

## 4.7

## HAZARDS AND HAZARDOUS MATERIALS

### 4.7.1 INTRODUCTION

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The Hazards and Hazardous Materials chapter of this EIR describes existing and potentially occurring hazards and hazardous materials within the proposed project area. This chapter discusses potential impacts posed by these hazards to the environment, as well as to workers, visitors, and residents within and adjacent to the project area. The Hazards and Hazardous Materials chapter is primarily based on information drawn from the *Phase I Environmental Site Assessment* (ESA) prepared for the project site by ENGEO, Inc. (see Appendix G)<sup>1</sup> as well as the *City of Antioch General Plan*<sup>2</sup> and associated EIR.<sup>3</sup>

### 4.7.2 EXISTING ENVIRONMENTAL SETTING

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The following section includes descriptions of the existing conditions related to hazardous materials, airports and private airstrips, as well as wildfire hazards.

#### **Hazardous Materials**

The term hazardous substance refers to both hazardous materials and hazardous wastes. A material is defined as hazardous if the material appears on a list of hazardous materials prepared by a federal, State, or local regulatory agency or if the material has characteristics defined as hazardous by such an agency. The California Department of Toxic Substance Control (DTSC) defines hazardous waste, as found in the California Health and Safety Code, Section 25141(b), as follows:

[...] its quantity, concentration, or physical, chemical, or infectious characteristics: (1) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible illness; (2) pose a substantial present or potential hazard to human health or the environment, due to factors including, but not limited to, carcinogenicity, acute toxicity, chronic toxicity, bioaccumulative properties, or persistence in the environment, when improperly treated, stored, transported, or disposed of, or otherwise managed.

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<sup>1</sup> ENGEO, Inc. *Phase I Environmental Site Assessment, Sand Creek Ranch Active Adult Community, Antioch, California*. July 7, 2006.

<sup>2</sup> City of Antioch. *City of Antioch General Plan*. Updated November 24, 2003.

<sup>3</sup> City of Antioch. *Draft General Plan Update Environmental Impact Report*. July 2003.

## Regional Setting

Hazardous materials and hazardous waste pose potential risks to the health, safety, and welfare of residents and workers, if handled inappropriately. Delta Diablo disposes of hazardous materials within the City of Antioch and operates the Delta Household Hazardous Waste Collection Facility (DHHWCF). The DHHWCF collects hazardous substances and pollutants such as used oil and filters, anti-freeze, latex and oil-based paints, household batteries, fluorescent and high intensity lamps, cosmetics, pesticides, pool chemicals, and household cleaners for safe disposal at the facility. All hazardous waste must be discharged at a Class I landfill under the Federal Resource Conservation and Recovery Act (RCRA).

All pollutants cannot be removed by Delta Diablo's treatment process. To ensure that certain pollutants do not enter the Delta, Delta Diablo has established a Pretreatment Program, which consists of public education and regulation of certain businesses and industries. The Pretreatment Department works closely with commercial and industrial users to ensure that hazardous substances such as solvents, pesticides, metals, grease, petroleum, oil, and paints are not discharged into the sewer system.

The City of Antioch has a long history of agricultural production. Agricultural activities typically include the storage and periodic application of pesticides, herbicides, and fertilizers, as well as the storage and use of toxic fuels and solvents. The infiltration of the aforementioned substances may leach into local groundwater supplies, presenting an elevated risk of groundwater contamination. Medical facilities, such as the Kaiser Antioch Medical Center located adjacent to the project site, can generate a wide variety of hazardous substances. Hazardous medical substances may include contaminated medical equipment or supplies, infectious biological matter, prescription medicines, and radioactive materials used in medical procedures. The disposal of medical waste is achieved by on-site autoclaving of red-bagged waste (any medical waste that could possibly transmit a pathogen) and the subsequent transport to a Class III landfill.

Although incidents can happen almost anywhere, certain areas of Antioch are at higher risk for inadvertent release of hazardous materials. Locations near roadways that are frequently used for transporting hazardous materials (e.g., State Route [SR] 4) and locations near industrial facilities that use, store, or dispose of these materials have an increased potential for a release incident, as do locations along the freight railways.

The California DTSC identifies two sites within Antioch where surface and/or sub-surface contamination has occurred due to the release of hazardous materials or wastes. The sites include the GBF/Pittsburg Dumps, located at the intersection of Somersville Road and James Donlon Boulevard, approximately three miles northwest of the project site, and the former Hickmott Cannery site, located at the intersection of 6<sup>th</sup> and "A" Streets, approximately 4.2 miles north of the project site.

## Project Site Conditions

The 551.5-acre project site is located within the Sand Creek Focus Area, consisting of three parcels: APNs 057-010-002, -003, and 057-021-003. The majority of the project site is

characterized by vacant rolling hills with scattered trees and a relatively flat, grass-covered valley with Sand Creek traversing the site from the northwest corner to the southeast corner. An existing ranch with a single-family residence is located on the eastern portion of the site. A review of aerial photographs and database research found that the project site has historically been used for agriculture and cattle-grazing purposes, as well as for mining uses on adjacent property.

