelopment of the site would not occur, and thus there would be no impacts related to the need for relocation or the construction of new or expanded utilities and service systems facilities, the construction of which could cause significant environmental effects. Therefore, Alternative 1 would have a lesser level of impact as compared to the proposed project.

As discussed in Section 4.14 (Utilities and Service Systems), the City's 2020 Urban Water Management Plan (EKI 2021) determined that the City has sufficient water to supply existing and proposed development through the year 2045, in all water year types—normal, dry, and 5-year consecutive drought. Continuation of the existing land uses under Alternative 1 would not result in an increased demand for water supplies; therefore, Alternative 1 would have a lesser level of impact as compared to the proposed project.

Continuation of the existing land uses under Alternative 1 would not result in an increased demand for sewer conveyance capacity; therefore, Alternative 1 would have a lesser level of impact as compared to the proposed project.

Continuation of the existing land uses under Alternative 1 would not result in an increased generation of solid waste; therefore, Alternative 1 would have a lesser level of impact as compared to the proposed project.

5.5.2 ALTERNATIVE 2: HOTEL/RESIDENTIAL (50%-50%) ALTERNATIVE

AESTHETICS

Under Alternative 2, a similar amount of redevelopment of the existing site would occur as compared to the proposed project. Although the mix of land uses within buildings would be different, redevelopment under Alternative 2 would result in similar changes to the visual appearance of buildings and landscaping at the project site, thus resulting in similar impacts related to degradation of visual character or conflicts with applicable zoning and other regulations governing scenic quality. The same City policies and Municipal Code requirements would be applied to Alternative 2 as are required for the proposed project, and the bulk and height of proposed buildings would be the same. Therefore, Alternative 1 would have a similar level of impact as compared to the proposed project.

AIR QUALITY

Alternative 2 would occupy a smaller footprint compared to the proposed project, but the demolition and construction activities would be the same. Alternative 2 would result in a reduced level of construction related air quality impacts as compared to the proposed project. The construction period for Alternative 2 would likely be similar to the construction period for the proposed project (i.e., about 18 months) and involve use of the same types of equipment. Alternative 2 would result in similar potentially significant impacts associated with potential generation of temporary, short-term, construction-related emissions of criteria pollutants and precursors as the

proposed project. Alternative 2 would implement Mitigation Measure 4.3-2 imposed within RDEIR Section 4.3 (Air Quality) for the proposed project. Similar to the proposed project, these mitigation measures would reduce potentially significant impacts associated with on-site construction-related air quality emissions under Alternative 2 to a less than significant level.

The operational impacts on air quality would be slightly reduced under Alternative 2 as compared with the proposed project. Under Alternative 2, there is an increased capacity for residential uses. Under the proposed project, the estimated number of daily trips generated per hotel room is greater than the estimated number of daily trips generated per residential unit. By replacing hotel rooms with residential units, the number of daily trips would be reduced under Alternative 2, thereby reducing the air quality impacts resulting from mobile source emissions. Alternative 2 would reduce the number of vehicular trips and associated mobile source pollutants by approximately 50 percent compared with the proposed project. Area-source and stationary source emissions – those related to landscape maintenance, architectural coatings, and back-up generator use – would be reduced, as well, when compared with the proposed project. Energy use, area-source, and stationary source emissions would be reduced under Alternative 2 compared to the proposed project. With a reduced building square footage of approximately 40 percent compared with the proposed project, construction and operation energy-related emissions would be similarly reduced. Because both Alternative 2 and the proposed project would have a reduced impact on air quality during construction and operation, this alternative would result in a lesser level of impact as compared to the proposed project.

BIOLOGICAL RESOURCES

Trees surrounding the existing buildings do not provide suitable cavities or crevices to support roosting bats. Potential bat roosting habitat was identified at the Chateau Sonoma building, although a bat survey found that no bats were present nor was there any evidence that bats had used the building in the past. Because the Chateau Sonoma building would be demolished under both Alternative 2 and the proposed project, a similar level of impact would occur.

Because noise and disturbances from project-related construction would be limited to the hours of 8 a.m. and 6 p.m., construction activities associated with either Alternative 2 or the proposed project are unlikely to result in the temporary disturbance of foraging individual bats through the alteration of evening foraging patterns (e.g., avoidance of work areas because of increased noise and activity levels during project activities). Therefore, Alternative 2 would result in a similar level of impact as compared to the proposed project.

The project site is currently developed with buildings and associated parking lots and landscaping. The proposed redevelopment of the site with new buildings and associated parking lots and landscaping would not affect wildlife nursery sites or wildlife movement corridors because none are present under existing conditions. Therefore, Alternative 2 would result in a similar level of impact as compared to the proposed project.

In compliance with the City's Tree Preservation Ordinance, the project proponent would be required to replace oak trees that would be removed as part of the proposed project on a 2:1 basis, and all other trees would be replaced at a 1:1 ratio. Because both the proposed project and Alternative 2 would result in the removal of the same existing trees at the project site and the same tree replacement at the ratios required by the City, Alternative 2 would result in a similar level of impact as compared to the proposed project.

CULTURAL AND TRIBAL CULTURAL RESOURCES

Under Alternative 2, the project site would be redeveloped with commercial and residential land uses in the same location and according to the same policy and regulatory regime as the proposed project relative to design. Therefore, redevelopment of the project site under Alternative 2 would have similar minor, less than significant impacts to existing historic resources, resulting from minor changes to the scale and density of development, and limited line-of-sight visual connections from historic properties to the proposed development. Therefore, Alternative 2 would have a similar level of impact on historic resources as compared to the proposed project.

Since the project site has been previously developed and is almost completely covered with impervious surfaces, ground-disturbing activities associated with the prior construction likely already disturbed or resulted in the discovery of any archeological resources, including Native American human remains, that may have existed on the site. After a gasoline service station closed on the 135 West Napa Street portion of the project site, service station features were removed, including large underground storage tanks, and 32 soil borings were taken, 15 monitoring wells were installed. Remedial excavations conducted from 1997 through 2002 resulted in the removal of approximately 6,000 cubic yards of soil.

If any previously unknown resources were encountered during construction activities associated with both Alternative 2 or the proposed project, implementation of Mitigation Measure 4.5-2, along with required compliance with California Health and Safety Code sections 7050.5 and 7052 and California Public Resources Code section 5097, would reduce the impacts under both the proposed project and Alternative 2 to a less than significant level. Because a similar level of construction-related earthmoving activities would occur under Alternative 2, this alternative would have a similar level of potential impact on previously unknown buried archaeological resources, including Native American human remains, as compared to the proposed project.

No Tribal Cultural Resources were identified within the project site as a result of the records search, literature review, Native American consultation, or archaeological field survey and therefore, neither this Alternative 2 nor the proposed project would have any impact to Tribal Cultural Resources.

GEOLOGY, SOILS, AND PALEONTOLOGICAL RESOURCES

The project site is located in a seismically active area. Alternative 2 would involve demolition of the existing structures and redevelopment with a 50 percent hotel/50 percent residential development, including an underground parking garage. The new buildings constructed as part of both the proposed project and Alternative 2 must be designed and engineered consistent with the current edition of the CBC, which requires that structures be designed for prevention of collapse for the maximum level of ground shaking that could reasonably be expected to occur at a site. The CBC requires that measures to reduce damage from seismic effects be incorporated in structural design, such as ground stabilization, selection of appropriate foundation type and depths, selection of appropriate structural systems to accommodate anticipated displacements, or any combination of these measures. Because Alternative 2 involves the construction of a new building with an underground parking garage, similar to the proposed project, it would have a similar level of impact from hazards related to strong seismic ground shaking as compared to the proposed project.

The potential for soil erosion resulting from construction of both the proposed project and Alternative 2 would be reduced through implementation of the required Storm Water Pollution Prevention Plan (SWPPP) and associated Best Management Practices (BMPs) specifically designed to reduce stormwater runoff and associated sediment

transport. Because the amount of construction under Alternative 2 would be similar to the proposed project, this alternative would have a similar level of impact related to potential soil erosion.

Most of the project site is composed of unstable artificial fill, which would be addressed under both the proposed project and Alternative 2 by excavating the unstable material and replacing it with engineered, properly compacted fill. Because the amount of construction under Alternative 2 would be similar to the proposed project, and the same requirements related to soil constraints would be required, this Alternative 2 would have a similar level of impact related to construction in unstable soil as compared to the proposed project.

Paleontologically sensitive Pleistocene-age alluvial deposits are present at the project site below the artificial fill, to depths of at least 40 feet below the ground surface. Excavation associated with both the proposed project and Alternative 2 would occur in these paleontologically sensitive materials, and could destroy unique paleontological resources; however, implementation of Mitigation Measure 4.7-4 would reduce the impacts for both the proposed project and Alternative 2 to a less than significant level. Because the amount of construction under Alternative 2 would be similar to the proposed project, this alternative would have a similar level of impact related to potential destruction of unique paleontological resources.

GREENHOUSE GAS EMISSIONS AND ENERGY

Alternative 2 would occupy a smaller footprint compared to the proposed project, but the demolition and construction activities would be the same. Alternative 2 would result in a reduced level of construction related GHG and energy impacts as compared to the proposed project. The construction period for Alternative 2 would likely be similar to the construction period for the proposed project (i.e., about 18 months) and involve use of the same types of equipment. Alternative 2 would result in similar impacts associated with heavy-duty construction and clearing equipment, haul trucks, material delivery trucks, and construction worker vehicles. The operational impacts associated with GHG emissions and energy use may be slightly reduced under Alternative 2 due to the reduced footprint compared to the proposed project.

Under Alternative 2, additional building square footage would be dedicated to residential use. The estimated number of daily trips generated from hotel rooms is less than the estimated number of daily trips generated from residential units – the number of trips would be reduced by approximately 50 percent compared to the proposed project. By replacing hotel rooms with residential units, the number of daily trips would be reduced under Alternative 2, thereby reducing the GHG emissions resulting from mobile source emissions. Energy use, including transportation energy use, would be reduced under Alternative 2 compared to the proposed project. Further, this alternative would not include an on-site restaurant, so there would be no GHG emissions (natural gas use) associated with cooking under this alternative.

Alternative 2 would implement Mitigation Measure 4.7-1a through 4.7-1f, as presented in RDEIR Section 4.7 (GHG and Energy) for the proposed project. While Alternative 2 could implement the same mitigation to result in the same ultimate significance conclusion as the proposed project, with the reduced footprint, reduced building square footage, and the reduced travel demand, this alternative would result in a lesser level of impact as compared to the proposed project.

HAZARDS AND HAZARDOUS MATERIALS

Construction associated with the proposed redevelopment at the project site would involve the routine storage, use, transport, and disposal of small quantities of hazardous materials such as fuels, oils and lubricants, paints and paint thinners, glues, and cleaning fluids (e.g., solvents). In addition, operation of both Alternative 2 and the proposed project would require the routine use, transport, and disposal of basic household and commercial cleaning products, along with fertilizer and pesticides for landscape maintenance, and small amounts of chemicals for spa and swimming pool maintenance. The use, storage, and handling of these products is regulated at the local, state, and federal level by a variety of regulations, laws, and policies. Because a similar level of use and exposure to these chemicals would be present under Alternative 2 as compared to the proposed project, and because Alternative 2 includes a similar potential for hazardous material spills as part of construction activities, Alternative 2 would have a similar level of impact as compared to the proposed project.

The St. Francis Solano Catholic School, located at 342 West Napa Street, is approximately 0.2 mile west of the project site. Minor amounts of hazardous materials used during construction and operation of both Alternative 2 and the proposed project (such as fuels, oils, solvents, cleaning products, chemicals for spa and pool maintenance, and pesticides for landscape maintenance) would be managed in accordance with applicable laws and regulations and would not create a hazard to human health, including the health of school children or school employees. None of the substances used would be acutely hazardous. Because a similar level of use and exposure to these chemicals would occur under Alternative 2 as compared to the proposed project, Alternative 2 would have a similar level of impact.

The project site is on the Cortese list as a result of leaking underground storage tanks that previously resulted in soil and groundwater contamination. Groundwater contaminant levels have been reduced through remedial activities and continue to attenuate over time, and most of the contaminated soil was previously removed and replaced with clean artificial fill. Because Alternative 2 would involve a similar level of construction-related excavation and earthmoving activities, there would be a similar potential for human contact or environmental exposure to contaminated soil or groundwater. Therefore, Alternative 2 would have a similar level of impact as compared to the proposed project.

Redevelopment at the project site under both Alternative 2 and the proposed project would be subject to the same City, County, and State emergency operation plans, multi-hazard mitigation plans, and emergency evacuation plans that are intended to address emergency situations. Redevelopment of the project site under Alternative 2 would also be subject to the same emergency response and evacuation plans as the proposed project, and would be subject to the same requirements for appropriate ingress and egress. Alternative 2 could accommodate multiple points of site access, similar to the proposed project. As with the proposed project, Alternative 2 would not interfere with emergency response or evacuation plans.

HYDROLOGY AND WATER QUALITY

Although the mix of land uses would be different, redevelopment under Alternative 2 would result in a similar amount of demolition, construction, and operation of impervious surfaces as compared to the proposed project. Thus, there would be a similar potential for construction-related surface or groundwater quality degradation. Since the amount of long-term operational impervious surfaces and the demand for water supplies would be similar to the proposed project, there would be a similar potential for increased pollutants in operational stormwater discharges, and a similar potential to reduce groundwater recharge or substantially decrease groundwater supplies.

Since a similar amount of redevelopment would occur, there would be a similar potential for flooding from increased stormwater flows, and a similar potential for conflicts with a water quality control plan or sustainable groundwater management plan. Therefore, Alternative 2 would have a similar level of impact as compared to the proposed project.

LAND USE AND PLANNING

Under Alternative 2, 50 percent of the project site's developable area would consist of residential land uses. As compared to the proposed project, Alternative 2 would better meet the requirements of Sonoma Municipal Code Title 19, Chapter 19.10, Section 19.10.020.B.3, which states that the residential component "shall be equal to 100 percent of the floor area of the commercial component." However, while lead agencies typically evaluate consistency with plans and code requirements as a part of an EIR, and while the City has provided a detailed evaluation of consistency in this RDEIR, plan consistency is not itself an adverse physical impact on the environment. and there is no impact under this Alternative 2 or the proposed project.

NOISE AND VIBRATION

Noise and vibration associated with demolition, site preparation, grading, and construction would be similar under both Alternative 2 and the proposed project. The project footprint is reduced under this alternative, and the duration of construction and amount of construction equipment and related traffic would be reduced compared to that of the proposed project. Just as with the proposed project, Alternative 2 would implement Mitigation Measures 4.11-1 and 4.11-3, which would reduce temporary construction noise and vibration impacts. Because Alternative 2 has a smaller footprint and would have a reduced need for excavation, the impact would be reduced as compared to the proposed project.

Operational noise impacts are associated with the use of HVAC equipment, garbage collection, landscaping activity, guest and residential activity in the parking lot, and commercial activities (i.e. loading areas and deliveries). Under Alternative 2, HVAC system use, landscaping activities, garbage collection, and guest and residential activity in the parking lot would be similar as compared to the proposed project. Commercial activity trips would be reduced by half, which would reduce the frequency with which the associated noise occurs. This would not reduce the noise level per delivery. Overall, this impact will be reduced under Alternative 2 as compared to the proposed project.

The number of daily vehicular trips generated under Alternative 2 would be approximately 50 percent less than those generated by the proposed project. This impact would be reduced as compared to the proposed project.

PUBLIC SERVICES

Alternative 2 involves redevelopment of the project site with a 50 percent hotel/50 percent residential building, and therefore would result in an increased need for fire and police protection services, and increased need for school services based on the new residents (some of which may be K-12 school children). Because Alternative 2 would result in a larger residential component, Alternative 2 would result in a similar demand for fire and police protection services, and an increased need for school services. However, since the amount of residential development under Alternative 2 would still be relatively limited, there is no significant impact associated with the expansion of school capacity, and therefore the overall impact would be similar to the proposed project.

