

4.7 HAZARDS AND HAZARDOUS MATERIALS

Three areas of potential hazards on the project site were identified: historical mining/ventilation shafts, water supply and monitoring wells, gas exploration boreholes associated with oil and gas wells. Mitigation requiring the abandonment and closure of these hazards would reduce potential impacts to a less than significant level.

No hazardous materials-related information or documented soil or groundwater contamination for the project area or surrounding parcels was found and no evidence of hazardous materials was observed on the project site.

This section evaluates hazards and hazardous materials and the potential for these materials to exist on the project site. A Phase I Environmental Site Assessment (Phase I ESA) was prepared by ENGEO Incorporated in 2008 for the 540-acre project site. This assessment included review of historical land use information; a site reconnaissance; owner, occupant, and public official interviews; and review of local, state, tribal, and federal environmental records and databases.

4.7.1 EXISTING SETTING

Existing Conditions

Historical Land Uses

As depicted on USGS topographic maps from 1912 through 1980 and aerial photographs from 1939 through 2005, the project site historically has been undeveloped land, with the exception of two small areas (4.5 acres along the eastern side of Deer Valley Road and 1 acre located north of Horse Valley Road along the northern property boundary) which were cultivated as orchards from approximately 1939 to the 1990s. Topographical maps show several unpaved roads and two small structures on the site in 1912 and 1916, one of which had been removed by 1947. From 1953-1980, topographical maps and aerial photographs document that another small structure and several outbuildings south of the 1-acre orchard had been built on the site, and coal mine tunnels are depicted on the adjacent property to the northwest. All of these structures were removed by 1982 through 1998, as verified by aerial photographs.

Current Land Uses

The project site consists of undeveloped property. The project area is adjacent to an 18-hole golf course, the Roddy Ranch Golf Club, consisting of hilly terrain, sand traps, cart paths, and several small ponds. A clubhouse and four associated maintenance and storage buildings are located in the southeastern corner of the golf course and a rest house and pump house are located along the northern boundary of the golf course, south of Empire Mine Road.

The project site and adjacent golf course area were viewed for hazardous materials storage, superficial staining or discoloration, debris, stressed vegetation, or other conditions that may be indicative of potential sources of soil or groundwater contamination. The project site also was checked for evidence of fill/ventilation pipes, ground subsidence, or other evidence of existing or preexisting underground storage tanks. No physical evidence of soil or groundwater impairments associated with current uses of the project site was found. No documented soil or groundwater contamination associated with abutting properties was found from records research.

Chemical Storage and Use

The Roddy Ranch Golf Club is listed in the Contra Costa County Site List as an active facility under the Hazardous Waste Generator and Hazardous Materials Management Plan programs. Current chemical storage and use at Roddy Ranch Golf Club involves small to moderate quantities of various fungicides and herbicides, various oils, gasoline, and diesel fuel associated with golf course maintenance. One above-ground fuel tank is located south of the maintenance building. No staining evidence of significant spills or leaks in the areas of chemical, fuel, or oil storage was observed. No odors indicative of hazardous materials or petroleum materials, or pools of potentially hazardous liquids were noted.

Asbestos-Containing Materials and Lead-Based Paint

As the Roddy Ranch Golf Club was built in 1999, it is unlikely that asbestos-containing materials and lead-based paint materials exist within the structures. Lead-based paint was banned from use in the United States in 1978. In 1989, the Environmental Protection Agency (EPA) issued a final rule banning most asbestos-containing products from use. In 1991, the ruling was overturned; however, several asbestos-containing products remained banned and the use of asbestos in other products is often limited. Asbestos-containing materials containing less than 1% asbestos may be present on the site; however it is unlikely materials with significant asbestos content were used during construction of the existing structures.

Agricultural Chemicals

Four soil samples were taken from the approximately 1-acre orchard area located along the project site's northern property boundary, south of Empire Mine Road and were analyzed for organochlorine pesticides (EPA 8081A), arsenic, lead, and mercury (EPA 6010B).

Based on analysis of the samples, the soils within the 1-acre orchard area do not appear to have been adversely affected by agricultural use. Concentration levels of organochlorine pesticides were not reported above laboratory detection limits, lead concentrations were below the current Regional Water Quality Control Board Environmental Screening Level (ESL) and the California Human Health Screening Level (CHHSL) for residential soil, mercury was not reported above laboratory detection limits, and concentrations of arsenic were within the expected range of background concentrations.

