

Appendix E  
Expanded Regulatory Setting

# Expanded Regulatory Setting

## INTRODUCTION

This section summarizes the framework of laws, regulations, and agreements pertaining to the sites and actions outlined throughout this Environmental Assessment/Tribal Environmental Impact Report (EA/TEIR). The relevant legislation is organized by resource category, and while most regulations discussed within the document are described here, this list is not comprehensive and is limited to the primary regulations relevant to the analysis within the EA/TEIR.

## LAND RESOURCES – SECTION 3.2 OF THE EA/TEIR

### Federal

#### **Clean Water Act**

The Clean Water Act (CWA) Prohibits sediment and erosion discharge into navigable waters of the United States and establishes water quality goals. The State Water Resources Control Board (SWRCB) requires a Construction General Permit if a project will disturb one or more acres of soil. A site-specific Stormwater Pollution Prevention Plan (SWPPP) is required under this permit. For more information on the CWA and the SWRCB, see **Water Resources – Section 3.3 of the EA/TEIR** below.

### State and Local

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

The Alquist-Priolo Earthquake Fault Zoning Act (Alquist-Priolo Act; formerly the Alquist-Priolo Special Studies Zone Act), signed into law December 1972 after the 1971 San Fernando earthquake, requires the delineation of zones along active and potentially active faults in California. The California Geological Survey defines an “active” fault as one that exhibits evidence of activity during the last 11,000 years. Faults that exhibit evidence of Quaternary activity (within the last 1.6 million years) are considered to be “potentially active.” The purpose of the Alquist-Priolo Act is to regulate development on or near fault traces to reduce the hazard of fault rupture and to prohibit the location of most off-Reservation structures for human occupancy across these traces.

#### **Seismic Hazards Mapping Act**

The Seismic Hazards Mapping Act was enacted in 1990 to protect the public from the effects of strong ground shaking, liquefaction, landslides, ground failure, or other hazards caused by earthquakes. This act requires a state geologist to delineate various seismic hazard zones and requires cities, counties, and other local permitting agencies to regulate certain development projects within the portions of those zones where they have jurisdiction. Before a development permit is granted by a city, county or other local permitting agency for a site within a seismic hazard zone, a geotechnical investigation must be conducted, and appropriate mitigation measures must be incorporated into the project’s design.

## **Surface Mining and Reclamation Act**

The Surface Mining and Reclamation Act of 1975 requires all jurisdictions to incorporate mapped mineral resources designations approved by the California Mining and Geology Board within their general plans. The Surface Mining and Reclamation Act was enacted to limit new development in areas with significant mineral deposits. The California Department of Conservation's Office of Mine Reclamation and the California Mining and Geology Board are jointly charged with ensuring proper administration of the act's requirements. The California Mining and Geology Board circulates regulations to clarify and interpret the act's provisions and also serves as a policy and appeals board.

## **WATER RESOURCES – SECTION 3.3 OF THE EA/TEIR**

### **Federal**

#### **Executive Order 11988**

Executive Order (EO) 11988 requires federal agencies to avoid to the extent possible the long and short-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative. Specifically, EO 11988 states that agencies shall first determine whether the proposed action will occur in a floodplain. EO 11988 defines a floodplain as an area that has a one percent or greater chance of flooding in any given year. Second, if an agency proposes to allow an action to be located in a floodplain, the agency shall consider alternatives to avoid adverse effects and incompatible development in the floodplains. If the only practicable alternative action requires siting in a floodplain, the agency shall minimize potential harm to or within the floodplain.

#### **Clean Water Act**

CWA (33 U.S. Code [USC] § 1251-1376), as amended by the Water Quality Act of 1987, is the major federal legislation governing water quality. The objective of the CWA is "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." The U.S. Environmental Protection Agency (USEPA) is delegated as the administrative agency under the CWA. Relevant sections of the CWA are as follows.

- Sections 303 and 304 provide for water quality standards, criteria, and guidelines. Section 303(d) requires states to identify impaired off-Reservation water bodies, rank these impaired bodies based on severity of contamination and uses for the waters, and develop water quality management strategies, usually in the form of total maximum daily loads for the contaminant(s) of concern.
- Section 401 (Water Quality Certification) requires an applicant for any federal permit that proposes an activity that may result in a discharge to Waters of the U.S., to obtain certification from the USEPA for on-trust land activities, or the state for off-Reservation activities, that the discharge will comply with other provisions of the CWA.
- Section 402 establishes the National Pollutant Discharge Elimination System (NPDES), a permitting system for the discharge of any pollutant (except for dredged or fill material) into Waters of the U.S. Each NPDES permit contains limits on concentrations of pollutants discharged to surface waters to prevent degradation of water quality and protect beneficial uses.

The Federal Antidegradation Policy was adopted as part of the 1972 amendments to the CWA. Federal policy (Code of Federal Regulations [CFR], Title 40, Part 131.12) specifies that each state must develop, adopt, and retain an anti-degradation policy to protect the minimum level of off-Reservation surface water quality necessary to

support existing uses. Each state must also develop procedures to implement the anti-degradation policy through water quality management processes. Each state anti-degradation policy must include implementation methods consistent with the provisions outlined in 40 CFR § 131.12. On trust land, these issues are addressed by the USEPA.

### *General NPDES Permit for Construction*

In 1990, an amendment to the CWA directed the NPDES permitting program to address non-point source pollution from construction activities. Construction activities include clearing, grading, excavation, stockpiling, and reconstructing existing facilities involving removal and replacement of existing foundations or other hardscapes. Construction projects disturbing one or more acres of soil must be covered under the NPDES Construction General Permit process. For tribal projects on land held in trust by the federal government, the Tribe proposing the project must apply for coverage under the USEPA's NPDES Construction General Permit. Project proponents are required to submit to the USEPA a complete Notice of Intent (NOI) to comply with the permit. A complete NOI package consists of an NOI form, site map, and fee. The USEPA's NPDES Construction General Permit also requires the development and implementation of a SWPPP. The SWPPP contains a site map showing the construction site perimeter, existing and proposed buildings, lots and roadways, stormwater collection and discharge points, general topography both before and after construction, and drainage patterns across the site. The SWPPP must list Best Management Practices (BMP) that will be implemented during construction and operation to address stormwater runoff rates and quality. SWPPP BMPs include the following categories:

- Site planning considerations, such as preservation of existing vegetation;
- Vegetation stabilization through methods such as seeding and planting;
- Physical stabilization through use of dust control and stabilization measures;
- Diversion of runoff by utilizing earth dikes and temporary drains and swales;
- Velocity reduction through measures such as slope roughening/terracing; and
- Sediment trapping/filtering through use of silt fences, straw bales and sand bag filters, and sediment traps and basins.

### **Safe Drinking Water Act**

Under the mandate of the Safe Drinking Water Act, the USEPA sets legally enforceable National Primary Drinking Water Regulations (primary standards) that apply to public water systems. These standards are established to protect human health by limiting the levels of contaminants in drinking water. The USEPA also defines National Secondary Drinking Water Regulations (secondary standards) for contaminants that cause cosmetic and aesthetic effects, but not for health effects. The USEPA recommends that these secondary standards be met but does not require systems to comply with them.

The USEPA does not oversee the construction and permitting of groundwater wells, but requires that public health standards, such as an effectively installed sanitary seal, are in place, and recommends that water systems be installed to meet California Department of Public Health Standards. The USEPA will also primarily establish monitoring and operational requirements, which will typically be specific to the project area. Both primary and secondary drinking water standards are expressed as either Maximum Contaminant Levels, which define the highest level of a contaminant allowed in drinking water, or Maximum Contaminant Level Goals, which define the level of a contaminant below which there is no known or expected risk to health. Monitoring requirements typically include total coliform, nitrate, inorganic chemicals, volatile organic chemicals, non-volatile synthetic organic chemicals, secondary drinking water standard constituents, and general chemistry (including alkalinity, hardness, and minerals). The frequency of sampling varies and may be reduced over time.

## **Federal Emergency Management Agency**

The Disaster Relief Act of 1974 as amended by the Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1988 created the Federal Emergency Management Agency (FEMA), which is responsible for determining flood elevations and floodplain boundaries based on U.S. Army Corps of Engineers (USACE) studies. FEMA is also responsible for distributing Flood Insurance Rate Maps, which are used in the National Flood Insurance Program. These maps identify the locations of special flood hazard areas, including 100-year floodplains.

## **State and Local**

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

The Porter-Cologne Water Quality Control Act provides the basis for surface water and groundwater quality regulation within California. The act established the authority of the SWRCB and the nine Regional Water Quality Control Boards (RWQCB). The act requires the State, through the SWRCB and the RWQCBs, to designate beneficial uses of surface waters and groundwater and specify water quality objectives designed to protect those uses. These water quality objectives are presented in the Regional Water Quality Control Plans. The surface water quality standards for State of California include both narrative and numerical water quality objectives to keep California's waters swimmable, fishable, drinkable, and suitable for use by industry, agriculture, and the citizens of the state.

### **Sustainable Groundwater Management Act**

The intent of the California Sustainable Groundwater Management Act (SGMA; Water Code § 10720 et seq.) is to “enhance local management of groundwater consistent with rights to use or store groundwater... [and] to preserve the security of water rights in the state to the greatest extent possible consistent with the sustainable management of groundwater.” The SGMA states that “any local agency or combination of local agencies overlying a groundwater basin may elect to be a groundwater sustainability agency for that basin” (Water Code § 10723). A groundwater sustainability agency will be formed within each groundwater basin to prepare and implement a plan for long-term groundwater sustainability.

The Santa Rosa Plain Groundwater Sustainability Agency was formed in June 2017 to comply with the SGMA. Member agencies include the City of Cotati, Sonoma County, Gold Ridge Resource Conservation District, Independent Water Systems, the City of Rohnert Park, the City of Santa Rosa, Sonoma Resource Conservation District, Sonoma Water, the Town of Windsor, and the City of Sebastopol. The Groundwater Sustainability Plan for the Santa Rosa Plain Subbasin was submitted to the California Department of Water Resources in January 2022 (Santa Rosa Plain Groundwater Sustainability Agency, 2022).

## **Title 22 California Code of Regulations**

Title 22 CCR Division 4, Chapter 3 regulates the sources, uses, and quality standards of recycled water in the State. Article 3, Section 60304(a) requires that any recycled water used for the irrigation of food crops, parks and playgrounds, and residential landscaping shall be a disinfected tertiary recycled water. Article 1, Section 60301.230 defines disinfected tertiary recycled water as a wastewater that has been filtered and disinfected, and which meets the following criteria:

- A. The filtered wastewater has been disinfected by either: (1) A chlorine disinfection process following filtration that provides a CT (the product of total chlorine residual and modal contact time measured at the same point) value of not less than 450 milligram-minutes per liter at all times with a modal contact

time of at least 90 minutes, based on peak dry weather design flow; OR (2) A disinfection process that, when combined with the filtration process, has been demonstrated to inactivate and/or remove 99.999 percent of the plaque forming units of F-specific bacteriophage MS2, or polio virus in the wastewater. A virus that is at least as resistant to disinfection as polio virus may be used for purposes of the demonstration.

- B. The median concentration of total coliform bacteria measured in the disinfected effluent does not exceed a most probable number (MPN) of 2.2 per 100 milliliter (mL) using the bacteriological results of the last seven days for which analyses have been completed and the number of total coliform bacteria does not exceed an MPN of 23 per 100 mL in more than one sample in a 30-day period. No sample shall exceed an MPN of 240 total coliform bacteria per 100 mL.

## AIR QUALITY – SECTION 3.4 OF THE EA/TEIR

### Federal

#### Clean Air Act of 1970

The Clean Air Act (CAA; 42 USC Chapter 85) is the federal legislation for the protection of air quality. The CAA gives the USEPA authority to regulate air quality by promulgating standards and levels for air quality and enforcing those standards and levels on federal, state, and tribal land. The CAA requires the USEPA to regulate hazardous air pollutants, which are those pollutants that are known or suspected to cause cancer or other serious health effects, such as reproductive effects or birth defects, or adverse environmental effects.

The Federal CAA of 1970, as amended, establishes air quality standards for several critical air pollutants (CAPs): ozone (O<sub>3</sub>), carbon monoxide (CO), particulate matter (PM), nitrogen dioxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>), and lead (Pb). These pollutants are termed “criteria” pollutants because the USEPA has established specific concentration threshold criteria based upon specific medical evidence of health effects or visibility reduction, soiling, nuisance, and other forms of damage. These National Ambient Air Quality Standards (NAAQS) are divided into primary standards and secondary standards. Primary standards are designed to protect the public health and secondary standards are intended to protect the public welfare from effects such as visibility reduction, soiling, nuisance, and other forms of damage. NAAQS and California Ambient air quality standards (CAAQS) are presented in **Table 1**.

Areas are designated attainment, nonattainment, or maintenance by the USEPA depending on whether the area is below or exceed the established NAAQS. Nonattainment areas must take steps towards attainment within a specific period of time. Once an area reaches attainment for particular criteria pollutant, then the area is re-designated attainment or maintenance. The CAA places most of the responsibility on states to achieve compliance with the NAAQS. States, municipal statistical areas, and counties that contain areas of nonattainment are required to develop a State Implementation Plan (SIP), which outlines policies and procedures designed to bring the state into compliance with the NAAQS.

