

11 Hazards & Hazardous Materials

11.1 Introduction

This section describes effects of hazards and hazardous materials that would result from implementation of the proposed project. Information used to prepare this section came from the following resources:

- City of Brentwood General Plan Update, 2014
- City of Brentwood General Plan EIR, Draft Program Environmental Impact Report for the 2014 Brentwood General Plan Update, 2014
- ENGEO Incorporated, *Deer Ridge Golf Course Brentwood, California Phase I Environmental Site Assessment*, March 16, 2017, Revised October 11, 2017
- ENGEO Incorporated, *Shadow Lakes Golf Club Brentwood, California Phase I Environmental Site Assessment*, March 16, 2017, Revised October 11, 2017

11.2 Scoping Issues Addressed

Written comments and suggestions were provided by members of the public, organizations, and government agencies during the Notice of Preparation (NOP) scoping period conducted from August 4, 2017 through September 5, 2017. The following comments reflect the key issues identified during the NOP comment period regarding hazards and hazardous materials and are addressed in this section:

- Concern regarding gas pipelines running under the project site
- Concern regarding disposal of biohazardous waste

11.3 Environmental Setting

This section presents information on hazards and hazardous materials conditions on the proposed project site. The current condition was used as the baseline against which to compare potential impacts associated with implementation of the project.

The 2017 Phase I ESAs were conducted in accordance with (1) the United States Environmental Protection Agency (U.S. EPA) Standards and Practices for All Appropriate Inquiries ((AAI), 40 CFR Part 312) and (2) guidelines established by the American Society for Testing and Materials (ASTM) in the *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process / Designation E 1527-13* (ASTM Standard Practice E 1527-13). ASTM Standard Practice E 1527-13 defines a Recognized Environmental Condition (REC) as the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment;

or (3) under conditions that pose a material threat of a future release to the environment. No RECs were identified for the project site.

This section of the EIR incorporates the information contained within the 2017 Phase I Environmental Site Assessments (ESAs).

11.3.1 Present Use

The proposed housing facilities would be located on two, irregularly-shaped properties, with existing residential and golf uses located adjacent to each site. The Deer Ridge site is located on approximately 13 acres west of Foothill Drive, approximately $\frac{3}{4}$ mile south of Balfour Road. The Shadow Lakes site is located on approximately 18 acres north of Balfour Road, between West Country Club Drive and East Country Club Drive and located directly east of the existing Shadow Lakes clubhouse, located at 401 West Country Club Drive.

11.3.2 Past Uses

Deer Ridge

Based on review of historical aerial photographs and topographic maps, the majority of the Deer Ridge site and surrounding area appears to have been undeveloped from 1910 to the 1980s. Some shed-like structures were visible in the 1930 to 1950 photographs in the northern portion of the site. The structures appear to have been demolished, while land east of the Deer Ridge site was used for agricultural purposes in the 1960 photographs. The area surrounding the Deer Ridge site also contained orchards to the east and north. During the early 2000's, the Deer Ridge Golf Club and surrounding residential development occurred adjacent to the project site.

Shadow Lakes

Based on review of historical aerial photograph and topographic maps, the majority of the Shadow Lakes site and surrounding area appears to have been undeveloped from 1910 to the 1980s. Parcels surrounding the Shadow Lakes site are shown as undeveloped and several creeks are shown nearby. In the 1940 to 1970 maps, there are several more orchards approximately 0.5 mile east of the Shadow Lakes site. During the early 2000's, the Shadow Lakes Golf Club and surrounding residential development occurred adjacent to the project site.

11.3.3 Previous Site Investigations

2000 ENGEO Environmental Site Assessment Update, Deer Creek Sites, Villages H1A and H1B, Brentwood, California

In November 2000, ENGEO performed an Environmental Site Assessment Update which included the project site along with other phases of the Deer Creek Sites project. The project site had been rough graded in preparation for future development at the time of the site reconnaissance. A petroleum pipeline operated in partnership by Kinder-Morgan and SFPPP-LP was identified northeast of the subject site. In 1990, a leak was detected and underwent assessment. Given the

distance to the leak location and the local direction of the groundwater flow, it was not expected to impact the subject site. The assessment identified no RECs for the project site.

11.4 Existing Conditions

11.4.1 Current Operations and Conditions

Site Observations

During the site visit for the Phase I ESAs, the Deer Ridge Golf Club and the Shadow Lakes Golf Club, as well as the Deer Ridge Clubhouse, occupied the areas proposed for development. No wells or drums were found within the project site during the site visit.

Chemical Storage and Use

No significant quantities of hazardous materials were observed on the project site during the Phase I ESA. While no above-ground storage tanks or evidence of existing underground storage tanks were observed during the site visit, an area for storage and maintenance of electric golf carts was observed.

Odors

No odors indicative of hazardous materials or petroleum material impacts were detected at the time of the site visit.

Pits, Pools, Lagoons

No pits, ponds or lagoons were observed within the Deer Ridge site at the time of the site visit. A golf course pond feature was observed to be located at the southern portion of the Shadow Lakes site.

Polychlorinated Biphenyls

No polychlorinated biphenyls (PCB)-containing materials, including transformers, were observed within the project site during the site visit.

Asbestos

An asbestos and lead-based paint survey was not conducted as part of the Phase I ESA. Given the age of the existing structures, it is unlikely that asbestos-containing materials and lead-based paint materials may exist within the structures.

Indoor Air Quality

An evaluation of indoor air quality, mold, or radon was not included as part of the contracted scope of services for the Phase I ESAs. According to the Phase I ESAs, the California Department of Health Services has conducted studies of radon risks throughout the state, sorted by zip code. Results of the studies indicate that 5 tests were conducted within the Property zip code, with no tests exceeding the current EPA action level of 4 picocuries per liter.

In accordance with ASTM E2600-10 (Tier 1) (*Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions*); there are no potential petroleum hydrocarbon sources for vapor intrusion within 1/10 mile of the project site or volatile organic compound (VOCs) sources within 1/3 mile of the project site.

Other Potential Hazards

Other hazards that have the potential to impact the proposed project are wildland fire hazards and hazardous materials transported on nearby roadways. These potential hazards are further discussed below. Chapter 12 (Hydrology and Water Quality) discusses potential hazards related to dam failure and flooding.

Wildland Fire Hazards

Wildfires are large-scale brush and grass fires in undeveloped areas. Wildfires are often caused by human activities, such as equipment use and smoking, and can result in loss of valuable wildlife habitat, soil erosion, and damage to life and property. The level of wildland fire risk is determined by a number of factors, including:

- Frequency of critical fire weather;
- Percentage of slope;
- Existing fuel (vegetation, ground cover, building materials);
- Adequacy of access to fire suppression services; and
- Water supply and water pressure.

The California Department of Forestry and Fire Protection (CAL FIRE) has mapped the relative wildfire risk in areas of large population by intersecting residential housing density with proximate fire threat according to three risk levels, namely Moderate, High, and Very High. The City of Brentwood is categorized as a Local Responsibility Area by CAL FIRE and therefore, is not categorized as a Fire Hazard Severity Zone. However, areas immediately to the south and west of the Brentwood city line are categorized by CAL FIRE as a “Moderate” Fire Hazard Zone.

Airport Proximity

There are no private or public airport facilities within close proximity of the proposed project site. The nearest airport to the site is the Byron Airport, located approximately 7.5 miles to the southeast.

