4.9 Hazards and Hazardous Materials

This section describes the existing hazardous materials conditions of the project site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed project. The analysis included in this section is based on publicly available information referenced throughout this section and on the findings of the following documents, which are included as appendices to this environmental impact report (EIR):

- **Appendix G-1:** Phase I Environmental Site Assessment (Phase I ESA); prepared by AEI Consultants; dated May 4, 2023
- **Appendix G-2:** Limited Subsurface Investigation Report (Subsurface Investigation); prepared by AEI Consultants; dated May 17, 2023
- **Appendix G-3:** Phase II Environmental Site Assessment (Phase II ESA); prepared by Stantec; dated November 8, 2024
- **Appendix J-1:** Fire Behavior Analysis and Report (Fire Behavior Analysis) – Gateway Village, Irvine, California; prepared by FireSafe Planning Inc.; dated December 30, 2024

4.9.1 Existing Conditions

As discussed in Section 3.3, Environmental Setting, the project site currently consists primarily of active agricultural fields, with equipment storage and laydown areas in the northern portion of the project site. As noted in the Phase II ESA (Appendix G-3), the project site also includes multiple permanent and portable buildings, storage sheds, and unpaved roadways. Current and former tenants have included landscaping and agricultural operations. Past operations have also included the use of a gasoline underground storage tank (UST) and diesel UST, both of which have since been removed.

4.9.1.1 Previous Environmental Investigations

The boundaries of the previous investigations did not exactly match the current project site boundaries, as detailed below. However, based on the findings of the previous investigations, project site history, and information obtained during this analysis, it is not anticipated that environmental contamination is present that was not identified during previous investigations.

- The Phase I ESA (Appendix G-1) was completed on approximately 118 acres of land, which included 80 acres of the proposed project (referred to in the Phase I ESA as "Gateway"). The Phase I ESA project boundary did not include the narrow strip of project site south of Bee Canyon Access Road.
- The Subsurface Investigation (Appendix G-2) was completed on the current and former agricultural portions of the project site, which cover the majority of the project site; this did not include a small area off Jeffrey Road in the northeastern portion of the project site or the easternmost portion of the project site, which currently contains a landscaping equipment storage yard.
- The Phase II ESA (Appendix G-3) property boundary included the project site, except for the linear section south of Bee Canyon Access Road and the northeastern portion of the project site that currently contains a construction company.

The following findings on the project site resulting from past operations are summarized from the previous environmental investigations.

- **Former Agricultural Operations.** Soil sampling completed during the Subsurface Investigation and Phase II ESA confirmed the presence of organochlorine pesticides, specifically 4,4-DDE, 4,4-DDT, and endrin, and arsenic and lead in surface soils across the project site. Concentrations of organochlorine pesticides and lead identified in the Phase II ESA and the Subsurface Investigation do not exceed residential screening levels, specifically Environmental Screening Levels (ESLs) (SFB RWQCB 2019); however, one composite sample contained a combined concentration of 4,4-DDE and 4,4-DDT of 1.316 milligrams per kilogram (mg/kg), which exceeds the California hazardous waste criteria for soil disposal (1 mg/kg). As such, while soils do not exceed applicable screening levels for unrestricted development, off-site export and disposal will likely require additional soil handling measures. Detected arsenic concentrations were above residential ESLs but below typical background concentrations and are therefore considered within acceptable levels.
- **Former Fuel USTs.** Two former USTs, which were removed in 1998, were identified in the central portion of the project site. The soil around the former USTs was assessed during removal, then again under Orange County Health Care Agency (OCHCA) oversight in 2010.[1] Soil vapor samples were collected during the Phase II ESA in 2024. Soil vapor samples collected in the former UST had multiple volatile organic compounds (VOCs) that are associated with solvents and petroleum (including, but not limited to, chloroform, tetrachloroethylene, naphthalene, and tert-butyl alcohol), all of which were below residential ESLs (SFB RWQCB 2019). One detection of naphthalene of 3 micrograms per cubic meter (µg/m^3), was "slightly above" the residential ESL of 2.77 µg/m^3. The detection was at 15 feet below ground surface, and the other three soil vapor samples, collected in the same area at 5 and 15 feet below ground surface, had concentrations of 2 µg/m^3, which is below the residential ESL. The Phase II ESA determined that "the minor detection of naphthalene is not considered representative of soil vapor conditions at the site." The average detected concentration of naphthalene in soil vapor is 2.25 µg/m^3, which is also below the residential ESL. As such, soil and soil vapor samples did not identify petroleum or VOC contamination above acceptable levels. As with the pesticide-contaminated soils, soils may require special handling for off-site transport and disposal.
- **Soil Stockpiles.** Multiple soil stockpiles observed on the project site were investigated due to their unknown origin at the time of the Phase II ESA. Sampling results indicated the stockpiles did not contain contaminants of concern associated with past project site operations (organochlorine pesticides, arsenic, or lead). Additional information obtained during the Phase II ESA was used to determine that the stockpiles originated from a nearby residential development site.
- **Undocumented or Unknown Structures.** Based on the long commercial and agricultural history of the project site, the Phase II ESA identified the potential for previously undocumented and/or unknown subsurface structures or features. The Phase II ESA recommended that a soil management plan be prepared that provides protocols for proper identification and management of subsurface features, potential impacts, and proper notification requirements.
- **Former Orange County Shooting and Training Center.** The Phase I ESA discusses a cleanup site associated with the former Orange County Shooting and Training Center, which is located on the "Foothills" portion of the subject property evaluated during the Phase I ESA; the Foothills portion adjoined the current project site to the northeast. Operations at the Orange County Shooting and Training Center resulted in lead

[1] This cleanup site is identified on the State Water Resources Control Board GeoTracker database under "Modeno Gardens," 11911 Jeffrey Road, Case No. T10000017722).

contamination to soils in multiple areas; risk assessments conducted in 2013 and 2015 determined that remaining lead concentrations were above acceptable levels for future development; however, the proposed use of the project site at the time was "open space" and therefore potential risk was deemed acceptable. The cleanup case is currently open (as of January 2025) and is under Orange County and Santa Ana Regional Water Quality Control Board (RWQCB) oversight. The former range areas are at least 0.25 miles northeast of the project site, separated by agricultural land that is regularly disturbed and tilled. Based on this information, it is not expected that the former shooting ranges have resulted in lead contamination to the project site.

4.9.1.2 Hazardous Materials

Hazardous Material Use and Storage

As discussed in the Phase I ESA (Appendix G-1), the age of the on-site structures indicates there is a potential for asbestos-containing materials (ACM) and lead-based paints (LBP) to be present. In addition, other hazardous building materials may be present within on-site buildings. These may include polychlorinated biphenyls (PCBs) and mercury in old electrical equipment, as well as other universal wastes (e.g., batteries, fluorescent bulbs, halogen bulbs).