**Table 1: Ambient Air Quality Standards**

Pollutant	Averaging Time	Standard (parts per million)		Standard (microgram per cubic meter)		Violation Criteria	
		CAAQS	NAAQS	CAAQS	NAAQS	CAAQS	NAAQS
O <sub>3</sub>	1 hour	0.09	N/A	180	N/A	If exceeded	N/A
	8 hours	0.070	0.070	137	137	N/A	If exceeded on more than 3 days in 3 years
CO	8 hours	9.0	9	10,000	10,000	If exceeded	If exceeded on more than 1 day per year
	1 hour	20	35	23,000	40,000	If exceeded	If exceeded on more than 1 day per year
NO <sub>2</sub>	Annual arithmetic mean	0.030	0.053	57	100	N/A	If exceeded
	1 hour	0.18	0.100	470	188	If exceeded	N/A
SO <sub>2</sub>	Annual arithmetic mean	N/A	0.030	N/A	N/A	N/A	If exceeded
	24 hours	0.04	0.14	105	N/A	If exceeded	If exceeded on more than 1 day per year
	1 hour (primary)	0.25	0.075	655	196	N/A	N/A
	3 hours (secondary)	N/A	0.5	N/A	N/A		If exceeded on more than 1 day per year
PM <sub>10</sub>	Annual arithmetic mean	N/A	N/A	20	N/A	If exceeded	If exceeded
	24 hours	N/A	N/A	50	150	If exceeded	If exceeded on more than 1 day per year
PM <sub>2.5</sub>	Annual arithmetic mean (primary)	N/A	N/A	12	12	If exceeded	If exceeded
	Annual arithmetic mean (secondary)	N/A	N/A	N/A	15	If exceeded	If exceeded
	24 hours	N/A	N/A	N/A	35	If exceeded	If exceeded on more than 1 day per year

Pollutant	Averaging Time	Standard (parts per million)		Standard (microgram per cubic meter)		Violation Criteria	
		CAAQS	NAAQS	CAAQS	NAAQS	CAAQS	NAAQS
Lead	30 day Avg.	N/A	N/A	1.5	N/A	If equaled or exceeded	N/A
	Rolling 3-month Avg.	N/A	N/A	N/A	0.15	N/A	If exceeded
Visibility Reducing Particles	8 hour	Extinction coefficient of 0.23 per kilometer – visibility of ten miles or more.	No Federal Standard	N/A	No Federal Standard	N/A	N/A
Sulfates	24 hour		No Federal Standard	25	No Federal Standard	If equaled or exceeded	N/A
H <sub>2</sub> S	1 hour	0.03	No Federal Standard	42	No Federal Standard	If equaled or exceeded	N/A
Vinyl Chloride	24 hour	0.01	No Federal Standard	26	No Federal Standard	If equaled or exceeded	N/A

Source: California Air Resources Board, 2016

### ***Ozone***

Photochemical reactions involving reactive organic gases (ROG)/volatile organic compounds (VOC) and nitrogen oxides (NO<sub>x</sub>) resulting from the incomplete combustion of fossil fuels are the largest source of ground-level O<sub>3</sub>. Because photochemical reaction rates depend on the intensity of ultraviolet light and air temperature, O<sub>3</sub> is primarily a summer air pollution problem. As a photochemical pollutant, O<sub>3</sub> is formed only during daylight hours under appropriate conditions. However, it is destroyed throughout the day and night. O<sub>3</sub> is considered a regional pollutant as the reactions forming it take place over time and are often most noticeable downwind from the sources of the emissions. The Bay Area Air Quality Management District is designated as nonattainment for O<sub>3</sub> by the USEPA

### ***Particulate Matter 2.5***

Particle pollution is a mixture of microscopic solids and liquid droplets suspended in air. This pollution, also known as PM<sub>2.5</sub>, is made up of a number of components, including acids (such as nitrates and sulfates), organic chemicals, metals, soil or dust particles, and allergens (such as fragments of pollen or mold spores). The size of particles is directly linked to their potential for causing health problems. Particles smaller than 2.5 μm pose the greatest



problems because they can be inhaled deep into the lungs. Exposure to such particles can affect respiratory system function.

### *Carbon Monoxide*

CO is not readily dispersed throughout the atmosphere; therefore, it is considered a localized air quality issue as it is close to the emission source. CO emissions generally cause an acute (short-term) health threat. CO is a pollutant of concern at major signalized intersections (greater than 100,000 vehicles per day) that exhibit prolonged vehicle idling times. The Bay Area Air Quality Management District is designated as maintenance for CO by the USEPA (USEPA, 2022).

### *Hazardous Air Pollutants*

In addition to the above-listed CAPs, Hazardous Air Pollutants (HAP) are a group of chemical pollutants which can cause adverse effects to human health and/or the environment. HAPs are a list of over 188 airborne chemicals developed by the USEPA. Sources of HAPs include industrial processes, such as petroleum refining and chrome plating operations; commercial operations, such as gasoline stations and dry cleaners; cigarette smoke; and motor vehicle exhaust. Cars and trucks release at least 40 different HAPs. The most important, in terms of health risk, are diesel particulate matter (DPM), benzene, formaldehyde, 1,3-butadiene, and acetaldehyde. Health effects of HAPs can include cancer, birth defects, and neurological damage.

HAPs are less pervasive in the urban atmosphere than CAPs but are linked to short-term (acute) or long-term (chronic or carcinogenic) adverse human health effects. The majority of the estimated health risk from HAPs can be attributed to relatively few compounds. The most important HAPs are found in DPM. Diesel engines emit a complex mixture of air pollutants, composed of gaseous and solid material. Diesel exhaust contains a variety of harmful gases and over 40 other cancer-causing substances, and the visible emissions in diesel exhaust are PM that includes carbon particles or “soot.” Exposure to DPM is a health hazard, particularly to children whose lungs are still developing and the elderly who may have other serious health problems. Due to the controversy surrounding DPM, an assessment of the potential impacts of DPM releases associated with the Proposed Project has been included in the EA/TEIR Section 3.4.3.

## **Federal General Conformity**

Under the General Conformity Rule, updated in 2010, the lead agency with respect to a federal action is required to demonstrate that the proposed federal action conforms to the applicable SIP before the action is taken. There are two phases to a demonstration of general conformity.

- The Conformity Review process, which entails an initial review of the federal action to assess whether a full conformity determination is necessary
- The Conformity Determination process, which requires that a proposed federal action be demonstrated to conform to the applicable SIP

The Conformity Review requires the lead agency to compare estimated emissions to the applicable general conformity levels (40 CFR 93.153 [b][1] and [2]), which these can be seen in **Table 2** and **Table 3**. If the emission estimates from step one is below the applicable threshold(s), then a general conformity determination is not necessary and the full Conformity Determination is not required. If emission estimates are greater than the applicable threshold(s), the lead agency must conduct a Conformity Determination.

**Table 2: 40 CFR 93.153 [b][1] Emission Rates for Nonattainment Areas (NAAs)**

Pollutant	Tons per Year
Ozone (VOC's or NOX):	
Serious NAA's	50
Severe NAA's	25
Extreme NAA's	10
Other ozone NAA's outside ozone transport region	100
Other ozone NAA's inside an ozone transport region:	
VOC	50
NOx	100
Carbon Monoxide: all maintenance areas	100
SO <sub>2</sub> or NO <sub>2</sub> : All NAAs	100
PM <sub>10</sub> :	
Moderate NAA's	100
Serious NAAs	70
PM <sub>2.5</sub> (direct emissions, SO <sub>2</sub> , NOX, VOC, and Ammonia):	
Moderate NAA's	100
Serious NAAs	70
PD: all NAA's	25

**Table 3: 40 CFR 93.153 [b][2] Emission Rates for Maintenance Areas**

Pollutant	Tons per Year
Ozone (NOX), SO <sub>2</sub> or NO <sub>2</sub> :	
All maintenance areas	100
Ozone (VOC's)	
Maintenance areas inside an ozone transport region	50
Maintenance areas outside an ozone transport region	100
Carbon monoxide: All maintenance areas	100
PM <sub>10</sub> : All maintenance areas	100
PM <sub>2.5</sub> (direct emissions, SO <sub>2</sub> , NOx, VOC, and Ammonia)	100
All maintenance areas	100
Pb: All maintenance areas	25

## Federal Class I Areas

Title 1, Part C of the CAA was established in part to preserve, protect, and enhance the air quality in national parks, national wilderness areas, national monuments, national seashores, and other areas of special national or regional natural, recreational, scenic, or historic value. The CAA designates all international parks, national wilderness areas, and memorial parks larger than 5,000 acres and national parks larger than 6,000 acres as “Class I areas.” The CAA prevents significant deterioration of air quality in Class I areas under the Prevention of Significant Deterioration (PSD) Program. The PSD Program protects Class I areas by allowing only a small increment of air quality deterioration in these areas by requiring assessment of potential impacts on air quality related values of Class I areas.

Any major source of emissions within 100 kilometers (62.1 miles) from a federal Class I area is required to conduct a pre-construction review of air quality impacts on the area(s). A “major source” for the PSD Program is defined as a facility that will emit (from direct stationary sources) 250 tons per year (tpy) of regulated pollutant. For certain industries, these requirements apply to facilities that emit (through direct stationary sources) 100 tpy or more of a regulated pollutant. Mobile sources (e.g., vehicle emissions) are by definition not stationary sources and are therefore not subject to the PSD program.

## Tribal New Source Review

The Tribal Minor New Source Review (NSR) permitting program was established by the USEPA under the CAA. The minor NSR program applies to both new minor sources and minor modifications to both major and minor projects in attainment and nonattainment areas. NSR programs must comply with the standards and control strategies of the Tribal Implementation Plan (TIP) or SIP. If there is not an applicable SIP or TIP, the USEPA issues permits and implements the program. A General Permit under the minor NSR program would be required on tribal trust land if stationary source allowable emissions of regulated pollutants would exceed the thresholds presented in 40 CFR 49.153, Table 1 (presented in **Table 4**). This General Permit serves as a preconstruction permit containing limitations and other restrictions specifying the construction, modification, and operation of a minor source. The applicability of Tribal NSR is made on a source’s potential to emit (PTE). For emergency generators, the USEPA has determined that 500 hours per year should be assumed as a reasonable and realistic “worst-case” estimate on a PTE basis (USEPA, 1995).

**Table 4: Tribal Minor New Source Review Thresholds**

<b>Pollutant</b>	<b>Emissions Thresholds for Nonattainment Areas (tpy)</b>	<b>Emissions Thresholds for Attainment Areas (tpy)</b>
NOx	5	10
ROG	2	5
PM	5	10
PM <sub>10</sub>	1	5
PM <sub>2.5</sub>	0.6	3
CO	5	10
SO <sub>2</sub>	5	10
Pb	0.1	0.1

Source: 40 CFR 49.153.

## **Climate Change**

On February 19, 2021, Secretary of the Interior Deb Haaland issued Secretarial Order (SO) 3399 to prioritize action on climate change throughout the Department and to restore transparency and integrity in the Department's decision-making processes. SO 3399 specifies that when considering the impact of GHG emissions from a proposed action, Bureaus/Offices should use appropriate tools, methodologies, and resources available to quantify GHG emissions and compare GHG quantities across alternatives. SO 3399 acknowledges that identifying the interactions between climate change and the environmental impacts of a proposed action in NEPA documents can help decision makers identify opportunities to reduce GHG emissions, improve environmental outcomes, and contribute to protecting communities from the climate crisis.

On January 9, 2023, the Council on Environmental Quality issued National Environmental Policy Act Guidance on Consideration of Greenhouse Gas Emissions and Climate Change (88 Fed. Reg. 1196). This interim guidance directs agencies to consider the potential effects of a proposed action on climate change and the effects of climate change on a proposed action and its environmental impacts. CEQ recommends that agencies quantify a proposed action's projected GHG emissions for the expected lifetime of the action and provide additional context for GHG emissions, including the use of the best available social cost of GHG (SC-GHG) estimates, to translate climate impacts into the more accessible metric of dollars. This guidance does not propose a specific, quantitative threshold of significance; however, it states that agencies should consider the potential for mitigation measures to reduce or mitigate GHG emissions and climate change effects when those measures are reasonable and consistent with achieving the purpose and need for the proposed action. CEQ recommends that agencies explain how the proposed action and alternatives would help meet or detract from achieving relevant climate action goals and commitments, including federal goals, international agreements, state or regional goals, Tribal goals, agency-specific goals, or others as appropriate.

## **State and Local**

### **California Air Resources Board**

The California Air Resources Board (CARB), a part of the California Environmental Protection Agency (Cal/EPA), is responsible for the coordination and administration of both federal and State air pollution control programs within California. In this capacity, CARB conducts research, sets the CAAQS, compiles emission inventories, develops suggested control measures, and provides oversight of local programs. CARB establishes emissions standards for motor vehicles sold in California as well as consumer products (e.g., hairspray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions. CARB also has primary responsibility for the development of California's SIP, for which it works closely with the Air Quality Management District's and the USEPA.

### **California Clean Air Act and Regional Air Quality Standards**

#### *Air Quality*

The California Clean Air Act of 1988 requires nonattainment areas to achieve and maintain the CAAQS by the earliest practicable date, as well as requires local air districts to develop plans for attaining the State O<sub>3</sub>, CO, SO<sub>2</sub>, and NO<sub>x</sub> standards.

At a local level, the Bay Area Air Quality Management District (BAAQMD) has jurisdiction over the southern portion of Sonoma County. The BAAQMD attains and maintains air quality conditions in Sonoma County through a comprehensive program of planning, regulation, enforcement, technical innovation, and promotion of the

understanding of air quality issues. The clean air strategy of the BAAQMD includes the preparation of plans for the attainment of ambient air quality standards, adoption, and enforcement of rules and regulations concerning sources of air pollution, and issuance of permits for stationary sources of air pollution.

## **Odor**

Because offensive odors rarely cause any physical harm and no requirements for their control are included in state or federal air quality regulations, local air districts often have no numerical rules or standards related to odor emissions, other than regulations related to nuisances. The BAAQMD 2017 *California Environmental Quality Act Air Quality Guidelines*, specifically Table 3-3 in the document, outlines the distances used to screen odors for certain land uses, but screening criteria is recommended for informational purposes in conjunctions with other assessment tools, such as odor parameters and complaint history (BAAQMD, 2017).

## **Global Climate Change**

California has been a leader among states in outlining and aggressively implementing a comprehensive climate change strategy that is designed to result in a substantial reduction in total statewide GHG emissions in the future. California's climate change strategy is multifaceted and involves a number of State agencies implementing a variety of State laws and policies. These California laws and policies are summarized below in addition to the local air district's guidelines for determining a project's impacts on climate change.

### ***State***

#### Executive Order S-3-05

EO S-3-05 established the following statewide emission reduction targets:

- Reduce GHG emissions to 2000 levels by 2010.
- Reduce GHG emissions to 1990 levels by 2020.
- Reduce GHG emissions to 80 percent below 1990 levels by 2050.

EO S-3-05 created a Climate Action Team (CAT) headed by the Cal/EPA and including several other State jurisdictional agencies. The CAT is tasked by EO S-3-05 with outlining the effects of climate change on California and recommending an adaptation plan. The CAT is also tasked with creating a strategy to meet the target emission reductions. In April 2006, the CAT published an initial report that accomplished these two tasks.

#### California Global Warming Solutions Act of 2006 (Assembly Bill 32)

Assembly Bill (AB) 32 codifies a key requirement of EO S-3-05: the requirement to reduce State-wide GHG emissions to 1990 levels by 2020. AB 32 tasks CARB with monitoring State sources of GHGs and designing emission reduction measures to comply with the law's emission reduction requirements. However, AB 32 also continues the CAT's efforts to meet the requirements of EO S-3-05 and states that the CAT should coordinate overall state climate policy.

In order to accelerate the implementation of emission reduction strategies, AB 32 requires that CARB identify a list of discrete early action measures that can be implemented relatively quickly. In October 2007, CARB published a list of early action measures that could be implemented and would serve to meet about a quarter of the required 2020 emissions reductions. In order to assist CARB in identifying early action measures, the CAT published a report in April 2007 that updated their 2006 report and identified strategies for reducing GHG emissions. In the October

2007 report, CARB cited the CAT strategies and other existing strategies that may be utilized in achieving the remainder of the emissions reductions.