Septic Tanks and Leach Fields

Two 3,000-gallon septic tanks and associated leach fields connected with the Roddy Ranch Golf Club are located on the golf course site: one along the golf course road for the current “clubhouse” (a trailer) and out-structures and the other near Hole 9 for restroom facilities. No disposal of solid waste/debris was observed on the project site. As part of the future golf course improvements, the existing clubhouse will be removed and the new clubhouse will be serviced via municipal sewer service from the City of Antioch and sewer treatment provided by the Delta Diablo Sanitation District (DDSD). The septic system and leach field will no longer be used once the new clubhouse is complete and should be excavated and removed by a general contractor under permit with the Contra Costa County Environmental Health. Implementation of mitigation measure 4.7-2 would ensure proper excavation and disposal of this system.

Water Supply Well

A pump, 250-foot-deep water well, and above-ground storage tank are located near the golf cart area of the Roddy Ranch Golf Club. The existing golf course clubhouse currently uses this well for its water supply, but the proposed new clubhouse would be served via municipal water provided by the City of Antioch. If continued use of the well is desired, it will require further water quality analyses to ensure compliance with water quality standards. If use is no longer intended, the water supply well should be abandoned/destroyed under Contra Costa County Environmental Health requirements.

Monitoring Wells

Two 30-foot-deep monitoring wells are located on the project site, north of the golf course. The wells appear to have been used to evaluate groundwater at locations downgradient from basins associated with the golf course. The current property owner indicated that there are no plans for future sampling of the monitoring wells. As their continued use is no longer intended, the monitoring wells should be properly abandoned/destroyed in accordance with Costa County Environmental Health requirements.

Production Wells

The former property owner indicated that there are four approximately 60-foot-deep production wells located down the center of Horse Valley that were installed as part of a

hydrologic study. Production tests were conducted on these wells, but they have never been used for production.

Gas Exploration Boreholes/Oil/Gas Wells

Technical references provided by the Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR) indicate that three abandoned gas exploration boreholes associated with three oil/gas wells exist on the project site. These boreholes are listed as “Abandoned/Dry Hole” by the State Oil and Gas Supervisor: two were listed in 1967 and one in 1979. According to DOGGR’s Well Review Program (December 14, 2007), even if wells were properly abandoned, it remains a possibility that any well may start to leak oil, gas, and/or water after abandonment. Therefore, construction of structures or improvements over abandoned gas wells is generally discouraged; if such construction is planned, DOGGR recommends that the wells be tested for methane and any leakage of fluids or gas. DOGGR has the authority to request that the wells should be re-abandoned, which may involve removal of structures or obstacles that prevent or impede access to the well(s).

Transformers

Pacific Gas and Electric (PG&E) and privately owned transformers were observed at the Roddy Ranch Golf Club. The transformers located near the golf clubhouse appear to have been installed at the time of clubhouse construction (1999) and therefore are not likely to contain toxic substances (transformers installed after 1970 do not contain polychlorinated biphenyls [PCBs]). No evidence of staining was observed at the base of the transformers. These transformers are located in the golf course maintenance area away from the general public and do not pose a significant exposure risk.

Historical Mining

Coal mines historically have been located to the northwest of the project site. The first documented discovery of coal was made several miles northwest of the site in 1859 at which time it was called Horse Haven.¹ The discovery created some mining interest in Contra Costa County and other sites were soon found in the area. The Domengine formation contains seams of coal that were mined locally in the Black Diamond Mines area west and north of the project site.² Based on a comprehensive review of available records and a limited site reconnaissance by ENGEO, Inc., there is no evidence that coal mines or mining activity occurred on the project site. However, known coal mine workings exist within the parcel adjacent to the northernmost one-mile-long section of the West Phase and on a separate parcel, about one mile to the east of the project site. **Figure 4.6-2** in Section 4.6, Geology and Soils, shows the locations of the coal mines in relation to the project site.

¹ California Geology, 1980.

² Waters, 2006.

Based on evaluation reports of historic mining in the area,³ coal mine tunnels may extend approximately 100 feet onto the northwest side of the project site from an abandoned mine located north of the project site. The mine tunnels likely would cease approximately 50 to 100 feet below the ground surface of the project site. The potential for surface subsidence from any mining activity beneath the project site would be remote because the tunnels are generally less than 4 feet in height and overlain by bedrock. However, it is possible ventilation shafts may be present on the project site.⁴ Refer to Section 4.6, Geology and Soils, for more detailed information.