As also discussed in the Phase I ESA, multiple hazardous materials are used and stored on the project site, including petroleum products in drums and aboveground storage tanks, fertilizers, spray paints, herbicides and pesticides, methanol, and batteries. These materials are used for site operations, including farming, and are also staged in a construction storage yard.

Contaminated Sites

A search for contaminated sites was completed as part of the Phase I ESA, including those on the Cortese List compiled pursuant to California Government Code Section 65962.5. The Phase I ESA was conducted in 2023. Because sites are added to and removed from regulatory databases on a rolling basis, an updated search was completed in January 2025 as part of the analysis for this EIR. Databases reviewed as part of this analysis are summarized in Table 4.9-1. Results of the updated search were compared to the findings of the Phase I ESA, as discussed below.

Table 4.9-1. Online Database Listings

Database	Details
Department of Toxic Substances Control (DTSC) EnviroStor https://www.envirostor.dtsc.ca.gov/	The DTSC's data management system for tracking cleanup, permitting, enforcement, and investigation efforts at hazardous waste facilities and sites with known contamination or sites where there may be reasons for further investigation. This database includes both Cortese List sites (hazardous waste and substance sites listed pursuant to Health and Safety Codes 25220, 25242, 25356, and 116395) and non-Cortese List sites.
Regional Water Quality Control Board (RWQCB) GeoTracker http://geotracker.waterboards.ca.gov/	The California RWQCBs' data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis

Table 4.9-1. Online Database Listings

Database	Details
	on groundwater. GeoTracker contains records for sites that require cleanup, various unregulated projects, and permitted facilities. This database includes both Cortese List sites (leaking underground storage tank sites listed pursuant to California Health and Safety Code 25295) and non-Cortese List sites.
Cortese List Sites https://calepa.ca.gov/sitecleanup/corteselist/	The Cortese List is no longer maintained as a single list. Therefore, multiple databases are used to provide information that meets the Cortese List requirements. In addition to EnviroStor and GeoTracker, the Cortese List information website includes links to solid waste disposal sites with constituents above hazardous waste levels (California Water Code Section 13273[e] and 14 CCR Section 18051), active Cease and Desist Orders and Cleanup and Abatement Orders (California Water Code Sections 13301 and 13304), and hazardous waste facilities subject to corrective actions (California Health and Safety Code 25187.5).
California Environmental Protection Agency (CalEPA) https://siteportal.calepa.ca.gov/nsite/	The CalEPA Regulated Site Portal is a website that combines data about environmentally regulated sites and facilities in California into a single, searchable database and interactive map. Data sources include California Environmental Reporting System (CERS), EnviroStor, GeoTracker, California Integrated Water Quality System (CIWQS), and Toxics Release Inventory (TRI).
CalRecycle Solid Waste Information System (SWIS) https://www2.calrecycle.ca.gov/SolidWaste/Site/Search	The CalRecycle SWIS database contains information on solid waste facilities, operations, and disposal sites throughout California.

With the exception of the Stonegate Development site (discussed in the following paragraph), no new sites or findings were identified in the updated database search. Inclusive of the findings of the Phase I ESA and database search outlined in Table 4.9-1, no Cortese List sites were identified on the project site, nor were any Cortese List sites identified that could impact the environmental condition of the project site.

Stonegate Development. This site was identified as an "orphan site" in the Phase I ESA regulatory records search, which indicates that insufficient information was available to properly map the site. Current GeoTracker records include files pertaining to sampling and cleanup of soils contaminated with organochlorine pesticides prior to residential development (AEC 2014). Although GeoTracker plots this site on the project site, the cleanup files indicate that the site is actually located south and west of Portola Parkway, at the western-adjoining residential development. The environmental documents found indicate that impacted soils were removed during development of the residences. Based on the location and the current residential development, impacts from this site do not appear to have affected the environmental conditions of the project site.

Oil, Gas, and Methane

As further discussed in Section 4.9.2, Relevant Plans, Policies, and Ordinances, Orange County requires methane mitigation for any site within 100 feet of an oil or gas well, within 100 feet of an oil or gas field administrative boundary, or within 1,000 feet of a landfill. No oil or gas wells or oil field administrative boundaries were identified on or within 100 feet of the project site (CalGEM 2025). Additionally, no landfills were identified within 1,000 feet of the project site (CalRecycle 2025). The nearest landfill is the Frank R. Bowerman Landfill, which is approximately 1 mile east of the project site (CalRecycle 2025).

4.9.1.3 Schools

Currently there are no K–12 schools present within 0.25 miles of the project site. The nearest schools are Stonegate Elementary, at 100 Honors Street, and Eastwood Elementary, at 99 Meander Street, which are 0.26 and 0.47 miles from the project site, respectively (GreenInfo 2021). No pending schools in the City of Irvine were identified (CDE 2025).

4.9.1.4 Airports

The John Wayne Airport, at 18601 Airport Way in Santa Ana, is located approximately 7.25 miles west-southwest of the project site (AirNav 2025). The project site does not lie within the published airport influence area for John Wayne Airport (ALUC 2008).

The Federal Aviation Administration (FAA) provides an online tool to evaluate the need for notification under Title 14 of the Code of Federal Regulations (CFR), Part 77.9. Based on the findings of this online criteria, notification may be required for development on the project site, specifically in the southeastern corner of the project site (FAA 2024).

4.9.1.5 Emergency Response and Wildfire

In the Safety Element of the 2045 General Plan, the City of Irvine has analyzed multiple emergency scenarios that could result in the need to evacuate the City (City of Irvine 2024). Evacuation routes would be dependent on conditions following an emergency and would be determined by the City's Emergency Operations Center and first responders (City of Irvine 2024).

The project site is bordered by two existing thoroughfares, Jeffrey Road and Portola Parkway. Both roads connect to state highways within 1 to 2 miles of the project site, providing exit routes north, southwest, and southeast of the project site.

The northern portion of the project site is classified as a Very High Fire Hazard Severity Zone, located within a Local Responsibility Area. Fire response within the Local Responsibility Area is managed by Orange County Fire Authority. The project site also lies directly west of a Very High Fire Hazard Severity Zone within a State Responsibility Area. Fire response within State Responsibility Areas is managed by the California Department of Forestry and Fire Protection (CAL FIRE 2025). The nearest fire station is Orange County Fire Station 55, 4955 Portola Parkway, located approximately 0.75 miles north of the project site.

4.9.2 Relevant Plans, Policies, and Ordinances

Federal

Solid Waste Disposal Act/Federal Resource Conservation and Recovery Act of 1976 (Title 40 USC, Chapter 1, Subchapter I, Parts 260–265)

The Solid Waste Disposal Act, as amended and revised by the Resource Conservation and Recovery Act (RCRA), establishes requirements for the management of solid wastes (including hazardous wastes), landfills, USTs, and certain medical wastes. The statute also addresses program administration; implementation and delegation to the states; enforcement provisions and responsibilities; and research, training, and grant funding. Provisions are established for the generation, storage, treatment, and disposal of hazardous waste, including requirements addressing generator record keeping, labeling, shipping paper management, placarding, emergency response information, training, and security plans.