AB 32 required that CARB prepare a comprehensive “scoping plan” that identifies all strategies necessary to fully achieve the required 2020 emissions reductions. CARB provided its first update to the Climate Change Scoping Plan in May 2014. The purpose of the update was to identify the next steps for California’s leadership on climate change. The updated Plan outlined the progress California has made to date regarding near-term 2020 GHG limits, such as cleaner and more efficient energy, cleaner transportation, and CARB’s Cap-and-Trade Program. The updated Plan identifies six key areas where further control strategies are needed: energy, transportation (vehicles/equipment, sustainable communities, housing, fuels, and infrastructure), agriculture, water, waste management, and natural and working lands. In 2016, the Legislature passed Senate Bill (SB) 32. This established a benchmark for California to reduce GHG emissions to 40 percent below 1990 levels by 2030. CARB is in the process of updating the Scoping Plan to reflect the 2030 target and released a proposed update in January 2017. Under the Proposed Scoping Plan, the six key areas where further control strategies are needed, as identified in the first update, are still included in addition to a seventh area targeting the industrial sector.

#### Executive Order S-01-07

EO S-01-07 mandates a State-wide goal to reduce the carbon intensity of transportation fuels by at least 10 percent by 2020. This target reduction was identified by CARB as one of the AB 32 early action measures identified in their October 2007 report.

#### Executive Order B-30-15

EO B-30-15 sets interim GHG targets of 40 percent below 1990 by 2030, to ensure California will meet the 2050 targets set by AB 32.

#### EO N-79-20/ Advanced Clean Cars II

Advanced Clean Cars II accelerates requirements that automakers deliver an increasing number of zero-emission light-duty vehicles each year (beginning with 2026 models) and codifies EO N-79-20. The regulation applies to automakers (not dealers) and covers only new vehicle sales. It does not impact existing vehicles on the road, which will still be legal to own and drive. Sales of new zero-emission vehicles and plug-in hybrids will start with 35% in 2026, build to 68% in 2030, and reach 100% in 2035. In other words, 100% of new cars and light trucks sold in California will be zero-emission vehicles, including plug-in hybrid electric vehicles, by 2035.

#### Senate Bill 350

SB 350 codifies the GHG targets for 2030 set by EO B-30-15. To meet these goals, SB 350 also raises the Renewables Portfolio Standards from 33 percent renewable generation by 2020 to 50 percent renewable generation by December 31, 2030.

#### Senate Bill 375

SB 375 provides for the creation of a new regional planning document called a sustainable communities strategy (SCS). An SCS is a blueprint for regional transportation infrastructure and development that is designed to reduce GHG emission from cars and light trucks to target levels that will be set by CARB for 18 regions throughout California. Each of the various metropolitan planning organizations must prepare an SCS and include it in that region’s regional transportation plan. The SCS can influence transportation, housing, and land use planning. CARB will determine whether the SCS will achieve the region’s GHG emissions reduction goals. Under SB 375, certain qualifying in-fill residential and mixed-use projects would be eligible for streamlined California Environmental Quality Act (CEQA) review.

AB 1279 (California Climate Crisis Act)

AB 1279 declares the policy of the State to achieve net zero greenhouse gas emissions as soon as possible, but no later than 2045. By 2045, statewide anthropogenic greenhouse gas emissions should be reduced to at least 85% below the 1990 levels, and thereafter, the State aims to achieve and maintain net negative greenhouse gas emissions. AB 1279 requires the State Board to work with relevant State agencies to ensure that updates to the scoping plan identify and recommend measures to achieve these policy goals and to identify and implement a variety of policies and strategies that enable carbon dioxide removal solutions and carbon capture, utilization, and storage technologies in California. AB 1279 also requires the State Board to submit an annual report.

***Bay Area Air Quality Management Basin***

BAAQMD publishes thresholds of significance for evaluating the significance of climate impacts from land use projects and plans. Its most recent guidelines for climate can be found in its 2022 Justification Report. The thresholds described within the report evaluate significance based a project’s effect on California’s efforts to meet the State’s long-term climate goal rather than setting emission standards. **Table 5** shows the criterium the project must meet during operation in order to be considered to have a less than significant impact on climate change. No standards are set for construction of a project because of their small one-time contribution to climate change (BAAQMD, 2022).

**Table 5: BAAQMD’s Climate Change Thresholds for Land Use Projects\***

A	<ol style="list-style-type: none"> <li>1. Buildings             <ol style="list-style-type: none"> <li>a. The project will not include natural gas appliances or natural gas plumbing (in both residential and nonresidential development).</li> <li>b. 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.</li> </ol> </li> </ol>
	<ol style="list-style-type: none"> <li>2. Transportation             <ol style="list-style-type: none"> <li>a. 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 Senate Bill 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:                 <ol style="list-style-type: none"> <li>i. Residential projects: 15 percent below the existing VMT per capita</li> <li>ii. Office projects: 15 percent below the existing VMT per employee</li> <li>iii. Retail projects: no net increase in existing VMT</li> </ol> </li> <li>b. Achieve compliance with off-street electric vehicle requirements in the most recently adopted version of CALGreen Tier 2.</li> </ol> </li> </ol>
B	Projects must be consistent with a local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b).

Source: BAAQMD, 2022

\* A project must meet either criterium A or B to be considered to have a less than significant impact.

## Climate Change and Its Potential Impacts

Certain gases in the earth's atmosphere, classified as GHGs, play a critical role in determining the earth's surface temperature. GHGs include all of the following compounds: carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride (Health & Safety Code § 38505[g]). In addition to natural sources, human activities are exerting a substantial and growing influence on climate by changing the composition of the atmosphere and the ocean, and by modifying the land surface through deforestation and urbanization that reduces carbon capture and decreases albedo (Intergovernmental Panel on Climate Change [IPCC], 2014). In particular, increased consumption of fossil fuels has substantially increased atmospheric levels of GHGs. Emissions of these gases are attributable to human activities associated with the industrial/manufacturing, utilities, transportation, residential, commercial, and agricultural sectors (CARB, 2021).

In 2019, transportation generated 41% of California's GHG emissions. This was followed by the industrial sector (24%), electricity generation in state (9%), commercial and residential (8%), agriculture and forestry (7%), commercial (6%), and electricity generation imports (5%) (CARB, 2021). Emissions of CO<sub>2</sub> and N<sub>2</sub>O are byproducts of fossil fuel combustion, among other sources. CH<sub>4</sub> results from off-gassing associated with agricultural practices and landfills. Sinks of CO<sub>2</sub> include uptake by vegetation and dissolution into the ocean.

According to the United Nations IPCC and the USEPA, it is very likely (greater than 95% probability) that human activity is responsible for rising temperatures. The IPCC expects global temperatures to increase another 2 to 10 degrees Fahrenheit by 2100, depending on how much atmospheric GHG concentrations continue to rise.

Climate change has the potential to impact California and the Bay Area natural and economic environment. The following is an abbreviated list of potential climate change impacts.

- Rising sea levels along the California coastline, particularly in San Francisco and the Sacramento-San Joaquin River Delta due to ocean expansion.
- Extreme heat conditions, such as heat waves and very high temperatures, which could last longer and become more frequent.
- An increase in heat-related human deaths and infectious diseases and a higher risk of respiratory problems caused by deteriorating air quality.
- Reduced snow pack and stream flow in the Sierra Nevada mountains, affecting winter recreation and water supplies.
- Potential increase in the severity of winter storms, affecting peak stream flows and flooding.
- Changes in growing season conditions that could affect California agriculture, causing variations in crop quality and yield.
- Changes in distribution of plant and wildlife species due to changes in temperature, competition of colonizing species, changes in hydrologic cycles, changes in sea levels, and other climate-related effects.

## BIOLOGICAL RESOURCES – SECTION 3.5 OF THE EA/TEIR

### Federal

#### Federal Endangered Species Act

The Federal Endangered Species Act (FESA) protects species that are at risk of extinction and provides for the conservation of the ecosystems on which they depend. The U.S. Fish & Wildlife Service (USFWS) and the National Oceanic and Atmosphere Administration, Fisheries Service (NOAA Fisheries) share responsibility for implementing



FESA. Generally, USFWS manages terrestrial and freshwater species, while NOAA Fisheries is responsible for marine and anadromous species. Section 9 (§ 1538) prohibits the "take" of a listed species by anyone, including private individuals and state and local agencies. Threatened and endangered species on the federal list (50 CFR Sections 17.11 and 17.12) are protected from take, which is defined as direct or indirect harm. If "take" of a listed species is incidental to an otherwise lawful activity, this triggers the need for consultation under Section 7 of the FESA for federal agencies.

Pursuant to the requirements of the FESA, a federal agency reviewing a proposed project within its jurisdiction must determine whether any federally listed species may be present on the proposed project site and whether the proposed project will have a potentially significant impact upon such species. A discussion of regionally listed species is provided in consideration of potential impacts associated with project implementation. Under the FESA, habitat loss is considered to be an impact to the species. In addition, the agency is required to determine whether the project is likely to jeopardize the continued existence of any species that is proposed for listing under the FESA or to result in the destruction or adverse modification of critical habitat proposed to be designated for such species (16 USC Section 1536[3], [4]). Therefore, project-related impacts to these species, or their habitats, would be considered significant.

### **Magnuson-Stevens Act and Sustainable Fisheries Act**

The Magnuson–Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) is the primary law that governs marine fisheries management in U.S. federal waters. First passed in 1976, the Magnuson-Stevens Act fosters the long-term biological and economic sustainability of marine fisheries. Its objectives include: preventing overfishing; rebuilding overfished stocks; increasing long-term economic and social benefits; ensuring a safe and sustainable supply of seafood; and protecting habitat that fish need to spawn, breed, feed, and grow to maturity. The Sustainable Fisheries Act of 1996 (Public Law 104-297) amended the Magnuson-Stevens Act to establish new requirements for fishery management councils to identify and describe Essential Fish Habitat (EFH) and to protect, conserve, and enhance EFH for the benefit of fisheries. EFH is defined as those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity. The Sustainable Fisheries Act also established a federal EFH consultation process that advises federal agencies to avoid, minimize, mitigate, or otherwise offset adverse effects on EFH (NOAA Fisheries, 2022a). Consultation is required if a federal agency has authorized, funded, or undertaken part or all of a proposed activity and the action will adversely affect EFH. An adverse effect includes direct or indirect physical, chemical, or biological alternations to waters or substrate, species and their habitat, quality and/or quantity of EFH, or other ecosystem components. If a federal agency determines that an action will not adversely affect EFH, and NOAA Fisheries agrees, no consultation is required (NOAA Fisheries, 2022b). A 2002 update to EFH regulations allowed fishery management councils to designate Habitat Areas of Particular Concern, specific areas within EFH that have extremely important ecological functions and/or are especially vulnerable to degradation (NOAA Fisheries, 2022a).

### **Migratory Bird Treaty Act**

Migratory birds are protected under the federal Migratory Bird Treaty Act (MBTA) of 1918 (16 USC 703-711). The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed under 50 CFR 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). The direct injury or death of a migratory bird due to construction activities or other construction-related disturbance that causes nest abandonment, nestling abandonment, or forced fledging would be considered take under federal law. As such, project-related disturbances must be reduced or eliminated during the nesting season. The general nesting season extends from February 15 to September 15.

The 1988 amendment to the Fish and Wildlife Conservation Act mandates USFWS to identify species subspecies and populations/taxa of all migratory nongame birds that without additional conservation action are likely to become candidates for listing under FESA. The Birds of Conservation Concern 2021 (BCC 2021) is the most recent effort to carry out this mandate. The overall goal of this report is to identify those bird taxa (beyond those already designated as federally threatened or endangered) that represent the highest conservation priorities of the USFWS. The BCC 2021 is intended to stimulate coordinated, collaborative and proactive conservation actions among international, federal, state, tribal and private partners. Bird taxa considered for the BCC 2021 lists include nongame birds, gamebirds without hunting seasons or where harvest is minimal, and subsistence-hunted nongame birds in Alaska. Excluded from consideration for the BCC 2021 are bird species not protected under the MBTA, taxa already listed as threatened or endangered under FESA, or taxa that only occur irregularly or peripherally in the U.S (USFWS, 2021).

### **Bald and Golden Eagle Protection Act**

The Bald and Golden Eagle Protection Act was originally enacted in 1940 to protect bald eagles and was later amended to include golden eagles (16 USC Subsection 668-668). This act prohibits take, possession, and commerce of bald and golden eagles and associated parts, feathers, nests, or eggs with limited exceptions. The definition of take is the same as the definition under the FESA. The USFWS established five recovery programs in the mid-1970s based on geographical distribution of the species, which California located in the Pacific Recovery Region. Habitat conservation efforts in the Pacific Recovery Region, including laws and management practices at federal, state, and community levels, have helped facilitate bald eagle population increases. Critical habitat for bald and golden eagles was not designated as part of the Pacific Recovery Plan created under FESA. Likewise, critical habitat was not designated by regulation under FESA. In 1995, the USFWS reclassified the bald eagle from endangered to threatened under FESA in the contiguous 48 states, excluding Michigan, Minnesota, Wisconsin, Oregon, and Washington where it had already been listed as threatened. In 2007, the bald eagle was federally delisted under FESA. However, the provisions of the act remain in place for protection of bald and golden eagles.

### **Clean Water Act - Sections 404 and 401**

Any project that involves discharge of dredged or fill material into navigable Waters of the U.S. must first obtain authorization from the USACE, under Section 404 of the CWA. Projects requiring a 404 permit under the CWA also require a Section 401 certification from either USEPA for trust land, or the RWQCB for non-trust land. These two agencies also administer the NPDES general permits for construction activities disturbing one acre or more.

The term “Waters of the United States” is defined as:

- All waters currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters subject to the flow of the tide;
- All interstate waters including interstate wetlands; or
- All other waters, such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sand flats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, where the use or degradation of which could affect interstate or foreign commerce including any such waters.

The term “Wetlands” is defined as:

- Waters of the U.S. that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically

adapted for life in saturated soil conditions. Wetlands that meet these criteria during only a portion of the growing season are classified as seasonal wetlands.

## State and Local

### California Endangered Species Act

The California Endangered Species Act (CESA) declares that deserving plant or animal species will be given protection by the state because they are of ecological, educational, historical, recreational, aesthetic, economic, and scientific value to the people of the State. The CESA established that it is State policy to conserve, protect, restore, and enhance state-listed species and their habitats. Under State law, plant and animal species may be formally listed by the California Fish and Game Commission.

The CESA authorizes that private entities may take listed species under FESA and CESA, pursuant to a federal incidental take permit issued in accordance with Section 10 of the FESA, if the California Department of Fish and Wildlife (CDFW) certifies that the incidental take statement or incidental take permit is consistent with the CESA (California Fish & Game Code § 2080.1[a]).