Field indicators of potential contamination, such as odors, evidence of existing underground storage tanks, abandoned wells, pools of potentially hazardous liquid, or stained pavement, were not observed on the project site during the site reconnaissance. The project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.<sup>4</sup> In addition, Environmental Data Resources, Inc. (EDR) provided an Environmental Lien Search Report for the project site, which listed one environmental database site approximately 0.5 mile northeast of the site as a RCRA small quantity generator of hazardous waste. The facility is not listed as a contaminated site and is highly unlikely to affect the project site.

Remnants of a former mining town, known as Judsonville, are located near the western border of the project site along Empire Mine Road. Two additional historic coal mines, the Teutonia Mine and the Israel Mine, are located to the south of the project site. The historic mines were primarily used for coal mining in the mid-1860s, but were abandoned prior to 1869 and are not currently active. Although former coal mines with relatively unknown underground workings exist within the vicinity of the site, the former mines are not located directly within the project site.

The following discussion focuses on the potential Recognized Environmental Conditions (RECs) associated with the project area. A REC, as defined by American Society for Testing and Materials (ASTM), indicates the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property due to any release into the environment, under conditions indicative of a release to the environment, or under conditions that pose a material threat of a future release to the environment.<sup>5</sup>

### *Storage Tanks*

Two empty, conventional-style above-ground storage tanks (ASTs) were observed during the reconnaissance at a location north of the largest storage shed in the yard of the residence at APN 057-021-003. Staining of the soil below the ASTs was not noted during the reconnaissance. Two trailer-mounted diesel ASTs were observed during the site reconnaissance just north of the conventional-style ASTs. The current resident used the ASTs for diesel storage used for fueling farm equipment on the property. A small patch of stained soil about 12 inches in diameter was observed below one of the trailer-mounted ASTs. The current resident had knowledge of six additional ASTs in an area on the north side of the ranch buildings on his parcel. The current resident also noted that two ASTs north of the same shed and north of the gravel road were

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<sup>4</sup> California Department of Toxic Substances Control. *EnviroStor*. Available at: <http://www.envirostor.dtsc.ca.gov>. Accessed July 7, 2017.

<sup>5</sup> ASTM International. *ASTM E1527, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*. 2013.

formerly used for diesel storage, but were currently empty. According to the current resident, a former underground storage tank (UST) existed on the north side of the ranch as well, but was removed in approximately 1971. The current resident stated that gross evidence of petroleum hydrocarbon releases from the UST was not noted during the removal and that local oversight by environmental agencies was not provided during the removal.

Two soil samples were taken from the areas beneath the former UST at depths of 4.5 and 5.5 feet below the ground surface (bgs), and two more samples were taken from beneath the trailer-mounted ASTs at a depth of 1.5 feet bgs. All four soil samples collected from APN 057-021-003 were analyzed for gasoline, diesel, motor oil, and BTEX (benzene, toluene, ethylbenzene, and xylene) constituents. The samples collected at the former UST did not have detectable concentrations of gasoline, diesel, motor oil, or BTEX compounds. A sample from one of the ASTs contained a diesel concentration of 49 milligrams per kilogram (mg/kg), and a sample from the other AST contained a concentration of motor oil at 34 mg/kg. However, the concentrations are below accepted action levels for diesel and motor oil, and therefore, the tanks were not identified as RECs.

#### *Polychlorinated Biphenyls (PCBs)*

Pole-mounted power lines with transformers were observed on the project site during the reconnaissance. Transformers could be considered a health concern if they used Polychlorinated Biphenyls (PCBs). PCBs were used in electrical transformers because of their useful quality as being a fire retardant; however a number of adverse health effects are associated with PCBs. Transformers containing PCBs were manufactured between 1929 and 1977. Since the early 1980s, PG&E has initiated a policy of installing PCB-free equipment. During the reconnaissance of the project site conducted by ENGEO Inc., evidence of leaking or ground contamination was not observed at the two transformer locations. As a result, PCBs associated with the transformers were not identified as potential RECs.

#### *Hazardous Substance and Petroleum Product Containers*

A 55-gallon drum, partially filled with an unknown substance was discovered east of Empire Mine Road on APN 057-010-002, just north of Sand Creek. Stained vegetation was observed near the 55-gallon drum, as well as two soil stains. On APN 057-021-003, two empty 55-gallon drums were observed next to a storage shed, which, according to the resident, were previously used to store lubricants. Two additional rusty 55-gallon drums were discovered in the work yard on the ranch, which appeared to have been used as garbage containers. An empty and a full five-gallon paint container were additionally located in the vicinity along Sand Creek. According to the Phase I, the drums, two soil stains, and the container of paint are not considered potential RECs.

