

## 4.7 HAZARDS AND HAZARDOUS MATERIALS

### 4.7.1 INTRODUCTION

The Hazards and Hazardous Materials chapter of the EIR describes existing and potentially occurring hazards and hazardous materials within the project area. The chapter includes a discussion of potential impacts posed by such hazards to the environment. In addition, surrounding land uses are discussed in order to provide an assessment of whether the Proposed Project or Biological Resources Preservation Alternative (BRPA) could impact surrounding land uses. The question of whether surrounding land uses could impact future residents of the Proposed Project or BRPA is not a question requiring analysis under CEQA.<sup>1</sup>

The Hazards and Hazardous Materials chapter is primarily based on information drawn from two Phase I Environmental Site Assessments (ESAs) prepared for the Proposed Project by Geocon Consultants, Inc. (Geocon). The Phase I ESAs include assessment of the proposed 379.2-acre portion of the project site/BRPA site proposed for urban development (hereafter referred to as Urban Development Area Phase I ESA) (see Appendix F of this EIR)<sup>2</sup> and assessment of the proposed 118.4-acre Urban Agricultural Transition Area (UATA) and surrounding area (hereafter referred to as UATA Phase I ESA) (see Appendix G of this EIR).<sup>3</sup> In addition, this chapter incorporates information from three Phase II ESAs prepared for the Proposed Project by Geocon to assess soil conditions within the proposed urban development area (hereafter referred to as Urban Development Area Phase II ESA) (see Appendix H of this EIR)<sup>4</sup> and agricultural buffer area (hereafter referred to as UATA Phase II ESA) (see Appendix I of this EIR),<sup>5</sup> as well as effects to on-site soils from the former firing range site currently occupied by Davis Paintball and Blue Max Kart Club (hereafter referred to as Firing Range Phase II ESA) (see Appendix J of this EIR).<sup>6</sup> This chapter additionally relies on information from the City of Davis General Plan<sup>7</sup> and the associated General Plan EIR.<sup>8</sup>

<sup>1</sup> Per the *California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal.4th 369 (CBI/A), the California Supreme Court held that “agencies subject to CEQA generally are not required to analyze the impact of existing environmental conditions on a project’s future users or residents. But when a proposed project risks exacerbating those environmental hazards or conditions that already exist, an agency must analyze the potential impact of such hazards on future residents or users. In those specific instances, it is the project’s impact on the environment – and not the environment’s impact on the project – that compels an evaluation of how future residents or users could be affected by exacerbated conditions.” (*Id.* at pp. 377-378.).

<sup>2</sup> Geocon Consultants, Inc. *Phase I Environmental Site Assessment Report, Village Farms Davis, Davis, California*. Revised February 14, 2024.

<sup>3</sup> Geocon Consultants, Inc. *Phase I Environmental Site Assessment Report, Yolo County, Assessor’s Parcel Number 042-110-029, Davis, California*. Revised February 14, 2024.

<sup>4</sup> Geocon Consultants, Inc. *Phase II Environmental Site Assessment, Village Farms Davis, Davis, California*. Revised February 14, 2024.

<sup>5</sup> Geocon Consultants, Inc. *Phase II Environmental Site Assessment Report, Village Farms Davis Agricultural Buffer Area, Yolo County Assessor’s Parcel Number 042-110-029 and 035-970-033, Davis, California*. Revised March 25, 2024.

<sup>6</sup> Geocon Consultants, Inc. *Phase II Environmental Site Assessment, Addressing Nearby Firing Range, Village Farms Davis, Davis, California*. May 15, 2023.

<sup>7</sup> City of Davis. *City of Davis General Plan*. Adopted May 2001, Amended January 2007.

<sup>8</sup> City of Davis. *Final Program EIR for the City of Davis General Plan Update and Final Project EIR for Establishment of a New Junior High School*. Certified May 2001.



#### **4.7.2 EXISTING ENVIRONMENTAL SETTING**

The following section includes a definition of hazardous materials and descriptions of the existing conditions associated with the project site/BRPA site related to hazards and hazardous materials.