Brentwood Emergency Operations Plan

The objective of the Brentwood Emergency Operations Plan (EOP) is to provide a process for emergency management and response within the city in order to effectively to protect lives, property and the environment during disasters. The EOP is developed in accordance with the principles of the Governor’s Office of Emergency Services (Cal OES) Standardized Emergency

Management Systems (SEMS). The EOP identifies the City's emergency planning, organization, and response policies and procedures and incorporates a standardized structure in order to integrate the elements and functions of multiple agencies in the event of an emergency. The EOP identifies City actions in conjunction with a broad range of contingencies, spanning from relatively minor incidents to extraordinary events and large-scale disasters, from preparation through recovery. Departmental responsibilities and Standard Operating Procedures (SOPs) are identified as well as mechanisms for priority setting, interagency cooperation, and the efficient flow of resources and information. Underground Pipelines

According to the National Pipeline Mapping System (NPMS) on-line database, there are two active natural gas pipelines and two active liquid pipelines that traverse the project site. One of the natural gas pipelines is operated by the California Resources Center and runs east/west along Balfour Road, and then turns to the south along John Muir Parkway. The second natural gas pipeline is operated by Pacific Gas and Electric (PG&E) and bisects the project site from north to south. Kinder Morgan operates one of the liquid pipelines that runs east/west and is located north of Balfour Road. This pipeline contains non-highly volatile liquid (HVL). The second liquid pipeline contains crude oil and is operated by Chevron. This pipeline runs from the northwest to the southeast along the western portion of the proposed project site. There are no reported incidents or accidents reported for these pipelines within the project vicinity.

11.4.2 Environmental Records Review

As part of the Phase I ESAs, a review of Federal, State, and local regulatory agency databases provided by Environmental Data Resources (EDR) was conducted to evaluate the likelihood of contamination incidents at and near the project site. The database sources and the search distances are in general accordance with the requirements of ASTM E 1527-13.

On-Site Database Listings

The project site was not identified in the researched regulatory agency databases.

Adjoining Property Database Listings

The project site is not on the Federal, State, or local ASTM Standard or supplemental sources or databases. The project site is not listed in any of the reported environmental databases. The Phase I ESAs identified four nearby facilities on the database within the ASTM Standard minimum search radii. These nearby facilities are listed below:

- Former Brentwood Gun Club is located at 731 Concord Avenue. This facility is located approximately 287 feet east of the project site.
- 3rd Middle School is located at Balfour Road (potential future school site). The facility is located approximately 0.25 mile east of the project site.
- Verizon Wireless Balfour is located at 1951 Balfour Road. The facility is located 0.75 east of the project site.

- Shadow Lakes Golf LP is located at 401 W Country Club Drive. The facility is located adjacent to the project site.

Based on the information reviewed from identified database sites, regional topographic gradient, and the EDR findings, it is unlikely that these four nearby facilities would pose an environmental risk to the proposed project site.

City and County Agency File Review

During the preparation of the Phase I ESAs, ENGEO contacted the following public agencies pertaining to possible past development and/or activity at the project site: City of Brentwood City Clerk's Office; East Contra Costa Fire Protection District (ECCFPD); Contra Costa County Department of Conservation and Development, Building Inspection Division; Contra Costa County Department of Environmental Health (CCCDEH); Contra Costa County Health Services, Hazardous Materials Division; and Contra Costa County Assessor's Office.

City of Brentwood City Clerk's Office

As part of the Phase I Environmental Site Assessment, ENGEO contacted the Brentwood City Clerk's Office to check for files associated with the project site. On March 14, 2017, the Environmental Impact Report for the A. G. Spanos Brentwood Hills Country Club development from May 1992, was reviewed, which included the Deer Ridge Golf Club. The EIR mentions a possibility of groundwater contamination occurring from adjacent petroleum facilities. No further information regarding the groundwater impacts was provided. Based on other records research, ENGEO is not aware of documentation of groundwater impairments.

ENGEO was also provided with the Environmental Impact Report for the Hancock Fairway Palms Country Club development from April 1992, which included the Shadow Lakes Golf Club. The EIR mentions a possibility of groundwater contamination occurring from adjacent petroleum facilities. No further information regarding the groundwater impacts was provided. Based on other records research, there does not appear to be any other documentation of groundwater impairments.

East Contra Costa Fire Protection District (ECCFPD)

The ECCFPD reported that it did not have any documents related to the project site.

Contra Costa County Community Development Department

The Contra Costa County Community Development Department's "e-permit" website was used to check for files associated with the project site. The website had documents related to the project site including a permit for the repair and proposal of installation of an exhaust hood in the Deer Ridge Clubhouse in April 2004, and a permit for the Deer Ridge Clubhouse Header in July 2014. Contra Costa County Department of Conservation and Development, Building Inspection Division was contacted for additional information, but did not have any documents related to the project site.

Contra Costa County Department of Environmental Health (CCCDEH)

The CCCDEH reported that it did not have any documents related to the project site.

Contra Costa County Health Services, Hazardous Materials Division

The Contra Costa County Hazardous Materials Division of the CCCDEH was contacted to check for files related to the project site associated with fuel storage tanks (USTs and AST's) and the storage of hazardous materials. The daily use and container size of motor oil and diesel were provided in chemical inventory descriptions in 2016. No indications of substance releases or violations were noted.

Contra Costa County Assessor's Office

The Contra Costa County Assessor's Office reported that there have been several changes to the tax identification of the project site since 1983. For example, the parcel identified as APN 007-100-119 (Village One) was recently changed to 007-100-130 and 007-100-131.

California State Water Resources Control Board

The California State Water Resources Control Board (SWRCB)'s online database, GeoTracker, was reviewed for files relating to the project site and surrounding properties. No listings for the project site were identified in the database. However, the California SWRCB did report a 10-inch diameter petroleum pipeline and booster pump approximately 0.75 of a mile northeast of the site at Balfour Road and State Route 4. Kinder Morgan owns and operates the pipeline. The State is currently in construction on improvements to SR-4. In addition, Kinder Morgan recently relocated the booster pump station in the area.

In addition, EDR report indicated one Federal United States Geological Survey (USGS) water well is located within one mile of the project site. Well Number 1 is located approximately 0.75 mile southwest of the project site and historical groundwater level measurements for this well are reported to be 22 feet below the ground surface. The Department of Water Resources On-line Water Data Library was reviewed for depth to water in the vicinity or the project site. No groundwater data was available for this well.

Division of Oil, Gas and Geothermal Resources Map

To evaluate the presence of oil or gas wells on-site and in the immediate site vicinity, maps available on-line at the California Department of Conservation, Division of Oil, Gas, and Geothermal Resources (<http://www.consrv.ca.gov/dog>) were reviewed. Two oil/gas wells were located within 1 mile of the project site.

Interviews with Persons Knowledgeable of the Project Site

To assist in obtaining information on current and historical use of the project site, the current owner of the property completed environmental questionnaires provided during the preparation of the 2017 Phase I ESAs. The owner of the existing site did not identify potential environmentally

related issues with the project site and is unaware of commonly known, reasonably ascertainable, or specialized knowledge indicative of releases or threatened releases of material to the potential presence of RECs. The questionnaires also indicated that the current owner was not aware of any hazardous materials use or storage on the site.