### California Fish and Game Code

The California Fish and Game Code defines “take” (Section 86) and prohibits take of a species listed under the CESA (California Fish and Game Code § 2080), or otherwise special-status (California Fish and Game Code §§ 3511, 4700, and 5050). Section 2081(b) and (c) of the CESA allows CDFW to issue an incidental take permit for a State-listed species if specific criteria outlined in Title 14 CCR §§ 783.4(a), (b) and CDFW Code § 2081(b) are met. The CDFW Code § 3503 states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird except as otherwise provided by the code. Section 3503.5 states that it is unlawful to take, possess, or destroy any birds in the taxonomic order Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird. Section 3513 states that it is unlawful to take or possess any migratory non-game bird as designated in the MBTA or any part of such migratory non-game bird except as provided by rules and regulations adopted by the U.S. Secretary of the Interior under provisions of the MBTA. If a project is planned in an area where a species or specified bird occurs, an applicant must design the project to avoid all take; the CDFW cannot provide take authorization under the CESA.

### Native Plant Protection Act of 1977

Native Plant Protection Act of 1977 and implementing regulations in Section 1900 et seq. of the California Fish and Game Code designate special-status plant species and provide specific protection measures for identified populations. The CDFW administers the Native Plant Protection Act.

### Sonoma County General Plan

The Sonoma County General Plan is the master policy document that provides the general framework for all zoning and land use decisions within a community. The Open Space and Resource Conservation Element includes objectives and policies regarding biotic resources, including biotic habitat areas (e.g., special status species habitat, marches and wetlands, and sensitive natural communities), riparian corridors, and marine fishery and harbor resources. These policies are required for projects that fall under the jurisdiction of the County and are applicable to off-Reservation impacts, including roadway access and improvement projects.

## Sonoma County Zoning Ordinance

The Sonoma County Zoning Regulations establishes various districts within the unincorporated territory of the county and designates lawful permitted uses, as well as uses which may be approved through the use permit process. The County Zoning Regulations include protections and designations for agricultural and resource zones, including protections for lands needed for watershed, fish and wildlife habitat, and biotic resources. Additionally, the County Zoning Regulations include a Riparian Corridor (RC) Combining Zone, which protects biotic resource communities, including critical habitat areas within and along riparian corridors, for their habitat and environmental value, and to implement the provisions of the General Plan Open Space and Resource Conservation and Water Resources Elements. If applicable, the RC Combining Zone establishes minimum streamside conservation area and minimum setback for agricultural cultivation. The Sonoma County Zoning Regulations are applicable to off-Reservation impacts, including roadway access and improvement projects

# CULTURAL AND PALEONTOLOGICAL RESOURCES – SECTION 3.6 OF THE EA/TEIR

## Federal

### National Historic Preservation Act

Section 106 of the National Historic Preservation Act (NHPA), as amended, and its implementing regulations found in 36 CFR Part 800 require federal agencies to identify cultural resources that may be affected by actions involving federal lands, funds, or permitting. The BIA must comply with Section 106 for the proposed trust acquisition. The significance of the resources must be evaluated using established criteria outlined in 36 CFR 60.4, as described below.

If a resource is determined to be a historic property, Section 106 of the NHPA requires that effects of the federal undertaking on the resource be determined. A historic property is defined as:

*...any prehistoric or historic district, site, building, structure or object included in, or eligible for inclusion in the National Register of Historic Places, including artifacts, records, and material remains related to such a property... (NHPA Sec. 301[5])*

Section 106 of the NHPA prescribes specific criteria for determining whether a project would adversely affect a historic property, as defined in 36 CFR 800.5. An impact is considered adverse when prehistoric or historic archaeological sites, structures, or objects that are listed on or eligible for listing in the National Register of Historic Places (NRHP) are subjected to the following:

- Physical destruction of or damage to all or part of the property;
- Alteration of a property;
- Removal of the property from its historic location;
- Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance;
- Introduction of visual, atmospheric, or audible elements that diminish the integrity of the property's significant historic features;
- Neglect of a property that causes its deterioration; and

- Transfer, lease, or sale of the property out of federal control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property's historic significance.

If the historic property will be adversely affected by the undertaking, then prudent and feasible measures to resolve adverse impacts must be taken. The State Historic Preservation Office must be provided an opportunity to review and comment on these measures prior to project implementation.

### *National Register of Historic Places*

The eligibility of a resource for listing in the NRHP is determined by evaluating the resource using criteria defined in 36 CFR § 60.4 as follows.

The quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects of state and local importance that possess integrity of location, design, setting, materials, workmanship, feeling, association, and:

- A) That are associated with events that have made a significant contribution to the broad patterns of our history;
- B) That are associated with the lives of persons significant in our past;
- C) That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- D) That have yielded, or may be likely to yield, information important to prehistory or history.

Sites younger than 50 years, unless of exceptional importance, are not eligible for listing in the NRHP.

In addition to meeting at least one of the criteria listed above, the property must also retain enough integrity to enable it to convey its historic significance. The NRHP recognizes seven aspects or qualities that, in various combinations, define integrity. These seven elements of integrity are location, design, setting, materials, workmanship, feeling, and association. To retain integrity a property will always possess several, and usually most, of these aspects.

While most historic buildings and many historic archaeological properties are significant because of their association with important events, people, or styles (Criteria A, B, and C), the significance of most prehistoric and some historic-period archaeological properties is usually assessed under Criterion D. Criterion D stresses the importance of the information contained in an archaeological site rather than its intrinsic value as a surviving example of a type or its historical association with an important person or event. It places importance not on physical appearance but rather on information potential.

### **Native American Graves Protection and Repatriation Act**

The Native American Graves Protection and Repatriation Act (NAGPRA), 25 USC 3001 et seq., provides a process for museums and federal agencies to return Native American cultural items – human remains, funerary objects, sacred objects, or objects of cultural patrimony – to lineal descendants, and culturally affiliated Indian tribes and Native Hawaiian organizations. NAGPRA includes provisions for unclaimed and culturally unidentifiable Native American cultural items, intentional and inadvertent discovery of Native American cultural items on federal and Tribal lands, and penalties for noncompliance and illegal trafficking.

## **Archaeological Resources Protection Act of 1979**

The Archaeological Resources Protection Act of 1979 (ARPA; Public Law 96-95; 16 USC 470aa-mm) provides for the protection of archaeological resources and sites that are on public and Indian lands, and fosters increased cooperation and exchange of information between governmental authorities, the professional archaeological community, and private individuals having collections of archaeological resources and data that were obtained before October 31, 1979. ARPA also provides for penalties for noncompliance and illegal trafficking.

## **Paleontological Resources Preservation Act**

Paleontological resources are defined as the traces or remains of prehistoric plants and animals. Such remains often appear as fossilized or petrified skeletal matter, imprints, or endocasts, and reside in sedimentary rock layers. Paleontological resources are considered important for their scientific and educational value. Fossil remains of vertebrates are considered significant. Invertebrate fossils are considered significant if they function as index fossils. Index fossils are those that appear in the fossil record for a relatively short and known period of time. This allows geologists to interpret the age range of the geological formations in which they are found.

The Paleontological Resources Preservation subtitle of the Omnibus Public Land Management Act, 16 USC 470aaa to aaa-11 requires the U.S. Department of Agriculture (USDA) and the U.S. Department of the Interior to issue implementation regulations to provide for the preservation, management, and protection of paleontological resources on federal lands and ensure that these resources are available for current and future generations to enjoy as part of America's national heritage.

# **SOCIOECONOMIC CONDITIONS – SECTION 3.7 OF THE EA/TEIR**

## **Federal**

### **Executive Order 12898**

Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority and Low-Income Populations*, as amended, directs federal agencies to develop an Environmental Justice Strategy that identifies and addresses disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low-income populations. The CEQ has oversight responsibility of the federal government's compliance with EO 12898 and NEPA. The CEQ, in consultation with the USEPA and other agencies, has developed guidance to assist federal agencies with their NEPA procedures so that environmental justice concerns are effectively identified and addressed.

The document *Final Guidance for Incorporating Environmental Justice Concerns in EPA's NEPA Compliance Analyses* provides the following direction on how to analyze the impacts of actions on low-income and minority populations:

*Under NEPA, the identification of a disproportionately high and adverse human health or environmental effect on a low-income population, minority population, or Indian tribe does not preclude a proposed agency action from going forward, nor does it necessarily compel a conclusion that a proposed action is environmentally unsatisfactory. Rather, the identification of such an effect should heighten agency attention to alternatives (including alternative sites), mitigation strategies, monitoring needs, and preferences expressed by the affected community or population. (USEPA, 1998)*

As previously stated, according to guidance from the CEQ (1997) and USEPA (1998), agencies should consider the composition of the affected area, to determine whether minority populations, low-income populations, or Indian tribes are present in the area affected by a proposed action and, if so, whether there may be disproportionately high and adverse environmental effects to those populations.

Communities may be considered “minority” under the executive order if one of the following characteristics apply.

- The cumulative percentage of minorities within a census tract is greater than 50 percent (primary method of analysis); or
- The cumulative percentage of minorities within a census tract is less than 50 percent, but the percentage of minorities is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis (secondary method of analysis).

According to USEPA, either the county or the state can be used when considering the scope of the “general population.” A definition of “meaningfully greater” is not given by the CEQ or USEPA, although the latter has noted that any affected area that has a percentage of minorities above the state’s percentage is a potential minority community and any affected area with a minority percentage double that of the state’s is a definite minority community under EO 12898.

Communities may be considered “low-income” under the EO if one of the following characteristics applies.

- The median household income for a census tract is below the poverty line (primary method of analysis); or
- Other indications are present that indicate a low-income community is present within the census tract (secondary method of analysis).

In most cases, the primary method of analysis will suffice to determine whether a low-income community exists in the affected environment. However, when a census tract income may be just over the poverty line or where a low-income pocket within the tract appears likely, the secondary method of analysis may be warranted. Other indications of a low-income community under the secondary method of analysis include limited access to health care, overburdened or aged infrastructure, and dependence on subsistence living.

## TRANSPORTATION/CIRCULATION – SECTION 3.8 OF THE EA/TEIR

No regulations applicable to the development of the Project Site were identified during the traffic and circulation analysis.

## LAND USE – SECTION 3.9 OF THE EA/TEIR

### Federal

#### **Farmland Protection Policy Act**

The Farmland Protection Policy Act (FPPA) is intended to minimize the impact federal programs have on the unnecessary and irreversible conversion of farmland to nonagricultural uses. It assures that federal programs are

administered in a matter that is compatible with state and local units of government, and private programs and policies to protect farmland (7 U.S.C. § 4201).

The Natural Resource Conservation Service (NRCS) is responsible for the implementation of the FPPA and categorizes farmland in a number of ways. These categories include prime farmland, farmland of statewide importance, and unique farmland. Prime farmland is considered to have the best possible features to sustain long-term productivity. Farmland of statewide importance includes farmland similar to prime farmland, but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Unique farmland is characterized by inferior soils and, depending on climate, generally needs irrigation.

The NRCS fulfills the directives of the Soil and Water Conservation Act (16 USC § 2001-2009) by identifying significant areas of concern for the protection of national resources. NRCS uses a land evaluation and site assessment system to establish a Farmland Conversion Impact Rating (FCIR) score. The FCIR is completed on form AD-1006. The FCIR form has two components: land evaluation, which rates soil quality up to 100 points, and the site assessment, which measures other factors that affect the property's viability up to 160 points.

The total FCIR score is used as an indicator for the project's sponsor to consider alternative sites if the potential adverse impacts on the farmland exceed the allowable level; however, the FPPA does not require federal agencies to alter projects to avoid or minimize farmland conversion. Sites receiving a combined score of less than 160 (out of 260 possible points) do not require further evaluation. For sites with a combined score greater than 160 points, at least two other alternatives are required to be considered and the alternative with the lowest number of points selected unless there are other overriding considerations.

## **Federal Aviation Regulation**

In accordance with 14 CFR 77, which provides requirements, standards, and processes for determining obstructions to air navigation, the Federal Aviation Administration's (FAA's) primary objective is to promote air safety and the efficient use of the navigable airspace. In furthering this mission, the FAA conducts aeronautical studies based on information provided on FAA Form 7460-1, Notice of Proposed Construction or Alteration, by proponents of construction or development in the vicinity of airports. Developers must file Form 7460-1 with the FAA at least 45 days prior to construction if any of the following parameters are met:

- Proposed structure(s) will exceed 200 feet above ground level;
- Proposed structure(s) will be in proximity to an airport and will exceed the slope ratio;
- Proposed structure(s) involves construction of a traverseway (i.e., highway, railroad, waterway, etc.) and once adjusted upward with the appropriate vertical distance would exceed a standard of 77.9(a) or (b);
- Proposed structure(s) will emit frequencies, and do/does not meet the conditions of the FAA Colocation Policy;
- Proposed structure(s) will be in an instrument approach area and might exceed part 77 Subpart C;
- Proposed structure(s) will be in proximity to a navigation facility and may impact the assurance of navigation signal reception;
- Proposed structure(s) will be on an airport or heliport; or
- Filing has been requested by the FAA (FAA, 2017a).



## State and Local

### Sonoma County General Plan 2020

The Sonoma County General Plan was adopted in 2008 and replaced the previous plan adopted in 1989. The Land Use Element provides the distribution, location, and extent of uses for each land use category. The Land Use Element has a time horizon of 2020. The Land Use Element provides the following description of land designations found on the Project Site. **Figure 3.9-1** provides a map of the County's land use designations for the Project Site and adjacent parcels.

*Land Intensive Agricultural Areas (LIA) – This designation is designed to enhance and protect lands capable of and generally used for animal husbandry and the production of food, fiber, and plant materials. The soil type and climate support relatively high production per acre of land.*

Additionally, the Project Site is within multiple combining districts as defined by the County's zoning ordinance, including the Floodway Combining District, Floodplain Combining District, Scenic Resources Combining District, Riparian Corridor Combining Zone, and Valley Oak Habitat Combining District. These combining district designations apply land use regulations to the Project Site in addition to the land use regulations associated with its main zoning designation, LIA.

#### *Land Use Element*

The Sonoma County General Plan Land Use Element contains goals, objectives, and policies to guide development within the County.

**GOAL LU-1:** Accommodate Sonoma County's fair share of future growth in the San Francisco Bay Area region as shown below under Goals LU-2 and LU-5 in a manner consistent with environmental constraints, maintenance of the high quality of life enjoyed by existing residents, and the capacities of public facilities and services. Achieve a desirable balance between job opportunities and population growth.

**Objective LU-1.2:** Encourage the major share of commercial and industrial growth in the cities but accommodate a limited amount of this growth in unincorporated communities with urban services.