TRANSPORTATION

Under Alternative 2, there would be additional residential units and fewer hotel rooms compared to the proposed project. This would result in an increase in daily trips associated with residential units and a decrease in daily vehicle trips associated with hotel guests and employees, thereby resulting in an increase in residential VMT and a decrease in non-residential VMT. Under Alternative 2, total VMT would be reduced by approximately 18 percent compared to the proposed project. VMT can be an indicator of an adverse physical environment, such as criteria air pollutant emissions, greenhouse gas emissions, or transportation noise. SB 743 directed the development of a different approach to evaluating transportation-related impacts of projects, moving from a congestion-focused model to one focused on vehicular travel demand. Alternative 2, like the proposed project would be consistent with the intent of SB 743 to better align transportation impact analysis and mitigation outcomes with the State's goals to reduce GHG emissions, encourage infill development, and improve public health through more active transportation. Alternative 2 would represent an infill project in the densest part of the City with a diverse set of surrounding land uses, adjacent to transit service. From this perspective, the VMT impact of Alternative 2 would be similar to the proposed project. Alternative 2 would also increase the residential development and decrease the amount of hotel building square footage compared to the proposed project. As detailed in Section 4.13 (Transportation) the project site is in a traffic analysis zone shown to have residential vehicular travel demand that is 15 percent less per capita compared to the Citywide average. Alternative 2 would reduce non-residential daily VMT by approximately 45 percent compared to the proposed project. As also detailed in this section, while mitigation imposed on the proposed project would substantially reduce non-residential VMT, the City cannot demonstrate with available evidence at this time that the reduction would decrease non-residential VMT by 15 percent relative to a comparison hotel of the same size.[1] Therefore, Alternative 2 would reduce this impact when compared with the proposed project.

Alternative 2 would be located at the same location as the proposed project and does not propose any element that would impede pedestrian or bicycle access. Alternative 2, like the proposed project, would represent infill development adjacent to existing transit service. Thus, the associated impacts would be similar.

Alternative 2 and the proposed project would also have similar impacts associated with queueing. It was determined that there were three locations where queuing capacity would be inadequate to accommodate turning vehicles, but at all three locations this is an issue under existing conditions and not the result of project-related trips. Under both the proposed project and Alternative 2, the addition of project trips would either not affect queue lengths or add a nominal amount, less than the length of a single vehicle. While there would be reduced number of daily trips generated by Alternative 2 as compared to the proposed project which would result in a lesser impact on traffic and congestion, both projects have a less than significant impact, so the difference in impact would only be marginal.

Neither Alternative 2 nor the proposed project involves any changes to pedestrian infrastructure. There would be an incremental increase in pedestrian traffic under both Alternative 2 and the proposed project, however, neither would result in any new safety concerns. Additionally, there is no underlying safety issue for bicyclists that would be exacerbated by the increase in bicyclists associated with development of either project. In total, Alternative 2

[1] Please refer to Section 4.13 of this RDEIR for a detailed description of the comparative methodology.

and the proposed project would have similar impact associated with traffic related hazards to pedestrians and bicyclists.

UTILITIES AND SERVICE SYSTEMS

Under Alternative 2, a similar level of redevelopment of the site would occur as compared to the proposed project, and therefore Alternative 2 would have a similar level of impact, as compared to the proposed project, related to the relocation or the construction of new or expanded utilities and service systems facilities, the construction of which could cause significant environmental effects.

Both the proposed project and Alternative 2 would result in an increased demand for water supply as a result of the proposed project site redevelopment. However, as discussed in Section 4.14 (Utilities and Service Systems), the City's 2020 Urban Water Management Plan (EKI 2021) determined that the City has sufficient water to supply existing and proposed development through the year 2045 (including the proposed project), in all water year types—normal, dry, and 5-year consecutive drought. Based on the reduced number of employees but increased number of residents, and the elimination of the restaurant and spa, the water demand under Alternative 2 would be reduced by at least 30 percent when compared to the proposed project.

Both Alternative 2 and the proposed project would result in an increased demand for wastewater conveyance capacity and treatment as a result of project site redevelopment, and therefore, would result in a similar requirement to consult with SVCSD and to provide evidence of availability of wastewater conveyance capacity to the City prior to issuance of building permits. Implementation of Mitigation Measure 4.14-3 would reduce the impacts for both Alternative 2 and the proposed project to a less than significant level. Based on the reduced number of employees but increased number of residents, the sewer demand would be reduced by approximately 30 percent, though the same sorts of on-site improvements would be required and like the proposed project, Alternative 2 would have access to existing sewer connections at the project site. Based on the reduced number of employees but increased number of residents, and the elimination of the restaurant and spa, the sewer demand under Alternative 2 would be reduced when compared to the proposed project.

Redevelopment of the project site with the land uses proposed under both Alternative 2 and the proposed project would increase the amount of solid waste that would be generated, from both construction and operation, as compared to the existing, on-site uses. Based on the reduced number of employees but increased number of residents, the demand for solid waste would be reduced by approximately 50 percent.[2] Because Alternative 2 would result in a similar level of new development as compared to the proposed project, Alternative 2 would result in a similar generation of solid waste and therefore would have a similar level of impact as compared to the proposed project.

5.5.3 ALTERNATIVE 3: HOTEL/RESIDENTIAL (75%-25%) ALTERNATIVE

AESTHETICS

Under Alternative 3, the project site would be redeveloped with one building rather than a hotel and a residential building, and the one building that would be constructed under this alternative would be in the same location with

2 Assuming the 2020 solid waste generation rate provided by CalRecycle for the Sonoma County Waste Management Agency of 4.7 pounds per day per residential population and 11.4 pounds per day per employee.

the same scale, and a similar bulk and appearance as the hotel as under the proposed project. Though this alternative would involve the construction of one rather than two buildings, overall, the redevelopment of the site under Alternative 3 would result in similar changes to the visual appearance of buildings and landscaping at the project site, thus resulting in similar impacts related to visual character or conflicts with applicable zoning and other regulations governing scenic quality. Therefore, Alternative 3 would have a similar level of impact as compared to the proposed project.

AIR QUALITY

Alternative 3 occupies a smaller project footprint, and would not include the construction of a separate residential building. The duration of construction could be somewhat reduced under this alternative, limiting construction-related air pollutant emissions to a relatively shorter window compared to the proposed project. Alternative 3 and the proposed project would use similar types of construction equipment, but emissions could be reduced due to the reduced need for excavation since this alternative would provide surface, rather than subterranean parking. Alternative 3 would result in reduced impacts associated with potential generation of temporary, short-term, construction-related emissions of criteria pollutants and precursors, when compared with the proposed project.

Operational generation of criteria air pollutants and precursors, as well as exposure to toxic air contaminants, would be reduced compared to the proposed project. With a reduction in the total amount of development, there would be a reduced amount of operational criteria air pollutant emissions associated with area, energy related, and mobile sources alike. With a reduced building square footage of approximately 24 percent compared with the proposed project, energy-related emissions would be similarly reduced. With reductions in daily energy demand and mobile source emissions, Alternative 3 will have a reduced impact on air quality as compared to the proposed project. Alternative 3 would reduce the number of vehicular trips and associated mobile source pollutants by approximately 40 percent compared with the proposed project. Area-source and stationary source emissions – those related to landscape maintenance, architectural coatings, and back-up generator use – would be reduced, as well, when compared with the proposed project. Overall, Alternative 3 would reduce operational air quality effects relative to the proposed project.

BIOLOGICAL RESOURCES

Trees surrounding the existing buildings do not provide suitable cavities or crevices to support roosting bats. Potential bat roosting habitat was identified at the Chateau Sonoma building, although a bat survey found that no bats were present nor was there any evidence that bats had used the building in the past. Because the Chateau Sonoma building would be demolished under both Alternative 3 and the proposed project, a similar level of impact would occur.

Because noise and disturbances from project-related construction would be limited to the hours of 8 a.m. and 6 p.m., construction activities associated with either Alternative 3 or the proposed project are unlikely to result in the temporary disturbance of foraging individual bats through the alteration of foraging patterns (e.g., avoidance of work areas because of increased noise and activity levels during project activities). Therefore, Alternative 3 would result in a similar level of impact as compared to the proposed project.

The project site is currently developed with commercial buildings and associated parking lots and landscaping. The proposed redevelopment of the site with 75 percent hotel and 25 percent residential uses, with associated

parking lots and landscaping, would not affect wildlife nursery sites or wildlife movement corridors because none are present. Therefore, Alternative 3 would result in a similar level of impact as compared to the proposed project.

An Arborist's Report has been prepared for the proposed project, which the City has approved. In compliance with the City's Tree Preservation Ordinance, the project applicant would be required to replace oak trees that would be removed as part of the proposed project on a 2:1 basis, and all other trees would be replaced at a minimum 1:1 ratio. Because both Alternative 3 and the proposed project would result in the removal of most of the existing 50 trees at the project site, this alternative would result in a similar level of impact as compared to the proposed project.

Cultural and Tribal Cultural Resources

Under Alternative 3, the project site would be redeveloped with hotel, restaurant, and residential uses at the same scale and location as under the proposed project, except there would be no additional separate residential building. Alternative 3 would have similar minor, less than significant impacts to existing historic resources, resulting from minor changes to the scale and density of development, and limited line-of-sight visual connections from historic properties to the proposed development. Therefore, Alternative 3 would have a similar level of impact on historic resources as compared to the proposed project.

Since the project site has been previously developed and is almost completely covered with impervious surfaces, ground-disturbing activities associated with the prior construction likely already disturbed or resulted in the discovery of any archeological resources, including Native American human remains, that may have existed on the site. If any previously unknown resources were encountered during construction activities associated with either Alternative 3 or the proposed project, implementation of Mitigation Measure 4.5-2, along with required compliance with California Health and Safety Code sections 7050.5 and 7052 and California Public Resources Code section 5097, would reduce the impacts under both Alternative 3 and the proposed project to a less than significant level. Because Alternative 3 would have a smaller construction footprint and would not include a subterranean parking garage, this alternative would have a lesser level of potential impact to previously unknown buried archaeological resources, including Native American human remains, as compared to the proposed project.

No Tribal Cultural Resources were identified within the project site as a result of the records search, literature review, Native American consultation, or archaeological field survey and therefore, neither Alternative 3 nor the proposed project would have any impact to Tribal Cultural Resources.

Geology, Soils, and Paleontological Resources

The project site is in a seismically active area. Alternative 3 would involve demolition of the existing structures and redevelopment with a single building with hotel, restaurant, and residential uses, that would employ surface parking rather than any subterranean parking garage. Both Alternative 3 and the proposed project must comply with the California Building Code, which requires that measures to reduce damage from seismic effects be incorporated in structural design, such as ground stabilization, selection of appropriate foundation type and depths, selection of appropriate structural systems to accommodate anticipated displacements, or any combination

of these measures. Like the proposed project, Alternative 3 would require compliance with standards designed to avoid seismic hazards and issues related to soil constraints and therefore have a similar level of impact.

The potential for soil erosion resulting from construction of both Alternative 3 and the proposed project would be reduced through implementation of the required SWPPP and associated BMPs specifically designed to reduce stormwater runoff and associated sediment transport. Because the amount of construction under Alternative 3 would be reduced as compared to the proposed project, this alternative would have a lesser level of impact related to potential soil erosion as compared to the proposed project.

Most of the project site is composed of unstable artificial fill, which would be addressed under both Alternative 3 and the proposed project by excavating the unstable material and replacing it with engineered, properly compacted fill. Because construction footprint under Alternative 3 would be reduced as compared to the proposed project, this alternative would have a lesser level of impact related to construction in unstable soil as compared to the proposed project.

Paleontologically sensitive Pleistocene-age alluvial deposits are present at the project site below the artificial fill, to depths of at least 40 feet below the ground surface. Excavation in these paleontologically sensitive materials could destroy unique paleontological resources. Implementation of Mitigation Measure 4.6-4 would reduce the impacts under both Alternative 3 and the proposed project to a less than significant level. Because the construction footprint under Alternative 3 would be reduced as compared to the proposed project, and because Alternative 3 would not involve excavation for a subterranean parking garage, this alternative would have a lesser level of impact related to potential destruction of unique paleontological resources as compared to the proposed project.

GREENHOUSE GAS EMISSIONS AND ENERGY

With the reduced footprint and amount of building construction, and the elimination of a need for excavation for a subterranean parking garage, the total amount of greenhouse gas emissions during construction would be substantially reduced compared to the proposed project.

With Alternative 3, the total area, stationary, energy related, and mobile source greenhouse gas emissions would be reduced compared to the proposed project. However, as detailed below, the *efficiency* of greenhouse gas emissions would be reduced in comparison to the proposed project. With the reduction in the amount of building square footage – approximately 24 percent less compared with the proposed project – the mass emissions of energy related greenhouse gas emissions would be similarly reduced. The number of daily trips under Alternative 3 would be reduced by approximately 40 percent compared to the proposed project, while the total VMT would be reduced by approximately 23 percent. However, in addition to the *mass* level of emissions, with a cumulative issue such as climate change, it is also important to consider the *efficiency* of emissions. For example, the regional travel demand model shows that the area surrounding the project site, with the relatively dense development and diverse mix of uses, has residential generated VMT per capita that is 15 percent lower than the Citywide average. Since transportation-related emissions are the most important source of greenhouse gas emissions, when a community identifies an area with lower VMT rates, in order to reduce GHG emissions, it is often useful to direct more development to these lower VMT areas, such as in and around the Downtown area. Energy use, including transportation energy use, would be reduced under Alternative 3 compared to the proposed project.

Alternative 3 would implement Mitigation Measures 4.7-1a through 4.7-1f, as presented in RDEIR Section 4.7 (GHG and Energy) for the proposed project.[3] Overall, the impact would be reduced prior to mitigation, though with implementation of Mitigation Measure 4.7-1a through 4.7-1f, the impact could be similar to that of the proposed project.

HAZARDS AND HAZARDOUS MATERIALS

As with the proposed project, construction associated with the proposed redevelopment at the project site would involve the routine storage, use, transport, and disposal of small quantities of hazardous materials such as fuels, oils and lubricants, paints and paint thinners, glues, and cleaning fluids (e.g., solvents). In addition, operation of both Alternative 3 and the proposed project would require the routine use, transport, and disposal of basic household and commercial cleaning products, along with fertilizer and pesticides for landscape maintenance, and small amounts of chemicals for spa and swimming pool maintenance. The use, storage, and handling of these products is heavily regulated at the local, state, and federal level by a variety of regulations, laws, and policies. Because of the smaller footprint, a smaller level of use and exposure to these chemicals would be present under Alternative 3 as compared to the proposed project, and Alternative 3 would have a lesser level of impact as compared to the proposed project.

The St. Francis Solano Catholic School, located at 342 West Napa Street, is approximately 0.2 mile west of the project site. Minor amounts of hazardous materials used during construction and operation of both Alternative 3 and the proposed project (such as fuels, oils, solvents, cleaning products, chemicals for spa and pool maintenance, and pesticides for landscape maintenance) would be managed in accordance with applicable laws and regulations and would not create a hazard to human health, including the health of school children or school employees. None of the substances used would be acutely hazardous. Because excavation would be reduced under Alternative 3, a lesser level of use and exposure to these chemicals would occur as compared to the proposed project, and Alternative 3 would have a lesser level of impact.

The project site is on the Cortese list as a result of leaking underground storage tanks that previously resulted in soil and groundwater contamination. Groundwater contaminant levels have been reduced through remedial activities and continue to attenuate over time, and most of the contaminated soil was previously removed and replaced with clean artificial fill. Because Alternative 3 would involve a smaller construction footprint and would not involve a subterranean parking garage, there would be a reduced potential for human contact or environmental exposure to contaminated soil or groundwater. Therefore, Alternative 3 would have a lesser level of impact as compared to the proposed project.