#### *Solid Waste*

Multiple solid waste piles were located on the project site. Piles of wood and a variety of litter scattered along the fence-line of Empire Mine Road was noted on APN 057-010-002 and three

waste piles that included wood, fencing, metal, water heaters, plastic, car bodies, metal pipes, and camper shells were noted along the banks of Sand Creek on APN 057-021-003.

### *Wells*

The project site contained one operational water supply well located east of the residence on APN 057-021-003. A groundwater sample was collected from a spigot at the well and was analyzed for pH, Nitrates and Nitrites, Total Nitrogen and Total Kjeldahl Nitrogen (TKN), as well as gasoline, diesel, motor oil, and BTEX constituents. Laboratory testing results indicated the ground water was at a pH level of 7.8 and found low concentrations of TKN at 0.17 milligrams per liter (mg/l) and Nitrate/Nitrite at 0.59 mg/l, which are below the California maximum containment levels for drinking water.

### *Pipeline Easement*

An inactive, northwest trending petroleum product pipeline was determined to cross the western portion of APN 057-021-003 and the northeastern portion of APN 057-010-003 as evidenced during the reconnaissance of the site by the line's exposure in a narrow ravine adjacent to Sand Creek and immediately west of the ranch. Because petroleum releases related to similar types of pipelines in the area have occurred, the pipeline is considered a potential REC. The pipeline is not owned or operated by the project applicant. Signs of leakage or associated contamination was not observed, however, testing was not conducted as part of the Phase I. It should be noted that per the City's Municipal Code Section 9-5.3734(3), Specific Requirements for APN 057-021-003, oil/gas wells are allowed on APN 057-021-003 as a temporary use, subject to the approval of a use permit, but are not allowed on any other properties within the Sand Creek Focus Area. However, oil or gas wells do not currently occur on the project site and are not proposed as part of the proposed project.

### *Asbestos-Containing Materials (ACMs) and Lead-Based Paint*

ENGEO additionally conducted an asbestos and lead-based paint survey as part of the Phase I ESA. Review of the Historic USGS Topographic Maps provided an estimated time-frame for the construction of the existing on-site structures on APN 057-021-003. The 1968 map depicted a barn and residence in the approximate location of the existing structures, therefore, dating the structures between 1953 and 1968. Given the estimated age of the structures, the Phase I ESA concluded that ACMs and lead-based paint may have been used in the construction of the existing on-site ranch and associated structures.

### **Airports and Private Airstrips**

The nearest airport to the project site is the Byron Airport, which is located over 10 miles southeast of the project site. According to the Contra Costa County Airport Land Use

Commission, the project site is not within the *Airport Land Use Compatibility Plan* area or the area of influence of the nearest airport.<sup>6</sup>

## Wildfire Hazards

According to the United States Forest Service's (USFS) Wildland Fire Assessment System, the City of Antioch, including the project site, is within an area designated as moderate for fire danger.<sup>7</sup> According to the California Department of Forestry and Fire Protection (Cal Fire), the project site is located in an incorporated local responsibility area and the area just south of the project site is designated as a moderate fire hazard severity zone.<sup>8</sup> The vegetation on the project site consists of annual grassland and ruderal plants. According to the General Plan EIR, areas of potential wildland fire hazard exist within the southern, mostly unincorporated portions of the General Plan study area, including rural, hilly terrain, as well as areas adjacent to or covered by natural grassland or brush. New development within or near such areas are more likely to be subject to wildfire hazards.

### 4.7.3 REGULATORY CONTEXT

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Many agencies regulate hazardous substances. The following discussion contains a summary of the regulatory controls pertaining to hazardous substances, including federal, State, and local laws and ordinances.

#### Federal Regulations

Federal agencies that regulate hazardous materials include the U.S. Environmental Protection Agency (USEPA), the Occupational Safety and Health Administration (OSHA), the Department of Transportation (DOT), and the National Institute of Health (NIH). The following federal laws and guidelines govern hazardous materials:

- Federal Water Pollution Control Act;
- Clean Air Act;
- Occupational Safety and Health Act;
- Federal Insecticide, Fungicide, and Rodenticide Act;
- Comprehensive Environmental Response, Compensation, and Liability Act;
- Guidelines for Carcinogens and Biohazards;
- Superfund Amendments and Reauthorization Act Title III;
- Resource Conservation and Recovery Act;
- Asbestos Hazard Emergency Response Act;

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<sup>6</sup> Contra Costa County Airport Land Use Commission. *Contra Costa County Airport Land Use Compatibility Plan*. December 13, 2000.

<sup>7</sup> U.S. Forest Service. *Wildlife Fire Assessment System*. 2014. Available at: <http://www.wfas.net/index.php/fire-danger-rating-fire-potential--danger-32/fire-danger-subsets-fire-potential--danger-55>. Accessed December 2017.