**Policy LU-1r:** Recognizing the County's General Plan and zoning are not applicable on tribal trust lands, encourage tribes to consult with the County on a government-to-government basis to develop mutually compatible land uses, considering both County and tribal General Plans, with particular focus on areas of joint interest and boundaries.

**GOAL LU-2** Accommodate the major share of future growth within the nine existing cities and their expansion areas and within selected unincorporated communities, which are planned to have adequate water and sewer capacities.

**Objective LU-2.1:** Accommodate a population increase of about 19,064 residents over the 2000 baseline in the unincorporated areas outside of the designated Urban Service Areas.

**Objective LU-2.2:** Allocate the largest portion of unincorporated area growth to communities with public sewer and water services.

**Objective LU-2.3:** Limit the amount of population growth and development in rural portions of the County outside of the cities and the unincorporated communities.

**GOAL LU-5:** Identify important open space areas between and around the county's cities and communities. Maintain them in a largely open or natural character with low intensities of development.

**Objective LU-5-1:** Retain low intensities of use in Community Separators between and around cities and communities as designated in the Open Space and Resource Conservation Element.

**Policy LU-5b:** Avoid commercial and industrial land uses in Community Separators. Allow the full range of uses allowed in the agricultural and resource categories.

**GOAL LU-7:** Prevent unnecessary exposure of people and property to environmental risks and hazards. Limit development on lands that are especially vulnerable or sensitive to environmental damage.

**Objective LU-7.1:** Restrict development in areas that are constrained by the natural limitations of the land, including but not limited to, flood, fire, geologic hazards, groundwater availability and septic suitability.

**Policy LU-7c:** Prohibit new permanent structures within any floodway. Require that any development that may be permitted within the flood plain to be raised above the 100-year flood elevation.

**GOAL LU-9:** Protect lands currently in agricultural production and lands with soils and other characteristics that make them potentially suitable for agricultural use. Retain large parcel sizes and avoid incompatible non-agricultural uses.

**Objective LU-9.1:** Avoid conversion of lands currently used for agricultural production to non-agricultural use.

**Objective LU-9.4:** Discourage uses in agricultural areas that are not compatible with long term agricultural production

**GOAL LU-10:** The uses and intensities of any land development shall be consistent with preservation of important biotic resource areas and scenic features.

**Objective LU-10.1:** Accomplish development on lands with important biotic resources and scenic features in a manner which preserves or enhances these features.

**GOAL LU-11:** Promote a sustainable future where residents can enjoy a high quality of life for the long term, including a clean and beautiful environment and a balance of employment, housing, infrastructure, and services.

**Objective LU-11.1:** Use the following sustainability policies pertaining to land use and development in the unincorporated area:

**Policy LU-11f:** Encourage conservation of undeveloped land, open space, and agricultural lands, protection of water and soil quality, restoration of ecosystems, and minimization or elimination of the disruption of existing natural ecosystems and flood plains.

### *Open Space and Resource Conservation Element*

As described in the Open Space and Resource Conservation Element of the Sonoma County General Plan, community Separators are rural open space and agricultural and resource lands that separate cities and other

communities, prevent sprawl, protect natural resources, and provide city and community identity by providing visual relief from continuous urbanization. The Project Site is within the Windsor-Larkfield-Santa Rosa Community Separator.

The Sonoma County General Plan Open Space and Resource Conservation Element contains goals, objectives, and policies to guide development within the County.

**GOAL OSRC-1:** Preserve the visual identities of communities by maintaining open space areas between cities and communities.

**Objective OSRC-1.1:** Preserve important open space areas in the Community Separators shown on Figures OSRC-5a through OSRC-5i of the Open Space and Resource Conservation Element.

**Objective OSRC-1.2:** Retain a rural character and promote low intensities of development in Community Separators. Avoid their inclusion in City Urban Growth Boundaries or Spheres of Influence. Avoid their inclusion within Urbans Service Areas for unincorporated communities.

**Objective OSRC-1.3:** Preserve existing groundwater recharge and stormwater detention areas within Community Separators.

**Objective OSRC-1.4:** Preserve existing specimen trees and tree stands within Community Separators.

**Policy OSRC-1b:** Avoid commercial or industrial uses in Community Separators other than those that are permitted by the agricultural or resource land use categories.

**Policy OSRC-1f:** Unless there are existing design guidelines that have been adopted for the affected area, it is required that new structures within Community Separators meet the following criteria:

- Site and design structures to take maximum advantage of existing topography and vegetation in order to substantially screen them from view from public roads. Minimize cuts and fills on hills and ridges;
- Minimize the removal of trees and other mature vegetation; avoid removal of specimen trees, tree groupings, and windbreaks;
- Where existing topography and vegetation would not screen structures from view from public roads, install landscaping consisting of native vegetation in natural groupings that fits with the character of the area in order to substantially screen structures from view. Screening with native, fire-retardant plants may be required;
- Design structures to use building materials and color schemes that blend with the natural landscape and vegetation;
- To the extent feasible, cluster structures on each parcel within existing built areas, and near existing natural features such as tree groupings;
- Utilities are underground where economically practical;
- On hills and ridges, avoid structures that project above the silhouette of the hill or ridge against the sky as viewed from public roads, and substantially screen driveways from view where practical; and
- Minimize impervious surfaces and encourage groundwater recharge with effective design features and materials that allow stormwater infiltration and detention.

### *Agricultural Resources Element*

The Sonoma County General Plan Open Space and Resource Conservation Element contains goals, objectives, and policies to guide development within the County.

**GOAL AR-4:** Allow farmers to manage their operations in an efficient, economic manner with minimal conflict with nonagricultural uses.

**Objective AR-4.1:** Apply agricultural land use categories only to areas or parcels capable of the commercial production of food, fiber and plant material, or the raising and maintaining of farm animals including horses, donkeys, mules, and similar livestock. Establish agricultural production as the highest priority use in these areas or parcels.

**Policy AR-4a:** The primary use of any parcel within the three agricultural land use categories shall be agricultural production and related processing, support services, and visitor serving uses. Residential uses in these areas shall recognize that the primary use of the land may create traffic and agricultural nuisance situations, such as flies, noise, odors, and spraying of chemicals.

**GOAL AR-6:** Allow new visitor serving uses and facilities in some agricultural areas but limit them in scale and location. These uses must be beneficial to the agricultural industry and farm operators and compatible with long term agricultural use of the land.

**Objective AR-6.1:** Give the highest priority in all agricultural land use categories to agricultural production activities. Visitor serving uses shall promote agriculture and enhance marketing of Sonoma County agricultural products but shall be secondary and incidental to agricultural production.

**Policy AR-6a:** Permit visitor serving uses in agricultural categories that promote agricultural production in the County, such as tasting rooms, sales and promotion of products grown or processed in the County, educational activities and tours, incidental sales of items related to local area agricultural products, and promotional events that support and are secondary and incidental to local agricultural production.

**Policy AR-6d:** Follow these guidelines for approval of visitor serving uses in agricultural areas:

- The use promotes and markets only agricultural products grown or processed in the local area.
- The use is compatible with and secondary and incidental to agricultural production activities in the area. The use will not require the extension of sewer and water.
- The use is compatible with existing uses in the area.
- Hotels, motels, resorts, and similar lodging are not allowed.
- Activities that promote and market agricultural products such as tasting rooms, sales and promotion of products grown or processed in the County, educational activities and tours, incidental sales of items related to local area agricultural products are allowed.
- Special events on agricultural lands or agriculture related events on other lands in the Sonoma Valley Planning Area will be subject to a pilot event coordination program which includes tracking and monitoring of visitor serving activities and schedule management, as necessary, to reduce cumulative impacts.

## **Sonoma County Zoning Ordinance**

The Sonoma County Zoning Ordinance (Chapter 26 of the Sonoma County Code) regulates development in the unincorporated areas of the County by establishing districts and designating lawful permitted uses and uses which may be approved through the use permit process. The Zoning Ordinance provides the following description of zoning found on the Project Site. Figure 3.9-2 of the EA/TEIR provides a map of the County's zoning for the Project Site and adjacent parcels.

*LIA – The purpose of this district is to enhance and protect lands best suited for permanent agricultural use and capable of relatively high production per acre of land.*

## **Shiloh Road Vision Plan**

The Shiloh Road Vision Plan, implemented by the Town of Windsor General Plan, is a planning document that provides guiding principles to ensure the Shiloh Road Village area conveys an image that is both unique and consistent with regional architecture and one that evokes a strong sense of place and promotes walking and bicycling. The Project Site is adjacent to but outside of the jurisdiction of the Town of Windsor General Plan or the Shiloh Road Vision Plan.

## **Williamson Act**

The California Land Conservation Act of 1965, commonly known as the Williamson Act, is designed to preserve farmlands and open space lands by discouraging premature and unnecessary conversion to urban uses. Under the provisions of the Williamson Act, landowners contract with the county to maintain agricultural or open space use of their lands in return for a reduced property tax assessment. The contract is self-renewing and the landowner may notify the county at any time of intent to withdraw the land from its preserve status. Withdrawal involves a 10-year period of tax adjustment to full market value before protected open space can be converted to urban uses. Alternatively, landowners can petition the County to withdraw prematurely from a Williamson Contract. In order to cancel a contract without instituting the 10-year tax adjustment period, the County must make the required findings that the cancellation is consistent with the purposes of the Williamson Act, and that cancellation is in the public interest. The Project Site is actively cultivated for the production of wine grapes; however, it is not under a Williamson Act contract.

## **Right to Farm Act**

California Civil Code Section 3482.5, also known as the Right to Farm Act, contains provisions to ensure that agricultural operations are not considered nuisances, so long as they do not obstruct navigable waterways or public areas. This ordinance supersedes any conflicting local regulations but does not prohibit local jurisdictions from adopting ordinances that allow notification to those in close proximity to an agricultural activity that they are subject to the provisions of the Right to Farm Act.

## **Sonoma County Right to Farm Ordinance**

The Sonoma County Right to Farm Ordinance, codified in the Code of Ordinances as Ord. No. 5203 § 5, 1999, is the declared policy of the County to conserve, protect, enhance, and encourage agricultural operations on agricultural land within the unincorporated area of the County. Where nonagricultural land uses extend onto agricultural land or exist side by side, agricultural operations are frequently the subject of nuisance complaints. As a result, some agricultural operations are forced to cease or curtail their operations and many others are

discouraged from making investments in improvements to their operations, all to the detriment of adjacent agricultural uses and the economic viability of the County's agricultural industry as a whole. The Sonoma County Right to Farm Ordinance intends to reduce the loss to the County of its agricultural resources by limiting the circumstances under which properly conducted agricultural operations on agricultural land may be considered a nuisance.

## **PUBLIC SERVICES AND UTILITIES– SECTION 3.10 OF THE EA/TEIR**

### **Federal**

#### **Safe Drinking Water Act and Clean Water Act**

See **Water Resources – Section 3.3 of the EA/TEIR** above.

#### **Public Law 280**

Public Law 280 was enacted in 1953 to grant certain states criminal jurisdiction over Indians on reservations in addition to permitting civil litigation under tribal or federal court jurisdiction to be handled by state courts. The states mandated to assume criminal and civil jurisdiction over federal Indian lands are Alaska, California, Minnesota, Nebraska, Oregon, and Wisconsin, although certain tribal lands are exempt, including Metlakatla Indian Community on the Annette Island Reserve, Red Lake Reservation, and Warm Springs Reservation. In addition to these states, other states elected to assume full or partial responsibility, including Arizona, Florida, Idaho, Iowa, Montana, Nevada, North Dakota and Utah. The federal government relinquished all special criminal jurisdictions over Indian offenders and victims in these states. However, Public Law 280 does not grant states the following regulatory powers over lands held in federal trust or tribes:

- Federally guaranteed fishing, tribal hunting, and trapping rights;
- Fundamental tribal governmental functions, such as domestic relations and tribal enrollment; and
- Authority to impose state taxes.

Due to the one-sided process that imposed state jurisdiction on tribes and the complete failure to recognize tribal sovereignty and tribal self-determination, Public Law 280 was opposed by Indian Nations from its enactment. Subsequent acts of Congress, court decisions, and state actions to retrocede (or give back) jurisdiction back to the federal government have mitigated some of the effects of the 1953 law and strengthened tribes' jurisdiction over civil and criminal matters on their reservations.

### **State and Local**

#### **California Integrated Waste Management Act (Assembly Bill 939)**

In 1989, the State of California enacted AB 939, the California Integrated Waste Management Act, which requires jurisdictions to conduct a solid waste disposal needs assessment that estimates the disposal capacity needed to accommodate projected solid waste generated within the jurisdiction and to identify a minimum of 15 years of permitted disposal capacity. All local jurisdictions are required to divert 50 percent of their total waste stream from landfill disposal.

# NOISE – SECTION 3.11 OF THE EA/TEIR

## Federal

### Federal Highway Administration Construction Noise Abatement Criteria

The Federal Highway Administration (FHWA) provides construction noise level thresholds in its Construction Noise Handbook, 2006. These are provided in **Table 6**.

**Table 6: Federal Construction Noise Thresholds**

Noise Receptor Locations and Land Uses	Daytime (7 a.m. - 6 p.m.)	Evening (6 p.m. - 10 p.m.)	Nighttime (10 p.m. - 7 a.m.)
	dBA, Leq		
Noise-Sensitive Locations (residences, institutions, hotels, etc.)	78 or Baseline +5 (whichever is louder)	Baseline + 5	Baseline + 5 (if Baseline < 70) or Baseline + 3 (if Baseline > 70)
Commercial Areas (businesses, offices, stores, etc.)	83 or Baseline + 5	None	None
Industrial Areas (factories, plants, etc.)	88 or Baseline + 5	None	None

Source: **Appendix L**

### Federal Noise Abatement Criteria

Operational noise standards used in this study are FHWA Noise Abatement Criteria (NAC) for the assessment of noise consequences related to surface traffic and other project-related noise sources. These standards are discussed below. The FHWA establishes NAC for various land uses that have been categorized based upon activity. Land uses are categorized on the basis of their sensitivity to noise as indicated in **Table 7**. The FHWA NAC is based on peak traffic hour noise levels. Sensitive receptors with the potential to be impacted by the project alternatives primarily consist of residential land uses; thus, the Category B noise standard (67 dBA Leq) would apply to those uses.

**Table 7: Federal Noise Abatement Criteria Hourly A-Weighted Sound Level Decibels**

Activity Category	Activity Criteria Leq (h), dBA	Evaluation Location	Activity Category Description
A	57	Exterior	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B	67	Exterior	Residential.
C	67	Exterior	Active sport areas, amphitheatres, auditoriums, campgrounds, cemeteries, daycare centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails and trail crossings.
D	52	Interior	Auditoriums, daycare centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or non-profit institutional structures, radio studios, recording studios, schools, and television studios.