11.4.3 Environmental Cleanup Liens/Activity and Use Limitations

An environmental lien is a financial instrument that may be used to recover past environmental cleanup costs. Activity and use limitations (AULs) include other environmental encumbrances, such as institutional and engineering controls. Institutional controls (ICs) are legal or regulatory restrictions on a property's use, while engineering controls (ECs) are physical mechanisms that restrict property access or use.

The regulatory agency database report review described in the Phase I ESAs did not identify the project site as being in (1) USEPA databases that list properties subject to land use restrictions (i.e., engineering and institutional controls) or Federal Superfund Liens or (2) lists maintained by the California Department of Toxic Substances Control (DTSC) of properties that are subject to AULs or environmental liens where the DTSC is a lien holder.

A title report prepared for the proposed project site did not identify current or previous owners, whose names would suggest the use, storage, or disposal of hazardous materials. The title report did not identify any environmental liens.

11.5 Applicable Regulations, Plans, and Standards

The management of hazardous materials and hazardous wastes is regulated at Federal, State, and local levels, including, among others, through programs administered by the U.S. Environmental Protection Agency (USEPA); agencies within the California Environmental Protection Agency (CalEPA), such as the Department of Toxic Substances Control (DTSC); Federal and State occupational safety agencies; and the Contra County Environmental Health Division. Regulations pertaining to flood hazards are discussed in Chapter 12 (Hydrology & Water Quality) and regulations for geologic and soil-related hazards are discussed in Chapter 9 (Geology and Soils).

At the Federal level, the USEPA is the principal regulatory agency, while at the State level, DTSC is the primary agency governing the storage, transportation, and disposal of hazardous wastes. The San Francisco RWQCB has jurisdiction over discharges into waters of the State. The Federal Occupational Safety and Health Administration (OSHA) and the State Cal-OSHA regulate many aspects of worker safety.

11.5.1 Federal

Toxic Substances Control Act/Resource Conservation and Recovery Act/Hazardous and Solid Waste Act

The Federal Toxic Substances Control Act of 1976 and Resource Conservation and Recovery Act (RCRA) established a program administered by the USEPA for the regulation of the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA was amended in 1984 by the Hazardous and Solid Waste Act (HSWA), which affirmed and extended the “cradle to grave” system of regulating hazardous wastes.

Comprehensive Environmental Response, Compensation, and Liability Act/Superfund Amendments and Reauthorization Act

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund, was enacted by Congress on December 11, 1980. This law (U.S. Code Title 42, Chapter 103) provides broad Federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. CERCLA establishes requirements concerning closed and abandoned hazardous waste sites; provides for liability of persons responsible for releases of hazardous waste at these sites; and establishes a trust fund to provide for cleanup when no responsible party can be identified. CERCLA also enables the revision of the National Contingency Plan (NCP). The NCP (Title 40, Code of Federal Regulation [CFR], Part 300) provides the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, and/or contaminants. The NCP also established the National Priorities List. CERCLA was amended by the Superfund Amendments and Reauthorization Act on October 17, 1986.

Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) and the National Priorities List

The USEPA also maintains the Comprehensive Environmental Response Compensation (CERCLIS) and Liability Information System list. This list contains sites that are either proposed to be on the National Priorities List (NPL), as well as sites that are in the screening and assessment phase for possible inclusion on the NPL. The NPL is a list of the worst hazardous waste sites that have been identified by Superfund. There are no NPL sites on the project site.

Emergency Planning and Community Right-to-Know Act

The Federal Emergency Planning and Community Right-To-Know Act (EPCRA) was enacted to inform communities and residents of chemical hazards in their area. Businesses are required to report the locations and quantities of chemicals stored on site to both State and local agencies. EPCRA requires the USEPA to maintain and publish a digital database list of toxic chemical releases and other waste management activities reported by certain industry groups and Federal facilities. This database, known as the Toxic Release Inventory, gives the community more power to hold companies accountable for their chemical management.

Hazardous Materials Transportation Act

The U.S. Department of Transportation (DOT) receives authority to regulate the transportation of hazardous materials from the Hazardous Materials Transportation Act, as amended and codified (49 U.S.C. 5101 et seq.). The DOT is the primary regulatory authority for the interstate transport of hazardous materials and establishes regulations for safe handling procedures (i.e., packaging, marking, labeling and routing).

In California, Section 31303 of the California Vehicle Code states that any hazardous material being moved from one location to another must use the route with the least travel time. This, in practice, means major roads and highways, although secondary roads are permitted to be used for local delivery. These policies are enforced by both the California Highway Patrol and the California Department of Transportation (Caltrans).

Clean Water Act/SPCC Rule

The Clean Water Act (CWA) (33 U.S.C. Section 1251 et seq., formerly the Federal Water Pollution Control Act of 1972), was enacted with the intent of restoring and maintaining the chemical, physical, and biological integrity of the waters of the United States. The CWA requires states to set standards to protect, maintain, and restore water quality through the regulation of point source and certain non-point source discharges to surface water. Those discharges are regulated by the National Pollutant Discharge Elimination System (NPDES) permit process (CWA Section 402). In California, NPDES permitting authority is delegated to, and administered by, the nine Regional Water Quality Control Boards (RWQCBs). The proposed project is within the jurisdiction of both the Central Coast RWQCB and the San Francisco Bay RWQCB.

Section 402 of the Clean Water Act authorizes the California SWRCB to issue NPDES General Construction Storm Water Permit (Water Quality Order 99-08-DWQ), referred to as the “General Construction Permit.” Construction activities can comply with and be covered under the General Construction Permit provided that they:

- Develop and implement a Storm Water Pollution Prevention Plan (SWPPP) which specifies Best Management Practices (BMPs) that will prevent all construction pollutants from contacting stormwater and with the intent of keeping all products of erosion from moving off-site into receiving waters;
- Eliminate or reduce non-stormwater discharges to storm sewer systems and other waters of the nation; and
- Perform inspections of all BMPs.

NPDES regulations are administered by the RWQCB. Projects that disturb one or more acres are required to obtain NPDES coverage under the Construction General Permits.

As part of the CWA, the USEPA oversees and enforces the Oil Pollution Prevention regulation contained in Title 40 of the CFR, Part 112 (Title 40 CFR, Part 112), which is often referred to as the “SPCC rule” because the regulations describe the requirements for facilities to prepare,

amend, and implement Spill Prevention and Countermeasures (SPCC) Plans. A facility is subject to SPCC regulations if a single oil (or gasoline, or diesel fuel) storage tank has a capacity greater than 660 gallons, the total above ground oil storage capacity exceeds 1,320 gallons, or the underground oil storage capacity exceeds 42,000 gallons, and if, due to its location, the facility could reasonably be expected to discharge oil into or upon the "Navigable Waters" of the United States.

Occupational Safety and Health Administration (OSHA)

Congress passed the Occupational and Safety Health Act (OSHA) to ensure worker and workplace safety. Their goal was to make sure employers provide their workers a place of employment free from recognized hazards to safety and health, such as exposure to toxic chemicals, excessive noise levels, mechanical dangers, heat or cold stress, or unsanitary conditions. To establish standards for workplace health and safety, OSHA also created the National Institute for Occupational Safety and Health as the research institution for the Occupational Safety and Health Administration. The Administration is a division of the U.S. Department of Labor that oversees the administration of OSHA and enforces standards in all states. OSHA standards are listed in Title 29 CFR Part 1910.