<sup>8</sup> California Department of Forestry and Fire Protection. *Contra Costa County FHSZ Map*. January 7, 2009. Available at: [http://www.fire.ca.gov/fire\\_prevention/fhsz\\_maps\\_contracosta](http://www.fire.ca.gov/fire_prevention/fhsz_maps_contracosta). Accessed July 6, 2017.

- Residential Lead-Based Paint Hazard Reduction Act;
- Safe Drinking Water Act;
- Toxic Substances Control Act; and
- Transportation of Hazardous Liquids by Pipeline (49 CFR Part 192) and (49 CFR Part 195).

Prior to August 1992, the principal agency at the federal level regulating the generation, transport and disposal of hazardous waste was the USEPA under the authority of RCRA. As of August 1, 1992, however, the DTSC was authorized to implement the State's hazardous waste management program for the USEPA. The USEPA continues to regulate hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA).

### **State Regulations**

The California EPA (Cal-EPA) and the California State Water Resources Control Board (SWRCB) establish rules governing the use of hazardous materials and the management of hazardous waste. Applicable State laws include the following:

- Public Safety/Fire/Building Codes;
- Hazardous Waste Control Law;
- Hazardous Substances Information and Training Act;
- Air Toxics Hot Spots and Emissions Inventory Law;
- Underground Storage of Hazardous Substances Act;
- Porter-Cologne Water Quality Control Act;
- Senate Bill 1241;
- Risk Management Program;
- Process Safety Management Program;
- Cortese List: Government Code Section 65962.5(a);
- California Vehicle Code Section 31303;
- California Health and Safety Code; and
- California Accidental Release Program.

Within Cal-EPA, DTSC has primary regulatory responsibility, with delegation of enforcement to local jurisdictions that enter into agreements with the State agency, for the management of hazardous materials and the generation, transport, and disposal of hazardous waste under the authority of the Hazardous Waste Control Law (HWCL).

### **Local Regulations**

The following are the local government's environmental policies relevant to hazards and hazardous materials.

### Airport Land Use Compatibility Plan

Land uses and development adjacent to airports in Contra Costa County is governed by the *Airport Land Use Compatibility Plan (ALUCP)* prepared by the Contra Costa County Airport Land Use Commission. The ALUCP establishes development criteria, such as allowable building heights and building materials, for subareas measured at specific distances within the areas of influence of Contra Costa County airports. The Buchanan Field Airport and Byron Airport are covered by the ALUCP.

### City of Antioch General Plan

The City of Antioch General Plan objectives and policies relating to hazards and hazardous materials are presented below.

Objective 11.7.1 Minimize the negative impacts associated with the storage, use, generation, transport, and disposal of hazardous materials.

Policy 11.7.2.q Facilitate public awareness of hazardous materials by preparing and distributing in conjunction with Contra Costa Health Services public information regarding uniform symbols used to identify hazardous wastes, Antioch's household hazardous waste collection programs, and hazardous waste source reduction programs.

Policy 11.7.2.r Monitor the progress and success of hazardous materials efforts, and modify these efforts as needed.

Objective 11.8.1 Maintain a level of preparedness to adequately respond to emergency situations to save lives, protect property, and facilitate recovery with minimal disruption.

Policy 11.8.2.a Maintain data regarding the use and generation of hazardous materials within Antioch and its Planning Area.

Policy 11.8.2.b Disseminate disaster preparedness information to local residents and businesses, describing how emergency response will be coordinated, how evacuation, if needed, will proceed, and what residents and businesses can do to prepare for emergency situations. Provide information to the public about:

- Environmental hazards existing in Antioch;
- The costs of doing nothing to mitigate these hazards;



- Why governmental agencies cannot eliminate all hazards;
- What the City does to assist;
- What the City cannot do; and
- What the public can do to protect itself.

Policy 11.8.2.c Maintain an effective and properly equipped emergency operations center, along with trained personnel, for receiving emergency calls, providing initial response and key support to major incidents, meeting the demands of automatic and mutual aid programs, and maintaining emergency incident statistical data.

Policy 11.8.2.d Maintain ongoing emergency response coordination with surrounding jurisdictions.

Policy 11.8.2.e Encourage private businesses and industrial uses to be self-sufficient in an emergency by:

- Maintaining a fire control plan, including on-site fire fighting capability and volunteer response teams to respond to and extinguish small fires; and
- Identifying personnel who are capable and certified in first aid and CPR.

Policy 11.8.2.f Regularly review and clarify emergency evacuation plans for dam failure, fire, and hazardous materials releases.

#### **4.7.4 IMPACTS AND MITIGATION MEASURES**

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The following section describes the standards of significance and methodology utilized to analyze and determine the proposed project's potential impacts related to hazards and hazardous materials. A discussion of the project's impacts, as well as mitigation measures where necessary, is also presented.

##### **Standards of Significance**

In accordance with CEQA, the effects of a project are evaluated to determine if they would result in a significant adverse impact on the environment. For the purposes of this EIR, an impact is considered significant if the proposed project would:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;

- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment;
- For a project located within an airport land use plan, or where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard 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 in the project area;
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or
- Expose people or structures 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.