Potential Environmental Concerns within the Site Vicinity

Based on the information obtained from the Phase I ESAs, no hazardous material incidents have been reported on the project site or in the vicinity that would be likely to significantly impact the site. However, based on the agricultural and ranching history of the site, buried structures, debris, or impacted soil may be encountered during development activities. These materials may require special handling and disposal.

Fire Hazards

According to the Contra Costa County Fire Hazard Severity Zones in State Responsibility Area (SRA) map and the Contra Costa County Draft Fire Hazard Severity Zones in Local Responsibility Area (LRA) map,⁵ the property is located in an SRA Moderate zone. The project is required to meet minimum Contra Costa County Fire Protection District's (CCCYPD) requirements for weed abatement, as specified by the CCCYPD's Exterior Hazard Division. However, the project, consisting of a residential development, would be located adjacent to significant open space areas and future residents could be exposed to wildland fires.

Regulatory Setting

The use, storage, generation, and disposal of hazardous substances are regulated by a number of federal, state, and local agencies. The Department of Toxic Substances Control (DTSC) compiles a list of all hazardous waste facilities and lands designated as hazardous waste properties, along with other lists of hazardous waste sites per Section 65962.5 of the California Government Code.

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) Subtitle C addresses hazardous waste generation, handling, transportation, storage, treatment, and disposal. It includes

³ Norfleet Consultants. 2006a and Norfleet Consultants. 2006b.

⁴ Norfleet Consultants. 2006a and Norfleet Consultants. 2006b.

⁵ http://frap.cdf.ca.gov/webdata/maps/contra_costa/fhszs_map.7.pdf;
http://frap.cdf.ca.gov/webdata/maps/contra_costa/fhszl06_1_map.7.pdf.

requirements for a system that uses hazardous waste manifests to track the movement of waste from its site of generation to its ultimate disposition.

California Code of Regulations (CCR)

Most state and federal regulations and requirements that apply to generators of hazardous waste are spelled out in the California Code of Regulations (CCR), Title 22, Division 4.5. Title 22 contains the detailed compliance requirements for hazardous waste generators; transporters; and treatment, storage, and disposal facilities. Because California is a fully authorized state according to RCRA, most RCRA regulations (those contained in 40 Code of Federal Regulations [CFR] 260 et seq.) have been duplicated and integrated into Title 22. However, because the DTSC regulates hazardous waste more stringently than the EPA, the integration of state and federal hazardous waste regulations that make up Title 22 do not contain as many exemptions or exclusions as does 40 CFR 260.

Contra Costa County

The Contra Costa County Fire Protection District (CCCFPD), on behalf of the East Contra Costa County Fire Protection District, will respond to hazardous substance releases, but only to evaluate conditions and determine if emergency services are needed.

The Contra Costa Health Services Hazardous Materials Program serves area residents by responding to emergencies and monitoring hazardous materials. The Contra Costa Health Services Hazardous Waste Generator Program ensures the "...safe and legal handling, storage, and disposal of hazardous waste" by:

- Inspecting businesses in Contra Costa County that generate hazardous waste
- Issuing permits and inspecting businesses in Contra Costa County that perform certain treatments of hazardous waste

City of Antioch

Within the Antioch Planning Area, the Delta Diablo Sanitation District (DDSD) disposes of hazardous materials. The DDSD operates the Delta Household Hazardous Waste Collection Facility. This facility 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.

City of Antioch General Plan

The General Plan contains numerous objectives and policies designed to implement its vision related to hazards and hazardous materials. These policies govern the use and handling of hazards and hazardous materials as well as guidance on activities related to mineral extraction and wildland fires. The applicable policies of the General Plan relating to hazards and hazardous materials are listed below.