OSHA's Hazardous Waste Operations and Emergency Response Standard applies to five groups of employers and their employees. This includes any employees who are exposed or potentially exposed to hazardous substances (including hazardous waste) and who are engaged in clean-up operations; corrective actions; voluntary clean-up operations; operations involving hazardous wastes at treatment, storage, and disposal facilities; and emergency response operations.

Pipeline and Hazardous Materials Safety Administration

Natural gas pipelines and hazardous liquid pipelines are regulated for safety by the U.S. DOT, Pipeline and Hazardous Materials Safety Administration (PHMSA, formerly the Office of Pipeline Safety or OPS). Governing regulations for natural gas pipelines are found in 49 Code of Federal Regulations (CFR) 192 and for hazardous liquid pipelines in 49 CFR 195.

Conventional Gas Pipeline Risk-Informed Design Basis

Natural gas pipelines incorporate a risk-informed design basis that ties the pipe wall thickness and operating stress level (as a percentage of the specified minimum yield strength) to the density of development adjacent to the pipeline. This approach is embodied in the Location Class, which was introduced by ASME B31.8 and adopted by Federal pipeline safety standards. From the General Provisions of Part 840 "Design, Installation, and Testing" of ASME B31.8:

"The most significant factor contributing to the failure of a gas pipeline is damage to the line caused by the activities of people along the route of the line. Damage will generally occur during construction of other facilities associated with providing the services associated with human dwellings and commercial or industrial enterprises. These services, such as water, gas and electrical supply, sewage systems, drainage lines and ditches,

buried power and communication cables, streets and roads, etc., become more prevalent and extensive, and the possibility of damage to the pipeline becomes greater with larger concentrations of buildings intended for human occupancy. Determining the Location Class provides a method of assessing the degree of exposure of the line to damage.

A pipeline designed, constructed, and operated in accordance with the requirements of Location Class 1 ... is basically safe for pressure containment in any location; however, additional measures are necessary to protect the integrity of the line in the presence of activities that might cause damage. One of the measures required by this Code is to lower the stress level in relation to increased public activity. This activity is quantified by determining Location Class and relating the design of the pipeline to the appropriate design factor."

The description and limitations associated with various Location Classes are listed in Table 11-1 (Location Class Description, and Design Limits). Location Classes are defined by the density of development adjacent to and near the pipeline. Pipeline segments adjacent to more densely developed areas are restricted to lower operating stresses due to internal pressure than segments of the same pipeline adjacent to less developed areas. For a continuous pipeline of a given diameter, the reduction in stress level corresponding to more densely developed locations is achieved by installing heavier wall (or higher strength) pipe.

Class	Description	Criterion¹	Stress % of SMYS	Minimum Ratio, Test to Operating Pressure
1	Rural, unpopulated	< 11 buildings	72% max	1.10
2	Outskirts of populated area	11-45 buildings	60% max	1.25
3	Developed suburbs and commercial areas	46+ buildings	50% max	1.50
4	Urban, heavy traffic, tall buildings	buildings > 3 stories tall	40% max	1.50

Notes:

1. Number of buildings intended for human occupancy (e.g. a dwelling or workplace) within a reference area quarter mile wide centered on the pipeline and one mile long.

When an area adjacent to an existing Class 1 or Class 2 pipeline becomes Class 3, the operating pressure of the pipe in the Class-change location must be revalidated for the new Class designation, typically by retesting the pipe to a higher margin above its operating stress or by replacing it with heavier-wall or stronger-grade pipe. Retesting or replacement involves shutting down the pipeline, and interrupting continuous service. Because of the need to plan such events, the regulations allow 18 months to fulfill these requirements. The pipe does not need to be retested or replaced if the pipe has been previously tested to a sufficiently high margin, and the change in Class is only one Class increment. Alternatively, the operator may apply to the Pipeline and Hazardous Materials Safety Administration (PHMSA) for a waiver from the requirement to

retest or replace pipe in accordance with an established protocol which has been implemented elsewhere in the U.S. Under this scenario, the PHMSA may allow a line segment to operate more than "one Class out" contingent upon the pipe meeting certain criteria for overall quality of construction and condition of the pipe, and the operator implementing certain risk-based pipeline integrity management processes designed to assure that overall risk levels are no greater than meeting conventional requirements via pipe replacement.

Natural Gas Pipeline Integrity Management Plans

Natural gas pipelines located in designated HCAs must be subjected to formal Integrity Management Plans (IMP) under Part 192, Subpart O (49 CFR 192). The IMP process involves the following key components:

- Identification of HCAs;
- Determination of the length of pipeline segments affecting HCAs;
- Consideration of all attributes of a pipeline with respect to listed integrity threats;
- Performing risk assessment to identify risk-driving factors, prioritize HCA pipeline segments for condition assessment, select condition assessment methods, and weigh mitigation strategies;
- Assess the condition of the HCA pipeline segment with respect to the identified integrity threats;
- Respond to conditions identified by the condition assessment within specified time limits;
- Develop long-term mitigations to lower risk associated with identified integrity threats;
- Repeat assessments for time-dependent integrity threats at specified intervals;
- Apply findings from assessments in HCA's to segments of pipeline beyond the HCA's; and
- Develop plans for management of change, measurement of program effectiveness, continuous improvement, and communication.

The integrity threats are identified with respect to 21 failure root causes cataloged by pipeline incident reports made to the DOT. The threats are categorized as time-dependent if they can worsen over time, time-stable if they do not worsen, or time-independent if they occur randomly. The categorization establishes the strategy employed to assess the condition of the pipeline in terms of whether the assessment must be repeated periodically at some interval, is required onetime only, or should be primarily prevention-based, respectively.

The above rules apply to any pipeline segment adjacent to or which could affect an HCA. Nationwide, 20,109 miles, amounting to 6.7% of natural gas transmission pipelines, could affect HCAs and are therefore subject to formal IMP requirements. PG&E operates 1,031 miles amounting to 18 percent of its natural gas transmission pipeline system that are subject to IMP requirements.

Two methods to identify HCA pipeline segments are defined in Federal pipeline safety regulations. Method 1 includes all Class 3 and Class 4 areas, as well as identified indoor or outdoor sites located within a Potential Impact Radius (PIR) in Class 1 or Class 2 areas that result in concentrations of people on a regular basis, or where it would be difficult to evacuate people owing to the nature of the property use (e.g., a hospital). Method 2 includes anywhere that 20 or more buildings intended for human occupancy or identified sites occur within the PIR. Where the PIR exceeds 660 feet, the number of buildings is prorated to the area of a circle defined by the PIR. The pipeline operator may elect to apply either method; PG&E applies Method 2. The purpose of the PIR is specifically to define the length of the pipeline segment that could affect an adjacent identified site in the unlikely event that a pipeline rupture was to occur, based on the line's proximity to it.