### **Method of Analysis**

Site conditions and impacts analysis for this chapter are based primarily on the Phase I ESA prepared for the project site, and the City of Antioch General Plan and associated EIR. As part of the Phase I ESA, ENGEO conducted a reconnaissance of a much larger area that included the project site on July 7, 2006. The project site was surveyed for hazardous materials storage, both above-ground and underground, superficial staining or discoloration, debris, stressed vegetation, or other conditions that may be indicative of potential sources of soil or groundwater contamination. In addition, eighteen (18) soil samples and one (1) groundwater sample were collected for laboratory analysis. Documentation of the laboratory analytical reports of the collected soil samples can be found as Appendix C of the Phase I ESA.

In addition, a historical record review was conducted to develop a history of the previous uses or occupancies of the project site and surrounding area. Historical USGS topographic maps were reviewed to determine if discernible changes in topography or improvements pertaining to the project site had been recorded. Topographic maps ranging in date from 1939 to 1998 were reviewed for information regarding past conditions and land use at the project site and in the immediate vicinity. In addition, a review of publically available and practically reviewable standard local, State, and federal environmental record sources regarding the project site and nearby properties was conducted.

### **Project-Specific Impacts and Mitigation Measures**

As discussed in Chapter 3, Project Description, of this EIR, two development scenarios for the proposed project are currently being considered: a Multi-Generational Plan and a Traditional Plan. The following discussion of impacts is based on implementation of either of the

development scenarios. Where impacts would be similar under both of the development scenarios, the discussion of impacts presented below is applicable for both scenarios. However, where impacts would differ between the two development scenarios, the impacts are discussed separately for each scenario. It should be noted that while potential impacts related to both development scenarios are analyzed, ultimately, only one development scenario would be constructed.

**4.7-1 Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials within one-quarter mile of a school. Based on the analysis below, the impact is *less than significant*.**

Multi-Generational Plan and Traditional Plan

The proposed project would include predominantly residential development, as well as a fire station, and a Village Center that could include commercial, office, and retail space. Residential and general commercial land uses do not typically involve the routine transport, use, disposal, or generation of substantial amounts of hazardous materials. During project operation, hazardous materials use would be limited to landscaping products such as fertilizer, pesticides, as well as typical commercial and household-type maintenance products (cleaning agents, degreasers, paints, batteries, and motor oil). Proper handling and usage of such materials in accordance with label instructions would ensure that adverse impacts to human health or the environment would not result. Construction activities would involve the use of heavy equipment, which would contain fuels, oils, and various other products such as concrete, paints, and adhesives that could be considered hazardous. However, the project contractor would be required to comply with all California Health and Safety Codes and local ordinances regulating the handling, storage, and transportation of hazardous and toxic materials, as overseen by the Cal-EPA and DTSC.

In addition, the nearest schools to the project site are Heritage Baptist Academy, located 1.43 miles northeast of the proposed project site, and Dozier-Libbey Medical High School, located 0.51 mile east of the proposed project site. Such, the project site is not located within one-quarter mile of a school.

Based on the above, project construction or operations would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. Therefore, impacts would be considered *less than significant*.

Mitigation Measure(s)

*None required.*

**4.7-2 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. Based on the analysis below and with the implementation of mitigation, the impact would be *less than significant*.**

Multi-Generational Plan and Traditional Plan

As discussed above, because other similar pipelines in the area have had petroleum releases, and because testing was not conducted as part of the Phase I ESA, the petroleum product pipeline that crosses the project site, is considered a potential REC.

The pipeline traverses the middle of the proposed project site and the development of the proposed project would include mass grading and soil disturbance, as well as development near the pipeline, which may cause workers to be exposed to soil contamination. Accurate depths and alignment of the pipelines could only be determined by field checking and potholing the pipeline, which is recommended to be accomplished prior to completion of construction plans in order to avoid conflicts between the proposed development and the existing pipeline. As a result, construction and development activities related to the project near the pipeline easement could cause a potentially significant impact.

Extreme caution should be used when excavating, drilling, or grading around the pipelines. Any excavating, drilling, or grading around the former petroleum product pipeline and must comply with all applicable federal and State standards and regulations associated with development near petroleum pipelines. According to the U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration, any project involving digging near a pipeline is required to call prior to commencement of digging in order to notify companies that may operate underground utilities in the area.<sup>9</sup> In addition, the proposed project would be required to comply with Section 195.210 of the Code of Federal Regulations (CFR) which requires that the pipeline must avoid and must not be located within 50 feet of any private dwelling, industrial building, or public assembly where people work, unless it is provided with at least 12 inches of cover. The proposed project must also comply with Section 192.325 of the CFR, which states each transmission line must be installed with at least 12 inches of clearance from any other underground structure and the transmission line must be protected from damage<sup>10</sup>. Without compliance with the above actions, an impact related to a significant hazard to the public or the environment through reasonably foreseeable upset and accidental conditions involving the release of hazardous materials into the environment associated with the pipeline easement could occur.