The proposed redevelopment at the project site under both Alternative 3 and the proposed project would be subject to City, County, and State emergency operation plans, multi-hazard mitigation plans, and emergency evacuation plans that are intended to address emergency situations. Redevelopment of the project site under Alternative 3 would be subject to the same emergency response and evacuation plans as the proposed project, and would be subject to the same requirements for appropriate ingress and egress. Because a lesser level of construction-related equipment and truck trips, and operational trips would occur under Alternative 3, it would

[3] As detailed in Section 4.7 (Greenhouse Gas Emissions and Energy), Mitigation Measures 4.7-1a through 1f would reduce GHG emissions associated with energy and travel demand.

have a lesser level of impact related to interference with emergency response or evacuation plans as compared to the proposed project.

HYDROLOGY AND WATER QUALITY

Redevelopment of the project site under Alternative 3 would result in a similar amount of demolition and somewhat reduced construction-related soil disturbance, but a lesser amount of operational impervious surfaces as compared to the proposed project. Overall, there would be a similar potential for construction-related surface or groundwater quality degradation. Since the amount of long-term operational impervious surfaces would be less than the proposed project, there would be a reduced potential for increased pollutants in operational stormwater discharges, and a lower potential to reduce groundwater recharge or substantially decrease groundwater supplies. Since a lesser amount of redevelopment would occur, there would be a lower potential for flooding from increased stormwater flows, and a reduced potential for conflicts with a water quality control plan or sustainable groundwater management plan. Therefore, Alternative 3 would have a lesser level of impact as compared to the proposed project.

LAND USE AND PLANNING

Under Alternative 3, approximately 75 percent of the total building space would be devoted to non-residential use and approximately 25 percent of the building space would be allocated for 16 dwelling units. In applications for new development on commercially zoned properties that are 0.5 acre or larger and for which a discretionary permit is required, a residential component is required. Sonoma Municipal Code Section 19.10.020.B.3 addresses this requirement. The residential component shall be equal to 100 percent of the floor area of the commercial component according to the Municipal Code. Alternative 3 would require a portion of the residential component to be satisfied through the payment of an in-lieu fee; however, it would include more housing than is proposed as a part of the proposed project. While lead agencies typically evaluate consistency with plans and code requirements as a part of an EIR, and while the City has provided a detailed evaluation of consistency in this RDEIR, plan and code consistency is not itself an adverse physical impact on the environment and both this Alternative 3 and the proposed project have no impact.

NOISE AND VIBRATION

Noise and vibration associated with demolition, site preparation, grading, excavation, and construction would be reduced under Alternative 3 compared to the proposed project. There is no need for excavation for a subterranean parking garage since surface parking would be provided instead. The building square footage would be reduced by approximately 24 percent compared with the proposed project and since there is only one building included as a part of Alternative 3, it is possible that the duration of construction could be shorter, reducing the duration of temporary construction-related noise and vibration. Just as with the proposed project, Alternative 3 would implement Mitigation Measures 4.11-1 and 4.11-3, which would reduce temporary construction noise and vibration impacts. Overall, temporary noise and vibration impacts would be reduced under Alternative 3 compared with the proposed project.

Operational noise impacts would also be reduced under Alternative 3 due to decreases in noise from the use of HVAC equipment, garbage collection, landscaping activity, activity in the parking lot, and commercial activities (i.e. loading areas and deliveries). Alternative 3 would reduce noise associated with delivery activity and vehicular transportation. The number of daily trips generated under Alternative 3 would be approximately 40

percent less than those generated by the proposed project. Operational noise impacts under Alternative 3 would be reduced as compared to the proposed project.

PUBLIC SERVICES

As a result of the proposed increased density of development at the project site, both Alternative 3 and the proposed project would result in an increased need for fire and police protection services. Alternative 3 increases the number of proposed dwelling units from eight to 16, and therefore the demand for school services would be increased compared to the proposed project. However, the small number of residences proposed under Alternative 3 would not lead to the need to expand the capacity of local schools or generate any adverse physical environmental effect. With the reduction in number of hotel rooms, but increase in the number of dwelling units, the demand for fire and police protection services would be similar under this alternative compared to the proposed project.

TRANSPORTATION

Under Alternative 3, the hotel component would be reduced compared to the proposed project and the residential portion would be increased. This would result in an increase in daily trips associated with residential units and a decrease in daily vehicle trips associated with hotel guests and employees. Under Alternative 3, total VMT would be reduced by approximately 21 percent compared to the proposed project. VMT can be an indicator of an adverse physical environment, such as criteria air pollutant emissions, greenhouse gas emissions, or transportation noise. Alternative 3, like the proposed project, would be consistent with the intent of SB 743 to better align transportation impact analysis and mitigation outcomes with the State's goals to reduce GHG emissions, encourage infill development, and improve public health through more active transportation. Alternative 3 would represent an infill project in the mostly densely developed part of Sonoma with a diverse set of surrounding land uses, adjacent to transit service. Alternative 3 would increase the residential component compared with the proposed project. And, as detailed in Section 4.13 (Transportation) the project site is in a traffic analysis zone shown to have residential vehicular travel demand that is 15 percent less per capita compared to the Citywide average. Therefore, increasing the amount of housing in an area that is shown to provide relatively efficient transportation options (15 percent less VMT per capita compared to the Citywide average in the traffic analysis zone that includes the project site) would help to improve transportation efficiency compared to the proposed project. See Section 4.13 of this RDEIR for a more detailed explanation of residential generated travel demand. Alternative 3 would reduce non-residential daily VMT by approximately 35 percent, when compared with the proposed project. As detailed in RDEIR Section 4.13, while mitigation imposed on the proposed project would substantially reduce non-residential VMT, the City cannot demonstrate with available evidence at this time that the reduction would decrease non-residential VMT by 15 percent relative to a comparison hotel of the same size.[4] Since VMT effects are evaluated according to the relative transportation efficiency, Alternative 3 would reduce this impact when compared with the proposed project.

Alternative 3 would be in the same location as the proposed project and does not propose any element that would impede pedestrian or bicycle access. Alternative 3, like the proposed project, would represent infill development adjacent to existing transit service. Thus, the associated impacts would be similar.

[4] Please refer to Section 4.13 of this RDEIR for a detailed description of the comparative methodology.

Alternative 3 and the proposed project would also have similar impacts associated with queueing. It was determined that there were three locations where queuing capacity would be inadequate to accommodate turning vehicles, but at all three locations this is an issue under existing conditions and not the result of project-related trips. Under both the proposed project and Alternative 3, the addition of project trips would either not affect queue lengths or add a nominal amount, less than the length of a single vehicle. While there would be reduced number of daily trips generated by Alternative 3 as compared to the proposed project, the difference in impact would be negligible.

Neither Alternative 3 nor the proposed project involves any changes to pedestrian infrastructure. There would be an incremental increase in pedestrian traffic in the vicinity of the project site under both Alternative 3 and the proposed project, however, neither would result in any new safety concerns. Additionally, there is no underlying safety issue for bicyclists that would be exacerbated by the increase in bicyclists associated with development of either project. In summary, Alternative 3 and the proposed project would have similar impact associated with traffic related hazards to pedestrians and bicyclists.

UTILITIES AND SERVICE SYSTEMS

Redevelopment of the project site under both Alternative 3 and the proposed project would result in environmental impacts related to demolishing the existing on-site infrastructure and redeveloping the on-site utilities infrastructure to serve the new development. Under Alternative 3, a smaller amount of redevelopment of the site would occur as compared to the proposed project, and therefore Alternative 3 would have a lesser level of impact, as compared to the proposed project. related to the relocation or the construction of new or expanded utilities and service systems facilities, the construction of which could cause significant environmental effects.

Both Alternative 3 and the proposed project would result in an increased demand for water supply and a result of project site redevelopment. However, as discussed in Section 4.14 (Utilities and Service Systems), the City's 2020 Urban Water Management Plan (EKI 2021) determined that the City has sufficient water to supply existing and proposed development through the year 2045 (including the proposed project), in all water year types—normal, dry, and 5-year consecutive drought. Based on the reduced number of total employees and residents, the water demand would be reduced by approximately seven percent compared to the proposed project. Because Alternative 3 would result in a lesser demand for water supplies as compared to the proposed project, Alternative 3 would have a lesser level of impact.

Both Alternative 3 and the proposed project would result in an increased demand for wastewater conveyance capacity as a result of project site redevelopment, and therefore would result in a similar requirement to consult with SVCSD and to provide evidence of availability of wastewater conveyance capacity to the city prior to issuance of building permits. Implementation of Mitigation Measure 4.14-3 would reduce the impacts for both Alternative 3 and the proposed project to a less than significant level. Based on the reduced number of total employees and residents under Alternative 3, the wastewater demand would be reduced by approximately seven percent. Because Alternative 3 would result in a lesser demand for sewer conveyance capacity as compared to the proposed project, Alternative 3 would have a lesser level of impact.

Redevelopment of the project site with the proposed land uses under both Alternative 3 and the proposed project would increase the amount of solid waste that would be generated, from both construction and operation, as compared to the existing commercial land uses. Because Alternative 3 would result in a lesser level of new

development as compared to the proposed project, Alternative 3 would result in a lower solid waste generation rate and therefore would have a lesser level of impact.

5.5.4 ALTERNATIVE 4: HOTEL ONLY ALTERNATIVE

AESTHETICS

Under Alternative 4, the project site would be redeveloped with a hotel-only project in the same location and with a similar appearance as the proposed project, although this alternative would not place a residential building along First Street West as proposed under the proposed project. Alternative 4 would result in similar changes to the visual appearance of buildings and landscaping at the project site, with the exception of views along First Street West, which instead of a building would be a parking and loading area. Overall, this alternative would have similar impacts related to degradation of visual character or conflicts with applicable zoning and other regulations governing scenic quality as under the proposed project.

AIR QUALITY

Alternative 4 occupies a smaller total building footprint because it would not include the construction of a residential building. The duration of construction could be slightly reduced under this alternative, but construction would use similar types of equipment. Due to the elimination of the residential component, Alternative 4 would have slightly reduced impacts associated with potential generation of temporary, short-term, construction-related emissions of criteria pollutants and precursors, when compared with the proposed project.

Operational generation of criteria air pollutants and precursors, as well as exposure to toxic air contaminants, would be slightly reduced compared to the proposed project. With no residential component, there would be a reduced amount of operational criteria air pollutant emissions associated with area, energy related, and mobile sources alike. With a reduced building square footage of approximately 24 percent compared with the proposed project, energy-related emissions would be similarly reduced. With reductions in daily energy usage and mobile source emissions, Alternative 4 will have a reduced impact on air quality as compared to the proposed project. Alternative 4 would reduce the number of vehicular trips and associated mobile source pollutants by approximately 10 percent compared with the proposed project. Area-source and stationary source emissions – those related to landscape maintenance, architectural coatings, and consumer product use – would be slightly reduced, as well, when compared with the proposed project. Overall, Alternative 4 would reduce operational air quality effects relative to the proposed project.

BIOLOGICAL RESOURCES

Since trees surrounding the existing buildings do not provide suitable cavities or crevices to support roosting bats, and since potential bat roosting habitat was identified at the Chateau Sonoma building, though a bat survey found no evidence that bats had used the building in the past, demolition of on-site buildings would produce a similar impact under both Alternative 4 and the proposed project.

Because demolition and construction would be limited to the hours of 8 a.m. and 6 p.m., construction activities associated with Alternative 4 and the proposed project are unlikely to result in the temporary disturbance of foraging individual bats through the alteration of foraging patterns. Therefore, Alternative 4 would have a similar impact to the proposed project.

The site anticipated for development under Alternative 4 is currently developed with buildings and associated parking lots and landscaping. The proposed redevelopment of the site with hotel-only uses, with associated parking lots and landscaping, would not affect wildlife nursery sites or wildlife movement corridors because none are present. Therefore, Alternative 4 would result in a similar level of impact as compared to the proposed project.

An Arborist's Report has been prepared for the proposed project, which the City has approved. In compliance with the City's Tree Preservation Ordinance, the project applicant would be required to replace oak trees that would be removed as part of the proposed project on a 2:1 basis, and all other trees would be replaced at a minimum 1:1 ratio. Because both Alternative 4 and the proposed project would result in the removal of most of the existing 50 trees at the project site, and would comply with the City's Tree Preservation Ordinance, the impact would be similar under Alternative 4 as compared with the proposed project.

Cultural and Tribal Cultural Resources

Under Alternative 4, the project site would be redeveloped with hotel-only land uses in the same location and with a similar appearance as the proposed project – though without the residential building included as a part of the proposed project. Redevelopment of the project site under Alternative 4 would have similar less than significant impacts to existing historic resources, resulting from the proposed building and limited line-of-sight visual connections from historic properties to the proposed development.

Since the project site has been previously developed and is almost completely covered with impervious surfaces, ground-disturbing activities associated with the prior construction likely already disturbed or resulted in the discovery of any archeological resources, including Native American human remains, that may have existed on the site. If any previously unknown resources were encountered during construction activities associated with either Alternative 4 or the proposed project, implementation of Mitigation Measure 4.5-2, along with required compliance with California Health and Safety Code sections 7050.5 and 7052 and California Public Resources Code section 5097, would reduce the impacts under both Alternative 4 to a less than significant level. Because Alternative 4 would have a smaller construction footprint without the residential building, this alternative would have a slightly reduced potential impact on previously unknown buried archaeological resources, including Native American human remains, as compared to the proposed project.

No Tribal Cultural Resources were identified within the project site as a result of the records search, literature review, Native American consultation, or archaeological field survey and therefore, neither Alternative 4 nor the proposed project would have any impact to Tribal Cultural Resources.

Geology, Soils, and Paleontological Resources

The project site is in a seismically active area, but Alternative 4, as with the proposed project would comply with the CBC, which requires that measures to reduce damage from seismic effects be incorporated in structural design, such as ground stabilization, selection of appropriate foundation type and depths, selection of appropriate structural systems to accommodate anticipated displacements, or any combination of these measures. Alternative 4 would have a similar level of impact from hazards related to strong seismic ground shaking as compared to the proposed project.

Potential soil erosion resulting from construction of both Alternative 4 and the proposed project would be reduced through implementation of the required SWPPP and associated BMPs specifically designed to reduce stormwater

runoff and associated sediment transport. Without the residential building, the amount of construction under Alternative 4 would be reduced, though with the addition of on-site loading, the impact related soil erosion would be similar to that under the proposed project.

Most of the project site is composed of unstable artificial fill, which would require construction under Alternative 4 and the proposed project to excavate the unstable material and replacing it with engineered, properly compacted fill. Because construction footprint under Alternative 4 would be similar to the proposed project, this alternative would have a similar level of impact related to construction in unstable soil as compared to the proposed project.

Paleontologically sensitive Pleistocene-age alluvial deposits are present at the project site below the artificial fill, to depths of at least 40 feet below the ground surface. Excavation associated with both Alternative 4 and the proposed project would occur in these paleontologically sensitive materials and could destroy unique paleontological resources. Implementation of Mitigation Measure 4.6-4 would reduce the impacts under both Alternative 4 and the proposed project to a less than significant level. Because the construction footprint under Alternative 4 would be similar to the proposed project, this alternative would have a similar level of impact related to potential destruction of unique paleontological resources as compared to the proposed project.

GREENHOUSE GAS EMISSIONS AND ENERGY

Alternative 4 includes only hotel uses. With the reduced amount of building construction, the total amount of greenhouse gas emissions during construction would be reduced compared to the proposed project.

With Alternative 4, area, stationary, energy related, and mobile source greenhouse gas emissions would be reduced. With the reduction in the amount of building square footage – approximately 24 percent less compared with the proposed project – the mass emissions of energy related greenhouse gas emissions would be similarly reduced. The number of daily trips under Alternative 4 would be reduced by approximately 10 percent compared to the proposed project, while the total VMT would be reduced by 10 percent. Total GHG emissions would be reduced under Alternative 4 compared to the proposed project.

With a reduction in building square footage of approximately 24 percent compared to the proposed project, and a reduction in travel demand of approximately 10 percent, energy use, including transportation energy use, would be reduced under Alternative 4 compared to the proposed project.