Universal Waste (Title 40 USC, Chapter 1, Subchapter I, Part 273)

This regulation governs the collection and management of widely generated waste, including batteries, pesticides, mercury-containing equipment, and lightbulbs. This regulation streamlines the hazardous waste management standards and ensures that such waste is diverted to the appropriate treatment or recycling facility.

Oil Pollution Prevention (Title 40 USC, Chapter 1, Subchapter D, Part 112)

Oil pollution prevention regulations require the preparation of a spill prevention, control, and countermeasure (SPCC) Plan if oil is stored in excess of 1,320 gallons in aboveground storage (or, if buried, more than 42,000 gallons). SPCC regulations place restrictions on the management of petroleum materials and therefore have some bearing on hazardous materials management.

National Emission Standard for Asbestos (Title 40 USC, Chapter 1, Subchapter C, Part 61 – National Emission Standards for Hazardous Air Pollutants, Subpart M)

This regulation established National Emission Standards for Hazardous Air Pollutants (NESHAP) and names ACM as one of these materials. ACM is defined as materials containing more than 1% asbestos. ACM use, removal, and disposal are regulated by the U.S. Environmental Protection Agency (EPA) under this law. In addition, notification of friable ACM (ACM that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure) removal prior to a proposed demolition project is required by this law.

Emergency Planning and Community Right-to-Know Act (Title 42 CFR, Chapter 116)

The Emergency Planning and Community Right-to-Know Act provides for public access to information about chemical hazards. The act and its regulations (included in 40 USC Parts 350–372) establish four types of reporting obligations for facilities storing or managing specified chemicals: emergency planning, emergency release notification, hazardous chemical storage reporting requirements, and toxic chemical release inventory. EPA maintains a database, termed the Toxic Release Inventory, which includes information on reportable releases to the environment.

Toxic Substances Control Act of 1976 (Title 15 USC, Chapter 53, Subchapter I, Section 2601 et seq.)

The Toxic Substances Control Act of 1976 empowers EPA to require reporting, record-keeping, and testing, as well as to place restrictions on the use and handling of chemical substances and mixtures. This regulation phased out the use of asbestos and ACM in new building materials and also sets requirements for the use, handling, and disposal of ACM as well as for LBP waste. As discussed previously, EPA has also established NESHAP that govern the use, removal, and disposal of ACM as a hazardous air pollutant, mandate the removal of friable ACM before a building is demolished, and require notification before demolition. In addition to asbestos, ACM, and LBP requirements, this regulation also banned the manufacturing of PCBs and sets standards for the use and disposal of existing PCB-containing equipment or materials.

Regional Screening Levels

The federal EPA provides regional screening levels (RSLs) for chemical contaminants to provide comparison values for residential and commercial/industrial exposures to soil, air, and tap water (drinking water). RSLs are available on the EPA website and provide a screening level calculation tool to assist risk assessors, remediation project managers, and others involved with risk assessment and decision-making. RSLs are also used when a site is initially investigated to determine if potentially significant levels of contamination are present to warrant further investigation. In California, the Department of Toxic Substances Control (DTSC) Human and Ecological Risk Office (HERO) incorporated the EPA RSLs into the HERO human health risk assessment. HERO created Human Health Risk Assessment (HHRA) Note 3, which incorporates HERO recommendations and DTSC-modified screening levels (DTSC-SLs) based on review of the EPA RSLs. The DTSC-SLs should be used in conjunction with the EPA RSLs to evaluate chemical concentrations in environmental media at California sites and facilities.

U.S. Department of Labor, Occupational Safety and Health Administration

Safety and Health Regulations for Construction (Title 29 USC, Part 1926 et seq.)

These standards require employee training; personal protective equipment; safety equipment; and written procedures, programs, and plans for ensuring worker safety when working with hazardous materials or in hazardous work environments during construction activities, including renovations and demolition projects and the handling, storage, and use of explosives. These standards also provide rules for the removal and disposal of asbestos, lead, LBP, and other lead materials. Although intended primarily to protect worker health and safety, these requirements also guide general facility safety. This regulation also requires that an engineering survey be prepared prior to demolition.

Occupational Safety and Health Standards (Title 29 USC, Part 1910 et seq.)

Under this regulation, facilities that use, store, manufacture, handle, process, or move hazardous materials are required to conduct employee safety training, inventory safety equipment relevant to potential hazards, have knowledge on safety equipment use, prepare an illness prevention program, provide hazardous substance exposure warnings, prepare an emergency response plan, and prepare a fire prevention plan.

U.S. Department of Transportation

Shipping Papers (Title 49 USC, Part 172, Subchapter C)

The U.S. Department of Transportation has established standards for the transport of hazardous materials and hazardous wastes. The standards include requirements for labeling, packaging, and shipping hazardous materials and hazardous wastes, as well as training requirements for personnel completing shipping papers and manifests.

Federal Aviation Administration

Aeronautics and Space – Safe, Efficient Use, and Preservation of the Navigable Airspace (Title 14 USC, Chapter 1, Subchapter E, Part 77)

This regulation establishes requirements for notifying FAA of certain construction activities and alterations to existing structures to ensure that there are no obstructions to navigable airspace. For example, projects that include construction or alteration exceeding 200 feet in height above ground level are required to notify FAA.

Federal Response Plan

The Federal Response Plan of 1999, as amended in 2003 (FEMA 2003) is a signed agreement among 27 federal departments and agencies, including the American Red Cross, that (1) provides the mechanism for coordinating delivery of federal assistance and resources to augment efforts of state and local governments overwhelmed by a major disaster or emergency; (2) supports implementation of the Robert T. Stafford Disaster Relief and Emergency Act, as well as individual agency statutory authorities; and (3) supplements other federal emergency operations plans developed to address specific hazards. The Federal Response Plan is implemented in anticipation of a significant event likely to result in a need for federal assistance or in response to an actual event requiring federal assistance under a presidential declaration of a major disaster or emergency.

International Fire Code

The International Fire Code (IFC), created by the International Code Council, is the primary means for authorizing and enforcing procedures and mechanisms to ensure the safe handling and storage of any substance that may pose a threat to public health and safety. The IFC regulates the use, handling, and storage requirements for hazardous materials at fixed facilities. The IFC and the International Building Code use a hazard classification system to determine what measures are required to protect against structural fires. These measures may include construction standards, separations from property lines, and specialized equipment. To ensure that these safety measures are met, the IFC employs a permit system based on hazard classification. The IFC is updated every 3 years.