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<sup>9</sup> U.S. Department of Transportation, Pipeline & Hazardous Materials Safety Administration. *Damage Prevention*. Available at: <https://primis.phmsa.dot.gov/comm/damageprevention.htm>. Accessed July 7, 2017.

<sup>10</sup> U.S. Department of Transportation, Pipeline & Hazardous Materials Safety Administration. *Regulations*. Available at: <https://www.phmsa.dot.gov/phmsa-regulations>. Accessed December 13, 2017.

Existing structures are located on-site and would be removed as part of project construction. For buildings constructed prior to 1980, the Code of Federal Regulations (29 CFR 1926.1101) states that all thermal system insulation and surface materials must be designated as “presumed asbestos-containing material” (PACM) unless proven otherwise through sampling in accordance with the standards of the Asbestos Hazard Emergency Response Act. ACMs were banned in the mid-1970s. ACMs could include, but are not limited to resilient floor coverings, drywall joint compounds, acoustic ceiling tiles, piping insulation, electrical insulation and fireproofing materials. Furthermore, the use of lead-based paint was not banned until 1978 by the Federal Government. Typically, exposure to lead from older vintage paint is possible when the paint is in poor condition or is being removed. Lead-based paints were phased out of production in the early 1970s. Although the exact construction date of the existing ranch located on APN 057-021-003 of the project site is unknown, the Phase I ESA approximated construction between 1953 and 1968. Therefore, given the age of the structures, ACMs and lead-based paint may be present within the structures. Because implementation of the proposed project would include demolition of the existing on-site structures, exposure of workers to ACMs or lead-based paint could occur.

It is also important to note that construction activities would involve the use of heavy equipment, which would contain fuels and oils, and various other products such as concrete, paints, and adhesives. The potential for fuels and oils to spill onto the project site exists. However, the project contractor would be required to comply with all California Health and Safety Codes and local ordinances regulating the handling, storage, and transportation of hazardous and toxic materials, as overseen by the Cal-EPA and DTSC. Thus, the on-site construction activities would not create a significant hazard to the public or the environment.

As discussed above, during project operation, hazardous materials use would be limited to landscaping products and typical commercial and household-type maintenance products. Proper handling and usage of such materials in accordance with label instructions would ensure that adverse impacts to human health or the environment would not result.

Although, the groundwater sample collected from the domestic well on APN 057-021-003 did not indicate a significant impact to groundwater, unused groundwater wells that are not properly abandoned could potentially carry bacteria, sediment, fertilizer, pesticides, or other pollutants as a result of runoff flowing into the wells. Contaminated flow into the open wells could potentially contribute to contamination of the underlying groundwater or aquifer. The existing on-site well would need to be properly abandoned prior to development of the site to avoid contamination from the wells.

Based on the above, implementation of the proposed project could create a significant hazard to the public or the environment through reasonably foreseeable upset and accidental conditions involving the release of hazardous materials into the environment, specifically related to asbestos-containing materials and lead-based paint associated with

the existing on-site structures, an existing petroleum pipeline, and an existing water well. As a result, impacts could be considered *significant*.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above impact to a *less-than-significant* level.

*Multi-Generational Plan and Traditional Plan*

- 4.7-2(a) *Prior to commencement of grading and construction, the construction contractor, the pipeline operator, and a representative from the City's Engineering Department shall meet on the project site and prepare site-specific safety guidelines for construction in the field to the satisfaction of the City Engineer. The safety guidelines and field-verified location of the pipelines shall be noted on the improvement plans and be included in all construction contracts involving the project site.*
- 4.7-2(b) *Prior to commencement of grading and construction, all petroleum pipelines within the areas of the project site planned for development shall be abandoned and/or removed in accordance with applicable federal, State, and/or local standards to the satisfaction of the Contra Costa Environmental Health Department and the City Engineer. If any indicators of apparent soil contamination (soil staining, odors, debris fill material, etc.) are found at the project site associated with the petroleum pipelines, the impacted area shall be isolated from surrounding, non-impacted areas. The project environmental professional shall obtain samples of the potentially impacted soil for analysis of the contaminants of concern and comparison with applicable regulatory residential screening levels (i.e., Environmental Screening Levels, California Human Health Screening Levels, Regional Screening Levels, etc.). Where the soil contaminant concentrations exceed the applicable regulatory residential screening levels, the impacted soil shall be excavated and disposed of offsite at a licensed landfill facility to the satisfaction of the Contra Costa Environmental Health Department. If soil contaminants do not exceed the applicable regulatory residential screening levels, further action is not required.*
- 4.7-2(c) *Prior to issuance of a demolition permit by the City for any on-site structures, the project applicant shall provide a site assessment that determines whether any structures to be demolished contain asbestos. If structures do not contain asbestos, mitigation is not required. If asbestos-containing materials are detected, the applicant shall prepare and implement an asbestos abatement plan consistent with federal, State, and local standards, subject to approval by the City Engineer, City Building Official, and the Bay Area Air Quality Management District.*