Activity Category	Activity Criteria Leq (h), dBA	Evaluation Location	Activity Category Description
E <sup>1</sup>	72	Exterior	Hotels, motels, offices, restaurants/bars, and other developed lands, properties or activities not included in A-D or F.
F	--	--	Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, shipyards, utilities (water resources, water treatment, electricity), and warehousing.
G	--	--	Undeveloped lands that are not permitted.

Source: Appendix L

## State and Local

### Sonoma County General Plan 2020

The following policies from the Sonoma County Noise Element of the 2020 General Plan may be applicable to the project:

**Policy NE-1a:** Designate areas within Sonoma County as noise impacted if they are exposed to existing or projected exterior noise levels exceeding 60 dB L<sub>dn</sub>, 60 dB CNEL, or the performance standards of Table NE-2 (Table NE-2 is reproduced below as **Table 8**).

**Policy NE-1b:** Avoid noise sensitive land use development in noise impacted areas unless effective measures are included to reduce noise levels. For noise due to traffic on public roadways, railroads and airports, reduce exterior noise to 60 dB L<sub>dn</sub> or less in outdoor activity areas and interior noise levels to 45 dB L<sub>dn</sub> or less with windows and doors closed. Where it is not possible to meet this 60 dB L<sub>dn</sub> standard using a practical application of the best available noise reduction technology, a maximum level of up to 65 dB L<sub>dn</sub> may be allowed but interior noise level shall be maintained so as not to exceed 45 dB L<sub>dn</sub>. For uses such as Single Room Occupancy, Work-Live, Mixed-Use Projects, and Caretaker Units, exterior noise levels above 65 dB L<sub>dn</sub> or the Table NE-2 standards may be considered if the interior standards of 45 dB L<sub>dn</sub> can be met. For schools, libraries, offices, and other similar uses, the interior noise standard shall be 45 dB L<sub>eq</sub> in the worst-case hour when the building is in use.

**Policy NE-1c:** Control non-transportation related noise from new projects. The total noise level resulting from new sources shall not exceed the standards in General Plan Table NE-2 (reproduced below as **Table 8**), of the recommended revised policies as measured at the exterior property line of any adjacent noise sensitive land use. Limit exceptions to the following:

- (1) If the ambient noise level exceeds the standard in **Table 8**, adjust the standard to equal the ambient level, up to a maximum of 5 dBA above the standard, provided that no measurable increase (i.e., +/- 1.5 dBA) shall be allowed.
- (2) Reduce the applicable standards in Table 3 by five dBA for simple tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises, such as pile drivers and dog barking at kennels.
- (3) Reduce the applicable standards in Table 3 by 5 decibels if the proposed use exceeds the ambient level by 10 or more decibels.
- (5) Noise levels may be measured at the location of the outdoor activity area of the noise sensitive land use, instead of at the exterior property line of the adjacent noise sensitive use where:
  - (a) The property on which the noise sensitive use is located has already been substantially developed pursuant to its existing zoning, and



(b) There is available open land on these noise sensitive lands for noise attenuation.

**Table 8: Maximum Allowable Noise Exposures for Non-transportation Sources (Table NE-2)**

Hourly Noise Metric	Maximum Exterior Noise Level Standards [dBA]	
	Daytime: 7 a.m. to 10 p.m.	Nighttime: 10 p.m. to 7 a.m.
L50 (30 minutes in any hour)	50	45
L25 (15 minutes in any hour)	55	50
L08 (5 minutes in any hour)	60	55
L02 (1 minute in any hour)	65	60

Notes: The sound level exceeded n% of the time in any hour. For example, the L50 is the value exceeded 50% of the time or 30 minutes in any hour; this is the median noise level. The L02 is the sound level exceeded 1 minute in any hour.

Source: **Appendix L**

**Policy NE-1d:** Consider requiring an acoustical analysis prior to approval of any discretionary project involving a potentially significant new noise source or a noise sensitive land use in a noise impacted area. The analysis shall:

- (1) Be the responsibility of the applicant,
- (2) Be prepared by a qualified acoustical consultant,
- (3) Include noise measurements adequate to describe local conditions,
- (4) Include estimated noise levels in terms of  $L_{dn}$  and/or the standards of Table NE-2 (reproduced as **Table 8**) for existing and projected future (20 years hence) conditions, based on accepted engineering data and practices, with a comparison made to the adopted policies of the Noise Element. Where low frequency noise (ex: blasting) would be generated, include assessment of noise levels and vibration using the most appropriate measuring technique to adequately characterize the impact,
- (5) Recommend measures to achieve compliance with this Element. Where the noise source consists of intermittent single events, address the effects of maximum noise levels on sleep disturbance,
- (6) Include estimates of noise exposure after these measures have been implemented, and
- (7) Be reviewed by the Permit and Resource Management Department and found to be in compliance with PRMD guidelines for the preparation of acoustical analyses.

**Policy NE-1f:** Require development projects that do not include or affect residential uses or other noise sensitive uses to include noise mitigation measures where necessary to maintain noise levels compatible with activities planned for the project site and vicinity.

**Policy NE-1g:** Enforce the State Noise Insulation Standards (Title 24, Part 2, California Administrative Code and Appendix Chapter 12 of the California Building Code) concerning new multiple occupancy dwellings.

**Policy NE-1h:** Prepare and consider a noise control ordinance to regulate existing noise sources as follows:

- (1) The draft ordinance shall be prepared by County Counsel with the assistance of the Public Health Department, the Sheriff's Department, and PRMD.
- (2) Consider ONC guidelines and ordinances of other counties.
- (3) The intent of the ordinance shall be to protect persons from existing or future excessive levels of noise which interfere with sleep, communication, relaxation, health or legally permitted use of property.

- (4) Excessive levels of noise shall be defined as levels which exceed the standards of Table NE-2 and other policies of the Noise Element.
- (5) In unincorporated areas of the County, it shall be unlawful to create noise which exceeds the standards of Table 2, as measured at the exterior of any noise sensitive use.
- (6) The noise ordinance may contain maximum allowable levels of interior noise created by exterior sources.
- (7) The ordinance may exempt or modify noise requirements for agricultural uses, construction activities, school functions, property maintenance, heating and cooling equipment, utility facilities, waste collection and other sources.
- (8) The ordinance shall include responsibilities and procedures for enforcement, abatement and variances.

**Policy NE-1i:** County equipment and vehicles shall comply with adopted noise level performance standards consistent with the best available noise reduction technology.

**Policy NE-1j:** Encourage the California Highway Patrol to actively enforce sections of the California Vehicle Code relating to adequate vehicle mufflers and modified exhaust systems.

**Policy NE-1k:** Incorporate into the Development Code the standards and policies of the Noise Element, where appropriate.

**Policy NE-1l:** Review and update the Noise Element to ensure that noise information and policies are consistent with regulations and conditions within the community.

**Policy NE-1m:** Consider requiring the monitoring of noise levels for discretionary projects to determine if noise levels are in compliance with required standards. The cost of monitoring shall be the responsibility of the applicant.

## Town of Windsor 2040 General Plan

The following policies from the Town of Windsor 2040 General Plan Health and Safety Element may be applicable to the project:

**Policy PHS-8.1: Ambient Sound Levels for New Development.** The Town shall encourage new development to maintain the current ambient sound environment as much as possible. All noise sources that cause the ambient sound levels to rise by more than 5 dBA should be required to incorporate conditions or design modifications to reduce the potential increase in the noise environment.

**Policy PHS-8.2: Exterior Noise Standards for New Development.** The Town shall require new development to meet exterior noise level standards as established in the noise and land use compatibility guidelines contained in General Plan Figure PHS-4 (reproduced as **Table 9**). For residential areas, these exterior noise guidelines apply to the primary usable outdoor area.

**Table 9: Maximum Noise Level by Receiving Land Use (Figure PHS-4)**

Type of Land Use	Maximum Allowable Noise Levels		
	Time Interval	Exterior Noise dB(A)	Interior Noise dB(A)
Single- or multi- family residential	7 a.m. – 10 p.m.	55	35
	10 p.m. to 7 a.m.	50	45
Commercial	7 a.m. – 10 p.m.	65	50
	10 p.m. to 7 a.m.	55	
Industrial or manufacturing	Any time	70	55
Public parks, public open space, and Civic Center	7 a.m. – 10 p.m.	55	N/A
	10 p.m. to 7 a.m.	50	

Notes:

- (1) Each of the noise limits specified above shall be reduced by 5 dBA for impulse or simple tone noises, or for consisting of speech or music. If the ambient noise level exceeds the resulting standard, the ambient noise level shall be the standard.
- (2) It shall be unlawful for any person within a residentially zoned area of the town to operate any noise amplification device (e.g., bull horns, microphones, musical instruments, speakers, etc.), that exceeds a noise level of 45 dBA measured at the property line or cause loud excessive noise which disturbs the peace of the neighborhood.
- (3) In addition, Section 7-1-190 of the Town of Windsor Municipal Code restricts the timing of construction act authorized by a Town permit to the hours of 7 a.m. to 7 p.m. Monday through Friday and 8 a.m. to 7 p.m. on Saturday.

Source: **Appendix L**

**Policy PHS-8.3: Interior Noise Threshold for New Residential.** The Town shall require new residential projects to provide for an interior CNEL of 45 dB or less due to exterior noise sources. To accomplish this, all residential and other noise sensitive land uses within the 60 dB contours or greater as defined in General Plan Figure PHS-5 should be reviewed to ensure that adequate noise attenuation has been incorporated into the design of the project.

**Policy PHS-8.5: Noise Attenuation Techniques.** The Town shall encourage new development to identify alternatives to the use of sound walls to attenuate noise impacts. Other techniques that would be viewed more favorably by the Town include:

- a. Modifications to site planning such as incorporating setbacks; and

- b. Revisions to the architectural layout such as changing building orientation, providing noise attenuation for portions of outdoor yards, and construction modification (e.g., noise attenuating windows).

In the event that sound walls are the only practicable alternative, such walls shall be subject to development review to ensure that they are designed to be as aesthetically pleasing as possible, incorporating landscaping, variations in color and patterns, and/or changes in texture or building materials.

**Policy PHS-8.6:** Acoustical Reports. The Town shall require that applications for development of residential or other noise-sensitive land uses in projected noise-impacted areas (greater than 55 dB CNEL) shall require an acoustical analysis, prepared at the applicant's expense. Recommendations contained in the acoustical reports shall be incorporated as conditions of any approval.

**Policy PHS-8.7:** Non-Vehicular Noise. The Town shall continue to regulate non-vehicular noise sources that are not preempted by State and Federal regulations, to minimize disturbances to adjoining uses through the noise ordinance.

**Policy PHS-8.10:** Construction Site Noise Restrictions. The Town shall restrict construction working hours as designated in the Municipal Code, Title VII Building and Housing Section, to allow efficient construction mobilization and activities, while also protecting the noise environment of noise sensitive land uses.

**Policy PHS-8.15:** Noise Enforcement of State and Federal Standards. The Town shall continue to enforce State and Federal noise regulations regarding vehicle operation, equipment, and building insulation.

**Policy PHS-8.16:** Applicable Standards in the Building Code. The Town shall continue to incorporate the most recent noise standards contained in Title 24 of the California Code of Regulations in Uniform Building Code into its own building code.

**Policy PHS-8.17:** Project and Environmental Review for Noise. The Town shall consider as part of its discretionary review of proposed new development the potential for a proposed project to either generate significant new noise sources or be significantly impacted by existing noise sources as shown in Figure PHS-7. If the Town determines there may be a potential for significant noise effects related to a proposed new development, the Town shall require an acoustical study be conducted by a qualified acoustician and include appropriate mitigation measures for the proposed development based on that study.

## Acoustical Background and Terminology

Noise is often described as unwanted sound. Sound is defined as any pressure variation in air that the human ear can detect. If the pressure variations occur frequently enough (at least 20 times per second), they can be heard and are designated as sound. The number of pressure variations per second is called the frequency of sound and is expressed as cycles per second, or Hertz (Hz). Definitions of acoustical terminology are provided in Appendix A of **Appendix L**.

**Figure PHS-7  
Acceptable Exposure Levels for Community Noise Environments**

Land Use Category	Community Noise Exposure Ldn/CNEL, dB						
	50-55	55-60	60-65	65-70	70-75	75-80	80-85
Residential – Low Density Single Family, Duplex, Mobile Homes							
Residential – Multifamily							
Transient Lodging – Motels, Hotels							
Schools, Libraries, Churches, Hospitals, Nursing Homes							
Auditoriums, Concert Halls, Amphitheaters							
Sports Arenas, Outdoor Spectator Sports							
Playgrounds, Neighborhood Parks							
Golf Course, Riding Stables, Water Recreation, Cemeteries							
Office Buildings, Business Commercial and Professional							
Industrial, Manufacturing Utilities, Agriculture							

- NORMALLY ACCEPTABLE**  
 Specified land use is satisfactory based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.
- CONDITIONALLY ACCEPTABLE**  
 New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.
- NORMALLY UNACCEPTABLE**  
 New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.
- CLEARLY UNACCEPTABLE**  
 New construction or development should generally not be undertaken.

Measuring sound directly in terms of pressure would require a very large and awkward range of numbers. To avoid this, the decibel scale was devised. The decibel scale uses the hearing threshold (20 micropascals of pressure) as a point of reference, defined as 0 decibel (dB). Other sound pressures are then compared to the reference pressure, and the logarithm is taken to keep the numbers in a practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB. Another useful aspect of the decibel scale is that changes in decibel levels correspond closely to human perception of relative loudness. Noise levels associated with common noise sources are provided in **Table 10 (Appendix L)**.

The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable and can be approximated by filtering the frequency response of a sound level meter by means of the standardized A-weighting network. There is a strong correlation between A-weighted sound levels (expressed as dBA) and community response to noise. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment. All noise levels presented in this evaluation are in terms of A-weighted levels (**Appendix L**).

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 ( $L_{eq}$ ). The  $L_{eq}$  is the foundation of the day-night average noise descriptor, DNL (or  $L_{dn}$ ), and shows very good correlation with community response to noise. DNL is based on the average noise level over a 24-hour day, with a +10-decibel weighting applied to noise occurring during nighttime (10:00 PM to 7:00 AM) hours. The nighttime penalty is based on the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures. Because DNL represents a 24-hour average, it tends to disguise short-term variations in the noise environment (**Appendix L**).