State

California Unified Program for Management of Hazardous Waste and Materials

Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (California Health and Safety Code, Division 20, Chapter 6.11, Sections 25404–25404.9)

Under the California Environmental Protection Agency, DTSC and the Enforcement and Emergency Response Program administer the technical implementation of California's Unified Program, which consolidates the administration, permit, inspection, and enforcement activities of several environmental and emergency management programs at the

local level. Certified Unified Program Agencies (CUPAs) implement the hazardous waste and materials standards. This program was established under the amendments to the California Health and Safety Code (HSC) made by Senate Bill 1082 in 1994. The programs that make up the Certified Unified Program are as follows:

- Aboveground Petroleum Storage Act Program
- Area Plans for Hazardous Materials Emergencies
- California Accidental Release Prevention (CalARP) Program
- Hazardous Materials Release Response Plans and Inventories (Hazardous Materials Business Plans [HMBPs])
- Hazardous Material Management Plan and Hazardous Material Inventory Statements
- Hazardous Waste Generator and On-Site Hazardous Waste Treatment (Tiered Permitting) Program
- Underground Storage Tank Program

The CUPA for the project site is Orange County Environmental Health, a division of OCHCA.

Business and Area Plans (Title 19 CCR, Chapter 2, Subchapter 3, Sections 2729–2734/California HSC Division 20, Chapter 6.95, Sections 25500–25520)

This regulation requires the preparation of an HMBP by facility operators. The HMBP identifies the hazards, storage locations, and storage quantities for each hazardous chemical stored on site. The HMBP is submitted to the CUPA for emergency planning purposes. The project site is currently subject to these requirements and an HMBP is in place.

Hazardous Waste Management

Environmental Health Standards for the Management of Hazardous Waste (Title 22 CCR, Division 4.5)

In the State of California, DTSC regulates hazardous wastes. These regulations establish requirements for the management and disposal of hazardous waste in accordance with the provisions of the California Hazardous Waste Control Act and the federal RCRA. As with federal requirements, waste generators must determine if their wastes are hazardous according to specified characteristics or lists of wastes. Hazardous waste generators must obtain identification numbers; prepare manifests before transporting waste off site; and use only permitted treatment, storage, and disposal facilities. Standards also include requirements for recordkeeping, reporting, packaging, and labeling. Additionally, although it is not a federal requirement, California requires that hazardous waste be transported by registered hazardous waste transporters.

In addition, Chapter 31: Waste Minimization, Article 1: Pollution Prevention and the Hazardous Waste Source Reduction and Management Review of these regulations requires that generators of 12,000 kilograms/year of typical, operational hazardous waste evaluate their waste streams every 4 years and, as applicable, select and implement viable source reduction alternatives. This act does not apply to non-typical hazardous waste, including ACM and PCBs, among others.

California Hazardous Waste Control Act of 1972 (Title 22 California HSC, Division 20, Chapter 6.5)

This legislation created the framework under which hazardous wastes must be managed in California. It provides for the development of a state hazardous waste program (regulated by DTSC) that administers and implements the provisions of the federal RCRA program. It also provides for the designation of California-only hazardous wastes and development of standards that are equal to or, in some cases, more stringent than, federal requirements. The CUPA is responsible for implementing some elements of the law at the local level.

DTSC-Modified Screening Levels (HHRA Note 3)

HHRA Note 3 presents recommended screening levels (derived from the EPA RSLs using DTSC-modified exposure and toxicity factors) for constituents in soil, tap water, and ambient air. The DTSC-SLs should be used in conjunction with the EPA RSLs to evaluate chemical concentrations in environmental media at California sites and facilities.

Aboveground and Underground Petroleum Storage Tanks

Aboveground Petroleum Storage Act (Title 22 California HSC, Division 20, Chapter 6.67, Sections 25270–25270.13)

This law applies if a facility is subject to SPCC regulations under Title 40 USC Part 112, or if the facility has 10,000 gallons or more of petroleum in any combination of ASTs and connecting pipes. If a facility exceeds these criteria, it must prepare an SPCC plan.

Low-Threat UST Case Closure Policy

This policy applies to petroleum UST sites subject to Chapter 6.7 of the California HSC. This policy establishes both general and media-specific criteria. If both the general and applicable media-specific criteria are satisfied, then the leaking UST case is generally considered to present a low threat to human health, safety, and the environment. This policy recognizes, however, that even if all of the specified criteria in the policy are met, there may be unique attributes of the case or site-specific conditions that increase the risk associated with the residual petroleum constituents. In these cases, the regulatory agency overseeing corrective action at the site must identify the conditions that make case closure under the policy inappropriate.

The RWQCBs and local agencies have been directed to review all cases in the petroleum UST Cleanup Program using the framework provided in this policy. These case reviews shall, at a minimum, include the following for each UST case:

1. Determination of whether each UST case meets the criteria in this policy or is otherwise appropriate for closure based on a site-specific analysis.
2. If the case does not satisfy the criteria in this policy or does not present a low risk based on a site-specific analysis, impediments to closure shall be identified.
3. Each case review shall be made publicly available on the State Water Resources Control Board's GeoTracker website in a format acceptable to the Executive Director.

Environmental Cleanup Levels

Environmental Screening Levels

ESLs provide conservative screening levels for over 100 chemicals found at sites with contaminated soil and groundwater. They are intended to help expedite the identification and evaluation of potential environmental concerns at contaminated sites. The ESLs were developed by the San Francisco Bay Regional Water Quality Control Board; however, they are used throughout the state. Although ESLs are not intended to establish policy or regulations, they can be used as a conservative screening level for sites with contamination. Other agencies in California currently use the ESLs (as opposed to RSLs). In general, the ESLs could be used at any site in the State of California, provided all stakeholders agree (SFB RWQCB 2019). Recently, regulatory agencies in various

regions have used ESLs as regulatory cleanup levels. The ESLs are not generally used at sites where the contamination is solely related to a leaking underground storage tank; those sites are instead subject to the Low-Threat Underground Storage Tank Closure Policy.

California Integrated Waste Management Board

Electronic Waste Recovery and Recycling Act of 2003 (Title 14 CCR, Division 7, Chapter 8.2)

This regulation sets requirements regarding the use and disposal of hazardous substances in electronics. When discarded, the following materials manufactured before 2006 are considered hazardous waste by DTSC: cathode ray tube devices, liquid crystal display (LCD) desktop monitors, laptop computers with LCD displays, LCD televisions, plasma televisions, and portable DVD players with LCD screens.

California Green Building Code

CALGreen (Title 24 CCR Part 11)

Under the California Green Building Code (CALGreen) and Senate Bill 1383, all new demolition and construction projects are required to divert at least 65% of their debris away from landfills by means of reuse or recycling. This waste diversion requirement applies to both demolition and construction activities and operations. For multi-family housing, dedicated space and receptacles must be provided to help administer waste diversion, such as compost and recycling areas and dumpsters. Local permitting jurisdictions may also require waste management plans be submitted for review prior to issuance of permits.