##### **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 agencies. The California Environmental Protection Agency (CalEPA), California Department of Toxic Substances Control (DTSC) defines hazardous waste, as found in the California Health and Safety Code Section 25141(b), as follows:

[...] waste that, because of the quantity, concentration, or physical, chemical, or infectious characteristics of the waste, may do either of the following:

- (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.

The following discussion focuses on the potential Recognized Environmental Conditions (RECs) associated with the project site/BRPA site. A REC indicates the presence or likely presence of any hazardous substances 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>9</sup>

Additionally, the following sections include a discussion of historical RECs (HRECs) associated with the project site/BRPA site. A HREC indicates a past release of hazardous substances or petroleum products that has occurred in connection with a property and has been addressed to the satisfaction of the applicable regulatory authority. A HREC does not have any property use restrictions and, thus, does not have any use limitations with respect to future activities on the property. The following discussion also addresses the possibility of controlled RECs (CRECs) associated with the project site/BRPA site. A CREC is a REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls.

##### **Project Area Conditions**

The project site/BRPA site is located in an unincorporated portion of Yolo County immediately north of the City of Davis. The existing on-site conditions of the urban development area and the UATA are discussed separately below.

##### **Urban Development Area**

According to the Urban Development Area Phase I ESA, the portion of the project site/BRPA site proposed for urban development is primarily comprised of irrigated farmland, but also includes an

<sup>9</sup> ASTM International. *ASTM E1527, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*. 2013.



approximately 1.5-acre “former structure area” located in the southern portion of the site (see Figure 4.7-1 and Figure 4.7-2).

The former structure area formerly contained a barn, residence, and shed (see Markers #3 through #5 in Figure 4.7-1). Currently, the only structure within the former structure area is a water tank house, which was historically sided with unpainted metal and is currently sided with unpainted wood. To the south of the former structure area is a beekeeping area and associated pallet tanks of natural flavoring (see Marker #6 in Figure 4.7-1). A Pacific Gas and Electric Company (PG&E) buried gas pipeline is located near the former structure area and crosses through the center of the project site/BRPA site, from south-southeast to north-northwest (see Marker #10 in Figure 4.7-1), as does a sewer line with associated manholes (see Marker #11 in Figure 4.7-1). A PG&E pole-mounted electrical transformer is also located near the former structure area, as well as a domestic well (see Marker #7 in Figure 4.7-1), adjacent to the southwest of the former structure area.

Elsewhere, an irrigation well, associated 1,000-gallon diesel aboveground storage tank (AST), and diesel engine and turbine occur in the north-central area of the urban development portion of the project site/BRPA site, along the current alignment of Channel A (see Markers #12 through #14 in Figure 4.7-1). A well, associated turbine, and concrete pad are also located in the eastern portion of the urban development area (see Markers #15 and #16 in Figure 4.7-1). Additionally, irrigation wells are present in the north-central and eastern portions of the site.

Monitoring wells associated with the former landfill occur in the northern portion of the urban development area (see Marker #17 in Figure 4.7-1). With respect to off-site areas adjacent to the urban development area, residential development occurs to the east, west, and south. The closed Old Davis Landfill, former wastewater treatment plant (WWTP), and agricultural uses are adjacent to the north. Additionally, a former firing range used by the Davis Police Department was also located approximately 300 feet north of the urban development area on an adjacent property currently occupied by Davis Paintball and Blue Max Kart Club.

The existing potential hazards associated with the Urban Development Area are described in further detail below and are based on the Urban Development Area Phase I and Phase II ESAs, which were conducted concurrently, as well as the Firing Range Phase II ESA.