HAZARDS AND HAZARDOUS MATERIALS

Construction associated with the proposed redevelopment at the project site would involve the routine storage, use, transport, and disposal of small quantities of hazardous materials such as fuels, oils and lubricants, paints and paint thinners, glues, and cleaning fluids (e.g., solvents). In addition, operation of both Alternative 4 and the proposed project would require the routine use, transport, and disposal of basic household and commercial cleaning products, along with fertilizer and pesticides for landscape maintenance, and small amounts of chemicals for spa and swimming pool maintenance. The use, storage, and handling of these products is heavily regulated at the local, state, and federal level by a variety of regulations, laws, and policies. With no residential component, a smaller level of use and exposure to these chemicals would be present under Alternative 4 as compared to the proposed project, Alternative 4 would have a slightly reduced potential for an impact as compared to the proposed project.

The St. Francis Solano Catholic School, located at 342 West Napa Street, is approximately 0.2 mile west of the project site. Minor amounts of hazardous materials used during construction and operation of both Alternative 4 and the proposed project (such as fuels, oils, solvents, cleaning products, chemicals for spa and pool maintenance, and pesticides for landscape maintenance) would be managed in accordance with applicable laws and regulations and would not create a hazard to human health, including the health of school children or school employees. None of the substances used would be acutely hazardous. Because a similar level of use and exposure to these chemicals would occur under Alternative 4 as compared to the proposed project, Alternative 4 would have a similar potential for impact.

The project site is on the Cortese list as a result of leaking underground storage tanks that previously resulted in soil and groundwater contamination. Groundwater contaminant levels have been reduced through remedial activities and continue to attenuate over time, and most of the contaminated soil was previously removed and replaced with clean artificial fill. Because Alternative 4 would involve a similar construction footprint as the proposed project, there would be a similar potential for human contact or environmental exposure to contaminated soil or groundwater.

The proposed redevelopment at the project site under both Alternative 4 and the proposed project would be subject to City, County, and State emergency operation plans, multi-hazard mitigation plans, and emergency evacuation plans that are intended to address emergency situations. Redevelopment of the project site under Alternative 4 would be subject to the same emergency response and evacuation plans as the proposed project, and would be subject to the same requirements for appropriate ingress and egress. Because a slightly lesser level of construction-related equipment and truck trips and no residential trip would occur under Alternative 4, it would have a lesser potential for impact related to interference with emergency response or evacuation plans as compared to the proposed project.

HYDROLOGY AND WATER QUALITY

Redevelopment of the project site under Alternative 4 would result in a similar amount of demolition, a reduced amount of construction-related soil disturbance, and a similar amount of operational impervious surfaces as compared to the proposed project. Thus, there would be a reduced potential for construction-related surface or groundwater quality degradation. Since the amount of long-term operational impervious surfaces would be similar, there would be a reduced potential for increased pollutants in operational stormwater discharges, and a similar potential to reduce groundwater recharge or substantially decrease groundwater supplies. Since a similar amount of redevelopment would occur under Alternative 4, there would be a similar potential for flooding from increased stormwater flows, and a similar potential for conflicts with a water quality control plan or sustainable groundwater management plan. Therefore, Alternative 4 would have a reduced level of impact as compared to the proposed project.

LAND USE AND PLANNING

Under Alternative 4, no residential land uses would be developed. In applications for new development on commercially zoned properties that are 0.5 acre or larger and for which a discretionary permit is required, a residential component is required. Sonoma Municipal Code Section 19.10.020.B.3 addresses this requirement. The residential component shall be equal to 100 percent of the floor area of the commercial component according to the Municipal Code. Alternative 4 would not provide any on-site housing and therefore would require approval by the Planning Commission for the residential component to be satisfied through the payment of an in-lieu fee.

However, while lead agencies typically evaluate consistency with plans and code requirements as a part of an EIR, and while the City has provided a detailed evaluation of consistency in this RDEIR, plan and code consistency is not itself an adverse physical impact on the environment and this Alternative 4 and the proposed project will have no impact.

NOISE AND VIBRATION

Noise and vibration associated with demolition, site preparation, grading, and construction would be slightly reduced under Alternative 4 compared to the proposed project. The scale of development is reduced, and there would be a reduced need for building construction under Alternative 4 since there is no residential component. The building square footage would be reduced by approximately 24 percent compared with the proposed project and it is possible that the duration of construction could be slightly shorter, reducing the duration of temporary construction-related noise and vibration. Just as with the proposed project, Alternative 4 would implement Mitigation Measures 4.11-1 and 4.11-3, which would reduce temporary construction noise and vibration impacts. Overall, temporary noise and vibration impacts would be reduced under Alternative 4 compared with the proposed project.

Operational noise impacts would also be reduced under Alternative 4 due to decreases in noise from the use of HVAC equipment, garbage collection, landscaping activity, and activity in parking areas due to the elimination of the residential component. However, Alternative 4 would include a loading area on-site in an area that is not particularly noise-sensitive, but would still represent a source of occasional noise, assuming the loading area is used for hotel operations. Alternative 4 would reduce noise associated with vehicular transportation. The number of daily trips generated under Alternative 4 would be approximately 10 percent less than those generated by the proposed project. Operational noise impacts under Alternative 4 would be reduced as compared to the proposed project.

PUBLIC SERVICES

As a result of the development at the project site, both Alternative 4 and the proposed project would result in an increased need for fire and police protection services. However, because Alternative 4 does not include new residential land uses, unlike the proposed project, it would not increase the need for school services based on new residents (some of which may be K-12 school children). However, since there would not be any significant environmental impact associated with expanding capacity to meet demand for school services under the proposed project, the environmental impact would be similar under this Alternative 4.

TRANSPORTATION

Under Alternative 4, there would be no residential component. This would result in an elimination of daily trips associated with residential units and residential VMT. Under Alternative 4, total VMT would be reduced by approximately 10 percent compared to the proposed project. VMT can be an indicator of an adverse physical environment, such as criteria air pollutant emissions, greenhouse gas emissions, or transportation noise. Alternative 4, like the proposed project, would be consistent with the intent of SB 743 to better align transportation impact analysis and mitigation outcomes with the State's goals to reduce GHG emissions, encourage infill development, and improve public health through more active transportation. Alternative 4, like the proposed project, would represent an infill project in the densest part of the City with a diverse set of surrounding land uses, adjacent to transit service. However, Alternative 4 would eliminate the residential

component. And, as detailed in Section 4.13 (Transportation) the project site is in a traffic analysis zone shown to have residential vehicular travel demand that is 15 percent less per capita compared to the Citywide average. Therefore, eliminating all proposed housing in an area that is shown to provide relatively efficient transportation options (15 percent less VMT per capita compared to the Citywide average in the traffic analysis zone that includes the project site) would *reduce* transportation efficiency compared to the proposed project. See Section 4.13 of this RDEIR for a more detailed explanation of residential generated travel demand. As also detailed in RDEIR Section 4.13, while mitigation imposed on the proposed project would substantially reduce non-residential VMT, the City cannot demonstrate with available evidence at this time that the reduction would decrease non-residential VMT by 15 percent relative to a comparison hotel of the same size.[5] Therefore, since VMT effects are evaluated according to the relative transportation efficiency, even though total VMT would be reduced under Alternative 4, transportation efficiency would be reduced and therefore Alternative 4 would increase this impact when compared with the proposed project.

Alternative 4 would be in the same location as the proposed project and does not propose any element that would impede pedestrian or bicycle access. Alternative 4, like the proposed project, would represent infill development adjacent to existing transit service. Thus, the associated impacts would be similar as the proposed project.

Alternative 4 and the proposed project would also have similar impacts associated with queueing as compared with the proposed project. The traffic study prepared to support this RDEIR identified three locations where queuing capacity would be inadequate to accommodate turning vehicles, but at all three locations this is an issue under existing conditions and not the result of project-related trips. Under both the proposed project and Alternative 4, the addition of project trips would either not affect queue lengths or add a nominal amount, less than the length of a single vehicle. While there would be reduced number of daily trips generated by Alternative 4 as compared to the proposed project which would result in a lesser impact on traffic and congestion, the difference in impact would be negligible.

Neither Alternative 4 nor the proposed project involves any changes to pedestrian infrastructure. There would be an incremental increase in pedestrian traffic under both Alternative 4 and the proposed project, however, neither would result in any new safety concerns. Additionally, there is no underlying safety issue for bicyclists that would be exacerbated by the increase in bicyclists associated with development of either Alternative 4 or the proposed project. In summary, Alternative 4 and the proposed project would have similar impact associated with traffic related hazards to pedestrians and bicyclists.

UTILITIES AND SERVICE SYSTEMS

Redevelopment of the project site under both Alternative 4 and the proposed project would result in impacts related to demolishing the existing on-site infrastructure and redeveloping the on-site utilities infrastructure to serve the new development. Under Alternative 4, a smaller amount of redevelopment of the site would occur as compared to the proposed project, and therefore Alternative 4 would have a lesser level of impact, as compared to the proposed project, related to the relocation or the construction of new or expanded utilities and service systems facilities, the construction of which could cause significant environmental effects.

Both Alternative 4 and the proposed project would result in an increased demand for water supply and a result of project site redevelopment. However, as discussed in Section 4.14 (Utilities and Service Systems), the City's 2020

[5] Please refer to Section 4.13 of this RDEIR for a detailed description of the comparative methodology.

Urban Water Management Plan (EKI 2021) determined that the City has sufficient water to supply existing and proposed development through the year 2045 (including the proposed project), in all water year types—normal, dry, and 5-year consecutive drought. Based on the elimination of the residential component, the water demand would be reduced by approximately 21 percent. Because Alternative 4 would result in a lesser demand for water supplies as compared to the proposed project, Alternative 4 would have a lesser level of impact.

Both Alternative 4 and the proposed project would result in an increased demand for wastewater conveyance capacity as a result of project site redevelopment, and therefore would result in a similar requirement to consult with SVCSD and to provide evidence of availability of wastewater conveyance capacity to the City prior to issuance of building permits. Implementation of Mitigation Measure 4.14-3 would reduce the impacts for both Alternative 4 and the proposed project to a less than significant level. Based on the lack of permanent residents under Alternative 4, the wastewater demand would be reduced by approximately 21 percent. Because Alternative 4 would result in a lesser demand for sewer conveyance capacity as compared to the proposed project, Alternative 4 would have a lesser level of impact.

Redevelopment of the project site with the proposed land uses under both Alternative 4 and the proposed project would increase the amount of solid waste that would be generated, from both construction and operation, as compared to the existing commercial land uses. With the elimination of the residential component, Alternative 4 would result in a lower solid waste generation rate as compared to the proposed project, and therefore would have a lesser level of impact. Based on the lack of permanent on-site residents under Alternative 4, solid waste demand would be reduced by approximately 21 precent.

5.5.5 ALTERNATIVE 5: FEWER HOTEL ROOMS ALTERNATIVE

AESTHETICS

Alternative 5 contemplates a similarly scaled hotel building as the proposed project, but Alternative 5 would not place a residential building along First Street West as proposed under the proposed project. Alternative 5 would result in similar changes to the visual appearance of buildings and landscaping at the project site, with the exception of views along First Street West, where, instead of a residential building, there would be views of a parking and loading area. Overall, Alternative 5 would involve similar impacts related to degradation of visual character and conflicts with applicable zoning and other regulations governing scenic quality as under the proposed project.

AIR QUALITY

Alternative 5 occupies a smaller total building footprint and would not include the construction of a residential building. The duration of construction could be slightly shorter under this alternative, but demolition and construction would involve similar types of equipment. Due to the elimination of the residential component, and the reduced need for excavation since there would be no subterranean parking garage, Alternative 5 would have slightly reduced impacts associated with potential generation of temporary, short-term, construction-related emissions of criteria pollutants and precursors, when compared with proposed project.

Operational generation of criteria air pollutants and precursors, as well as exposure to toxic air contaminants, would be slightly reduced compared to the proposed project. With no residential component, there would be a reduced amount of operational criteria air pollutant emissions associated with area, energy related, and mobile

sources alike. With the reduction in the number of hotel rooms, this would further reduce mobile source emissions associated with hotel guest travel. With a reduced building square footage of approximately 24 percent compared with the proposed project, energy-related emissions would be similarly reduced. Alternative 5 will have a reduced impact on air quality as compared to the proposed project as a result of these reductions in daily energy use and mobile source emissions. Alternative 5 would reduce the number of vehicular trips and associated mobile source pollutants by approximately 30 percent as compared with the proposed project. Area-source and stationary source – those related to landscape maintenance, architectural coatings, and consumer product use – emissions would be slightly reduced, as well, when compared with the proposed project. Overall, Alternative 5 would reduce operational air quality effects relative to the proposed project.

BIOLOGICAL RESOURCES

Since trees surrounding the existing buildings do not provide suitable cavities or crevices to support roosting bats, and since potential bat roosting habitat was identified at the Chateau Sonoma building, though a bat survey found no evidence that bats had used the building in the past, demolition of on-site buildings would produce a similar impact under both Alternative 5 and the proposed project.

Because demolition and construction would be limited to the hours of 8 a.m. and 6 p.m., construction activities associated with Alternative 5 and the proposed project are unlikely to result in the temporary disturbance of foraging individual bats through the alteration of foraging patterns. Therefore, Alternative 5 would have a similar impact to the proposed project.

The site anticipated for development under Alternative 5 is currently developed with buildings and associated parking lots and landscaping. The proposed redevelopment of the site with hotel-only uses, with associated parking lots and landscaping, would not affect wildlife nursery sites or wildlife movement corridors because none are present. Therefore, Alternative 5 would result in a similar level of impact as compared to the proposed project.

An Arborist's Report has been prepared for the proposed project. In compliance with the City's Tree Preservation Ordinance, the project applicant would be required to replace oak trees that would be removed as part of the proposed project on a 2:1 basis, and all other trees would be replaced at a minimum 1:1 ratio. Because both Alternative 5 and the proposed project would result in the removal of most of the existing 50 trees at the project site, and would comply with the City's Tree Preservation Ordinance, the impact would be similar under Alternative 5 as compared with the proposed project.

CULTURAL AND TRIBAL CULTURAL RESOURCES

Under Alternative 5, the site would be redeveloped with hotel-only land uses in the same location and with a similar appearance as the proposed project – though without the residential building included as a part of the proposed project. Redevelopment of the project site under Alternative 5 would have similar less than significant impacts to existing historic resources, resulting from the proposed building and limited line-of-sight visual connections from historic properties to the proposed development.

Since the project site has been previously developed and is almost completely covered with impervious surfaces, ground-disturbing activities associated with the prior construction likely already disturbed or resulted in the discovery of any archeological resources, including Native American human remains, that may have existed on the site. If any previously unknown resources were encountered during construction activities associated with

either Alternative 5 or the proposed project, implementation of Mitigation Measure 4.5-2, along with required compliance with California Health and Safety Code sections 7050.5 and 7052 and California Public Resources Code section 5097, would reduce the impacts under both Alternative 5 to a less than significant level. Because Alternative 5 would have a smaller construction footprint, minus the residential building, and because Alternative 5 would not require a parking garage, this alternative would have a reduced potential impact on previously unknown buried archaeological resources, including Native American human remains, as compared to the proposed project.

No Tribal Cultural Resources were identified within the project site as a result of the records search, literature review, Native American consultation, or archaeological field survey and therefore, neither Alternative 5 nor the proposed project would have any impact to Tribal Cultural Resources.

GEOLOGY, SOILS, AND PALEONTOLOGICAL RESOURCES

Both the proposed project and Alternative 5 would be located in a seismically active area, but both would also be required to comply with the CBC, which requires that measures to reduce damage from seismic effects be incorporated in structural design, such as ground stabilization, selection of appropriate foundation type and depths, selection of appropriate structural systems to accommodate anticipated displacements, or any combination of these measures. Therefore, Alternative 5 would have a similar level of impact from hazards related to strong seismic ground shaking as compared to the proposed project.