In addition to defining the pipeline segment warranting a higher standard of care in managing the integrity of a pipeline throughout its life cycle (via IMP), the PIR may be useful toward those same goals when contemplating land uses adjacent to the pipeline. Recommendations for reducing risk through appropriate consideration of land uses adjacent to pipelines have been developed by Pipelines and Informed Planning Alliance (PIPA), an organization sponsored by the PHMSA for representing the spectrum of stakeholder interests in pipelines and community planning. PIPA recommends defining a "consultation zone" surrounding existing pipelines as a mechanism for communication and sharing of critical information between land developers and pipeline operators. PIPA also recommends defining a "planning area" for implementing additional measures in the activities of both the pipeline operator and the land developer to lower risk. The PIR is suggested for defining the width of each of these regions.

The PIR is not intended to define minimum setback distances inside of which development should be prohibited. In the words of the Transportation Research Board, using the PIR as a setback criterion only "considers the consequences of an event without accounting for its probability...and does not attempt to weigh the risk-reduction benefits of such a measure against the considerable cost that such a provision would entail."

Liquid Transportation Pipelines

Liquid transportation pipelines are required to implement prescriptive integrity management plans for segments that could affect HCAs, in accordance with 49 CFR 195.452. Nationwide, there are 77,865 miles of liquid transmission pipelines designated as HCA segments.

Liquid Transportation Pipelines Integrity Management

The IMP process for liquid pipelines is conceptually similar to that for natural gas pipelines, with some differences due to the nature of the transported product and its effects in the event of a release.

HCAs for liquid pipelines are defined based on whether a spill could cause pollution of water sources or environmentally sensitive areas, as well as the proximity to populated areas. Most of the pipeline integrity threats operative for natural gas pipelines are present with liquid pipelines,

but the concept of "stable defects" used with natural gas pipelines is not applicable to liquid pipelines due to their operational characteristics.

Federal regulations require liquid pipelines to be cathodically protected and the line's integrity must be assessed every seven years in HCAs in accordance with IMP requirements in Part 195 (49 CFR 195). Federal regulations specifically require that integrity threats be addressed in the integrity assessment process of the IMP.

No Minimum Setback Requirements

Federal pipeline safety regulations, including the Pipeline Safety, Regulatory Certainty, and Job Creation Act of 2011, and industry codes and standards establish no minimum setback requirements from natural gas or hazardous liquid underground pipelines.

AB 1511 - Real Property: Disclosures: Transmission Pipelines

Existing law requires certain natural hazard disclosures to be made upon the transfer of residential real property, as specified, and prescribes the manner and the form of the disclosures. Assembly Bill 1511 requires all contracts for the sale of residential real property entered into on or after July 1, 2013, to contain a specified notice pertaining to gas and hazardous liquid transmission pipelines. The bill provides that nothing in the notice requirement would alter any existing duty under any other statute or decisional law imposed upon the seller or broker of the residential real property, as specified. The following text describes the requirements of the bill:

SECTION 1. Section 2079.10.5 is added to the Civil Code, to read:

2079.10.5. (a) Every contract for the sale of residential real property entered into on or after July 1, 2013, shall contain, in not less than 8-point type, a notice as specified below:

NOTICE REGARDING GAS AND HAZARDOUS LIQUID TRANSMISSION PIPELINES

This notice is being provided simply to inform you that information about the general location of gas and hazardous liquid transmission pipelines is available to the public via the National Pipeline Mapping System (NPMS) Internet Web site maintained by the United States Department of Transportation at <http://www.npms.phmsa.dot.gov/>. To seek further information about possible transmission pipelines near the property, you may contact your local gas utility or other pipeline operators in the area. Contact information for pipeline operators is searchable by ZIP Code and county on the NPMS Internet Web site.

(b) Upon delivery of the notice to the transferee of the real property, the seller or broker is not required to provide information in addition to that contained in the notice regarding gas and hazardous liquid transmission pipelines in subdivision (a). The information in the notice shall be deemed to be adequate to inform the transferee about the existence of a statewide database of

the locations of gas and hazardous liquid transmission pipelines and information from the database regarding those locations.

(c) Nothing in this section shall alter any existing duty under any other statute or decisional law imposed upon the seller or broker, including, but not limited to, the duties of a seller or broker under this article, or the duties of a seller or broker under Article 1.5 (commencing with Section 1102) of Chapter 2 of Title 4 of Part 4 of Division 2.

11.5.2 State

California Environmental Protection Agency

CalEPA has jurisdiction over hazardous materials and wastes at the State level. DTSC is the department of CalEPA responsible for implementing and enforcing California's own hazardous waste laws, which are known collectively as the Hazardous Waste Control Law. DTSC regulates hazardous waste in California primarily under the authority of the Federal RCRA and the California Health and Safety Code (primarily Division 20, Chapters 6.5 through 10.6, and Title 22, Division 4.5). Although similar to RCRA, the California Hazardous Waste Control Law and its associated regulations define hazardous waste more broadly and regulate a larger number of chemicals. Hazardous wastes regulated by California but not by the USEPA are called "non-RCRA hazardous wastes." Other laws that affect hazardous waste are specific to handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning. Government Code Section 65962.5 (commonly referred to as the Cortese List) includes DTSC-listed hazardous waste facilities and sites, Department of Health Services lists of contaminated drinking water wells, sites listed by the State Water Resources Control Board (SWRCB) as having underground storage tank leaks and have had a discharge of hazardous wastes or materials into the water or groundwater, and lists from local regulatory agencies of sites that have had a known migration of hazardous waste/material.

Enforcement of directives from DTSC is handled at the local level, in this case the Contra Costa County Health Services Department Environmental Health Division. The Regional Water Quality Control Board also has the authority to implement regulations regarding the management of soil and groundwater investigation.

California Department of Forestry and Fire Protection (CAL FIRE)

The California Department of Forestry and Fire Protection (CAL FIRE) has mapped fire threat potential throughout California. CAL FIRE ranks fire threats based on the availability of fuel and the likelihood of an area burning (based on topography, fire history, and climate). The rankings include no fire threat, moderate, high, and very high fire threat.

California Public Utilities Commission

In the state of California, natural gas pipelines are regulated by the California Public Utilities Commission (CPUC). The CPUC ensures that natural gas pipelines are designed, constructed, operated, and maintained according to safety standards set by the CPUC and Federal

government. Natural gas and liquid petroleum gas pipelines regulations are enforced by the CPUC. The CPUC also inspects construction, operation, and maintenance activities, and makes any necessary amendments to regulations to protect and promote the safety of the public, the utility employees that work on the pipelines, and the environment. Regulations and standards concerning operation and maintenance of pipelines apply to all pipelines regardless of the year of installation.

California State Fire Marshal

The California State Fire Marshal (CSFM) regulates hazardous liquid pipelines in the state of California. The CSFM currently regulates the safety of approximately 6,500 miles of intrastate hazardous liquid transportation pipelines. The Pipeline Safety Division of the CSFM consists of engineers, analytical staff, and clerical support located in northern, central, and southern California. Staff in the Pipeline Safety division inspect pipeline operators to ensure compliance with Federal and State pipeline safety laws and regulations. This division is also responsible for the investigation of pipeline ruptures, fires, or accidents for cause and determination of probable violations.

California Fire Code

California Code of Regulations, Title 24, also known as the California Building Standards Code, contains the California Fire Code (CFC), included as Title 24, Part 9. The CFC includes provisions and standards for emergency planning and preparedness, fire service features, fire protection systems, hazardous materials, fire flow requirements, and fire hydrant locations and distribution.