- Policy 8.10.2a Work with the Contra Costa County Fire Protection District (CCCFPD) to provide high quality fire protection services to area residents and businesses.
- Policy 8.10.2b In cooperation with the Contra Costa County Fire Protection District, conduct an annual assessment of the adequacy of facilities and services serving Antioch, personnel and staffing needs, and capital needs, based on anticipated growth and the level of service standard set forth in the Growth Management Element. This assessment should be undertaken as part of the annual review of proposed capital projects required by the California Government code.
- Policy 8.10.2c Provide the CCCFPD with timely information on development proposals and projected levels of future growth so that it can maintain appropriate long-term master plans and refine the delivery of service and facilities to maintain the performance standards set forth in the Growth Management Element.
- Policy 8.10.2d Involve the CCCFPD in the development review process by referring development requests to the Fire District for review and comment.
- Policy 11.3.2m As appropriate and necessary to protect public health and safety, abandoned mines shall be placed in natural open space areas, with appropriate buffer areas to prevent unauthorized entry.
- Policy 11.3.2n Within areas of known historic mining activities, site-specific investigations shall be undertaken prior to approval of development to determine the location of any remaining mine openings, the potential for subsidence of collapse, and necessary measures to protect public health and safety, and prevent the collapse or structural damage to structures intended for human occupancy due to mine-related ground failure or subsidence. Such measures shall be incorporated into project approvals.
- Policy 11.3.2o All identified mine openings shall be effectively sealed.
- Policy 11.3.2p Construction of structures for human occupancy shall be prohibited within areas found to have a high probability of surface collapse or subsidence, unless foundations are designed that would not be affected by such surface collapse or subsidence, as determined by site-specific investigations and engineered structural design.
- Policy 11.3.2q The locations of all oil or gas wells on proposed development sites shall be identified in development plans. Project sponsors of development containing existing or former oil or gas wells shall submit documentation demonstrating that all abandoned wells have been properly abandoned pursuant to the requirements of the California Department of Conservation, Oil, Gas, and Geothermal Resources.

- Policy 11.5.2a Where new development borders wildland areas, require appropriate fuel modification and use of fire retardant building materials per the requirements of the Contra Costa County Fire Protection District. Fuel modification may be permitted to extend beyond the boundaries of the site for which wildland fire protection is being provided only if the adjacent owner provides written permission, the proposed fuel modification is consistent with the management practices of the agency controlling such land (if it is in permanent open space), and the off-site fuel modification activity will not significantly impact sensitive habitat areas.
- Policy 11.5.2b Require that adequate fire protection be available at initial project occupancy, whenever feasible. Thus, stations should be constructed and manned at the outset of new development. If the Contra Costa Fire Protection District finds that a lag time between initial occupancy and operation of new stations cannot be avoided, the City may consider requiring sprinklers in new homes as an alternative.
- Policy 11.7.2a Promote the reduction, recycling, and safe disposal of household hazardous wastes through public education and awareness.
- Policy 11.7.2c Require businesses generating hazardous waste to pay necessary costs for local implementation of programs specified in the Contra Costa County Hazardous Waste Management Plan, as well as costs associated with emergency response services for a hazardous materials release.
- Policy 11.7.2q 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 11.8.2a Maintain and update the City's Emergency Response Plan, as required by State law.
- Policy 11.8.2b 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 government 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 11.8.2e 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 Consistency Analysis

The project would be in compliance with the City of Antioch General Plan polices related to hazards and hazardous materials. Specifically, in regard to Section 8.10.2, Fire Protection and Section 11.8.2, Disaster Response, the project would be in compliance through implementation of the mitigation measures identified in Chapter 4.12, Public Services, to ensure high quality fire protection and emergency services. The project would be consistent with Section 11.3.2 Historic Mineral Extraction and Section 11.5.2 Fire Hazards Policies through the implementation of mitigation measures in Section 4.7.2, Impacts and Mitigation Measures, of this EIR. In regard to Section 11.7.2, Hazardous Materials Policies, the project would be in compliance as the project would not generate hazardous wastes resulting from manufacturing processes and other use of materials and the project site would not contain a commercial waste management facility. In addition, the small to moderate quantities of various fungicides and herbicides, various oils, gasoline, and diesel fuel associated with golf course maintenance are regulated, managed, and monitored by the County such that no population is, or will be, exposed to harmful levels.

4.7.2 IMPACTS AND MITIGATION MEASURES

Significance Criteria

Appendix G of the CEQA Guidelines identified environmental issues to be considered when determining whether a project could have significant effects on the environment. As identified in Appendix G, the project would have significant impacts to hazardous materials if it would:

- a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- b. 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;
- c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within a quarter mile of an existing or proposed school;

- d. Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code 65962.5 and, as a result, would it create a significant hazard to the public or the environment;
- e. Result in a safety hazard for people residing or working in the project area, if 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;
- f. Result in a safety hazard for people residing or working in the project area, for a project located within the vicinity of a private airstrip;
- g. Impair implementation of, or physically interfere with an adopted emergency response plan or emergency evacuation plan; or
- h. 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.