### Organochlorine Pesticides and Arsenic

Organochlorine pesticides (OCPs) are a group of chlorinated compounds used as pesticides. OCPs can enter the environment after pesticide applications and can adhere to the soil and air, increasing the chances of high persistence in the environment. Exposure to pesticides has been concluded to increase the risk of hypertension, cardiovascular disorders, and other health-related problems in humans.<sup>10</sup> Arsenic is a metalloid, which possesses characteristics of both a metal and a non-metal, and is widely distributed in the soil, water, air, and rocks. Arsenic was commonly found in pesticides but has since been removed. The immediate symptoms of acute arsenic poisoning include vomiting, abdominal pain, and diarrhea.

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<sup>10</sup> National Center for Biotechnology Information, U.S. National Library of Medicine, National Institutes of Health. *Organochlorine pesticides, their toxic effects on living organisms and their fate in the environment*. Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5464684/>. Accessed March 2024.





**Figure 4.7-1  
Urban Development Area Survey Area**





**Figure 4.7-2  
Former Structure Area**



Long-term exposure to high levels of inorganic arsenic can lead to cancers of the skin, bladder, and/or lungs, as well as adverse pregnancy outcomes.<sup>11</sup> It should be noted that naturally occurring arsenic is present in soils throughout the State and low levels of arsenic below DTSC screening levels are therefore commonly encountered.

According to the Urban Development Area Phase I ESA, the urban development area has been used for agricultural uses since prior to 1937. The City of Davis reported that the on-site agricultural fields had lain fallow for most of the 1990s, but agricultural uses resumed, with the fields planted each summer starting in 1999.

Based on the previous and current agricultural uses associated with the urban development area, the Urban Development Area Phase II ESA included the testing of on-site soils for total arsenic and OCPs associated with the former agricultural uses, in accordance with U.S. Environmental Protection Agency (USEPA) Methods 6010B and 8081A, respectively. Figure 4.7-3 shows the locations of soil samples excavated as part of the Urban Development Area Phase II ESA. According to the Urban Development Area Phase II ESA, arsenic was not detected in on-site soils, and OCPs were not detected at concentrations exceeding the applicable DTSC screening levels for residential soil.

Pursuant to DTSC guidance, the Phase II ESA also included soil sampling at the former structure area and laboratory analysis for potential contaminants, including OCPs. The only OCP detected at concentrations exceeding the DTSC screening level for residential soil was toxaphene, a synthetic organic mixture of chemicals used as an insecticide during the late 1960s and the 1970s that tends to remain in soil for long periods. Laboratory analysis detected toxaphene in four of the five composite surface soil samples gathered throughout the former structure area, as well as the samples taken from the northern end of the former structure area, near the former barn. Concentrations within the gathered soil samples ranged from 1,000 to 1,200,000 micrograms per kilogram ( $\mu\text{g/kg}$ ), which exceeds the DTSC screening level for toxaphene in residential soil (450  $\mu\text{g/kg}$ ). Concentrations of toxaphene exceeding the DTSC screening level were not detected in any of the subsurface samples.

### Polychlorinated Biphenyls

Polychlorinated biphenyls (PCBs) are a mixture of individual chemicals that are not currently produced in the U.S. but were previously used in transformers and are still found in the environment. PCBs entered the air, water, and soil during their manufacture, use, and disposal; from accidental spills and leaks during their transport; and from leaks or fires in products containing PCBs. The chemicals do not readily break down and, thus, may persist for very long periods of time. Health effects that have been associated with exposure to PCBs include acne-like skin conditions in adults and neurobehavioral and immunological changes in children.<sup>12</sup> PCBs are also known to cause cancer in animals.

As part of the site reconnaissance conducted for the Urban Development Area Phase I ESA, Geocon observed a single pole-mounted electrical transformer near the former structure area in the southern portion of the urban development area.