**Table 10: Typical Noise Levels**

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	110	Rock Band
Jet Fly-over at 300 m (1,000 ft.)	100	
Gas Lawn Mower at 1 m (3 ft.)	90	
Diesel Truck at 15 m (50 ft.), at 80 km/hr. (50 mph)	80	Food Blender at 1 m (3 ft.) Garbage Disposal at 1 m (3 ft.)
Noisy Urban Area, Daytime Gas Lawn Mower, 30 m (100 ft.)	70	Vacuum Cleaner at 3 m (10 ft.)
Commercial Area Heavy Traffic at 90 m (300 ft.)	60	Normal Speech at 1 m (3 ft.)
Quiet Urban Daytime	50	Large Business Office Dishwasher in Next Room
Quiet Urban Nighttime	40	Theater, Large Conference Room (Background)
Quiet Suburban Nighttime	30	Library
Quiet Rural Nighttime	20	Bedroom at Night, Concert Hall (Background)
	10	Broadcast/Recording Studio
Lowest Threshold of Human Hearing	0	Lowest Threshold of Human Hearing

Source: Caltrans, 2013

The effects of noise on people can be divided into three categories:

- Subjective effects of annoyance, nuisance, dissatisfaction;
- Interference with activities such as speech, sleep, and learning; and
- Physiological effects such as hearing loss or sudden startling.

Environmental noise typically produces effects in the first two categories. Workers in industrial plants can experience noise in the third category. There is no completely satisfactory way to measure the subjective effects of noise, or the corresponding reactions of annoyance and dissatisfaction. A wide variation in individual thresholds of annoyance exists, and different tolerances to noise tend to develop based on an individual's past experiences with noise. Human reaction to a new noise can be estimated through comparison of the new noise to the existing ambient noise level within a given environment. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will likely be judged by the recipients. With regard to increases in dBA noise levels, the following relationships occur:

- Except in carefully controlled laboratory experiments, a change of 1 dBA cannot be perceived.
- Outside of the laboratory, a 3-dBA change is considered a just-perceivable difference.
- A change in level of at least 5 dBA is required before any noticeable change in human response would be expected.
- A 10-dBA change is subjectively heard as approximately a doubling in loudness and can cause adverse response.

Noise effects on humans can be physical or behavioral in nature. The mechanism for chronic exposure to noise leading to hearing loss is well established. The elevated sound levels cause trauma to the cochlear structure in the inner ear, which gives rise to irreversible hearing loss. Though not considered a health effect similar to those noted above, noise pollution also constitutes a significant factor of annoyance and distraction in modern artificial environments:

- The meaning listeners attribute to the sound influences annoyance; if listeners dislike the noise content, they are annoyed.
- If the sound causes activity interference (for example, sleep disturbance), it is more likely to annoy.
- If listeners feel they can control the noise source, it is less likely to be perceived as annoying.
- If listeners believe that the noise is subject to third party control, including police, but control has failed, they are more annoyed.

Generally, most noise is generated by transportation systems, principally motor vehicle noise, but also including aircraft noise and rail noise. The level of traffic noise depends on three things: 1) the volume of the traffic, 2) the speed of the traffic, and 3) the number of trucks in the flow of the traffic. Because noise is measured on a logarithmic scale, 70 dBA plus 70 dBA does not equal 140 dBA. Instead, two sources of equal noise added together have been found to result in an increase of 3 dBA. That is, if a certain volume of traffic results in a noise level of 70 dBA the addition of the same volume of traffic, or doubling, would result in a noise level of 73 dBA. As stated above, 3 dBA is just audible; therefore, if a project doubles the traffic volume there would be an audible increase in the ambient noise level (**Appendix L**).

Stationary points of noise attenuate (lessen) at a rate of 6 to 9 dBA per doubling of distance from the source, depending on environmental conditions (i.e., atmospheric conditions and noise barriers, vegetative or manufactured, etc.). Widely distributed noises, such as a large industrial facility or a street with moving vehicles would typically attenuate at a lower rate, approximately 4 to 6 dBA per doubling of distance (**Appendix L**).

## Vibration Background and Terminology

Vibration is like noise in that it involves a source, a transmission path, and a receiver. While vibration is related to noise, it differs in that noise is generally considered to be pressure waves transmitted through air, while vibration is usually associated with transmission through the ground or structures. As with noise, vibration consists of an amplitude and frequency. A person's response to vibration will depend on their individual sensitivity as well as the amplitude and frequency of the source (**Appendix L**).

Vibration can be described in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration in terms of velocity in inches per second peak particle velocity (IPS, PPV) or root-mean-square velocity in decibels (VdB, RMS). Standards pertaining to perception as well as damage to structures have been developed for vibration in terms of peak particle velocity as well as RMS velocities. In terms of RMS velocities, vibration levels below approximately 65 VdB are typically considered to be below the threshold of perception (**Appendix L**).

As vibrations travel outward from the source, they excite the particles of rock and soil through which they pass and cause them to oscillate. Differences in subsurface geologic conditions and distance from the source of vibration will result in different vibration levels characterized by different frequencies and intensities. In all cases, vibration amplitudes will decrease with increasing distance. At high enough amplitudes, ground vibration has the potential to damage structures and/or cause cosmetic damage. Ground vibration can also be a source of annoyance to individuals who live or work close to vibration-generating activities. However, traffic, rarely generates vibration amplitudes high enough to cause structural or cosmetic damage (**Appendix L**).

## HAZARDOUS MATERIALS AND HAZARDS— SECTION 3.12 OF THE EA/TEIR

### Federal

#### **Resource Conservation and Recovery Act**

The Resource Conservation and Recovery Act (RCRA) regulates the land disposal of hazardous materials from cradle-to-grave. This means establishing a regulatory framework for the generation, transport, treatment, storage and disposal of hazardous waste. Specifically, Subtitle D of RCRA pertains to non-hazardous solid waste and Subtitle C focuses on hazardous solid waste. A solid waste can consist of solids, liquids and gases, but these must be discarded in order to be considered waste. Additionally, the USEPA has developed regulations to set minimum national technical standards for how disposal facilities should be designed and operated. States issue permits to ensure compliance with USEPA and state regulations. The regulated community is comprised of a diverse group that must comprehend and adhere to RCRA regulations. These groups can consist of hazardous waste generators, government agencies, small businesses, and gas stations with underground petroleum tanks.

#### **Food, Drug, and Cosmetic Act**

Under the federal Food, Drug, and Cosmetic Act, the USEPA sets maximum residue limits, or tolerances, for pesticides residues on food. When the USEPA sets a tolerance level for a food, this is the level deemed safe. In defining safe, this means that, "reasonable certainty that no harm will result from aggregate exposure to the pesticide residue." When determining a safety finding for a tolerance level, the USEPA considers the toxicity of the pesticide and its break-down products, aggregate exposure to the pesticide in foods and from other sources of exposure if applicable, and any special risks specific to infants and children. If a tolerance is not set for a



pesticide residue, a food containing that pesticide residue will be subject to government seizure if deemed appropriate. However, once a tolerance has been established for a pesticide residue, then residue levels below the tolerance will not trigger enforcement actions. If the residue level is detected above that tolerance, then the commodity will be subject to seizure. Some pesticides do not have a set tolerance level as the USEPA may grant exemptions in the cases where the pesticide residue does not pose, under foreseeable situations, a significant dietary risk.

## **Insecticide, Fungicide, and Rodenticide Act**

The federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) addresses the sale, distribution, and labeling of pesticides, as well as the certification and training of pesticide applicators. FIFRA establishes recordkeeping and reporting requirements on certified applicators of restricted use pesticides. Furthermore, FIFRA imposes storage, disposal, and transportation requirements on registrants and applicants for the registration of pesticides. Pesticide use is regulated through requirements to apply pesticides in a manner consistent with the label. The labeling requirement includes directions for use, warnings, and cautions along with the uses for which the pesticide is registered (e.g., pests and appropriate applications). This includes the specific conditions for the application, mixture, and storage of the pesticide. Additionally, the label must specify a time period for re-entry into an area after the pesticide has been applied, and when crops may be harvested after the application of the pesticide. If a pesticide is used in a manner contrary to specifics on its label, then the use constitutes a violation of the FIFRA.

## **Hazardous Communication Standard**

The Occupational Safety and Health Administration helps ensure employee safety by regulating the handling and use of chemicals in the workplace. For instance, it administers the Hazard Communication Standard (HCS). The HCS ensures safety in the workplace concerning chemicals through requiring information to be provided and understood by workers about the identity and hazards associated with chemicals they may work with. This also requires that chemical manufactures and importers evaluate the hazards associated with the chemicals they create or import, and that these chemicals have proper labels and material safety data sheets concerning their hazards to others (e.g., customers). Downstream of the production, employers who utilize these hazardous chemicals in their workplaces are obligated to have labels and safety data sheets for their workers and to train them on the proper handling of these chemicals.

## **Hazardous Substances Act**

The Consumer Product Safety Commission has a limited role in regulating hazardous substances; it primarily deals with the labeling of consumer products through the federal Hazardous Substances Act (HSA). HSA only requires products that may at some point be in the presence of people's dwellings to be labeled, including during purchase, storage, or use. These labels must alert consumers of the potential hazards that the product may pose. However, in order for a product to be required for labelling, the product must be toxic, corrosive, flammable/combustible, an irritant, a strong sensitizer, or have the ability to generate pressure through decomposition, heat, or other means. Furthermore, the product must possess the ability to cause severe personal injury or substantial illness during or as a result of any customary or reasonably predictable handling or use, including reasonably foreseeable ingestion by children.

## Toxic Substances Control Act

The federal Toxic Substances Control Act (TSCA), as amended by the Frank R. Lautenberg Chemical Safety for the 21<sup>st</sup> Century Act, permits the USEPA to evaluate the potential risk from novel and existing chemicals and address unacceptable risks chemicals may have on human health and the environment. The USEPA oversees the production, importation, use, and disposal of certain chemicals. This includes the USEPA having the authority to require record keeping, reporting, and test requirements and restrictions associated with certain chemical substances and/or mixtures. However, certain groups of chemicals are excluded from TSCA consideration, including—but not limited to—food, drugs, cosmetics and pesticides. Examples of chemicals included in TSCA consideration are lead paint, asbestos, mercury, formaldehyde, and polychlorinated biphenyls.

## Emergency Planning and Community Right-to-Know Act

The federal Emergency Planning and Community Right-to-Know Act (EPCRA) is designed to assist local communities protect public health, safety, and the environment from chemical hazards. The Community Right-to-Know provisions help increase the public's knowledge and access to information on chemicals at individual facilities, their uses, and releases into the environment. The EPCRA also requires industry to report on the storage, usage, and releases of hazardous substances to federal, state, and local governments, and states and communities can use the information gained to improve chemical safety and protect public health and the environment.

## National Fire Protection Association Codes and Standards

The National Fire Protection Association (NFPA) publishes more than 300 consensus codes and standards intended to minimize the possibility and effects of fire and other risks, including, but not limited to (NFPA, 2022):

- NFPA 13 Standard for the Installation of Sprinkler Systems
- NFPA 72 National Fire Alarm and Signaling Code
- NFPA 88A Standard for Parking Structures
- NFPA 1660 Standard for Emergency, Continuity, and Crisis Management: Preparedness, Response, and Recovery
- NFPA 1140 Standard for Wildland Fire Protection

## State and Local

### California Building Code

The California Building Code (CBC) includes Fire Code Elements to reduce wildfire impacts including, but not limited to:

**CBC Chapter 7A:** This chapter applies specifically to building materials, systems and/or assemblies used in the exterior design and construction of new buildings located within a Wildland-Urban Interface Fire Area as defined in Section 702A. The Shiloh Resort and Casino Project lies within the Wildland-Urban Interface area described in the code. These are the minimum code standards that buildings will be built to provide an increased level of resiliency from wildfire impacts.

**CBC Section 703A.7:** Standards of Quality. The State Fire Marshal standards for exterior wildfire exposure protection listed below and as referenced in this chapter are located in the California Referenced Standards Code, Part 12 and Chapter 35 of this code.

**SFM Standard 12-7A-1:** Exterior Wall Siding and Sheathing. A fire resistance test standard consisting of a 150-kW intensity direct flame exposure for a 10-minute duration.

**SFM Standard 12-7A-2:** Exterior Windows. A fire resistance test standard consisting of a 150-kW intensity direct flame exposure for an 8-minute duration.

**SFM Standard 12-7A-3:** Horizontal Projection Underside A fire resistance test standard consisting of a 300-kW intensity direct flame exposure for a 10-minute duration.

**SFM Standard 12-7A-5:** Ignition-resistant Material. A generic building material surface burning flame spread test standard consisting of an extended 30-minute ASTM E84 or UL 723 test method as is used for fire-retardant-treated wood.

## **Sonoma County General Plan Public Safety Element**

The Sonoma County General Plan Public Safety Element contains goals, objectives, and policies to provide protection from wildland fire hazards including:

**GOAL PS-3:** Prevent unnecessary exposure of people and property to risks of damage or injury from wildland and structural fires.

**Objective PS-3.2:** Regulate new development to reduce the risks of damage and injury from known fire hazards to acceptable levels.

**Policy PS-3k:** Work with the California Department of Forestry and Fire Protection (CalFire) to identify areas of high fire fuel loads and take advantage of opportunities to reduce those fuel loads, particularly in Very High or High Fire Hazard Severity Zones.

**Policy PS-3l:** Require automatic fire sprinkler systems or other on-site fire detection and suppression systems in all new residential and commercial structures, with exceptions for detached utility buildings, garages, and agricultural exempt buildings.

The Sonoma County Multijurisdictional Hazard Mitigation Plan (MHMP) was last updated in 2021 and defines measures to reduce risks from natural disasters, including wildfire, in the Sonoma County Operational Area. The Sonoma County Operation Area consists of the entire County, including unincorporated areas, incorporated cities, and special purpose districts. The plan complies with federal and state hazard mitigation planning requirements to establish eligibility for funding under Federal Emergency Management Agency (FEMA) grant programs for all planning partners.

The MHMP identifies that home loss in wildland fires is primarily driven by two equally important factors: 1) the vulnerability of buildings that make them prone to ignition, and 2) The vegetative fuels within 100 feet of structures (the area referred to as defensible space). Mitigating large-scale loss of life and property can be achieved through using relatively well-established techniques of home hardening, defensible space, and vegetation management at the scale of whole communities and the natural landscapes that surround them.

## **Sonoma County Emergency Operations Plan**

The Sonoma County Emergency Operations Plan (EOP; Sonoma County, 2022) is intended to facilitate coordination between agencies and jurisdictions within Sonoma County while ensuring the protection of life, property, and the

environment during disasters. In accordance with California’s Standardized Emergency Management System (SEMS), this Plan provides the framework for a coordinated effort between partners and provides stability and coordination during a disaster. Operational Area emergency response operations will be led by hazard and/ or sector-specific Standard Operating Procedures (SOPs), developed and maintained by partner agencies that would normally lead that specific emergency operation. As a part of the shared responsibility in leading with current hazard-specific hazard plans, these SOPs, sometimes in the form of an annex, will be regularly updated by the responsible departments and agencies. These annexes include, but are not limited to:

- Evacuation Annex that outlines the strategies, procedures, and organizational structures to be used in managing coordinated, large-scale evacuations in the Sonoma County Operational Area (Sonoma County Department of Emergency Management, 2021a); and
- Community Alert and Warning Annex that establishes general and specific policies, procedures, and protocols for the use of Alert and Warning systems in the Sonoma County Operational Area during actual or potential emergencies that pose a significant threat to life or property (Sonoma County Department of Emergency Management, 2021b).