No Impact

Proximity to Schools

The project site is not located within a quarter mile of an existing or proposed school. Therefore, there are no impacts related to the exposure of school populations to hazards or hazardous materials associated with the project site.

Proximity to Airports

The project site is not located within an airport land use plan or within two miles of a public airport or public use airport. Furthermore, the project site is not located in the vicinity of a private airstrip. Therefore, there are no impacts related to the exposure of a future population residing or working in the project area to airport safety hazards.

Hazardous Materials Site Listing

The Roddy Ranch Golf Club, which is adjacent to the project site, is listed on the County's list of monitoring sites. The golf course uses small amounts of hazardous materials. These materials are regulated, managed, and monitored by the County such that no population is, or will be, exposed to harmful levels. Furthermore, the project site itself is not listed on the County or any State list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Therefore, there are no impacts related to the project site being listed as a hazardous materials site.

Less Than Significant Impact

Emergency response time for police and fire personnel

The implementation of the project would generate a maximum 1,862 residents to the City of Antioch,⁶ creating a demand for additional police services, including additional personnel. With this increase in residents, in order to maintain the City's required staffing ratios, two to three new police staff would be required. The Antioch Police department maintains staffing ratios as part of its annual budgeting and capital improvement program. The department regularly assesses its need for additional staffing and identifies additional budget on an annual basis to ensure that staffing ratios and response times can be met.

The General Plan EIR stated that potential police protection impacts would be reduced to a less than significant level through the adoption of General Plan Objective and Policies 3.5.3.1 and 8.11.2.

Although the project site falls within the jurisdiction of the CCCFPD, the location of the nearest fire station is under the jurisdiction of the ECCFPD, which can reach the site in three minutes and thirty seconds. The two fire departments operate under a Mutual Aid Agreement and therefore emergency service to the site currently meets General Plan response standards of 5 minutes or less.

Significant Impacts

Impact 4.7-1: Exposure of people to wildland fires could be increased

As previously, stated, according to the Contra Costa County Fire Hazard Severity Zones in State Responsibility Area (SRA) map and the Contra Costa County Draft Fire Hazard Severity Zones in Local Responsibility Area (LRA) map, the property is located in an SRA Moderate zone. The project is required to meet minimum Contra Costa County Fire Protection District's (CCCFPD) requirements for weed abatement, as specified by the CCCFPD's Exterior Hazard Division. However, the project, consisting of a residential development, would be located adjacent to significant open space areas and future residents could be exposed to wildland fires, a potentially significant impact. To be consistent with the General Plan and minimize the risk of exposure of the project area to wildland fires, the following mitigation measures, in compliance with the City's General Plan Section 11.5.2, Fire Hazards Policies, shall be implemented as part of any future development application:

Mitigation Measure 4.7-1a: All proposed home designs shall include the use of fire retardant building materials to minimize the potential for loss of life, physical injury, property damage, and social disruption resulting from wildland fires. Prior

⁶ Refer to Section 4.13 Population and Housing for further discussion of the population generation rates related to this project.

to the issuance of building permits, the City shall confirm that the building plans comply with the requirements of the Contra Costa County Fire Protection District related to the use of fire retardant building materials.

Mitigation Measure 4.7-1b: Appropriate weed abatement and fuelbreak measures, per Contra Costa County Fire Protection District guidelines, shall be included in the Resource Management Plan. Ongoing maintenance shall be funded through the homeowners association fees.

Significance After Mitigation: Less than significant

Impact 4.7-2: Project construction could expose people to hazards and hazardous materials

Construction of the project could result in potential exposure of people to hazards and hazardous materials (such as construction activities that could result in the accidental release of oil, gasoline, or diesel fuel). The General Plan EIR identified exposure of people to hazards and hazardous materials as a potentially significant impact.

In addition, the increase of population on the project site resulting from the project could potentially expose people to several hazards highlighted in the Phase I ESA (**Appendix E**) prepared by ENGEIO Incorporated, including production and monitoring wells, mine ventilation shafts, and abandoned gas exploration boreholes.