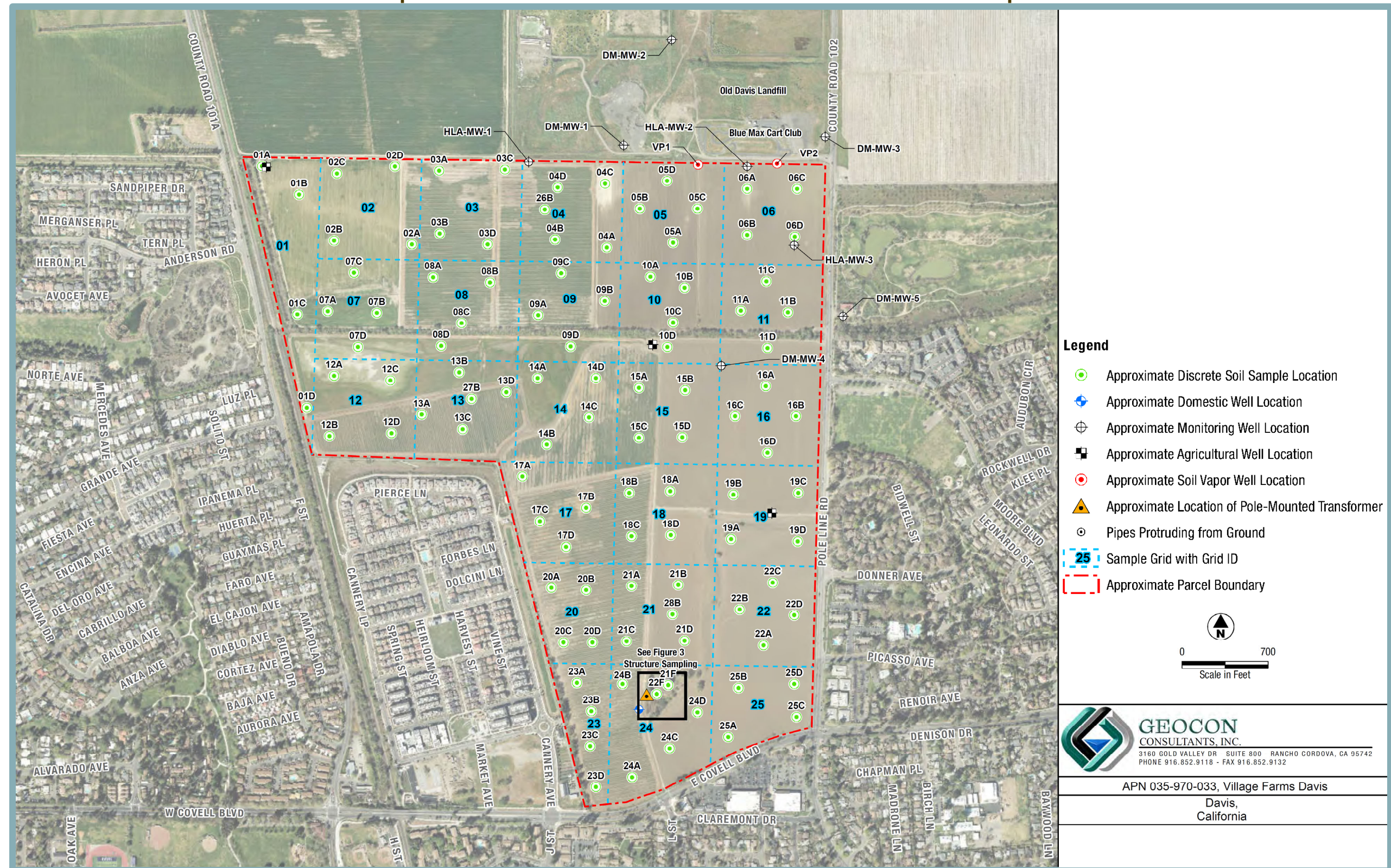
<sup>11</sup> World Health Organization. *Arsenic*. Available at: <https://www.who.int/news-room/fact-sheets/detail/arsenic>. Accessed March 2024.

<sup>12</sup> Agency for Toxic Substances and Disease Registry, U.S. Department of Health and Human Services. *ToxFAQs for Polychlorinated Biphenyls (PCBs)*. Available at: <https://wwwn.cdc.gov/TSP/ToxFAQs/ToxFAQsDetails.aspx?faqid=140&toxid=26>. Accessed March 2024.