*Implementation of the asbestos abatement plan shall include the removal and disposal of the asbestos-containing materials by a licensed and certified asbestos removal contractor, in accordance with local, State, and federal regulations. In addition, the demolition contractor shall be informed that all building materials shall be considered as containing asbestos. The contractor shall take appropriate precautions to protect his/her workers, the surrounding community, and to dispose of construction waste containing asbestos in accordance with local, State, and federal regulations subject to the City Engineer, City Building Official, and the Bay Area Air Quality Management District.*

4.7-2(d) *Prior to issuance of a demolition permit by the City for any on-site structures, the project applicant shall provide a site assessment that determines whether any structures to be demolished contain lead-based paint. If structures do not contain lead-based paint, mitigation is not required. If lead-based paint is found, all loose and peeling paint shall be removed and disposed of by a licensed and certified lead paint removal contractor, in accordance with federal, State, and local regulations. The demolition contractor shall be informed that all paint on the buildings shall be considered as containing lead. The contractor shall take appropriate precautions to protect his/her workers, the surrounding community, and to dispose of construction waste containing lead paint in accordance with federal, State, and local regulations subject to approval by the City Engineer.*

4.7-2(e) *Prior to any ground disturbance activities within 50 feet of the well on the project site, the applicant shall hire a licensed contractor to obtain an abandonment permit from the Contra Costa County Environmental Management Department, and properly abandon the on-site well and/or septic tank, pursuant to review and approval by the City Engineer.*

**4.7-3 Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment. Based on the analysis below, the project would have *no impact*.**

#### Multi-Generational Plan and Traditional Plan

As mentioned above, the proposed project is located in the Sand Creek Focus Area in the southeastern portion of the City of Antioch, and is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Therefore, ***no impact*** would occur.

#### Mitigation Measure(s)

*None required.*

**4.7-4 Interference with an adopted emergency response plan or emergency evacuation plan. Based on the analysis below, the impact is be *less than significant*.**

Multi-Generational Plan and Traditional Plan

Implementation of the proposed project would not result in any modifications to the existing roadway system and, thus, would not physically interfere with any emergency routes. Instead, the project would connect to the existing roadway network and would include connection of Dallas Ranch Road and Deer Valley Road by way of an extension of Sand Creek Road and the proposed Street A. The extension of Sand Creek Road would provide increased roadway connectivity within the City. In addition to providing the extension of Sand Creek Road, which would serve as the primary Emergency Vehicle Access (EVA) route to the project site, Empire Mine Road is also proposed as an additional EVA point. However, it should be noted that use of Empire Mine Road as an EVA is speculative at this time and may not be feasible in the future. In addition, the proposed project involves the dedication of a two-acre site for a future fire station on-site. Upon buildout of the future fire station, emergency access would be readily available on-site. Emergency access would be maximized through the provision of proposed roads and multiple connection points between proposed neighborhoods. The proposed project would be required to comply with the City of Antioch General Plan Policy 11.7.2.n, which requires new developments to incorporate appropriate design features to increase safety and minimize potential adverse effects on public health. In addition, Policy 11.8.2.f requires that the City review and clarify emergency evacuation plans for dam failure, fire, and hazardous materials releases. Therefore, the proposed project would not be expected to interfere with an adopted emergency response or emergency evacuation plan, and as *less-than-significant* impact would occur.

Mitigation Measure(s)

*None required.*

**4.7-5 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. Based on the analysis below, the impact is *less than significant*.**

Multi-Generational Plan and Traditional Plan

The majority of the project site currently consists of undeveloped grassland, and the proposed project would preserve the existing Sand Creek corridor, as well as various hills and ridgeline areas in the northwestern and southwestern portions of the project site, as open space. Landscaping placed between open spaces and developed areas of the project site would have the potential to transfer wildland fires to the developed areas of the project site. However, landscaping within the proposed project would be required to adhere to City of Antioch Municipal Code Section 9-5.1003, which advises that landscaping plantings be selected for fire resistance, where appropriate. Wildland fires in the immediate vicinity of the proposed project would be ground fires (i.e., grass fires



versus large stand-replacing crown fires in heavily wooded areas). The maintenance of fire resistant landscaping adjacent to exposed structures would reduce the likelihood that fires would spread from wildlands to adjacent developed areas.