Hazardous Materials Release Response Plans and Inventory Act of 1985

The California Health and Safety Code, Division 20, Chapter 6.95, known as the Hazardous Materials Release Response Plans and Inventory Act or the Business Plan Act, requires businesses using hazardous materials to prepare a plan that describes their facilities, inventories, emergency response plans, and training programs. Businesses must submit this information to the County Environmental Health Division. The Environmental Health Division verifies the information and provides it to agencies responsible for protection of public health and safety and the environment. Business Plans are required to include emergency response plans and procedures in the event of a reportable release or threatened release of a hazardous material, including, but not limited to, all of the following:

- Immediate notification to the administering agency and to the appropriate local emergency rescue personnel.
- Procedures for the mitigation of a release or threatened release to minimize any potential harm or damage to persons, property, or the environment.
- Evacuation plans and procedures, including immediate notice, for the business site.

Business Plans are also required to include training for all new employees, and annual training, including refresher courses, for all employees in safety procedures in the event of a release or threatened release of a hazardous material.

Hazardous Waste Control Act

The Hazardous Waste Control Act created the State hazardous waste management program, which is similar to but more stringent than the Federal RCRA program. The act is implemented by regulations contained in Title 26 of the CCR, which describes the following required aspects for the proper management of hazardous waste: identification and classification; generation and transportation; design and permitting of recycling, treatment, storage, and disposal facilities; treatment standards; operation of facilities and staff training; and closure of facilities and liability requirements. These regulations list more than 800 materials that may be hazardous and establish criteria for identifying, packaging, and disposing of such waste. Under the Hazardous Waste Control Act and Title 26, the generator of hazardous waste must complete a manifest that accompanies the waste from generator to transporter to the ultimate disposal location. Copies of the manifest must be filed with the DTSC.

Unified Hazardous Waste and Hazardous Materials Management Regulatory Program

The Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program) required the administrative consolidation of six hazardous materials and waste programs (Program Elements) under one agency, a Certified Unified Program Agency (CUPA). The Program Elements consolidated under the Unified Program are Hazardous Waste Generator and On-site Hazardous Waste Treatment Programs (a.k.a. Tiered Permitting); Aboveground Petroleum Storage Tank SPCC; Hazardous Materials Release Response Plans and Inventory Program (a.k.a. Hazardous Materials Disclosure or “Community-Right-To-Know”); California Accidental Release Prevention Program (Cal ARP); Underground Storage Tank (UST) Program; and Uniform Fire Code Plans and Inventory Requirements.

The Unified Program is intended to provide relief to businesses complying with the overlapping and sometimes conflicting requirements of formerly independently managed programs. The Unified Program is implemented at the local government level by CUPAs. Most CUPAs have been established as a function of a local environmental health or fire department. Some CUPAs have contractual agreements with another local agency, a participating agency, which implements one or more Program Elements in coordination with the CUPA.

Department of Toxic Substance Control (DTSC)

DTSC is a department of Cal EPA and is the primary agency in California that regulates hazardous waste, cleans up existing contamination, and looks for ways to reduce the hazardous waste produced in California. DTSC regulates hazardous waste in California primarily under the authority of the Federal RCRA and the California Health and Safety Code (primarily Division 20, Chapters 6.5 through 10.6, and Title 22, Division 4.5). Other laws that affect hazardous waste are specific to handling, storage, transportation, disposal, treatment, reduction, cleanup, and

emergency planning. Government Code Section 65962.5 (commonly referred to as the Cortese List) includes DTSC-listed hazardous waste facilities and sites, Department of Health Services (DHS) lists of contaminated drinking water wells, sites listed by the SWRCB as having UST leaks and have had a discharge of hazardous wastes or materials into the water or groundwater, and lists from local regulatory agencies of sites that have had a known migration of hazardous waste/material.

California Office of Emergency Services (OES)

To protect the public health and safety and the environment, the California OES is responsible for establishing and managing statewide standards for business and area plans relating to the handling and release or threatened release of hazardous materials. Basic information on hazardous materials handled, used, stored, or disposed of (including location, type, quantity, and the health risks) needs to be available to firefighters, public safety officers, and regulatory agencies. The information must be included in these institutions' business plans to prevent or mitigate the damage to the health and safety of persons and the environment from the release or threatened release of these materials into the workplace and environment.

These regulations are covered under Chapter 6.95 of the California Health and Safety Code Article 1 – Hazardous Materials Release Response and Inventory Program (Sections 25500 to 25520) and Article 2 – Hazardous Materials Management (Sections 25531 to 25543.3). CCR Title 19, Public Safety, Division 2, Office of Emergency Services, Chapter 4 – Hazardous Material Release Reporting, Inventory, and Response Plans, Article 4 (Minimum Standards for Business Plans) establishes minimum statewide standards for Hazardous Materials Business Plans (HMBP). These plans shall include the following: (1) a hazardous material inventory in accordance with Sections 2729.2 to 2729.7; (2) emergency response plans and procedures in accordance with Section 2731; and (3) training program information in accordance with Section 2732. Business plans contain basic information on the location, type, quantity, and health risks of hazardous materials stored, used, or disposed of in the state. Each business shall prepare a HMBP if that business uses, handles, or stores a hazardous material or an extremely hazardous material in quantities greater than or equal to the following: 500 pounds of a solid substance, 55 gallons of a liquid, 200 cubic feet of compressed gas, a hazardous compressed gas in any amount, or hazardous waste in any quantity.

California Occupational Safety and Health Administration

The California Occupational Safety and Health Administration (Cal/OSHA) is the primary agency responsible for worker safety in the handling and use of chemicals in the workplace. Cal/OSHA standards are generally more stringent than Federal regulations. The employer is required to monitor worker exposure to listed hazardous substances and notify workers of exposure (8 CCR Sections 337-340). The regulations specify requirements for employee training, availability of safety equipment, accident-prevention programs, and hazardous substance exposure warnings.

In addition, Cal/OSHA regulates medical/infectious waste, including management of sharps, requirements for containers that hold or store medical/infectious waste, labeling of medical/infectious waste bags/containers, and employee training.

California Department of Public Health

California's medical waste disposal regulations are overseen by the California Department of Public Health, Environmental Management Branch. The Medical Waste Management Program within the Environmental Management Branch regulates the generation, handling, storage, treatment, and disposal of medical waste. The Medical Waste Management Program also implements the large quantity generator inspector inspection program. A large quantity generator is a medical waste generator that generates more than 200 pounds of medical waste per month in any month of a 12-month period. A small quantity generator is a medical waste generator that generates less than 200 pounds per month of medical waste. Small quantity generators are subject to all of the requirements under Chapter 4 of the Medical Waste Management Act, Health and Safety Code section 117915 through 117946. Medical waste must be picked up by a registered medical waste hauler or if appropriate sent for treatment through a mail back program.

11.5.3 Regional and Local

City of Brentwood General Plan

Project relevant General Plan policies for hazards and hazardous materials are addressed below. Where inconsistencies exist, if any, they are addressed in the respective impact analysis below.

Safety Element Goal 3: Protect the safety of life and property throughout the Brentwood community by providing high quality emergency services.

- **Policy SA 3-4:** Coordinate with the Contra Costa County Sheriff and the California Standardized Emergency Management System (SEMS) to ensure coordinated local and State-level responses in the event of an emergency.

Safety Element Goal 4: Protect citizens from dangers related to the movement, storage, and manufacture of hazardous materials.