The potential for soil erosion resulting from construction of both Alternative 5 and the proposed project would be reduced through implementation of the required SWPPP and associated BMPs specifically designed to reduce stormwater runoff and associated sediment transport. Without the residential building, the amount of construction under Alternative 5 would be reduced, though with the addition of on-site loading and surface parking, the impact related soil erosion would be similar to that under the proposed project.

Both Alternative 5 and the proposed project would require excavation of on-site unstable material and replacement with engineered, properly compacted fill. Because construction footprint under Alternative 5 would be similar to the proposed project, this alternative would have a similar level of impact related to construction in unstable soil as compared to the proposed project.

Paleontologically sensitive Pleistocene-age alluvial deposits are present at the project site below the artificial fill, to depths of at least 40 feet below the ground surface. Excavation associated with both Alternative 5 and the proposed project would occur in these paleontologically sensitive materials and could destroy unique paleontological resources. Implementation of Mitigation Measure 4.6-4 would reduce the impacts under both Alternative 5 and the proposed project to a less than significant level. Because Alternative 5 would not require excavation for a subterranean parking garage, this alternative would have a reduced level of impact related to potential destruction of unique paleontological resources as compared to the proposed project.

GREENHOUSE GAS EMISSIONS AND ENERGY

Alternative 5 includes only hotel uses with fewer hotel rooms. With the reduced amount of building construction and the elimination of a subterranean parking garage, the total amount of greenhouse gas emissions during construction would be reduced compared to the proposed project.

Stationary, energy related, and mobile source greenhouse gas emissions would be reduced for Alternative 5 compared with the proposed project. With the reduction in the amount of building square footage – approximately 24 percent less compared with the proposed project – the mass emissions of energy related greenhouse gas emissions would be similarly reduced. With the elimination of the residential component and reduction in number of hotel rooms, the number of daily trips under Alternative 5 would be reduced by approximately 30 percent compared to the proposed project, while the total VMT would be reduced by 30 percent.

With a reduction in building square footage of approximately 24 percent compared to the proposed project, and a reduction in travel demand of approximately 30 percent, energy use, including transportation energy use, would be reduced under Alternative 5 compared to the proposed project.

HAZARDS AND HAZARDOUS MATERIALS

Construction associated with the proposed redevelopment at the project site would involve the routine storage, use, transport, and disposal of small quantities of hazardous materials such as fuels, oils and lubricants, paints and paint thinners, glues, and cleaning fluids (e.g., solvents). In addition, operation of both Alternative 5 and the proposed project would require the routine use, transport, and disposal of basic household and commercial cleaning products, along with fertilizer and pesticides for landscape maintenance, and small amounts of chemicals for spa and swimming pool maintenance. The use, storage, and handling of these products is heavily regulated at the local, state, and federal level by a variety of regulations, laws, and policies. With no residential component, a smaller level of use and exposure to these chemicals would be present under Alternative 5 as compared to the proposed project, Alternative 5 would have a slightly reduced potential for an impact as compared to the proposed project.

The St. Francis Solano Catholic School, located at 342 West Napa Street, is approximately 0.2 mile west of the project site. Both Alternative 5 and the proposed project would involve minor amounts of hazardous materials used during construction and operation (such as fuels, oils, solvents, cleaning products, chemicals for spa and pool maintenance, and pesticides for landscape maintenance) that would be managed in accordance with applicable laws and regulations and would not create a hazard to human health, including the health of school children or school employees. None of the substances used would be acutely hazardous. Because a similar level of use and exposure to these chemicals would occur under Alternative 5 as compared to the proposed project, Alternative 5 would have a similar potential for impact.

The project site is on the Cortese list as a result of leaking underground storage tanks that previously resulted in soil and groundwater contamination. Groundwater contaminant levels have been reduced through remedial activities and continue to attenuate over time, and most of the contaminated soil was previously removed and replaced with clean artificial fill. Because Alternative 5 would not include excavation for a subterranean parking garage, there would be a reduced potential for human contact or environmental exposure to contaminated soil or groundwater as compared to the proposed project.

Alternative 5 and the proposed project would be subject to City, County, and State emergency operation plans, multi-hazard mitigation plans, and emergency evacuation plans that are intended to address emergency situations. Redevelopment of the project site under Alternative 5 would be subject to the same emergency response and evacuation plans as the proposed project, and would be subject to the same requirements for appropriate ingress and egress. Because a slightly lesser level of construction-related equipment and truck trips, fewer hotel guest

trips, and no residential trips under Alternative 5, it would have a lesser potential for impact related to interference with emergency response or evacuation plans as compared to the proposed project.

HYDROLOGY AND WATER QUALITY

Alternative 5 would result in a reduced construction-related soil disturbance and operational impervious surfaces as compared to the proposed project. Overall, there would be a reduced potential for construction-related surface or groundwater quality degradation. Since the amount of long-term operational impervious surfaces would be less than the proposed project, there would be a reduced potential for increased pollutants in operational stormwater discharges, and a lower potential to reduce groundwater recharge or substantially decrease groundwater supplies. Since a lesser amount of redevelopment would occur, there would be a lower potential for flooding from increased stormwater flows, and a reduced potential for conflicts with a water quality control plan or sustainable groundwater management plan. Therefore, Alternative 5 would have a lesser level of impact as compared to the proposed project.

LAND USE AND PLANNING

Under Alternative 5, no residential land uses would be developed. In applications for new development on commercially zoned properties that are 0.5 acre or larger and for which a discretionary permit is required, a residential component is required. Sonoma Municipal Code Section 19.10.020.B.3 addresses this requirement. The residential component shall be equal to 100 percent of the floor area of the commercial component according to the Municipal Code. Alternative 4 would not provide any onsite housing and therefore would require approval by the Planning Commission for the residential component to be satisfied through the payment of an in-lieu fee. However, while lead agencies typically evaluate consistency with plans and code requirements as a part of an EIR, and while the City has provided a detailed evaluation of consistency in this RDEIR, plan and code consistency is not itself an adverse physical impact on the environment and this Alternative 4 and the proposed project will have no impact.

NOISE AND VIBRATION

Noise and vibration associated with demolition, site preparation, grading, and construction would be reduced under Alternative 5 compared to the proposed project. The scale of development is reduced, there is no subterranean parking garage, and there would be a reduced need for building construction. The building square footage would be reduced by approximately 24 percent compared with the proposed project and it is possible that the duration of construction could be slightly shorter, reducing the duration of temporary construction-related noise and vibration. Just as with the proposed project, Alternative 5 would implement Mitigation Measures 4.11-1 and 4.11-3, which would reduce temporary construction noise and vibration impacts. Overall, temporary noise and vibration impacts would be reduced under Alternative 5 compared with the proposed project.

Operational noise impacts would also be reduced under Alternative 5 due to decreases in noise from the use of HVAC equipment, garbage collection, landscaping activity, and activity in parking areas due to the elimination of the residential component. However, Alternative 5 would include a loading area on-site in an area that is not particularly noise-sensitive, but would still represent a source of occasional noise, assuming the loading area is used for hotel operations. Alternative 5 would reduce noise associated with vehicular transportation. The number of daily trips generated under Alternative 5 would be approximately 30 percent less than those generated by the

proposed project. Operational noise impacts under Alternative 5 would be reduced as compared to the proposed project.

PUBLIC SERVICES

Alternative 5 and the proposed project would result in an increased need for fire and police protection services. However, because Alternative 5 does not include new residential land uses, unlike the proposed project, it would not increase need for school services based on new residents (some of which may be K-12 school children). However, since there would not be any significant environmental impact associated with expanding capacity to meet demand for school services under the proposed project, the environmental impact would be similar under Alternative 5 as compared to the proposed project.

TRANSPORTATION

Under Alternative 5, there would be fewer hotel rooms and no residential component. This would result in an elimination of daily trips associated with residential units and residential VMT. Under Alternative 5, total VMT would be reduced by approximately 30 percent compared to the proposed project. VMT can be an indicator of an adverse physical environment, such as criteria air pollutant emissions, greenhouse gas emissions, or transportation noise. Alternative 5, like the proposed project, would be consistent with the intent of SB 743 to better align transportation impact analysis and mitigation outcomes with the State's goals to reduce GHG emissions, encourage infill development, and improve public health through more active transportation. Alternative 5, like the proposed project, would represent an infill project in the densest part of Sonoma with a diverse set of surrounding land uses, adjacent to transit service. However, Alternative 5 would eliminate the residential component. As detailed in Section 4.13 (Transportation) the project site is in a traffic analysis zone shown to have residential vehicular travel demand that is 15 percent less per capita compared to the Citywide average. Therefore, eliminating all proposed housing in an area that is shown to provide efficient transportation options (15 percent less VMT per capita compared to the Citywide average in the traffic analysis zone that includes the project site) would reduce transportation efficiency compared to the proposed project. See Section 4.13 of this RDEIR for a more detailed explanation of residential generated travel demand. As also detailed in RDEIR Section 4.13, while mitigation imposed on the proposed project would substantially reduce non-residential VMT, the City cannot demonstrate with available evidence at this time that the reduction would decrease non-residential VMT by 15 percent relative to a comparison hotel of the same size.[6] Therefore, since VMT effects are evaluated according to the relative transportation efficiency, even though total VMT would be reduced under Alternative 5, Alternative 5 would increase this impact when compared with the proposed project.

Alternative 5 would be in the same location as the proposed project and does not propose any element that would impede pedestrian or bicycle access. Alternative 5, like the proposed project, would represent infill development adjacent to existing transit service. Thus, the associated impacts would be similar under this Alternative 5 as compared to the proposed project.

Alternative 5 and the proposed project would also have similar impacts associated with queueing as compared with the proposed project. The traffic study prepared to support this RDEIR identified three locations where queuing capacity would be inadequate to accommodate turning vehicles, but at all three locations this is an issue under existing conditions and not the result of project-related trips. Under both the proposed project and

[6] Please refer to Section 4.13 of this RDEIR for a detailed description of the comparative methodology.

Alternative 5, the addition of project trips would either not affect queue lengths or add a nominal amount, less than the length of a single vehicle. While there would be reduced number of daily trips generated by Alternative 5 as compared to the proposed project which would result in a lesser impact on traffic and congestion, the difference in impact would be negligible.

Neither Alternative 5 nor the proposed project involves any changes to pedestrian infrastructure. There would be an incremental increase in pedestrian traffic under both Alternative 5 and the proposed project, however, neither would result in any new safety concerns. Additionally, there is no underlying safety issue for bicyclists that would be exacerbated by the increase in bicyclists associated with development of either Alternative 5 or the proposed project. In summary, Alternative 5 and the proposed project would have similar impact associated with traffic related hazards to pedestrians and bicyclists.

UTILITIES AND SERVICE SYSTEMS

Redevelopment of the project site under both Alternative 5 and the proposed project would result in impacts related to demolishing the existing on-site infrastructure and redeveloping the on-site utilities infrastructure to serve the new development. Under Alternative 5, a reduced amount of redevelopment of the site would occur as compared to the proposed project, and therefore Alternative 5 would have a reduced level of impact, as compared to the proposed project, related to the relocation or the construction of new or expanded utilities and service systems facilities, the construction of which could cause significant environmental effects.

Both Alternative 5 and the proposed project would result in an increased demand for water supply and a result of project site redevelopment. However, as discussed in Section 4.14 (Utilities and Service Systems), the City's 2020 Urban Water Management Plan (EKI 2021) determined that the City has sufficient water to supply existing and proposed development through the year 2045 (including the proposed project), in all water year types—normal, dry, and 5-year consecutive drought. Based on the elimination of the residential component, the water demand would be reduced by approximately 32 percent. Because Alternative 5 would result in a lesser demand for water supplies as compared to the proposed project, Alternative 5 would have a reduced level of impact.

Both Alternative 5 and the proposed project would result in an increased demand for wastewater conveyance capacity compared to baseline conditions as a result of project site redevelopment, and therefore would result in a similar requirement to consult with SVCSD and to provide evidence of availability of wastewater conveyance capacity to the City prior to issuance of building permits. Implementation of Mitigation Measure 4.14-3 would reduce the impacts for both Alternative 5 and the proposed project to a less than significant level. Based on the reduced number of employees and the lack of permanent residents under Alternative 5, the wastewater demand would be reduced by approximately 32 percent. Because Alternative 5 would result in a reduced demand for sewer conveyance capacity as compared to the proposed project, Alternative 5 would have a reduced level of impact.

Redevelopment of the project site with the proposed land uses under both Alternative 5 and the proposed project would increase the amount of solid waste that would be generated, from both construction and operation, as compared to the existing commercial land uses. With the elimination of the residential component, Alternative 5 would result in a lower solid waste generation rate and therefore would have a lesser level of impact. Based on the lack of permanent on-site residents and reduced number of employees under Alternative 5, solid waste demand would be reduced by approximately 32 percent.

5.6 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Alternative 1 (No Project Alternative) would have the greatest number of reduced impacts as shown in Table 5-1, therefore the No Project Alternative would be the Environmentally Superior Alternative. This alternative provides the greatest reduction in potential environmental effects of the proposed project. Other than the No Project Alternative, Alternative 3 (Hotel/Residential (75%-25%) Alternative) would provide the most benefit relative to reducing environmental effects compared to the proposed project.

Table 5-1. Comparison of Impacts of the Alternatives to the Proposed Project

Environmental Topic Area	Alternative 1: No Project	Alternative 2: Hotel/Residential (50%/50%)	Alternative 3: Hotel/Residential (75%/25%)	Alternative 4: Hotel Only Alternative	Alternative 5: Fewer Hotel Rooms Alternative
Aesthetics	Reduced	Similar	Similar	Similar	Similar
Air Quality	Reduced	Reduced	Reduced	Reduced	Reduced
Biological Resources	Reduced	Similar	Similar	Similar	Similar
Cultural and Tribal Cultural Resources	Reduced	Similar	Reduced	Reduced	Reduced
Geology, Soils, and Paleontological Resources	Reduced	Similar	Reduced	Similar	Reduced
Greenhouse Gas Emissions and Energy	Reduced	Reduced	Reduced	Reduced	Reduced
Hazards and Hazardous Materials	Reduced	Similar	Reduced	Reduced	Reduced
Hydrology and Water Quality	Reduced	Similar	Reduced	Reduced	Reduced
Land Use and Planning	Similar	Similar	Similar	Similar	Similar
Noise and Vibration	Reduced	Reduced	Reduced	Reduced	Reduced
Public Services	Reduced	Similar	Similar	Similar	Similar
Transportation	Reduced	Reduced	Reduced	Increased	Increased
Utilities and Service Systems	Reduced	Similar	Reduced	Reduced	Reduced
Total Reduced Impact Topics	12	4	9	7	8

Source: Data Compiled by AECOM in 2023

6 OTHER CEQA CONSIDERATIONS

6.1 CUMULATIVE IMPACTS

6.1.1 DEFINITION

This section provides an analysis of the cumulative impacts of the proposed project considered together with other past, present, and probable future projects producing related impacts, as required by Section 15130 of the CEQA Guidelines.

Cumulative impacts are defined in 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" (CEQA Guidelines Section 15355[b]).

Consistent with CEQA Guidelines Section 15130(a), the discussion of cumulative impacts in this 2022 RDEIR focuses on significant and potentially significant cumulative impacts. CEQA Guidelines Section 15130(b), in part, provides the following:

> 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.

6.1.2 APPROACH

CUMULATIVE PROJECTS CONSIDERED

The CEQA Guidelines Section 15130(b)(1) identifies two basic methods for establishing the cumulative environment in which the proposed project is to be considered:

- List method—A list of past, present, and probable future projects producing related or cumulative impacts.
- Plan method—A summary of projections contained in adopted general plans or related planning documents, or in a prior environmental document that has been adopted or certified, which described or evaluated regional or areawide conditions contributing to the cumulative impact.

The cumulative analysis for this RDEIR uses the list method. The list of cumulative projects considered in this cumulative analysis is presented in Table 6-1. This list includes representative past, present, and probable future projects that relate to impacts of the proposed project.