### **Town of Windsor General Plan**

The Town of Windsor General Plan Public Health and Safety Element contains goals and policies to provide protection from fire hazards including:

**Goal PHS-4: Fire Hazards:** Minimize the risks to lives and properties due to wildland fire hazards through education and an understanding of the natural environment

**Policy PHS-4.1 Fire Protection Design for New Development:** New development adjacent to heavily grassed and semi-arid hillsides shall be designed to minimize fire hazards to life and property, including the use of fire preventive site design (i.e., defensible space), landscaping and building materials, and fire suppression techniques

**Policy PHS-4.6 Project Review for Proposals in Fire Hazard Areas:** The Town shall require that fire hazards be identified during project review by comparing the project site against the fire hazard maps prepared by Cal Fire. Project sites that lie within the moderate to high hazard areas shall be subject to design modifications and conditions to minimize potential exposure to wildland fire.

### **Town of Windsor Riparian Corridor Wildfire Fuel Management Plan**

The Riparian Corridor Fuel Reduction Plan (Plan; Town of Windsor, 2020) was developed in response to the 2019 Kincadee Fire, to set priorities for riparian corridor fuel reduction, and to provide decisionmakers and the public with a plan for managing fire hazards in riparian corridors in Windsor. The Plan describes the Town’s approach to managing riparian corridor vegetation on Town-owned property to reduce the probability of wildfire ignition and reduce the intensity and rate of spread of wildfires. Three fuel reduction zones were delineated based on riparian corridor proximity to the wildland-urban interface (WUI), identified ember cast zones, and density of residential development.

- Zone 1 - High Priority = Residential areas and critical facilities adjacent to the WUI and Ember Cast Zone
- Zone 2 - Medium Priority = Residential areas and critical facilities NOT adjacent to the WUI and Ember Cast Zone
- Zone 3 - Low Priority = Areas adjacent to open space or other non-critical/non-residential use

Includes creek and storm ditch fuel reduction treatment that consists of:

- Reducing fuel load, consistent with resource agency restriction.
- Evaluating the need for fuel reduction in all creeks in Town.
- Removing fallen trees only if they will cause an obstruction.
- Trimming trees only if a canopy can be maintained.
- Avoiding disturbance of any creek beds.
- Providing photo-documentation (before and after photos of all work).

Sets forth the following best management practices for fuel reduction:

- Vegetation management is prohibited in the wetted channel (we wait until streams are dry to perform work)
- Vegetation removal is with hand tools; if a chain saw is needed to perform work, a tarp is used to contain any wood chips/debris
- No motorized vehicles are allowed in the channel
- Vegetation should not be removed from channel banks
- Large woody debris (downed logs and root wads) in the channel and banks should remain in place
- Debris jams (fallen trees) that block the channel causing obstruction are removed
- Vegetation management should be conducted in a manner that protects riparian habitat and water quality, including tree canopies that provide shade to the channel
- Vegetation removal is either conducted outside the bird nesting season (February 1 to August 15) or protection for nesting birds is provided
- Nesting bird mitigation consists of a field survey for bird nests by a qualified biologist prior to starting work and implementing appropriate avoidance buffers

## VISUAL RESOURCES – SECTION 3.13 OF THE EA/TEIR

### State and Local

#### *Sonoma County General Plan*

As described in the Open Space and Resource Conservation Element of the Sonoma County General Plan, community Separators are rural open space and agricultural and resource lands that separate cities and other communities, prevent sprawl, protect natural resources, and provide city and community identity by providing visual relief from continuous urbanization. The Project Site is within the Windsor-Larkfield-Santa Rosa Community Separator.

The Sonoma County General Plan Open Space and Resource Conservation Element contains goals, objectives, and policies to guide development within the County.

**GOAL OSRC-1:** Preserve the visual identities of communities by maintaining open space areas between cities and communities.

**Objective OSRC-1.1:** Preserve important open space areas in the Community Separators shown on Figures OSRC-5a through OSRC-5i of the Open Space and Resource Conservation Element.

**Objective OSRC-1.2:** Retain a rural character and promote low intensities of development in Community Separators. Avoid their inclusion in City Urban Growth Boundaries or Spheres of Influence. Avoid their inclusion within Urbans Service Areas for unincorporated communities.

**Objective OSRC-1.3:** Preserve existing groundwater recharge and stormwater detention areas within Community Separators.

**Objective OSRC-1.4:** Preserve existing specimen trees and tree stands within Community Separators.

**Policy OSRC-1b:** Avoid commercial or industrial uses in Community Separators other than those that are permitted by the agricultural or resource land use categories.

**Policy OSRC-1f:** Unless there are existing design guidelines that have been adopted for the affected area, require that new structures within Community Separators meet the following criteria:

- Site and design structures to take maximum advantage of existing topography and vegetation in order to substantially screen them from view from public roads. Minimize cuts and fills on hills and ridges;
- Minimize the removal of trees and other mature vegetation; avoid removal of specimen trees, tree groupings, and windbreaks;
- Where existing topography and vegetation would not screen structures from view from public roads, install landscaping consisting of native vegetation in natural groupings that fits with the character of the area in order to substantially screen structures from view. Screening with native, fire-retardant plants may be required;
- Design structures to use building materials and color schemes that blend with the natural landscape and vegetation;
- To the extent feasible, cluster structures on each parcel within existing built areas, and near existing natural features such as tree groupings;
- Utilities are underground where economically practical.;
- On hills and ridges, avoid structures that project above the silhouette of the hill or ridge against the sky as viewed from public roads, and substantially screen driveways from view where practical; and
- Minimize impervious surfaces and encourage groundwater recharge with effective design features and materials that allow stormwater infiltration and detention.

**GOAL OSRC-6:** Preserve the unique rural and natural character of Sonoma County for residents, businesses, visitors, and future generations.

**Objective OSRC-6.2:** Establish Rural Character as a primary criterion for review of discretionary projects, but not including administrative design review for single family homes on existing lots.

**Policy OSRC-6a:** Develop design guidelines for discretionary projects in rural areas, but not including administrative design review for single family homes on existing lots, that protect and reflect the rural character of Sonoma County. Use the following general design principles until these Design Guidelines are adopted, while assuring that Design Guidelines for agricultural support uses on agricultural lands are consistent with Policy AR-9h of the Agricultural Resources Element.

- New structures blend into the surrounding landscape, rather than stand out.

- Landscaping is included and is designed to blend in with the character of the area.
- Paved areas are minimized and allow for informal parking areas.
- Adequate space is provided for natural site amenities.
- Exterior lighting and signage are minimized.

### *Sonoma County Code of Ordinances*

The Sonoma County Code of Ordinances contains development criteria for new construction within the County. The Code of Ordinances includes specific development criteria for Community separators and scenic landscape units (Ord. No. 6252, § II (Exh. C), 12-4-2018; Ord. No. 5132 § 2, 1999; Ord. No. 4985 § 1(d), 1996; Ord. No. 4973 § 12(a), 1996; Ord. No. 4643, 1993). The Project Site is within a community separator. These development criteria include encourage the siting of new construction in inconspicuous areas, as well as the use of vegetation and natural landforms for visual screening. Additionally, the development criteria include clustering buildings, height limitations, and limited cut and fill.

Additionally, the Sonoma County Code of Ordinances contains general sign provisions. These provisions are intended to insure the stability and safeguarding of property values; to protect the investments, both public and private, in buildings and land; to preserve and improve the appearance of the county as a place to live and work; to encourage sound signing practices as an aid to business and for the information of the public; to prevent excessive and abusive signing; to reduce hazards and confusion to motorists and pedestrians; and to promote the public health, safety and general welfare (Ord. No. 4643, 1993).

### *Dark-Sky Association's Model Lighting Ordinance*

The International Dark-Sky Association and the Illuminating Engineering Society of North America have developed a Model Lighting Ordinance to address the need for strong, consistent outdoor lighting regulation in North America (IDA, 2011). The purpose of the Model Lighting Ordinance is to provide regulations for outdoor lighting that will:

- Permit the use of outdoor lighting that does not exceed the minimum levels specified in Illuminating Engineering Society recommended practices for night-time safety, utility, security, productivity, enjoyment, and commerce;
- Minimize adverse offsite impacts of lighting such as light trespass, and obtrusive light;
- Curtail light pollution, reduce skyglow and improve the nighttime environment for astronomy;
- Help protect the natural environment from the adverse effects of night lighting from gas or electric sources; and
- Conserve energy and resources to the greatest extent possible.

## REFERENCES

- BAAQMD, 2017. California Environmental Quality Act Air Quality Guidelines. May 2017. Available online at: [https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa\\_guidelines\\_may2017-pdf.pdf?la=en](https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en). Accessed August 2022.
- BAAQMD, 2022. *Justification Report: CEQA Thresholds for Evaluating the Significance of Climate Impacts From Land Use Projects and Plans*. April 2022. Available online at: <https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa-thresholds-2022/justification-report-pdf.pdf?la=en>. Accessed August 2022.
- Caltrans, 2013. Technical Noise Supplement to the Traffic Noise Analysis Protocol. Available online at: <https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tens-sep2013-a11y.pdf>. Accessed November 2022.
- CARB, 2016. Ambient Air Quality Standards. Available online at: [https://ww3.arb.ca.gov/research/aaqs/aaqs2.pdf?\\_ga=2.87751962.303363050.1579625124-566433660.1579625124](https://ww3.arb.ca.gov/research/aaqs/aaqs2.pdf?_ga=2.87751962.303363050.1579625124-566433660.1579625124). Accessed August 2022.
- CARB 2021. Current California GHG Emission Inventory Data, 2000-2019 GHG Inventory (2021 Edition). Available online at: <https://ww2.arb.ca.gov/ghg-inventory-data>. Accessed August 2022.
- CEQ, 1997. Environmental Justice Guidance Under the National Environmental Policy Act. Available online at: [https://www.energy.gov/sites/default/files/nepapub/nepa\\_documents/RedDont/G-CEQ-EJGuidance.pdf](https://www.energy.gov/sites/default/files/nepapub/nepa_documents/RedDont/G-CEQ-EJGuidance.pdf). Accessed November 2022.
- IDA, 2011. Model Lighting Ordinance. Available online at: [https://www.darksky.org/wp-content/uploads/bsk-pdf-manager/16\\_MLO\\_FINAL\\_JUNE2011.PDF](https://www.darksky.org/wp-content/uploads/bsk-pdf-manager/16_MLO_FINAL_JUNE2011.PDF). Accessed September 2022.
- Intergovernmental Panel on Climate Change, 2014. Climate change 2014 Synthesis Report Summary for Policymakers. Available online at: [https://www.ipcc.ch/site/assets/uploads/2018/02/AR5\\_SYR\\_FINAL\\_SPM.pdf](https://www.ipcc.ch/site/assets/uploads/2018/02/AR5_SYR_FINAL_SPM.pdf). Accessed August 2022.
- NFPA, 2022. List of NFPA Codes and Standards. Available online at: <https://www.nfpa.org/Codes-and-Standards/All-Codes-and-Standards/List-of-Codes-and-Standards#:~:text=NFPA%20publishes%20more%20than%20300,and%20used%20throughout%20the%20world>. Accessed November 2022.
- NOAA Fisheries, 2022a. Laws & Policies: Magnuson-Stevens Act. Available online at: <https://www.fisheries.noaa.gov/topic/laws-policies#magnuson-stevens-act>. Accessed September 2022.
- NOAA Fisheries, 2022b. Consultations for Essential Fish Habitat. Last updated April 29, 2022. Available online at: <https://www.fisheries.noaa.gov/national/habitat-conservation/consultations-essential-fish-habitat>. Accessed September 2022.
- Santa Rosa Plain Groundwater Sustainability Agency, 2022. Groundwater Sustainability Plan. Available online at: <https://santarosaplaingroundwater.org/gsp/>. Accessed September 2022.



- Sonoma County, 2022 Emergency Operations Plan. Available online at:  
<https://sonomacounty.ca.gov/Main%20County%20Site/Administrative%20Support%20%26%20Fiscal%20Services/Emergency%20Management/Documents/Sonoma-County-Emergency-Operations-Plan-English.pdf>. Accessed November 2022.
- Sonoma County Department of Emergency Management, 2021a. Sonoma County Operational Area Emergency Operations Plan Annex: Evacuation. Available online at:  
<https://sonomacounty.ca.gov/Main%20County%20Site/Administrative%20Support%20%26%20Fiscal%20Services/Emergency%20Management/Documents/Archive/Administration/Services/Documents/Sonoma-County-Operational-Area-Evacuation-Annex-FINAL-July-2021.pdf> Accessed November 2022.
- Sonoma County Department of Emergency Management, 2021b. Sonoma County Operational Area Emergency Operations Plan Annex: Community Alert and Warning. Available online at:  
<https://sonomacounty.ca.gov/Main%20County%20Site/Administrative%20Support%20%26%20Fiscal%20Services/Emergency%20Management/Documents/Archive/Administration/Services/2147553358/Sonoma-County-Op-Area-EOP-Annex-Alert-Warning-March-2021-FINAL.pdf>. Accessed November 2022.
- Town of Windsor, 2020. Riparian Corridor Wildfire Fuel Management Plan. Available online at:  
<https://www.townofwindsor.com/DocumentCenter/View/24987/Riparian-Corridor-Wildfire-Fuel-Management-Plan---Final>. Accessed November 2022.
- USEPA, 1995. Memorandum, Subject: Calculating Potential to Emit (PTE) for Emergency Generators. September 1995. Available online at: <https://www.epa.gov/sites/default/files/2015-08/documents/emgen.pdf>. Accessed August 2022.
- USEPA, 1998. Final Guidance for Incorporating Environmental Justice Concerns in EPA's NEPA Compliance Analysis. Available online at: [https://www.epa.gov/sites/default/files/2015-02/documents/ej\\_guidance\\_nepa\\_epa0498.pdf](https://www.epa.gov/sites/default/files/2015-02/documents/ej_guidance_nepa_epa0498.pdf). Accessed November 2022.
- USEPA, 2022. Nonattainment Areas for Criteria Pollutants (Green Book). Available online at: <https://www.epa.gov/green-book>. Accessed August 2022.
- USFWS, 2021. Birds of Conservation Concern 2021. Available online at:  
<https://www.fws.gov/sites/default/files/documents/birds-of-conservation-concern-2021.pdf>. Accessed September 2022.