**Figure 4.7-3**  
**Urban Development Area Phase II Environmental Site Assessment Soil Sample Locations**





The transformer was not labeled to indicate whether PCBs were present in the dielectric fluid, but evidence of leaking was not observed. Geocon contacted PG&E but was unable to obtain specific information regarding the age or PCB content of the transformer.

### Asbestos-Containing Materials

Asbestos is the name for a group of naturally occurring silicate minerals that are considered to be “fibrous” and through processing can be separated into smaller and smaller fibers. The fibers are strong, durable, chemical resistant, and resistant to heat and fire. Because of its fiber strength and heat resistance, asbestos has been used in a variety of building construction materials for insulation and as a fire retardant. Exposure to asbestos increases the risk of developing lung disease, such as lung cancer, mesothelioma, and asbestosis.<sup>13</sup> For buildings constructed prior to 1980, the Code of Federal Regulations (CFR) (Title 29, Section 1926.1101) states that all thermal system insulation (boiler insulation, pipe lagging, and related materials) and surface materials must be designated as “presumed asbestos-containing material” unless proven otherwise through sampling in accordance with the standards of the Asbestos Hazard Emergency Response Act.

The barn, residence, and shed that were historically located in the former structure area were constructed between 1937 and 1952. According to the Urban Development Area Phase I ESA, the former structures were removed circa 2015, and a two-story water tank house is the only structure currently standing within the former structure area. Asbestos-containing materials (ACMs) were not observed on the structure exterior; however, the interior of the structure was boarded up after the recent eviction of unauthorized occupants and, thus, was inaccessible. The presence of asbestos within the water tank house cannot be ruled out.

### Lead-Based Paints and Lead-Affected Soils

Lead is a highly toxic material that may cause a range of serious illnesses, and in some cases death. Lead was most commonly used in paint. In 1978, the Consumer Product Safety Commission banned the use of lead as an additive to paint; however, lead-based paints (LBPs) could be present in structures built prior to 1970. Typically, human exposure to lead from older vintage paint could occur during renovation, maintenance, or demolition work.

LBPs were not observed on the structure exterior as part of the Urban Development Area Phase I ESA, but as previously discussed, the interior of the structure was boarded up and inaccessible. Pursuant to DTSC guidance, the Urban Development Area Phase II ESA conducted post-demolition soil sampling at the former structure area. The samples were subject to laboratory analysis for lead in accordance with USEPA Method 6010B. Lead was detected at concentrations ranging from 6.6 to 93 milligrams per kilogram (mg/kg), which exceeds the California DTSC Human and Ecological Risk Office Note 3 screening levels (80 mg/kg). Specifically, lead concentrations in one surface soil sample gathered approximately 25 feet north of the former structure area were measured at 93 mg/kg, indicating that shallow soil surrounding the footprint of the former structure has been impacted by concentrations of lead. Although lead was detected in the subsurface sample obtained from the same location, the concentration was measured at 3.9 mg/kg, which is substantially below the DTSC screening level for lead in residential soil.