Table 6-1. List of Cumulative Projects

Project	Location	Single-Family Units	Multi-Family Units	Hotel Rooms	Commercial Square Footage
Hyatt Place Hotel	3750 North Laughlin Road, Santa Rosa			165	
Verano Hotel	Verano Avenue, Sonoma		39	120	
870 Broadway	870 Broadway				**4,100**
1st St E Townhomes	216, 230, 254 1st Street East, Sonoma, CA		52		
Broadway Housing Project	1211 Broadway	2	4		
MacArthur Place Hotel & Spa Guestroom Addition	29 East MacArthur St.			11	
Montaldo Apartments	19320 Sonoma Highway		50		
Hummingbird Cottages	19910 Fifth Street West		15		
4th Street East & Brazil Street Hillside Residential Projects	**149 Fourth Street East / APN 018-091-018 (aka Lot 2)**	**3**			

Source: Data Provided by City of Sonoma 2022

GEOGRAPHIC CONTEXT

Cumulative impacts may occur over different geographic areas depending upon the resource area being considered. The cumulative analyses for each topic area below describe the geographic scope (e.g. immediate project vicinity, city, county, watershed, or air basin). The geographic area considered depends on the topic that is being analyzed. For example, in assessing aesthetic impacts, only development within the vicinity of the proposed project would contribute to a cumulative visual effect because the project site is only visible within the vicinity of the site. In assessing air quality impacts, development within the air basin contributes to regional emissions of criteria pollutants, and basin-wide projections of emissions are the best tool for determining the cumulative effect.

6.1.3 CUMULATIVE IMPACT ANALYSIS

The following sections contain a discussion of the cumulative effects that may occur from project implementation, when considered in combination with the other cumulative projects presented in Table 6-1, for each of the environmental topic areas evaluated in detail in this RDEIR.

As discussed in detail in Chapter 4.1, "Topic Areas Not Carried Forward for Further Analysis," the following topic areas were determined to clearly result in environmental impacts that are either less than significant or no impact would result from implementing the proposed project: agricultural resources, mineral resources, population and housing, recreation, and wildfire. Therefore, these topics areas were not carried forward for further detailed analysis in the EIR and are not included in the cumulative impact analysis presented below, because no cumulative impacts would occur.

This cumulative analysis conforms with Section 15130 of the 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 a detail as is provided of the effects attributable to the project alone."

AESTHETICS

The geographic context for aesthetics encompasses the City of Sonoma. Projects reviewed by the City would be subject to the requirements of the Sonoma Municipal Code, Title 19, as applicable, which includes specific requirements for community design (Division II), project design (Division III), and general site planning and development standards (Division IV). These code sections contain specific provisions intended to minimize potential adverse effects on properties surrounding proposed new development, including streetscaping, landscaping, and architectural design. Projects are also subject to Sonoma Municipal Code Section 19.54.080, Site Design and Architectural Review, which establishes the review requirements necessary to ensure that all applicable development projects comply with the City's standards and design guidelines.

Cumulative impacts related to aesthetics are limited to the area in which the proposed project may be viewed in combination with one or more of the other projects considered in the cumulative analysis. The only cumulative project which includes views of the project site is the recently completed Sonoma Bungalows Boutique Hotel, across the street (to the north) from the project site at 158 West Napa Street. As with the proposed project site, this project is located in the already developed Downtown portion of Sonoma, and this previously completed project is also surrounded primarily by commercial development.

The project site is situated within the Sonoma's urbanized Downtown district, which already has high levels of nighttime lighting and (in older areas) building materials that can cause daytime glare. The proposed project is required to comply with Sonoma Municipal Code Section 19.40.030 (Exterior Lighting), which includes standards for shielding and directing light downwards, and Section 18.20.130 (Illuminated Signs and Exterior Business Lighting), which prohibits glare or excessively bright lighting from new exterior signage. Furthermore, the proposed project incorporates the use of architectural coatings designed to reduce glare. The project would **not have any cumulatively considerable** light or glare impact.

The proposed project site itself is already developed with existing commercial uses, parking lots, and landscaping. With implementation of the proposed project, the project site would be redeveloped with a hotel (with a spa and restaurant), an 8-unit residential building, and landscaping. As discussed in detail in Section 4.2, "Aesthetics" and illustrated in the visual simulations presented in Exhibits 4.2-6 through 4.2-10, the proposed project would represent a noticeable change from public vantage points around the site. However, the proposed redevelopment would be visually similar to and consistent with existing architectural styles of nearby buildings, including the Sonoma Bungalows Boutique Hotel. As shown in Exhibits 4.2-6 through 4.2-10, the proposed project has been designed to incorporate architectural design, landscaping, and exterior finishes and colors, including balconies, railings, dormer windows, and a combination of stone, wood, and metal finishes that are intended to be compatible with the surrounding built environment.

Other projects in the vicinity of the project would be reviewed by the City would be subject to the requirements of the Sonoma Municipal Code, Title 19, which are specifically designed to ensure compatibility with existing historic styles that typify Sonoma's character and are designed to avoid aesthetics impacts. While the project would change the visual character of the proposed site, because the proposed project would not include demolition of any historic structures and is required to comply with City Municipal Code requirements related to design standards, the proposed project would **not have a cumulatively considerable contribution** to any significant cumulative impact.

AIR QUALITY

Federal and State air quality standards have been established by the U.S. Environmental Protection Agency (EPA) and at the state level by the California Air Resources Board (CARB), respectively, for six common air pollutants, known as criteria air pollutants. The criteria pollutants include particulate matter (PM) (which is further subdivided into PM of diameter equal to or less than 10 micrometers [PM_{10}] and PM of diameter equal to or less than 2.5 micrometers [$PM_{2.5}$]), ground-level ozone, carbon monoxide (CO), sulfur dioxide (SO_2), nitrogen dioxide (NO_2), and lead. EPA and CARB use air quality monitoring data to designate attainment status for criteria air pollutants based on whether or not the national ambient air quality standards (NAAQS) and California Ambient Air Quality Standard (CAAQS), respectively, have been achieved. The San Francisco Bay Area Air Basin (SFBAAB) is designated as nonattainment for the State ozone, PM_{10}, and $PM_{2.5}$ standards and the national ozone and $PM_{2.5}$ standards. **This is a significant cumulative impact.**

As detailed Section 4.3 of this RDEIR, air quality effects are inherently cumulative effects – the nonattainment status of regional pollutants results from past and present development within the air basin. No single project would be sufficient in size, by itself, to result in nonattainment of regional air quality standards. Instead, a project's emissions may be individually limited, but cumulatively considerable when evaluated in combination with past, present, and future development projects. The Bay Area Air Quality Management District (BAAQMD) thresholds of significance for construction and operational phases of a project are established to identify projects that have the potential to generate a level of emissions that would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions. The proposed project's construction and operational emissions are below these thresholds. **This represents a less than cumulatively considerable impact.**

With regard to toxic air contaminant emissions (TACs), the project does not propose sources of TACs that would affect the operational phase of the project and there are not known projects that could have overlapping construction with the proposed project and would involve enough heavy construction equipment use such that a significant cumulative impact could occur. However, as detailed in Section 4.3 of this RDEIR, a health risk assessment (HRA) was prepared for the construction phase of the project. An HRA incorporates the cumulative context by including among the analytical inputs existing air quality data. As described in Section 4.3, the project would not approach concentration levels that are of concern using methods developed by the Office of Environmental Health Hazard Assessment (OEHHA). The impact is **less than cumulatively considerable**.

BIOLOGICAL RESOURCES

Special-Status Species

Projects considered in this cumulative analysis would be subject to the requirements of the federal and State Endangered Species Acts, California Fish and Game Code, and City of Sonoma General Plan policies related to biological resources. These regulations, permit terms and conditions, and General Plan policies would minimize potential adverse impacts to bat species (i.e., direct mortality, or disturbance of bat nesting or roosting individuals or colonies) to the maximum extent practicable. Furthermore, the project site does not contain bat nesting or roosting individuals or colonies, and since the project would not include nighttime work, individual bats that may forage in the area would not be disturbed. The proposed project would **not have a cumulatively considerable contribution** to any significant cumulative impact related to effects on special-status species.

Wildlife Movement and Migratory Corridors

All of the projects considered in this cumulative analysis are in urbanized areas, bordered by existing roadways, buildings, and parking lots, which preclude the presence of any important wildlife movement corridors. Wildlife species that are common in developed, urban habitats would continue to move through the area, both during and after construction, at both the project site and the locations of the other projects considered in this cumulative analysis. The proposed project would **not have a cumulatively considerable contribution** to any significant cumulative impact related to wildlife movement and migratory corridors.

Tree Preservation Ordinance

Projects in the City of Sonoma would be required to comply with the City's Tree Ordinance and Heritage Tree Ordinance (City of Sonoma Municipal Code, Chapters 12.08 and 12.09, respectively). There are no Heritage Trees at the project site. The City has reviewed a certified Arborist's Report prepared for the proposed project and has determined that specific Conditions of Approval will be imposed as part of the project to ensure consistency with the City's Tree Ordinance. The proposed project would **not have a cumulatively considerable contribution** to any significant cumulative impact related to adopted tree preservation ordinances.

CULTURAL AND TRIBAL CULTURAL RESOURCES

Historical Resources

Significant cumulative impacts to cultural resources could occur if a series of actions leads to the loss of a substantial type of site, building, or resource. For example, while the loss of a single historic building may not be significant tothe character of a neighborhood or streetscape, continued loss of such resources on a project-by-project basis could constitute a significant cumulative effect. This is most obvious in historic districts, where destruction or alteration of a percentage of the contributing elements may lead to a loss of integrity for the district overall. For example, changes to the setting or atmosphere of an area by adding modern structures on all sides of a historically significant building, thus altering the aesthetics of the streetscape, would create a significant impact. Destruction or relocation of historic buildings would also significantly impact the setting.

As detailed in Section 4.5 of this RDEIR, the project site is within the vicinity of the Sonoma Plaza National Historic Landmark, the Sonoma Plaza National Register Historic District, and is within the City of Sonoma Historic Overlay Zone. While there are historical resources in close proximity to the project site, because of the scale, location, and design, the proposed project would not impair the integrity of setting, feeling, or association of the Sonoma Plaza National Register Historic District, would not alter the setting of historic resources a way that would materially impair their historical significance and would not alter any individual historical resource in the vicinity of the project site. The impact is **less than cumulatively considerable**.

Archaeological Resources and Human Remains

Since the project site has been previously developed and is almost completely covered with impervious surfaces, ground-disturbing activities associated with the prior construction likely already disturbed or resulted in the discovery of any archeological resources that may have existed on the site. However, previously unknown archaeological materials may be present and could be encountered by project-related earthmoving activities. The potential impacts of the proposed project on any previously unknown archaeological resources would be reduced to a less-than-significant level with implementation of Mitigation Measures 4.5-1a and -1b. Because this

mitigation measure would protect any archaeological resources that may be present at the project site, the proposed project would not result in a cumulatively significant impact on archaeological resources. Additionally, the existing federal, State, and local regulations and policies described throughout Section 4.5, "Cultural and Tribal Cultural Resources," including the procedures for the treatment of Native American human remains contained in California Health and Safety Code Sections 7050.5 and 7052 and California Public Resources Code Section 5097 and Mitigation Measure 4.5-3, would serve to protect any as-yet-undiscovered cultural resources, including human remains, at the project site and in the City of Sonoma to the maximum extent practicable. Therefore, in combination with past, present, and reasonably foreseeable projects, the project would result in a **less-than-significant** cumulative impact with respect to archaeological resources and human remains.

Tribal Cultural Resources

No Tribal Cultural Resources were identified within the project site as a result of the records search, literature review, Native American consultation, or archaeological field survey. Mitigation Measure 4.5-4 would ensure against any impact to unknown discovered resources. Therefore, the project would **not have any cumulatively considerable contribution** to any cumulative impact related to tribal cultural resources.

GEOLOGY, SOILS, AND PALEONTOLOGICAL RESOURCES

Hazards from Strong Seismic Ground Shaking and Unstable Soil

The geographic context for geology and soils encompasses the Sonoma Valley region. The geologic formations and soil types vary widely depending on project location and are site specific.

All of the projects considered in this cumulative analysis are required by law to implement the design and engineering requirements of the California Building Standards Code (CBC), which include an analysis of slope instability, liquefaction, and surface rupture attributable to faulting or lateral spreading, plus an evaluation of lateral pressures on basement and retaining walls, liquefaction and soil strength loss, and lateral movement or reduction in foundation soil-bearing capacity. The CBC also regulates soil analyses for foundations and grading work. The CBC also requires that measures to reduce damage from seismic effects and other geologic conditions such as unstable soils be incorporated in structural design. Therefore, the project would have a **less than cumulatively considerable contribution** to cumulative impacts related to strong seismic ground shaking and unstable soils.

Substantial Soil Erosion

All of the cumulative projects that disturb one acre or more of land area are required by law to prepare a Storm Water Pollution Prevention Plan (SWPPP) and implement site-specific Best Management Practices (BMPs) that are specifically designed to prevent construction-related erosion. The cumulative projects would also be required to obtain a grading permit, which requires submittal of a stormwater hydraulic analysis, soils report, geotechnical report, and erosion and sediment control plan, along with detailed grading plans that show how stormwater runoff and soil erosion would be reduced. Permit conditions would be imposed to reduce potential erosion impacts. Therefore, the project would have a **less than cumulatively considerable contribution** to cumulative impacts related to construction-related soil erosion.

Destruction of Unique Paleontological Resources

The geographic context for paleontological resources encompasses Sonoma County. Fossil discoveries resulting from excavation and earth-moving activities associated with development are occurring with increasing frequency throughout the state. The value or importance of different fossil groups varies depending on the age and depositional environment of the rock unit that contains the fossils, their rarity, the extent to which they have already been identified and documented, and the ability to recover similar materials under more controlled conditions (such as for a research project). Unique, scientifically-important fossil discoveries are relatively rare, and the likelihood of encountering them is site-specific and is based on the specific geologic rock formations that are present at any given project site. These geologic formations vary from location to location.

Sonoma County includes a variety of rock formations such as Pleistocene-age alluvial, fan, and terrace deposits in valley locations. Due to the large number of vertebrate fossils that have been recovered from these geologic formations, they are considered paleontologically sensitive. Therefore, earthmoving activities associated with the projects considered in this cumulative analysis could damage or destroy unique paleontological resources that may be present in these rock formations, and potentially within other paleontologically sensitive formations as well. Therefore, the cumulative projects could result in a significant cumulative impact. Construction of the proposed project would also result in earthmoving activities in the paleontologically sensitive Pleistocene alluvial deposits. Implementation of Mitigation Measure 4.7-4, which requires education of construction workers about fossils prior to the start of earthmoving activities, and halting construction activities if fossil evidence is encountered and consulting with a qualified paleontologist who would recommend appropriate actions, would reduce the project's impacts to a less-than-significant level. This would also ensure that the project would have a **less than cumulatively considerable contribution** to cumulative impacts related to unique paleontological resources.

GREENHOUSE GAS EMISSIONS AND ENERGY

As detailed in Section 4.7 of this RDEIR, GHG emissions have the potential to adversely affect the environment because such emissions contribute cumulatively to global climate change. It is unlikely that a single project will contribute significantly to climate change, but cumulative emissions from many projects could affect global GHG concentrations and the climate system. Impacts within Section 4.7 of this RDEIR are analyzed within the context of the project's potential contribution to the cumulatively significant impact of climate change. The impact is **cumulatively considerable and significant and unavoidable**, as detailed in Section 4.7 of this RDEIR.