According to the USFS Wildland Fire Assessment System, the City of Antioch, including the project site, is within an area designated as moderate for fire danger. The General Plan EIR determined that new development within the rural, hilly terrain included in the Sand Creek Focus Area could expose persons to hazardous conditions associated with wildland fires. However, the General Plan EIR concluded that impacts related to wildland fire hazards resulting from buildout of the General Plan would be less than significant with implementation of the fire protection policies in the General Plan. The proposed project would be required to comply with all applicable fire protection policies, such as Policy 8.10.2.a, which includes enforcement of building codes to reduce fire hazards, and Policy 8.10.2.d, which includes involvement of the Fire Protection District in the development review process. In addition, development of the proposed project would include the installation of fire suppression systems (e.g., fire hydrants, automatic fire sprinklers, smoke detectors), would be designed in accordance with the latest requirements of the California Fire Code, and would include an EVA by way of the extension of Sand Creek Road through the project site. In addition to providing the extension of Sand Creek Road, which would serve as the primary EVA route to the project site, Empire Mine Road is also proposed as an additional EVA point. However, it should be noted that use of Empire Mine Road as an EVA is speculative at this time and may not be feasible in the future. In accordance with State standards, the project would be required to maintain defensible space to provide a fire break that would prevent the spread of ground fires and protect on-site structures. Project plans would be routed to the Contra Costa County Fire Protection District (CCCFPD) for review and approval, who provides fire prevention services to the City of Antioch through inspections, code enforcement, plan review and engineering services, public education, fire investigations, and exterior hazard control. Additional fire safety measures may be included as conditions of approval. Compliance with such would ensure that the potential hazards associated with wildland fires to the proposed buildings and structures would be reduced. Therefore, impacts of the proposed project related to exposure of people or structures to the risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands, would be *less than significant*.

Mitigation Measure(s)

*None required.*

- 4.7-6 For a project located within an airport land use plan, or within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area. Based on the analysis below, the project would have *no impact*.**

### Multi-Generational Plan and Traditional Plan

The project site is not located within an airport land use plan, nor within two miles of a public airport or private airstrip. The nearest major airport is the Byron Airport, which is located over 10 miles southeast of the project site. According to the Contra Costa County Airport Land Use Commission, the project site is not within the *Airport Land Use Compatibility Plan* area or the area of influence of the nearest airport; therefore, the project site is not within an area of influence identified for the Byron Airport. Thus, the project site would not be subject to any safety hazards associated with an airport, and *no impact* would occur.

### Mitigation Measure(s)

*None required.*

## **Cumulative Impacts and Mitigation Measures**

As defined in Section 15355 of the CEQA Guidelines, “cumulative impacts” refers to two or more individual effects which, when considered together, are considerable, or increase other environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects.

Hazardous materials and other public health and safety issues are generally site-specific and/or project-specific, and would not be significantly affected by other development inside or outside of the City. The following discussion of cumulative impacts is based on the implementation of the proposed project in combination with other proposed and pending projects in the region. Other proposed and pending projects in the region under the cumulative context would include buildout of the City of Antioch General Plan, as well as development of the most recent planned uses within the vicinity of the project area.

**4.7-7 Cumulative increase in the number of people who could be exposed to potential hazards associated with wildfires and an increase in the transport, storage, and use of hazardous materials from development of the proposed project in combination with other reasonable foreseeable projects in the region. Based on the analysis below, the impact is *less than significant*.**

### Multi-Generational Plan and Traditional Plan

Impacts associated with hazardous materials are site-specific and generally do not affect, or are not affected by, cumulative development. Cumulative effects could be considered if the project was, for example, part of a larger development in which industrial processes that would use hazardous materials are proposed. However, the proposed project is a residential and commercial development and, thus, does not involve industrial processes or any operations that would involve the routine use of hazardous materials. Furthermore, any future proposed development project would be subject to the same federal, State, and

local hazardous materials management requirements as the proposed project. Therefore, potential risks associated with increased hazardous materials use in the community, including potential effects, if any, on the proposed project, would not cumulate to become a significant impact.

The proposed project would introduce new people and structures to the area, which would create additional wildland urban interface areas within the City. Although the project would add people and structures to the area, the project would be required to comply with all applicable standards and regulations related to fire suppression, including General Plan Policies 11.8.2.e and 11.8.2.f, which would ensure private businesses and industrial uses would be self-sufficient in an emergency by maintaining a fire control plan, identifying personnel who are capable and certified in the first aid and CPR, as well as regular review of emergency evacuation plans for fire and hazardous materials. Similar to the proposed project, all other projects in the City would be subject to the same regulations and standards required to ensure a less-than-significant impact related to hazards and hazardous materials. In addition, evacuation procedures in the event of an emergency, such as during a wildfire, are related to circulation and emergency access. As discussed above, the proposed project would not interfere with any emergency evacuation plan. Further discussion regarding the potential impacts related to evacuation circulation is included in Chapter 4.12, Transportation and Circulation, of this EIR.

Therefore, implementation of the proposed project would have a *less-than-significant* incremental contribution towards cumulative hazardous materials use and wildfire hazards.

Mitigation Measure(s)

*None required.*