California Department of Transportation/California Highway Patrol

Motor Carrier Safety (Title 13 CCR, Division 2, Chapter 6)

California regulates the transportation of hazardous waste originating or passing through the state. The California Highway Patrol (CHP) and the California Department of Transportation (Caltrans) have primary responsibility for enforcing federal and state regulations and responding to hazardous materials transportation emergencies. CHP enforces materials and hazardous waste labeling and packing regulations that prevent leakage and spills of material in transit and provides detailed information to cleanup crews in the event of an incident. Vehicle and equipment inspection, shipment preparation, container identification, and shipping documentation are all part of the responsibility of CHP. CHP conducts regular inspections of licensed transporters to ensure regulatory compliance. Caltrans has emergency chemical spill identification teams at locations throughout the state. Hazardous waste must be regularly removed from generating sites by licensed hazardous waste transporters. Transported materials must be accompanied by hazardous waste manifests.

Occupational Safety and Health

Safety Orders (Title 8 CCR)

Under the California Occupational Safety and Health Act of 1973, the California Occupational Safety and Health Administration (Cal/OSHA) is responsible for ensuring safe and healthy working conditions for California workers. Cal/OSHA assumes primary responsibility for developing and enforcing workplace safety regulations in Title 8 of the CCR. Cal/OSHA hazardous substances regulations include requirements for safety training, availability of safety equipment, hazardous substance exposure warnings, and emergency action and fire prevention plan preparation.

Cal/OSHA also enforces hazard communication program regulations, which contain training and information requirements, including procedures for identifying and labeling hazardous substances. The hazard communication program also requires that Material Safety Data Sheets be available to employees and that employee information and training programs be documented.

In Division 1, Chapter 4, Subchapter 4 – Construction Safety Orders, of Title 8, construction safety orders are listed and include rules for demolition, excavation, explosives work, working around fumes and vapors, pile driving, vehicle and traffic control, crane operation, scaffolding, fall protection, and fire protection and prevention, among others.

The Cal/OSHA Asbestos and Carcinogen Unit enforces asbestos standards in construction, shipyards, and general industry. This includes identification and removal requirements of asbestos in buildings, as well as health and safety requirements for employees performing work under the Asbestos-In-Construction regulations at 8 CCR 1529. Only a Cal/OSHA-Certified Asbestos Consultant can provide asbestos consulting (as defined by the Business and Professions Code 7180–7189.7, and triggered by the same size and concentration triggers as for registered contractors). These services include building inspection, abatement project design, contract administration, supervision of site surveillance technicians, sample collection, preparation of asbestos management plans, and clearance air monitoring.

Asbestos and Air Quality

Enforcement of the NESHAP Regulation (California HSC Section 39658[b][1])

The California Air Resources Board is responsible for overseeing compliance with the federal Asbestos NESHAPs in Orange County. The Asbestos NESHAP Program enforces compliance with the federal NESHAPs regulation for asbestos and investigates all related complaints, as specified by California HSC Section 39658(b)(1). Of the 35 air districts in California, 16 do not have an asbestos program in place. In these “non-delegated” districts, a demolition/ renovation notification is required for compliance with the Asbestos NESHAP. (This notification is not equivalent to a permit.) The California Air Resources Board reviews and investigates the notifications. The Asbestos NESHAP Program also administers two annual statewide asbestos NESHAP task force meetings for air districts and EPA to facilitate communication and enforcement continuity, and it assists EPA in training district staff to enforce the Asbestos NESHAP.

Contractors State License Board

The California Department of Consumer Affairs Contractors State License Board manages the licensing of asbestos abatement contractors.

Lead-Based Paint

The California Department of Public Health enforces lead laws and regulations related to the prevention of lead poisoning in children, prevention of lead poisoning in occupational workers, accreditation and training for construction-related activities, lead exposure screening and reporting, disclosures, and limitations on the amount of lead found in products. Accredited lead specialists are required to find and abate lead hazards in a construction project and to perform lead-related construction work in an effective and safe manner. The specific regulations are described in the following subsections.

California HSC Sections 124125–124165

These sections of the California HSC declared childhood lead exposure as the most significant childhood environmental health problem in the state, establishing the Childhood Lead Poisoning Prevention Program and instructing it to continue to take steps necessary to reduce the incidence of childhood lead exposure in California.

California HSC Sections 105275–105310

These sections of the California HSC reaffirmed California's commitment to lead poisoning prevention activities; provided the California Department of Public Health with broad mandates on blood lead screening protocols, laboratory quality assurance, identification and management of lead exposed children, and reducing lead exposures.

California HSC Section 105250

This section of the California HSC establishes a program to accredit lead-related construction training providers and certify individuals to conduct lead-related construction activities.

California Civil Code Section 1941.1; California HSC Sections 17961, 17980, 124130, 17920.10, and 105251–105257

These regulations deem a building to be in violation of the State Housing Law if it contains lead hazards and require local enforcement agencies to enforce provisions related to lead hazards. They make it a crime for a person to engage in specified acts related to lead hazard evaluation, abatement, and lead-related constructions courses, unless certified or accredited by the California Department of Public Health. The regulations permit local enforcement agencies to order the abatement of lead hazards or issue a cease and desist order in response to lead hazards.

California Civil Code Sections 1102 to 1102.16

These sections of the Civil Code require the disclosure of known LBP hazards upon sale of a property.

California Labor Code Sections 6716–6717

These sections of the Labor Code provide for the establishment of standards that protect the health and safety of employees who engage in lead-related construction work, including construction, demolition, renovation, and repair.

California HSC Sections 116875–116880

These sections of the California HSC require the use of lead-free pipes and fixtures in any installation or repair of a public water system or in a facility where water is provided for human consumption.

California HSC Sections 105185–105197

These sections of the California HSC establish an occupational lead poisoning prevention program to register and monitor laboratory reports of adult lead toxicity cases, monitor reported cases of occupational lead poisoning to ascertain lead poisoning sources, conduct investigations of take-home exposure cases, train employees and health professionals regarding occupational lead poisoning prevention, and recommend means for lead poisoning prevention.

California Building Code – Chapter 7A

This chapter of the California Building Code establishes minimum standards for buildings located in any Fire Hazard Severity Zone within State Responsibility Areas or any Wildland-Urban Interface Fire Area to resist the intrusion of flames or burning embers ejected by a vegetation fire.

California Board of Forestry and Fire Protection 2010 Strategic Fire Plan for California

California Public Resources Code Sections 4114 and 4130 authorize the California Board of Forestry and Fire Protection to establish a fire plan that establishes the levels of statewide fire protection services for State Responsibility Area lands. These levels of service recognize other fire protection resources at the federal and local level that collectively provide a regional and statewide emergency response capability. In addition, California's integrated mutual aid fire protection system provides fire protection services through automatic and mutual aid agreements for fire incidents across all ownerships. The 2010 Strategic Fire Plan for California is the state's road map for reducing the risk of wildfire through planning and prevention to reduce firefighting costs and property losses, increase firefighter safety, and contribute to ecosystem health.

California State Fire Marshal, Title 19 CCR, Division 1, Chapter 10 – Explosives

This regulation addresses the sale, transportation, storage, use, and handling of explosives in California. Requirements for obtaining permits from the local Fire Chief having jurisdiction and blasting guidelines (such as blasting times, warning devices, and protection of adjacent structures and utilities) are also explained in Chapter 10 of Title 19.