The proposed project is an infill project that would not require construction to extend or expand the capacity of infrastructure in order to serve proposed development. Existing water, sewer, drainage, and transportation infrastructure is available to serve the proposed project adjacent to the project site. This limits the amount of energy required for construction. The space heating and cooling, lighting, and other operational-related energy uses for the proposed project's buildings would be more efficient than existing on-site buildings that are proposed for demolition. The proposed building electrical power supply would be augmented by an approximately 8,704-square-foot rooftop photovoltaic (solar) generation system, increasing reliance on renewable energy sources. While construction and operation of the project would require energy, considering the location, nature, and design of the proposed project, there would be **no cumulatively considerable contribution** to any impact related to the inefficient, wasteful, or unnecessary use of fuel or other energy sources.

HAZARDS AND HAZARDOUS MATERIALS

The geographic context for hazards and hazardous materials consists of the City of Sonoma. The potential for hazardous materials issues to occur is specific to each project site and is dependent on the nature of prior activities both on- and off-site; therefore, hazardous materials issues generally do not combine to form cumulative impacts.

Routine Use, Disposal, Transport, and Potential for Accidental Spills

The proposed project and the related cumulative projects would all require the routine use, disposal, and transport of minor amounts of hazardous materials during project construction (e.g., fuels, oils, solvents, and architectural coatings) and project operation (cleaning products, pesticides, fertilizers, pool chemicals, and paints). The proposed project and the related cumulative projects are also subject to the same potential for accidental spills of minor amounts of the hazardous substances indicated above, during both the construction and operational phases. However, the cumulative projects and the proposed project are required to comply with local, state, and federal regulations for transport, use, disposal, and accidental release of hazardous materials, which would address impacts associated with both construction- and operation-related handling of hazardous materials. Therefore, the project's impact from routine use, disposal, transport, and potential for accidental spills of hazardous materials is **less than cumulatively considerable**.

Hazardous Materials Within One-Quarter Mile of a School

There is one existing K–12 school within 0.25 mile of the project site, and there may be schools within 0.25 mile of the other projects considered in this cumulative analysis. The primary exposure pathway of concern for children at nearby schools is through the inhalation of air contaminants, such as particulate matter. As discussed above, hazardous materials used during construction and operation of both the proposed project and the related cumulative projects must be managed in accordance with applicable laws and regulations, and since none of the projects would involve the use of acutely hazardous materials, a hazard to human health including school children would not occur. Furthermore, given the small size of the proposed project, it was determined that construction-generated toxic air contaminants (TOCs) would not represent a hazard at a distance of 0.2 mile from the project site where the St. Francis Solano Catholic School is located. Given the relatively small size of the other projects considered in this cumulative analysis, even if those project sites are within 0.25 mile of a school, it is unlikely they would result in the generation of enough TOCs to represent a human health hazard. Therefore, a cumulatively significant impact would not occur, and the project's impact related to use or emissions of hazardous materials within 0.25 mile of a school would be **less than cumulatively considerable.**

Exposure to Hazardous Materials from Cortese-Listed Sites

The project site is on the Cortese list as a result of soil and groundwater contamination with petroleum hydrocarbons from leaking underground storage tanks. The tanks were removed, and soil and groundwater were remediated; however, residual petroleum hydrocarbons were still present in the soil and groundwater at the time of case closure in 2014. Prior to case closure, the Sonoma County Department of Health Services required that a *Soil and Groundwater Management Plan* (AECOM 2014) be prepared and placed on file to govern construction-related excavation and earthmoving activities associated with any future reuse of the site, to provide for the protection of human health and the environment. Furthermore, the project applicant and its construction contractor must also implement BAAQMD rules related to handling and disposal of asbestos-containing materials prior to demolition and must implement CalOSHA requirements to protect worker safety and the environment

from lead-based paint during demolition. Any other project sites considered in this cumulative analysis that may be contaminated with hazardous materials would be evaluated and remediated on a case-by-case basis. All projects considered in this cumulative analysis are required by law to follow local, state, and federal requirements related to handling, disposal, and remediation of any hazardous materials contamination. The project's impacts related to exposure to hazardous materials from Cortese-listed sites or other known hazardous materials would be **less than cumulatively considerable.**

Interference with Emergency Response or Evacuation Plans

All of the projects considered in this cumulative analysis, including the proposed project, would be subject to the Sonoma County Emergency Operations Plan (of which the City is a participant), which addresses the County and incorporated Cities' evacuation plans and planned responses to emergency situations. Furthermore, the City has developed evacuation zones and designated evacuation routes. Development of the other project sites, and redevelopment of the project site, are all subject to design review by the City, including the Sonoma Valley Fire District, for review of appropriate ingress and egress, and are required to comply with City Standard Plans (City of Sonoma 2015) relating to appropriate driveway design to accommodate emergency vehicles and emergency evacuation thoroughfares. The project provides multiple points of emergency access and does not impede access to any of the cumulative projects or any other properties. Therefore, the project's impact related to interference with emergency evacuation plans would be **less than cumulatively considerable.**

Some of the projects considered in this cumulative analysis could result in off-site staging of materials and/or equipment, or temporary construction-related lane closures that could impair emergency vehicle access. For the proposed project, all construction vehicles and equipment would be staged on the project site, and nearby roadway lane closures would not be required. Therefore, the project's impact related to interference with emergency response vehicles would be **less than cumulatively considerable.**

HYDROLOGY AND WATER QUALITY

The geographic context for hydrology and water quality consists of the Fryer Creek subwatershed, which discharges south into Nathanson Creek and then into Sonoma Creek. The project site is approximately 1.24 acres located in the developed urbanized Downtown area of Sonoma. The site is currently almost completely covered with impervious surfaces consisting of existing buildings and paved parking lots. The proposed redevelopment at the project site would result in a similar amount of impervious surfaces as compared to existing conditions, and therefore would not increase stormwater runoff or result in reduced groundwater recharge. The existing on-site stormwater drainage system would be reconfigured to serve the proposed redevelopment, and would include biofiltration planters and a rainwater catchment system. The project site is not in a flood zone, and because the amount of impervious surfaces would not increase, the proposed project would not increase the potential for on-site or off-site flooding. Project-related construction activities must comply with the SWRCB's NPDES Construction General Permit, which requires development of a SWPPP and implementation of BMPs specifically designed to reduce erosion and prevent pollutant transport, thereby protecting water quality. All of the other projects considered in this cumulative analysis are also required to comply with the SWRCB's NDPES Construction General Plan and to design and operate individual projects in compliance NPDES MS4 permit requirements. Therefore, the project's cumulative impacts related to hydrology and water quality would **less than cumulatively considerable.**

LAND USE AND PLANNING

The project site is located in the City's designated Downtown District planning area and is surrounded by land designated and zoned for commercial development. The proposed project would not physically divide an established community or contribute to any cumulative division of a community.

As detailed in Section 4.10 of this RDEIR, the proposed project is consistent with the City's General Plan and Zoning Designations and relevant General Plan policies. As described in detail in Chapter 3, "Project Description," in applications for new development on commercially zoned properties that are 0.5 acre or larger and for which a discretionary permit is required, a residential component is required, unless waived by the City Planning Commission. The residential component would normally comprise at least 50 percent of the total proposed building area, unless waived or reduced by the Sonoma Planning Commission (City of Sonoma Municipal Code Title 19, Chapter 19.10, Section 19.10.020.B.3). The project proposes materials and decorative elements found in historic buildings in the Downtown District, in consideration of the City's Downtown Sonoma Historic Preservation Design Guidelines. Specific impacts and project consistency issues associated with other resource and issue areas are addressed in each topic area section of this RDEIR, as appropriate. The project would **not have any cumulatively considerable contribution** to any significant adverse physical cumulative environmental impact related to land use and planning.

NOISE AND VIBRATION

Most of the potential for noise impacts are site- and area-specific, not cumulative, with the potential exception of traffic-related noise (discussed below). There are no adjacent off-site construction projects planned that would occur concurrently with the project in close proximity that, combined with project construction, would result in impacts greater than those discussed above in Impact 4.11-1 through Impact 4.11-3, and Impact 4.11-5. Also, because there are no substantial sized vacant, developable lots, nor are there any reasonably foreseeable projects proposed in the immediate vicinity of the project site, overall cumulative noise impacts with respect to future, nearby projects would be considered less than significant.[1] The project would, therefore, **not have cumulatively considerable** noise and vibration impacts during construction or operations.

Traffic Noise

Future development within the proposed project area could result in an increase in traffic volumes on the local roadway network and, consequently, an increase in noise levels from traffic sources along affected roadway segments. To assess the impact of project-generated traffic increases, traffic noise levels associated with the proposed project were calculated for roadway segments in the project study area using the FHWA Highway Noise Prediction Model (FHWA-RD-77-108). Traffic noise levels were modeled under future weekday and weekend conditions, with and without project implementation. Average daily traffic (ADT) volumes and the distribution were obtained from the traffic study for the proposed project (W-Trans 2022). Additional input data included day/night percentages of autos, medium and heavy trucks, vehicle speeds, ground attenuation factors, and

1 From Table 4-1, the nearest foreseeable project is 32 Patten Street at approximately 0.16 miles to the southeast. There are three projects at approximately ¼- to 1/3-mile from the proposed project (those at 210 Perkins Street, 168 E. Napa Street, and 165 E. Spain Street). Several projects are between ½ and ¾ miles away (including 254 First Street West, 400 La Quinta Street, 170 Newcomb Street, 800 W. Spain Street, 301 E. MacArthur Street, and 647 Iris Way). Still other foreseeable projects are over 2 miles away, such as the two for the 1900 block of Sonoma Highway. Given the relatively few projects within approximately ½ mile of the proposed project and given their development footprints, the combination of these closest projects with the current Project would not result in substantial cumulative impacts.

roadway widths. Refer to Appendix E of this RDEIR for modeling inputs and results. Please see the City's website for the appendix: https://www.sonomacity.org/hotel-project-sonoma/.

The project's contribution to the existing and future traffic noise levels along area roadways was determined by comparing the predicted noise levels with and without project-generated traffic. Table 6-2 and Table 6-3 summarize the modeled traffic noise levels for future weekday conditions and future weekend conditions, respectively, at 50 feet from the centerline of affected roadway segments. Modeled roadway noise levels assume no natural or artificial shielding between the roadway and the receptor. Modeled increases that would be considered substantial involve an increase of 3 dBA or more in comparison to existing no project conditions. As shown in Table 6-2, the modeling conducted shows that future development, in addition to existing weekday conditions, would result in traffic noise level increases up to (one) 1 dBA, compared to noise levels without the project. Similarly, the modeling conducted shows that future development, in addition to existing weekend conditions, would result in traffic noise level increases up to (one) 1 dBA, compared to noise levels without the project, as shown in Table 6-2. Therefore, long-term noise levels from project-generated traffic sources would not result in a substantial permanent increase in ambient noise levels (an increase of 3 dBA or greater) under existing and future conditions. The impact is **less than cumulatively considerable**.

Table 6-2. Predicted Traffic Noise Levels, Future Weekday Plus Project Conditions, L_{dn} at 50 Feet, dB

Roadway Segment	Segment Location	No Project	Plus Project	Net Change	Significant Impact?
First Street West	West Spain Street	60.21	60.21	0.00	No
First Street West	West Spain Street	59.31	59.32	0.01	No
West Spain Street	First Street West	63.24	63.25	0.01	No
West Spain Street	First Street West	63.84	63.86	0.01	No
Fifth Street West	West Napa Street (SR 12)	63.42	63.42	0.00	No
Fifth Street West	West Napa Street (SR 12)	65.17	65.18	0.00	No
West Napa Street (SR 12)	Fifth Street West	66.25	66.27	0.02	No
West Napa Street (SR 12)	Fifth Street West	67.19	67.21	0.02	No
Second Street West	West Napa Street (SR 12)	58.31	58.36	0.05	No
Second Street West	West Napa Street (SR 12)	62.44	62.45	0.01	No
West Napa Street (SR 12)	Second Street West	65.37	65.42	0.05	No
West Napa Street (SR 12)	Second Street West	65.99	66.01	0.03	No
First Street West	West Napa Street (SR 12)	59.55	59.57	0.01	No
First Street West	West Napa Street (SR 12)	55.87	56.52	0.64	No
West Napa Street (SR 12)	First Street West	65.23	65.33	0.10	No
West Napa Street (SR 12)	First Street West	65.06	65.16	0.09	No
Broadway (SR 12)	Napa Street	55.93	55.93	0.00	No
Broadway (SR 12)	Napa Street	65.71	65.77	0.06	No
Napa Street	Broadway (SR 12)	63.29	63.34	0.05	No
Napa Street	Broadway (SR 12)	65.45	65.51	0.07	No
First Street East	East Napa Street	60.27	60.29	0.02	No
First Street East	East Napa Street	55.51	55.51	0.00	No
East Napa Street	First Street East	62.06	62.12	0.06	No
East Napa Street	**First Street East**	**63.12**	**63.18**	**0.06**	**No**

Notes: dB = A-weighted decibels; L_{dn} = day-night average noise level
Source: AECOM 2022

Table 6-3. Predicted Traffic Noise Levels, Future Weekend Plus Project Conditions, L_{dn} at 50 Feet, dB

Roadway Segment	Segment Location	No Project	Plus Project	Net Change	Significant Impact?
First Street West	West Spain Street	61.02	61.02	0.00	No
First Street West	West Spain Street	60.51	60.52	0.01	No
West Spain Street	First Street West	62.61	62.62	0.01	No
West Spain Street	First Street West	63.00	63.02	0.02	No
Fifth Street West	West Napa Street (SR 12)	62.72	62.72	0.00	No
Fifth Street West	West Napa Street (SR 12)	65.14	65.15	0.00	No
West Napa Street (SR 12)	Fifth Street West	65.07	65.09	0.01	No
West Napa Street (SR 12)	Fifth Street West	66.55	66.56	0.01	No
Second Street West	West Napa Street (SR 12)	58.63	58.69	0.06	No
Second Street West	West Napa Street (SR 12)	61.99	62.01	0.02	No
West Napa Street (SR 12)	Second Street West	64.68	64.72	0.04	No
West Napa Street (SR 12)	Second Street West	65.02	65.03	0.01	No
First Street West	West Napa Street (SR 12)	60.20	60.21	0.01	No
First Street West	West Napa Street (SR 12)	55.15	55.96	0.81	No
West Napa Street (SR 12)	First Street West	64.79	64.92	0.13	No
West Napa Street (SR 12)	First Street West	64.93	65.04	0.11	No
Broadway (SR 12)	Napa Street	50.74	50.74	0.00	No
Broadway (SR 12)	Napa Street	65.67	65.74	0.07	No
Napa Street	Broadway (SR 12)	63.40	63.45	0.06	No
Napa Street	Broadway (SR 12)	64.72	64.82	0.09	No
First Street East	East Napa Street	60.93	60.95	0.02	No
First Street East	East Napa Street	54.32	54.32	0.00	No
East Napa Street	First Street East	61.50	61.59	0.09	No
East Napa Street	**First Street East**	**63.18**	**63.25**	**0.07**	**No**

Notes: dB = A-weighted decibels; L_{dn} = day-night average noise level
Source: AECOM 2022

PUBLIC SERVICES

Fire Protection Services

The geographic context for fire protection services consists of the Sonoma Valley Fire District (SVFD) service area. The proposed project, in combination with other development within the SVFD service area, would incrementally increase the demand for fire protection services. Fire facilities and equipment necessary to serve development is funded through payment of development impact fees. City General Plan Implementation Measure PS-1.3.1 requires that all projects within the City are reviewed by SVFD to ensure adequate provision of fire flow and fire hydrants, appropriate turning radii for fire equipment, and appropriate ingress and egress for emergency access as evacuation. SVFD also reviews project plans to determine whether adequate existing service response times, equipment, and fire stations are adequate. In order to receive a building permit, all future potential development in the SVFD service area would be required to comply with the California Occupational Safety and Health Administration (CalOSHA), California Fire Code, and California Health and Safety Code requirements related to fire protection. These codes include requirements regarding adequate fire flows, width of emergency access routes, turning radii, automatic sprinkler systems, fire alarms, and other requirements for emergency access

routes. These requirements would reduce the potential for incidents that would require additional calls for service. Therefore, the proposed project in conjunction with other planned and reasonably foreseeable projects in the vicinity would not necessitate the expansion of fire protection facilities in order to maintain acceptable service ratios, response times, or other performance objectives. Therefore, the proposed project would have a **less than cumulatively considerable** impact related to fire protection services.