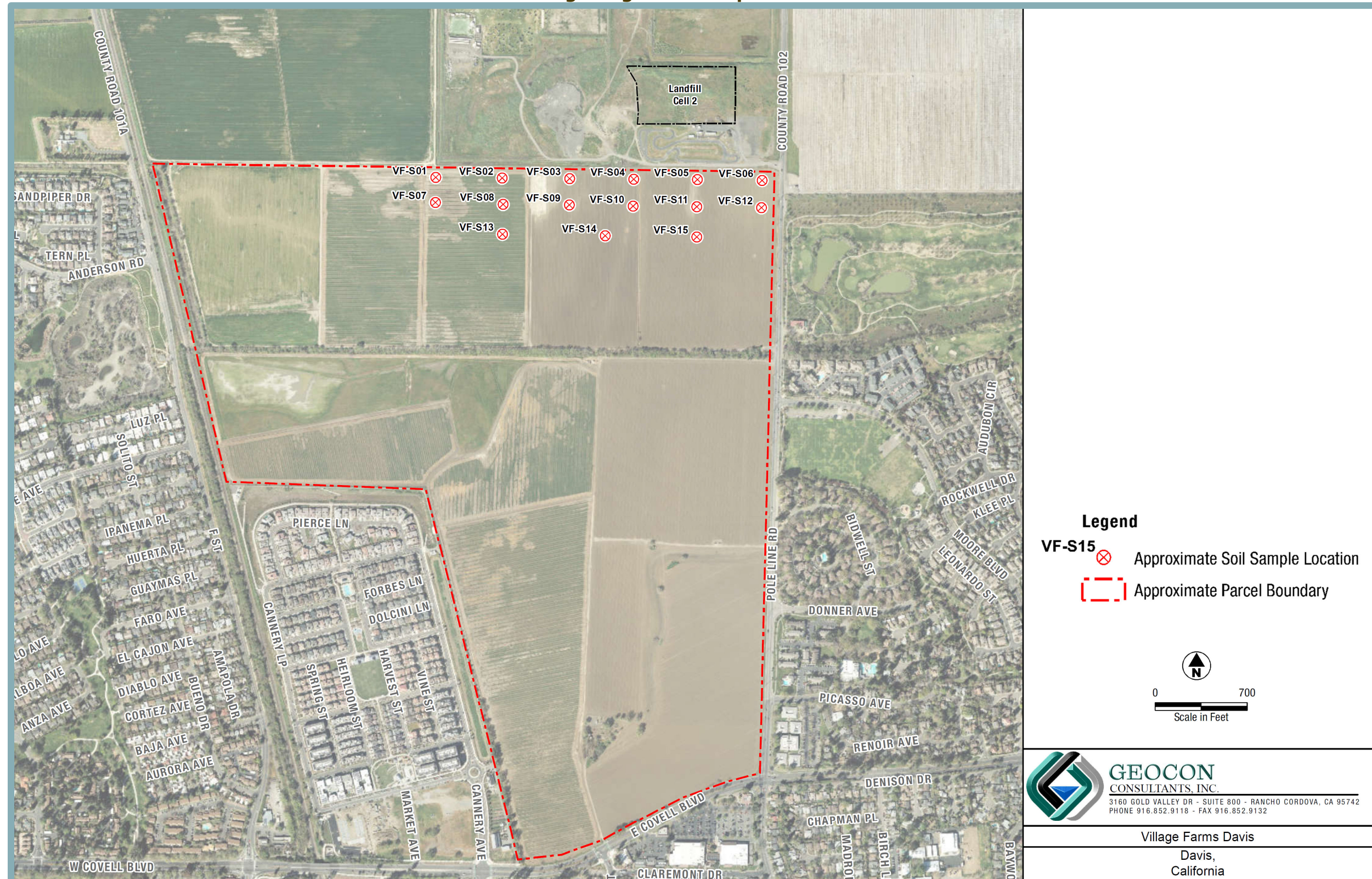
Off-site firing range operations historically included the discharge of ordnance to the north, away from the urban development portion of the project site/BRPA site into the southern side of a closed landfill unit associated with the Old Davis Landfill, identified in Figure 4.7-4 as Landfill Cell 2.

<sup>13</sup> U.S. Environmental Protection Agency. *Learn About Asbestos*. Available at: <https://www.epa.gov/asbestos/learn-about-asbestos#find>. Accessed March 2024.





**Figure 4.7-4  
Firing Range Soil Sample Locations**





Firearm discharge and the associated lead shot could potentially create the presence of lead-affected soil.

To evaluate the presence of lead in on-site soils, the Firing Range Phase II ESA included soil samples from a 40-acre area in the northeastern portion of the urban development area. Lead concentrations in the soils potentially affected by the firing range were between 4.5 and 8.9 mg/kg, which is below the California DTSC screening level (80 mg/kg).