To ensure that no population is exposed to hazardous materials or hazards, which would constitute a potentially significant impact, the following mitigation measures shall be implemented as part of any future development application:

Mitigation Measure 4.7-2a: Prior to issuance of grading permits, the applicant shall confirm that all wells, boreholes and mine ventilation shafts have been properly abandoned and closed and shall provide the City with the appropriate documentation showing the aforementioned:

1. **Production Wells:** The four production wells shall be properly abandoned/destroyed in accordance with applicable regulations.
2. **Water Supply Well:** The water supply well located near the existing clubhouse shall be properly abandoned/destroyed in accordance with applicable regulations if continued use is no longer intended.
3. **Monitoring Wells:** The two monitoring wells (independent of the water supply well) located north of the golf course shall be properly abandoned/destroyed in accordance with applicable regulations.

4. **Septic Systems/Leach Fields:** The septic systems and leach fields shall be excavated and removed in accordance with applicable regulations when continued use is no longer intended.
5. **Oil/Gas Exploration Wells/Boreholes:** The California Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR) shall be notified of the three abandoned gas exploration boreholes and any related facilities and they shall determine if further testing and/or re-abandonment is necessary; in the event contaminated soils are identified, a Soil Management Plan (SMP) shall be developed by the applicant and submitted for review and approval to Contra Costa Hazardous Materials. The SMP shall be implemented for safe removal and handling of the soil; the applicant shall incorporate all recommendations of a final well investigation report into all development plans submitted to the City of Antioch Building Division for the project.
6. **Historical Mining/Mine Ventilation Shafts:** Refer to **Section 4.6, Geology and Soils** for mitigation related to historical mining.

Further discussion related to mine ventilation shafts and oil/gas wells and boreholes is included in **Section 4.6, Geology and Soils**.

Mitigation Measure 4.7-2b: Prior to the issuance of grading permits, the applicant shall submit a Soil Management Plan (SMP) for review and approval by the City. The SMP shall establish management practices for handling fuels during construction to reduce the potential for spills and to direct the safe handling of these materials if encountered.

Significance After Mitigation. Less than significant

Impact 4.7-3: The project would disturb soils along the proposed utility corridors, which may be impacted with hazardous materials based on historical land use

The project involves construction of two utility corridors which will involve excavation of trenches, utility installation, and backfill. The proposed utility corridors along Deer Valley Road and Empire Mine Road are located in areas generally used for agricultural purposes and are situated proximate to existing roadways. Proposed utilities to be installed along Deer Valley Road include water, sewer and storm drain. The ultimate Deer Valley Road right-of-way will be 112 feet in width; the potential area of disturbance studied in this EIR is approximately 500 feet in width (approximately 250 feet east and west of the centerline of Deer Valley Road).

As shown in **Figure 3.7**, an existing sewer main line currently terminates at Heidorn Ranch Road, and extension of this sewer line is planned as part of new residential

development (Aviano Adult Community Project) located to the east of the new Kaiser Permanente Medical Facility. The Project would connect to this extended line through a utility corridor located on the east side of Deer Valley Road within the right-of-way of the future roadway alignment. If the Aviano Adult Community is not constructed, the Roddy Ranch project could construct this utility extension pursuant to the mitigation contained in the Aviano Adult Community Project EIR.

The Empire Mine Road utility corridor would remain entirely within the road right-of-way, so no adjacent properties would be affected. It is conceivable, but unlikely, that near surface soils along the corridors may have been impacted with petroleum hydrocarbons, aerial deposited lead or pesticides. Because of these factors, this impact is considered significant.

Mitigation Measure 4.7-3: Prior to the issuance of grading permits, the applicant shall conduct pre-construction soil sampling and laboratory testing along the proposed utility corridors to determine if near-surface soils have been impacted with hazardous materials. In the event significant concentrations of hazardous materials are identified, a Soil Management Plan (SMP) shall be developed by the applicant and submitted for review and approval to Contra Costa Hazardous Materials. The SMP shall be implemented for construction activities prior to the issuance of grading permits to ensure that any potentially hazardous materials have been safely remediated and removed from the project area.

Significance After Mitigation. Less than significant

Cumulative Impacts

Cumulative impacts are addressed in **Chapter 6.0, CEQA Required Conclusions**, of this EIR.