Law Enforcement Services

The geographic context for fire protection services consists of the Sonoma Police Department (SPD) service area. The proposed project, in combination with other development within the SPD service area, would incrementally increase the demand for fire protection services. Law enforcement services are funded by property taxes, development impact fees, and potentially other mechanisms. The City reviews development impact fees yearly and adjusts as necessary to adequately fund police protection services. The proposed project has been reviewed by SPD, which has indicated that the project would not require the SPD to construct new facilities or expand existing facilities in order to accommodate the project's demand for police protection services and maintain acceptable service ratios, response times, or other performance objectives. Therefore, the proposed project would have a **less than cumulatively considerable impact** related to law enforcement services.

Increased Demand for Schools

The geographic context for K–12 school services consists of the Sonoma Valley Unified School District (SVUSD) service area. The 8-unit residential component of the proposed project, in combination with other residential development within the SVUSD service area, would incrementally increase the demand for K–12 school services. However, as required by SB 50, all new projects are required to pay all applicable State-mandated school impact fees to SVUSD. The SVUSD would determine the assessable square footage that would be subject to the fee at the time of development. The California Legislature has declared that payment of the applicable school impact fee is deemed to be full and adequate mitigation under CEQA for impacts on school facilities (California Government Code Section 65996). Additionally, the population of the Sonoma Valley School District has been consistently decreasing each year and the existing facilities would support any new students. Over the past four years, enrollment has decreased from 4,610 in 2015-16 to 4,203 in 2019-20, a decline of 407 students (SVUSD 2022). Given the scale of the residential portion of the project, the proposed project would not require the construction of new school facilities to serve demand, and would not contribute substantially to any such cumulative impact. Therefore, the proposed project would have a **less than cumulatively considerable** impact related to increased demand for K–12 school services.

TRANSPORTATION

The project does not conflict with programs, plans, ordinances, and policies addressing the circulation system – either in project level or a cumulative sense. Conflict with programs, plans, ordinances, and policies are a possible indicator of an adverse physical impact, but not an environmental impact. Similarly, the project would not increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections), incompatible uses (e.g., farm equipment), or adding pedestrian or bicycle travel – either at the project level or cumulative level. Individual projects are reviewed and conditioned for consistency with City standards, which are designed to avoid such impacts. The project proposes three connections to the public street network with multiple options for access for emergency vehicles to both respond to and depart from the site. As detailed in Section 4.13 of this RDEIR, under existing conditions, the northbound left-turn lanes at West Napa Street/Fifth Street West and West Napa

Street/Second Street West, and the southbound left-turn lane at West Napa Street/Fifth Street West was also found to have inadequate queueing storage. The project would increase queues in these locations by 0 to 2 feet compared to existing and compared to future no project conditions. The impact is **less than cumulatively considerable**.

As detailed in Section 4.13 of this RDEIR, the project is in a VMT-efficient location. The proposed project site is located in a traffic analysis zone that has a daily VMT per capita that is 15 percent lower than the citywide average. While the proposed project would have a lower rate of VMT (per employee) compared to three hotels from which VMT was collected to support this RDEIR. The project's location in downtown Sonoma can be characterized as infill development, and given the land use context, visitors, employees, and residents would be able to access destinations throughout the downtown area using non-vehicular modes of transportation. The hotel portion of the project will redistribute existing visitor trips to Sonoma by providing additional lodging options in a location where complementary uses and destinations are nearby. Hotel guests choosing to stay at the proposed project would be expected to generate fewer vehicle trips than guests staying at lodgings in less central locations, such as the three local hotels used above for VMT data collection, resulting in reduced visitor VMT.

Promoting reinvestment in infill locations where hotel guests and "residents can get around without relying on driving for most trips (i.e., areas that are currently low vehicle miles traveled (VMT) as well as areas with projected low VMT)" is a focus for the State, regional planning agencies, and local governments interested in reducing vehicular travel demand and the associated GHG emissions (California Strategic Growth Council 2022). However, notwithstanding efforts such as this to direct more development to infill locations with relatively better access to bicycle, pedestrian, and transit options, California has not been making progress consistent with the intent of the 2008 Sustainable Communities and Climate Protection Act, otherwise known as Senate Bill (SB) 375. While there has been some limited progress on VMT reduction has been observed within the largest MPO regions where most Californians live, it [m]any trends moved in the wrong direction…" (CARB 2022). This is a significant cumulative impact. And while the project location and design would serve to limit VMT generation, and while mitigation imposed in Section 4.13 of this RDEIR would substantially reduce VMT, the City cannot demonstrate at this time that the non-residential portion of the project would be at least 15 percent more efficient than the citywide average per employee. There is no additional feasible mitigation. This **cumulatively considerable impact is significant and unavoidable**.

UTILITIES AND SERVICE SYSTEMS

Construction of New or Expanded Utilities Facilities that Would Result in Environmental Impacts

The projects considered in this cumulative analysis could require the construction of new or the expansion of existing off-site local or regional utilities facilities, which could in turn result in environmental impacts in and of themselves. However, the proposed project does not require the construction of new or extension of existing off-site infrastructure to meet the project's utility needs. Redevelopment of the project site would result in changes to the existing on-site underground infrastructure, which would be design and sized only to serve the proposed project. Environmental impacts related to constructing the on-site infrastructure to serve the proposed project are analyzed throughout the various environmental topic specific sections of this 2022 RDEIR. Where necessary, these sections include mitigation measures that would reduce or avoid the impacts of redeveloping the on-site infrastructure on the physical environment. Therefore, the proposed project would have **no cumulative impact**.

Water Supply

The geographic context for this cumulative impact analysis related to water supply encompasses the City of Sonoma's water purveyor service area, which includes all areas within the City limits, as well as portions of Sonoma County east of the City limits, and several areas that have outside service area agreements with the City along Thornsberry Road, Lovall Valley Road, East Napa Road, East MacArthur Street, and Denmark Street.

The City provides water supply through a conjunctive-use water supply system consisting of surface water purchased from Sonoma Water, groundwater, and recycled water. The City's 2020 Urban Water Management Plan (UWMP) (EKI 2021) indicates that water supplies and demands within City's service area would be the same during normal, single-dry, and 5-year consecutive drought years; however, the year-to-year mix of surface and groundwater would be adjusted, as necessary, to meet the demands as part of its conjunctive use water supply program. The 2020 UWMP indicates that the City would have enough water supply to meet existing and projected future demand in all water year types through the year 2045 with approximately 40 percent excess supply in 2045 for normal years, 17 percent excess supply for a single dry year, and 40 percent excess supply in year five of a multiple dry year period (EKI Environment & Water 2021). The 2045 planning horizon of the 2020 UWMP includes all projected future development in the City, including the proposed project and the projects considered in this cumulative analysis. Furthermore, as required by California Water Code Section 10632, the 2020 UWMP also includes a Water Shortage Contingency Plan. The Plan would take effect in the case of a water shortage event, such as a drought or supply interruption, and defines specific policies and actions that will be implemented at various shortage level scenarios. Please see Section 4.14 of this RDEIR, "Utilities and Service Systems" for more detail.

The City's Will-Serve Resolution requires that prior to the issuance of any building permit, a water demand analysis must be submitted by the applicant and shall be subject to the review and approval of the City Engineer. The resolution specifically requires that building permits for new development only be issued if the City Engineer finds, based on the water demand analysis in relation to the available water supply, that sufficient capacity is available to serve the proposed development. These findings must be documented in the form of a will-serve letter, prepared by the City Engineer. The will-serve requirement applies to all new development and redevelopment in the City's water supply service area. Therefore, the proposed project would result in a **less than cumulatively considerable** impact related to the provision of water supply.

Wastewater Capacity

The geographic context for this cumulative impact analysis related to wastewater treatment encompasses the Sonoma Valley County Sanitation District (SVCSD) service area. Operation of the proposed project, along with the other projects considered in this cumulative analysis, would result in an increase in wastewater effluent treated at SVCSD's treatment facility. The increase in wastewater generated by projected growth within the City has been accounted for and SVCSD's wastewater treatment facility would have adequate capacity to serve the expected growth (CSW|ST2 2015b). The proposed project would have a **less than cumulatively considerable** impact related to increased need for wastewater treatment plant capacity.

With respect to the sewer conveyance system, the most recent SVCSD *Sewer System Management Plan* (Woodard & Curran 2021) found that because of completed and proposed wastewater conveyance upgrade projects, only two short segments of 6-inch wastewater pipeline in the City were predicted to be surcharged under the PDWF future conditions (cumulative) scenario. Implementation of Mitigation Measure 4.15-3 would reduce

the project's impact related to capacity of the existing sewer conveyance system to a less-than-significant level because the project applicant would coordinate with SVCSD and Sonoma Water and provide documentation to the City that demonstrates adequate wastewater conveyance capacity is available prior to the issuance of project-related building permits. If the other projects considered in this cumulative analysis were found by SVCSD to create surcharging or an overage in the existing sewer conveyance capacity, those projects would be individually responsible for payment of fees to either fund construction of new sewer conveyance lines or fund conservation measures to reduce wastewater generation, which would avoid a significant cumulative impact. The impact of the proposed project from the increased demand for wastewater conveyance would be **less than cumulatively considerable**.

Solid Waste

The geographic context for this cumulative impact analysis related to solid waste encompasses the Sonoma Garbage Collectors' service area, which consists of the City of Sonoma, as well as the communities of Temelec, Creekside, and Chantarelle.

All solid waste collection service and recycling programs in the City are handled by Sonoma Garbage Collectors. Solid waste is hauled to the Central Disposal Site landfill operated by Republic Services, in Petaluma. The Central Disposal Site landfill has a substantial remaining capacity of 9.1 million cubic yards, and a maximum capacity of 2,500 tons per day (tpd). The estimated site closure date is 2043 (CalRecycle 2019). Solid waste generated by the proposed project would represent only 0.03 percent of the average daily tonnage accommodated by the Central Disposal Site. The landfill has capacity to accommodate solid waste generated by the proposed project, as well as the other projects considered in this cumulative analysis. The proposed project, and the other projects considered in this cumulative analysis, are required to comply with all State and local solid waste statutes and regulations, including the CalGreen Code; AB 341 (Solid Waste Diversion); AB 1826/SB 1383 (Mandatory Commercial and Residential Organics Recycling); and the California Integrated Waste Management Act – all of which would help to avoid any significant cumulative impact. The project's impact related to generation of solid waste and compliance with solid waste reduction statutes and regulations would be **less than cumulatively considerable**.

6.2 GROWTH-INDUCING IMPACTS

According to Section 15126.2(d) of the CEQA Guidelines, an EIR should:

> [d]iscuss 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 that 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 the construction of new facilities that could cause significant environmental effects. Also discuss characteristics of some projects that 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 has the potential to induce growth both directly and indirectly. Direct growth inducement could occur if a project involved construction of new housing. Indirect growth inducement could occur, for instance, if

implementing a project resulted in substantial new permanent employment opportunities (e.g., commercial, industrial, or governmental enterprises); or a construction effort with substantial short-term employment opportunities that indirectly stimulates the need for additional housing and services to support the new employment demand; and/or removal of an obstacle to additional growth and development, such as improving the capacity of a 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 lead to environmental effects. These environmental effects may include increased demand on other services and infrastructure, 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, or other adverse impacts.

Construction associated with redevelopment of the project site would require construction workers. Because construction workers typically do not change where they live each time they are assigned to a new construction site, it is not anticipated that there would be any substantial relocation of construction workers to the City of Sonoma associated with the proposed project.

The proposed project includes demolishing several of the existing on-site structures and redeveloping the project site with a 62-room hotel/spa/restaurant and an 8-unit residential building. The eight new residential units would provide the local opportunity for approximately 20 new residents. Operation of the hotel/spa/restaurant component of the proposed project would require 60 full-time employees and 30 part-time employees.

As discussed in Section 4.1, "Topics Not Carried Forward for Further Analysis," between 2020 and 2025, the City's population is forecast to increase by 335, and the total number of jobs in the City is forecast to increase by 190. Since the proposed project would generate fewer than 190 jobs and approximately 20 new residents, and would likely employ existing Sonoma residents for the new jobs, the proposed project would not exceed the population growth planned for in the City General Plan (City of Sonoma 2006) or the *Plan Bay Area 2040* (Metropolitan Transportation Commission and Association of Bay Area Governments 2017). Furthermore, the hotel guests would be temporary, short-term visitors to the area, and would not be long-term residents.

With respect to indirect growth inducement, the proposed project would be located in Downtown Sonoma and does not involve extension of roads or other infrastructure with the potential to induce population growth. Modifications to the existing on-site utilities systems would be sized to only serve the proposed project. Existing larger capacity off-site utility lines would continue to be used, as they are now for the existing on-site commercial development. Mitigation Measure 4.14-3 would reduce the project's impact related to capacity of the existing off-site sewer conveyance pipelines. Though the improvements to ensure a no net increase in overflow would be designed to meet only the project's needs, it is possible that additional capacity could be created. This capacity would be minor, but it is possible that some future infill development in the project vicinity could additional sewer conveyance capacity created by the project.

6.3 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

CEQA requires an EIR to address significant irreversible environmental changes. Specifically, the EIR must consider whether "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" (CEQA

Guidelines Section 15126.2[c]). Nonrenewable resources, as used in this discussion, refer to the physical features of the natural environment: land, air, and waterways.

Proposed redevelopment at the project site would use both renewable and nonrenewable natural resources during both the construction and operational phases. Nonrenewable fossil fuels would be used primarily during construction, but also during project operation. Other nonrenewable and slowly-renewable resources consumed as a result of redevelopment of the project site would include, but not necessarily be limited to, lumber and other forest products, sand and gravel, asphalt, petrochemical construction materials, steel, copper, and water. Project operation would consume energy for multiple purposes including, but not limited to, building heating and cooling, lighting, appliances, electronics, office equipment, and commercial machinery (such as restaurant equipment).

The proposed redevelopment would also generate additional transportation demand, energy demand, and operation of construction equipment, that would increase emissions of greenhouse gases and other air pollutants. Different air pollutants and different greenhouse gas emissions remain in the atmosphere for different amounts of time, ranging from a few years to thousands of years.

6.4 SIGNIFICANT AND UNAVOIDABLE ADVERSE IMPACTS

Impact 4.7-1: GHG emissions generation.

The proposed project would generate GHG emissions as a result of short-term construction and long-term operational activities. Mitigation ensure that emissions associated with the proposed project would not result in a substantial contribution to the significant impact of climate change or conflict with an applicable plan, policy, or regulation adopted for the purposes of reduction GHG emissions. However, the City cannot guarantee the availability of emissions credits meeting the standards outlined in the mitigation presented above. There is no additional feasible mitigation available. Therefore, the impact is **cumulatively considerable and significant and unavoidable**.

Impact 4.11-1 Temporary, short-term exposure of sensitive receptors to construction noise.

Construction of the project would temporarily generate noise above existing ambient levels that would be perceptible at nearby properties, there is no additional feasible mitigation, and therefore the City has conservatively determined that this impact would be **significant and unavoidable**.

Impact 4.14-2 Consistency with CEQA Guidelines Section 15064.3(b).

While the residential component of the proposed project would represent a less-than-significant impact, since the non-residential component of the proposed project cannot demonstrate based on its location that daily vehicle miles traveled (VMT) would be 15 percent less than the citywide average. Due to this uncertainty the project's VMT impact is therefore considered **significant and unavoidable**.

Cumulative Transportation Impact

While the project location and design would serve to limit VMT generation, and while mitigation imposed in Section 4.13 of this RDEIR would substantially reduce VMT, the City cannot demonstrate at this time that the non-residential portion of the project would be at least 15 percent more efficient than the citywide average per employee. This **cumulatively considerable impact is significant and unavoidable**.

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None.

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