- **Policy SA 4-2:** Require hazardous waste generated within the city limits of Brentwood to be disposed of in a safe manner, consistent with all applicable local, State, and Federal laws.
- **Policy SA 4-4:** Coordinate with the East Contra Costa Fire Protection District to ensure that businesses in Brentwood which handle hazardous materials prepare and file a Hazardous Materials Business Plan (HMBP). The HMBP shall consist of general business information, basic information on the location, type, quantity, and health risks of hazardous materials, and emergency response and training plans.

- Policy SA 4-5: Require compliance with Contra Costa County's Countywide Integrated Waste Management Plan as well as all of the Consolidated Unified Protection Agency (CUPA) program elements.

City of Brentwood Fire Code

The 2016 California Fire Code sets forth requirements including those for building materials and methods pertaining to fire safety and life safety, fire protection systems in buildings, emergency access to buildings, and handling and storage of hazardous materials. The City of Brentwood adopted the 2016 California Fire Code with certain amendments, additions, and deletions, as Chapter 15.06 of the Brentwood Municipal Code.

11.6 Environmental Impacts and Mitigation Measures

11.6.1 Significance Criteria

The following significance criteria for hazards and hazardous materials were derived from the Environmental Checklist in the State CEQA Guidelines Appendix G. The project would result in a significant impact if it would:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment.
- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, result in a safety hazard for people residing or working in the project area.
- For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area.
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
- Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

11.6.2 Impacts of the Proposed Project

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

The types of uses and facilities allowed within the project site may generate, store, use, distribute, or dispose of hazardous materials such as heavy metals, household chemicals, oils, solvents, paints, pesticides, and fertilizers. Table 11-2 (Hazardous Material Usage Within the Project Site) summarizes typical hazardous material types by project Land Use category. The proposed project would not create a significant impact through the transport, use, or disposal of hazardous materials since all uses and facilities are required to comply with all applicable Federal, State, and regional regulations which are intended to avoid impacts to the public or environment. If during the formal design review process the City of Brentwood determines that a prospective user may generate inordinate quantities or unusual hazardous waste material, the proposed project may be subject to further review prior to approval.

Land Use Designation	Operations/Activities	Hazardous Materials
Age-restricted Residential Communities	Stacked flats up to three stories high in multiple buildings	Heavy metals, household chemicals, paints, pesticides, petroleum, oil, lubricants, thinners, fertilizers, and solvents.
Park/Open Space	Walking trails, vineyards, community gardens, play areas, picnic areas, wildlife habitat areas, and other open space areas.	Aerosols, cleaners, fuels, heating oils, household chemicals, paints, pesticides, petroleum, oil, lubricants, thinners, and solvents.

As part of the proposed project, Mitigation Measure HAZ-1 referenced below would require implementation which would require facilities that exceed the threshold specified by Health and Safety Code Section 25532(l) to prepare and implement a Risk Management Plan (RMP). With implementation of the RMP requirement and compliance with all applicable Federal, State, and regional regulations, potential impacts would be reduced to less-than-significant levels.

Underground Pipelines

As described above, two underground liquid pipelines and two natural gas pipelines are located within the project area. There is a potential for releases from these pipelines to impact the project site or surrounding area. Mitigation Measure HAZ-2 below requires a qualified Phase II/Site Characterization specialist to conduct soil sampling near the location of the active pipelines regarding the potential for past releases to impact the project site prior to issuance of any grading permits, in consultation with the pipeline operators (PG&E, Kinder Morgan, Chevron, and California Resources Center) and the County EHD. Upon completion of site characterization activities, remedial activities, if necessary, would be recommended and implemented in consultation with the EHD.

It should be noted that based on recent case law, this analysis regarding pipeline and aqueduct safety is not required by CEQA, insofar as CEQA is intended to require analysis of a project's impact on the environment, but not the impact of the existing environment on the project.

With implementation of MM HAZ-2, potential impacts associated with accidental leakage from active pipelines would be reduced to less-than-significant levels.

Mitigation Measure

MM HAZ-1: The developer shall prepare and implement a Hazardous Materials Risk Management Plan for the proposed project. This plan shall be reviewed and approved by the Contra Costa County Environmental Health Department and the City of Brentwood prior to implementation.

Facilities that store, handle, or use regulated substances as defined in the California Health and Safety Code 25532 (g) in excess of threshold quantities shall prepare and implement, as necessary, risk management plans (RMP) for determination of risks to the community. The RMP will be reviewed and approved by the Contra Costa County Environmental Health Department (EHD) through the Certified Unified Program Agencies (CUPA) process.

Implementation of the mitigation measure would reduce potential impacts from the transport, use, and disposal of hazardous materials to a less-than-significant level.

Mitigation Measure

MM HAZ-2: Prior to issuance of any grading permits associated with development of the project site, the applicant shall prepare and implement a Site Damage-Prevention Plan. This plan shall be reviewed and approved by the Contra Costa County Environmental Health Department and the City of Brentwood.

Prior to issuance of grading permits, the applicant shall work with the pipeline operators (PG&E, Kinder Morgan, Chevron, and California Resources Center) to implement a site damage-prevention plan to the satisfaction of the City of Brentwood Public Works Department. This may potentially include the following:

- Designing a site development plan incorporating permanent land use over the pipeline right-of-way that minimizes the potential for damage to the lines (as discussed above, this is already an integrated plan design feature, but is listed here because it is an important component of a damage prevention plan);

- Prominently marking the line locations prior to site development, maintaining markings throughout the development process, and final marking after work is complete;
- Communicate plans for significant excavation or land contouring work;
- Identify changes in land contour that could significantly reduce the soil cover over the pipelines;
- Evaluate the effects of heavy construction vehicles crossing the lines, designate areas for heavy construction vehicles to cross the lines, and provide temporary fill or other temporary protection over the lines where necessary;
- Minimize installations of new buried utilities and services across the existing pipelines;
- Evaluate whether the existing lines should be lowered to increase vertical separation between the pipelines and new surface features; and
- Develop other damage-prevention measures as may be necessary.

In addition to the damage prevention measures listed above, the applicant and the pipeline operators shall consider other measures for reducing risk suggested in the Pipelines and Informed Planning Alliance (PIPA) recommended practices on informed land use. PIPA recommended practices are not “mandated,” but they are best management practices intended to reduce risk and enhance pipeline safety.

Implementation of this mitigation measure would reduce potential impacts from the accidental release of hazardous materials into the environment during construction to a less-than-significant level. With implementation of MM HAZ-2, potential impacts associated with pipeline releases would be reduced to less-than-significant levels.

Impact HAZ-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.

2017 Phase I ESA Findings

The 2017 Phase I ESA investigations included a review of local, State, and Federal environmental record sources, standard historical sources, aerial photographs, fire insurance maps and physical setting sources, a reconnaissance of the project site to review use and current conditions and to check for the storage, use, production or disposal of hazardous or potentially hazardous materials, and interviews with persons and agencies knowledgeable about current and past site use. The reconnaissance and records research did not find documentation or physical evidence

of soil or groundwater impairments associated with the past and present use of the proposed project site.

A review of regulatory databases maintained by County, State, and Federal agencies found no documentation of hazardous materials violations or discharge on the project site. A review of regulatory agency records and available databases did not identify any documented soil or groundwater contamination associated with abutting properties that would be expected to impact the project site. The Phase I ESAs did not identify any recognized environmental conditions (REC)s associated with the project site.