California Emergency Services Act

Under the Emergency Services Act (California Government Code Section 8550 et seq.), the State of California developed an emergency response plan to coordinate emergency services provided by federal, state, and local agencies. Rapid response to incidents involving hazardous materials or hazardous waste is an integral part of the plan, which is administered by the Governor's Office of Emergency Services. The Office of Emergency Services coordinates the responses of other agencies, including EPA, CHP, RWQCBs, air quality management districts, and county disaster response offices.

California Accidental Release Prevention Program

Similar to the EPA Risk Management Program, the CalARP Program (19 CCR 2735.1 et seq.) regulates facilities that use or store regulated substances, such as toxic or flammable chemicals, in quantities that exceed established thresholds. Under the regulations, industrial facilities that handle hazardous materials above threshold quantities are required to prepare and submit an HMBP to the local CUPA via the California Environmental Reporting System. As part of the HMBP, a facility is further required to specify applicability of other state regulatory programs. The overall purpose of CalARP is to prevent accidental releases of regulated substances and reduce the severity of releases that may occur. The CalARP Program meets the requirements of the EPA Risk Management Program, which was established pursuant to the federal Clean Air Act Amendments.

California Dig Alert (California Government Code 4216)

In accordance with California Government Code 4216.2, an excavator planning to conduct an excavation shall notify the appropriate regional notification center of the intent to excavate at least 2 working days, and not more than 14 calendar days, prior to the start of excavation activities. When the excavation is proposed within 10 feet of a "high-

priority subsurface installation," which includes high-pressure natural gas and petroleum pipelines, the operator of the high-priority subsurface installation shall notify the excavator of the installation's existence. Then the operator shall set up an on-site meeting to determine actions required to verify the location of, and prevent damage to, the installation. The excavator shall not begin excavating until the on-site meeting is complete.

Local

Hazardous Materials

Orange County Health Care Agency – Environmental Health

OCHCA is the CUPA designated for the County of Orange by the Secretary for Environmental Protection. The CUPA is the local administrator for hazardous materials, business emergency plans, hazardous waste, USTs, aboveground petroleum storage tanks, and the CalARP Program. Additional information on the CUPA is discussed under "State" in this section under the subheading California Unified Program for Management of Hazardous Waste and Materials.

Waste Management and Hazardous Materials (Orange County Codified Ordinance, Section 7-9-146.4)

The County of Orange has specific requirements, in addition to the requirements of each district, for procedures and principles applicable to the use, storage, management, and disposal of hazardous materials. These procedures include disclosure prior to issuance of certificate of occupancy for commercial uses, waste management, and USTs.

South Coast Air Quality Management District

Rule 403 – Fugitive Dust

The South Coast Air Quality Management District (SCAQMD) requires compliance with Rule 403 to reduce the amount of particulate matter in ambient air resulting from man-made fugitive dust sources. These compulsory steps include monitoring and dust-reducing actions during activities that can generate dust, such as construction and earthwork.

Rule 1403 – Asbestos-Containing Materials

SCAQMD requires compliance with Rule 1403 for protection from ACM. These compulsory steps include surveys, notification, and proper abatement of ACM prior to renovation or any demolition.

Rule 1166 – Volatile Organic Compound Emissions from Decontamination of Soil

SCAQMD requires compliance with Rule 1166 to control emissions during excavation, grading, handling, and treating of VOC-contaminated soil.

Methane

Combustible Soil Gas Hazard Mitigation (Orange County Fire Authority, Community Risk Reduction Guideline C-03)

Orange County Fire Authority has provided guidance for investigation, remediation, and/or mitigation of potentially hazardous concentrations of combustible soil gases associated with construction and occupancy of a structure located within a specified methane risk area. The risk area is defined as within 100 feet of an administrative

boundary of an oil/gas field, within 100 feet of an active or abandoned oil/gas well (not within an administrative boundary), within 300 feet of any gas seepage zone, within 1,000 feet of the refuse footprint of any existing or new landfill, or any other location as determined by Orange County Fire Authority.

Emergency Response

Emergency Services (Orange County Codified Ordinance, Title 3, Division 1)

An emergency management council and emergency management manager are responsible for ensuring development of the Orange County Emergency Plan, which provides effective mobilization of resources, both public and private, in the County to meet conditions constituting a local or state emergency.

City of Irvine

Underground Storage Tanks

Under Bulletin No. 241 of the General Plan, a City building permit is required for installation of a UST. Additionally, under Bulletin No. 183, a grading permit is required for removal of a UST. Grading permits are also submitted to OCHCA, and the agency will also oversee removal efforts.

Construction and Demolition Debris Recycling and Reuse Ordinance – Waste Diversion

Under Ordinance 07-18, construction development, renovation, and demolition projects are required to recycle or reuse most of the debris generated by the project at levels consistent with CALGreen (discussed in this section under "State"). This regulation applies to construction of new residential buildings, remodeling or renovation of existing buildings that adds to the conditioned space, and other structures subject to building permits. Under this ordinance, residential projects are required to divert 75% of non-hazardous concrete and asphalt and 65% of all other construction, demolition, excavated soil, and land clearing debris. Forms and fees are administered by the City.

4.9.3 Thresholds of Significance

The significance criteria used to evaluate the project impacts related to hazards and hazardous materials are based on Appendix G of the CEQA Guidelines. According to Appendix G, a significant impact related to hazards and hazardous material would occur if the project would:

1. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
2. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.
3. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
4. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.

5. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, result in a safety hazard or excessive noise for people residing or working in the project area.
6. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
7. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.

4.9.4 Impacts Analysis

1. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less-Than-Significant Impact with Mitigation Incorporated. As discussed in Section 3.1, Project Overview, the proposed project would include 1,360 residential units, parks, paseos, and an extension of the Jeffrey Open Space Trail. Construction of the proposed project would require demolition of existing on-site structures, utilities, and related features. As discussed in Section 4.9.1.2, Hazardous Materials, on-site structures may contain hazardous building materials, such as asbestos, LBP, and universal wastes, and hazardous materials used for on-site operations, such as paints and petroleum products. If these materials are disturbed during demolition activities without proper abatement, they could result in a significant hazard to the public or environment through routine transport or disposal. Mitigation Measure (MM) HAZ-1 (Pre-Demolition Hazardous Materials Abatement; see Section 4.9.5, Mitigation Measures, for the full text of mitigation measures for hazards and hazardous materials) requires implementation of abatement procedures during demolition that include surveying of existing buildings for, and abatement of, asbestos- and lead-containing materials, PCB-containing items, universal wastes, and other hazardous materials. Stored hazardous materials, such as petroleum products, fertilizers, and paints, would be identified and either recycled or disposed of in accordance with state and local rules and regulations. Once the materials are abated, the buildings would be prepared for demolition. After demolition, the remaining materials would be sorted for reuse, recycling, and landfill disposal. Materials to be hauled off the project site would be transported in accordance with federal, state, and local laws and regulations. In accordance with CALGreen's diversion requirements and the City's Construction and Demolition Debris Recycling and Reuse Ordinance (07-18), at least 65% of construction and demolition debris will be recycled, reused, or otherwise diverted from landfill.