Biohazardous/Medical Waste

Minimal medical care and/or skilled nursing care is typically provided in senior assisted living facilities. Assisted living facilities typically offer services such as assistance with daily living activities (bathing, dressing, eating, and toileting), organized recreational and educational activities, housekeeping, and maintenance. Medical care is typically limited to administration of medication. Residents who are undergoing treatment for cancer or other medical conditions would need to be transported to an appropriate off-site medical facility for treatment. Any skilled nursing care offered at the assisted living facilities would be subject to all of the requirements under Chapter 4 of the Medical Waste Management Act, Health and Safety Code section 117915 through 117946. Any biohazardous or medical waste generated on-site associated with any skilled nursing care would be picked up by a registered medical waste hauler or if appropriate sent for treatment through a mail back program. Therefore, impacts associated with the accidental release of hazardous materials would be less than significant.

Impact HAZ-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.

Hazardous Materials

The nearest school (R. Paul Krey Elementary) is located less than 0.2 mile north of the Deer Ridge portion of the project site. Heritage High School is the nearest high school and is located approximately 0.25 mile southwest of the Shadow Lakes portion of the project site. Adams Middle School is the nearest middle school and is located approximately 0.6 mile southwest of the Shadow Lakes portion of the project site. The proposed project does not propose any industrial uses which could generate hazardous emissions or involve the handling of hazardous materials, substances, or waste in significant quantities that would have an impact to surrounding schools. The types of hazardous materials that would be routinely handled (e.g., household cleaners, paints, pesticides, petroleum, oil, lubricants, thinners, fertilizers, and solvents) are similar to those that typically occur in residential land uses.

However, to minimize potential impacts associated with the accidental release of hazardous materials (known or unknown) into the environment, MM HAZ-1 and HAZ-2 described above would be implemented. With implementation of these mitigation measures, impacts associated

with the accidental release of hazardous materials or pipeline releases would be reduced to a less-than-significant level.

Impact HAZ-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.

The project is not included on a hazardous site list compiled pursuant to California Government Code Section 65962.5. According to the Phase I ESAs, there were no RECs (as defined by ASTM Practice E 1527-13) identified in association with the project site. No significant adverse impacts relative to hazardous materials sites would result with project implementation. No impact would occur.

Impact HAZ-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 for people residing or working in the project area.

The proposed project site is not located in the vicinity of a public or public use airport. The closest airport to the project site is located approximately five miles away in Byron. Therefore, no impact would occur as a result of the project.

Impact HAZ-6: For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area.

The project site is not located within the vicinity of a private airstrip. Therefore, no impact would occur as a result of the project.

Impact HAZ-7: Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

The project would not impair or physically interfere with an adopted emergency response or evacuation plan. According to the City's General Plan (Community Services and Facilities Element), Policy CSF 4-1 supports the East Contra Costa Fire Protection District in terms of maintaining "adequate staff and equipment to provide high quality and responsive fire protection and emergency medical services to existing and future growth in Brentwood." The Brentwood Emergency Operations Plan (EOP) was prepared by the City to guide the integration and coordination within other governmental agencies that are required during an emergency to serve the existing and future public safety needs in the city. The EOP identifies evacuation routes, emergency facilities, and City personnel, and describes the overall responsibilities of Federal, State, regional, Operational Area, and City entities. No revisions to the adopted EOP would be required as a result of the proposed project. Primary access to all major roads would be maintained during construction and operation of the proposed project.

The City of Brentwood Development Fee Program also makes certain required facilities are adequately funded and costs are distributed to the various types of development in the form of development impact fees by future project applicants. By complying with the General Plan and providing adequate emergency planned facilities within and near the project site, implementation of the project would result in a less-than-significant impact with respect to interference with an adopted emergency response plan or emergency evacuation plan.

Impact HAZ-8: Would the project expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

Brentwood is not categorized as a “Very High” Fire Hazard Severity Zone (FHSZ) by CAL FIRE. The project site is in a developed area that is not adjacent to any wildland areas and does not fall within the Very High level fire hazard zone. Under state and local law, all new construction in a very high FHSZ are required to be compliant with construction regulations (Chapter 7A) of the California Building Code, including requirements for buildings in the course of construction. Although the project site is not located in a very high FHSZ, the City, in conjunction with the East Contra Costa Fire Protection District (ECCFPD) shall review all building plans for conformity with state and local statutes, ordinances, and regulations relating to the prevention of fire, the storage of hazardous materials, and the protection of life and property against fire, explosion, and exposure to hazardous materials. Adherence to regulations already in place through the development application and review process at the City would reduce the potential impacts associated with fire hazards as a result of adjacent wildlands to less than significant.

11.6.3 Cumulative Impact Analysis

Cumulative impacts relative to hazards and hazardous materials would be impacts that result from incremental impacts relative to hazardous and hazardous materials that, cumulatively, would result in significant impacts.

Impact HAZ-9: Would the project contribute to cumulatively considerable impacts to hazards and hazardous materials.

Most hazards and hazardous materials impacts from development are site-specific and if properly designed would not result in additive worsening of the environment or public health and safety. Cumulative development would be subject to site-specific hazards and/or hazardous materials constraints; pursuant to Federal, State, and local regulations.

The incremental effects of the project related to hazards and hazardous materials, if any, are anticipated to be minimal, and any effects would be site-specific. Therefore, the project would not result in incremental effects to hazards or hazardous materials that could be compounded or increased when considered together with similar effects from other past, present, and reasonably foreseeable probable future projects. The project would not result in cumulatively considerable impacts to or from hazards or hazardous materials.

11.6.4 Level of Significance after Mitigation

Table 11-3 (Summary of Impacts and Mitigation Measures – Hazards & Hazardous Materials) summarizes the environmental impacts, significance determinations, and mitigation measures for the proposed project with regard to hazards & hazardous materials.

Table 11-3: Summary of Impacts and Mitigation Measures – Hazards & Hazardous Materials		
Impact	Impact Significance	Mitigation
Impact HAZ-1: Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	Less than Significant with Mitigation	MM HAZ-1: Prepare and Implement a Hazardous Materials Risk Management Plan MM HAZ-2: Prepare and Implement a Site Damage Prevention Plan for the proposed project
Impact HAZ-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?	Less than Significant with Mitigation	None required
Impact HAZ-3: Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	Less than Significant with Mitigation	MM HAZ-1: Prepare and Implement a Hazardous Materials Risk Management Plan for the proposed project MM HAZ-2: Prepare and Implement a Site Damage Prevention Plan for the proposed project
Impact HAZ-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 it create a significant hazard to the public or the environment?	No Impact	None required
Impact HAZ-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 for people residing or working in the project area?	No Impact	None required
Impact HAZ-6: For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	No Impact	None required
Impact HAZ-7: Impair implementation of or physically interfere with an adopted	Less than Significant	None required

Table 11-3: Summary of Impacts and Mitigation Measures – Hazards & Hazardous Materials

Impact	Impact Significance	Mitigation
emergency response plan or emergency evacuation plan?		
Impact HAZ-8: Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	Less than Significant	None required
Impact HAZ-9: Contribute to cumulatively considerable impacts to hazards and hazardous materials	No Impact	None required

11.7 References

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