Hazardous materials that may be used during construction and demolition activities of the proposed project include gasoline, diesel fuel, oil, lubricants, grease, welding gases (e.g., acetylene, oxygen, and argon), solvents, paints, and explosives. These materials would be used and stored in designated construction staging areas within the boundaries of the project site and would be transported, handled, and disposed of in accordance with all applicable federal, state, and local laws and regulations. The use of these materials for their intended purpose would not pose a significant risk to the public or environment. Hazardous wastes accumulated during project construction may include unused or off-specification paint and primer, paint thinner, solvents, and vehicle and equipment maintenance–related materials, many of which can be recycled. Empty containers for such materials (e.g., drums and totes) may also be returned to vendors, if possible. Hazardous waste that cannot be recycled would be transported by a licensed hazardous waste hauler using a Uniform Hazardous Waste Manifest and would be disposed of at an appropriately permitted facility. As noted previously, in accordance with CALGreen's diversion requirements, at least 65% of

construction debris will be recycled, reused, or otherwise diverted from the landfill. The use of these substances is subject to applicable federal, state, and local health and safety laws and regulations that are intended to minimize health risk to the public associated with hazardous materials.

Also discussed in Section 4.9.1.1, Previous Environmental Investigations, and Section 4.9.1.2, Hazardous Materials, contaminated soils are present on the project site. These contaminants include organochlorine pesticides and possible undocumented or unknown subsurface contamination due to past commercial and agricultural use of the project site. While contamination levels are below residential screening levels for future use, soils do have concentrations that may characterize them as California hazardous waste for disposal purposes. Movement, transportation, and disposal of contaminated soils without proper characterization and management procedures could result in a significant hazard to the public or environment through routine transport or disposal without appropriate procedures. MM-HAZ-2 (Soil Management Plan; see Section 4.9.5) requires preparation and implementation of a soil management plan (SMP) that includes procedures for identification, characterization, management, and proper disposal of known and potentially contaminated soils, as well as health and safety measures for construction workers. The SMP will also include procedures for identification and management of unforeseen subsurface features or contamination that may be present on the project site due to past operations.

With implementation of MM-HAZ-1 and MM-HAZ-2, the identified potentially significant impacts would be reduced to less than significant with mitigation incorporated.

Once operational, the proposed project is not expected to create a significant hazard to the public or environment through the routine transport, use, or disposal of hazardous materials. Hazardous materials would be limited to use of commercially available cleaning products, landscaping chemicals and fertilizers, and various other commercially available substances. Although the project would introduce commercially available potentially hazardous materials (e.g., fertilizers and weed control chemicals associated with park maintenance operations) in the vicinity of future residents of and visitors to the project site, the use of these substances would be subject to applicable federal, state, and local health and safety laws and regulations that are intended to minimize health risk to the public associated with hazardous materials. Therefore, operational impacts related to hazardous materials would be less than significant.

2. Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less-Than-Significant Impact with Mitigation Incorporated. As identified previously, demolition of buildings without proper abatement of hazardous building materials could result in a release of hazardous materials to the environment. A release of hazardous building materials during demolition activities could create a significant hazard to the public or environment due to upset or accident conditions. Additionally, grading and excavation work during construction activities could occur in areas with contaminated soils. This work could result in a significant hazard to the public or environment due to a release of hazardous materials by means of releases of contaminated soils. MM-HAZ-1 and MM-HAZ-2, respectively, would mitigate these impacts by requiring appropriate abatement of hazardous materials in buildings before demolition and construction activities, and implementation of an SMP designed to identify, characterize, and manage contaminated or potentially contaminated soils during earthwork activities. Federal, state, and local rules and regulations have reporting and action requirements for releases of hazardous materials, and the SMP would outline proper procedures to avoid fugitive dusts and exposure to stormwater runoff,

further preventing accidental releases. Stormwater management requirements for construction would also include runoff prevention in the stormwater pollution prevention plan, as discussed in Section 4.10, Hydrology and Water Quality, of this EIR.

Also, as discussed previously, construction and demolition activities would require the use of hazardous materials and may result in the generation of hazardous wastes. State regulations (see Section 4.9.2) require preparation of an HMBP if quantities of hazardous materials and/or wastes stored on site exceed 55 gallons of liquid, 500 pounds of solid, or 200 cubic feet of gas. This HMBP would require training, emergency response procedures, and reporting to the local CUPA (OCHCA). Reported sites are subject to regulatory inspections that verify storage, labeling, reporting, and disposal and are conducted in accordance with applicable rules and regulations. Petroleum storage above 1,320 gallons also requires preparation of an SPCC Plan, and reporting through California's Aboveground Petroleum Storage Act, which requires secondary containment, spill prevention, and training for proper handling of petroleum products. With these regulatory requirements and implementation of MM-HAZ-1 and MM-HAZ-2, any potential for reasonably foreseeable upset or accident conditions to occur on site during demolition and construction activities would be less than significant with mitigation incorporated.

3. ***Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?***

No Impact. As discussed in Section 4.9.1.3, Schools, no current or proposed K–12 schools are within 0.25 miles of the project site. As such, the project would not emit hazardous emissions or handle hazardous materials near a school, and no impact would occur.

4. ***Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?***

No Impact. As discussed in Section 4.9.1.2, no sites listed pursuant to California Government Code Section 65962.5 (Cortese List sites) were identified on the project site, nor were any Cortese List sites identified that appear to impact the environmental condition of the project site. As such, the project would not create a significant hazard due to its presence on a Cortese List site, and no impact would occur.

5. ***For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?***

No Impact. As discussed in Section 4.9.1.4, Airports, the project site is not located within an airport land use plan, nor is it located within 2 miles of a public use airport. As such, the project would not result in a safety hazard or excessive noise for people within the project area, and no impact would occur.

6. ***Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?***

Less-Than-Significant Impact. As further discussed in Section 4.19, Wildfire, off-site improvements causing temporary lane closures would be completed in the first phase of construction. Lane closures would be completed prior to construction of the residential units. Therefore, construction activities are

not anticipated to impede evacuations during this period. Operation of the proposed project would increase the resident population that could require evacuation in the event of a wildfire emergency, but fire modeling outputs (see Appendix J-1, Fire Behavior Analysis) reveal that evacuation would only be required due to impacts of embers and smoke. With the City's Traffic Management Center's adjustments to traffic signals in real time and emergency personnel at intersections to guide evacuees in a real wildfire emergency, worst-case scenario evacuation times would be reduced, and emergency response and evacuation plans would not be significantly impacted. Impacts to adopted emergency response and evacuation plans would be less than significant.

7. Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

Less-Than-Significant Impact with Mitigation Incorporated. As further discussed in Section 4.19, the project site is located in a Very High Fire Hazard Severity Zone (VHFHSZ) and a Local Responsibility Area, and the proposed project could exacerbate wildfire risks, exposing people and structures to significant risk. During construction, MM-WF-1 (Pre-Construction Requirements) would ensure that utilities, site improvements, fire hydrants, all-weather roadway, and fuel modification zones are in place before combustibles are brought onto the project site. This, as well as adherence to City and state regulatory standards for wildfire safety, would reduce the risk of ignition and spread during construction activities. Operation of the proposed project would include a layered approach to wildfire mitigation, including ignition-resistant construction and vegetation and fire-resistant and irrigated landscaping, reducing the potential for ignition. Implementation of a wide fuel modification zone separating homes from unmaintained fuel; Zone 0 landscaping requirements; and Chapter 7A requirements would further reduce fuel load and ember and ignition sources. Implementation of MM-WF-2 (Fire-Resistant Landscape Plan) and homeowners' association maintenance would further reduce ignition sources, such as non-native plants. Electrical lines will be subterranean. With implementation of these mitigation measures, project modifications (such as subterranean electrical lines), and state and City-required actions (Zone 0 landscaping and Chapter 7A), the proposed project would not expose people or structures to significant risk of loss, injury, or death involving wildfires. Impacts would be less than significant with mitigation incorporated.

Impact Summary

On-site structures may contain hazardous materials and hazardous building materials, such as asbestos, lead-based paints, and universal wastes. If these materials are disturbed during demolition activities without proper abatement, they could result in a significant hazard to the public or environment through routine transport or disposal. Therefore, impacts related to creating a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials would be potentially significant, absent mitigation.

Due to the project's location within a VHFHSZ, construction and operation of the proposed project could exacerbate wildfire risks, exposing people and structures to significant risk. Impacts would be potentially significant, absent mitigation.

Other impacts relating to hazards and hazardous materials would be less than significant or would not occur.

4.9.5 Mitigation Measures

The following mitigation measures would address impacts regarding creation of a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials:

MM-HAZ-1 Pre-Demolition Hazardous Materials Abatement. Prior to issuance of a demolition and/or grading permit, the applicant or its designee shall ensure that demolition or renovation plans and contract specifications incorporate appropriate abatement procedures for the removal of materials containing asbestos, lead, polychlorinated biphenyls, hazardous material, hazardous wastes, petroleum and oil products, and universal waste items. Survey for and abatement of these materials must be completed by a licensed contractor in accordance with state regulations. Further, all abatement work shall be done in accordance with federal, state, and local regulations, including, but not limited to, those of the U.S. Environmental Protection Agency (which regulates disposal), federal Occupational Safety and Health Administration, U.S. Department of Housing and Urban Development, California Occupational Safety and Health Administration (which regulates employee exposure), California Department of Public Health (which certifies lead paint workers), and the South Coast Air Quality Management District.

MM-HAZ-2 Soil Management Plan. Prior to the issuance of a grading permit, the project applicant/developer or their designated contractor shall retain a qualified environmental consultant to prepare a soil management plan (SMP) that outlines the proper screening, handling, characterization, transportation, and disposal procedures for contaminated or potentially contaminated soils on site. The SMP shall include health and safety and training procedures for workers who may come in contact with contaminated soils. The SMP shall include on-site soil management requirements to avoid fugitive dust and stormwater runoff, including stockpile management, and response and reporting procedures in the event of a release of contaminated soils or violation of air quality or water quality rules (of the South Coast Air Quality Management District and Santa Ana Regional Water Quality Control Board, respectively). The SMP shall be implemented by the project applicant or their designated contractor for all confirmed and suspected contaminated soils that require excavation and off-site disposal. The SMP shall also include procedures for the identification and proper abandonment of underground storage tanks, piping, sumps, or other features, should any be identified during demolition and construction activities. The SMP shall include procedures to meet all applicable federal, state, and local regulations (including those of the Orange County Health Care Agency and South Coast Air Quality Management District) associated with handling, excavating, stockpiling, and disposing of contaminated soils; the proposed disposal facility that will accept the contaminated soils; and appropriate procedures, notifications, permitting requirements, handling, and disposal requirements for decommissioning any underground storage tanks.

The following mitigation measures for impacts due to wildfires would also reduce impacts relating to wildfire hazards (refer to Section 4.19.5 for the text of these measures):

- MM-WF-1 (Pre-Construction Requirements)
- MM-WF-2 (Fire Resistant Landscape Plan)

4.9.6 Level of Significance After Mitigation

Potentially significant impacts regarding creation of a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials would be addressed by abatement of hazardous materials prior to demolition and/or construction activities as required by MM-HAZ-1. With implementation of MM-HAZ-1, impacts associated with the presence of hazardous building materials (such as asbestos and LBP) and potential remaining hazardous materials within the buildings (such as petroleum products and paints) would be reduced to less than significant. These impacts would also be addressed by preparation and implementation of an SMP (MM-HAZ-2). The SMP would be prepared before earthwork activities occurred and would be implemented during all earthwork activities. With implementation of MM-HAZ-2, impacts associated with the presence of contaminated soils and potentially unforeseen contaminated soil or subsurface features (such as tanks or pipes) would be reduced to less than significant.

Impacts associated with wildfire hazards would be addressed by implementing safety requirements before construction, including establishment of temporary access roads, fuel modification zones, and phased site access as required by MM-WF-1, as well as introducing a fire-resistant landscape plan for operation of the project as required by MM-WF-2. With implementation of MM-WF-1 and MM-WF-2, impacts associated with exposure of people or structures to significant risk of loss, injury, or death, would be reduced to less than significant.

All other impacts would be less than significant or would not occur.

4.9.7 Cumulative Impacts

Impacts associated with hazardous materials, including environmental contamination and releases, are generally localized and specific to the project site in question. In addition, site redevelopment often results in a reduction of environmental contamination, if such exists, through soil removal and excavation activities and abatement of hazardous building materials. Through regulatory requirements and mitigation for each specific project, impacts are ultimately reduced and are not cumulative. Environmental regulations such as spill control requirements and hazardous material management regulations that are put in place to protect site-specific workers and occupants are also protective of nearby occupants and receptors.

Development and redevelopment activities have the potential to use hazardous materials or expose workers and the public to pre-existing contamination. However, these cumulative projects would be fully regulated per federal, state, and local requirements, thus reducing potential for public safety risks; therefore, cumulative impacts associated with exposure to hazards and hazardous materials would be less than significant. Additionally, through mitigation and compliance with regulatory requirements, the construction or operation of the proposed project itself would reduce the potential to combine with other project impacts to create a significant and cumulatively considerable environmental health or safety risks impact. Therefore, with implementation of MM-HAZ-1 and MM-HAZ-2, the proposed project would result in a less-than-cumulatively considerable contribution to cumulatively significant impacts related to hazards and hazardous materials.

4.9.8 References

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