### Total Petroleum Hydrocarbons

The term “total petroleum hydrocarbons” (TPH) is used to describe a large family of several hundred chemical compounds. The various chemical compounds originally come from crude oil, which is used to make petroleum products that can potentially contaminate the environment. Exposure to TPH compounds can result in several impacts to human health, including effects on the central nervous system, the blood, immune system, lungs, skin, and eyes.<sup>14</sup>

During the field survey associated with the Urban Development Area Phase I ESA, Geocon observed minor diesel and oil staining on the ground surface adjacent to a diesel engine and empty diesel AST associated with an agricultural water supply well in the north-central portion of the project site/BRPA site (see Markers #12 through #14 in Figure 4.7-1). Similar staining was observed adjacent to a concrete pad associated with an agricultural water supply well in the eastern portion of the project site/BRPA site (see Markers #15 and #16 in Figure 4.7-1). Due to its minor nature, Geocon found the oil staining to be a de minimis condition, which is a condition that does not pose a threat to the environment or human health and is not subject to enforcement action from a regulatory agency.

### Volatile Organic Compounds

Volatile organic compounds (VOCs) are compounds that have a high vapor pressure and low water solubility.<sup>15</sup> Many VOCs are human-made chemicals that are used and produced in the manufacture of paints, pharmaceuticals, and refrigerants. VOCs are emitted as gases from certain solids or liquids. Some VOCs may have short- and long-term adverse health effects. Concentrations of many VOCs are consistently higher indoors (up to 10 times higher) than outdoors. VOCs are emitted by a wide array of products, including, but not limited to, paints and lacquers, paint strippers, cleaning supplies, pesticides, building materials and furnishings, office equipment, correction fluids and carbonless copy paper, graphics and craft materials, permanent markers, and photographic solutions.

According to the Urban Development Area Phase I ESA, the State Water Resources Control Board’s (SWRCB) GeoTracker database identifies the Old Davis Landfill as an open Cleanup Program Site. The landfill was reportedly used as a burn dump prior to 1969, with open-pit burning beginning in the 1940s or 1950s. According to City of Davis Public Works Department records reviewed as part of the Urban Development Area Phase I ESA, the landfill operated from 1969 to 1975. The type of materials disposed of in the landfill included residential, commercial, industrial, and demolition-type wastes. When the landfill was constructed, the excavations were unlined, and leachate collection systems were not installed. A Regional Water Quality Control Board

<sup>14</sup> Agency for Toxic Substances and Disease Registry, U.S. Department of Health and Human Services. *ToxFAQs for Total Petroleum Hydrocarbons (TPH)*. Available at: <https://wwwn.cdc.gov/TSP/ToxFAQs/ToxFAQsDetails.aspx?faqid=423&toxid=75>. Accessed March 2024.

<sup>15</sup> U.S. Environmental Protection Agency. *What are volatile organic compounds (VOCs)?* Available at: <https://www.epa.gov/indoor-air-quality-iaq/what-are-volatile-organic-compounds-vocs>. Accessed October 2024.





(RWQCB) inspection report from October 1985 noted that the landfill was capped with three to four feet of cover when the landfill closed.

As shown in Figure 4.7-1, seven groundwater monitoring wells occur either on-site or in the immediate project vicinity that are associated with the Old Davis Landfill (DM-MW-1 through -4 and HLA-MW-1 through -3). Six of the monitoring wells (DM-MW-1 through -4 and HLA-MW-1 and -2) are part of the landfill monitoring program conducted by the City of Davis. As shown in Figure 4.7-1, HLA-MW-3 is located on-site. The status of the well is unknown and is not associated with the monitoring program. Three of the monitoring wells (DM-MW-4, HLA-MW-1 and HLA-MW-2) are on-site. Additionally, two soil vapor wells (VP1 and VP2) occur near the northern site boundary and groundwater monitoring well HLA-MW-2.

According to multiple records reviewed as part of the Urban Development Area Phase I ESA, groundwater beneath the project site/BRPA site appears to have been impacted by low levels of VOCs, as well as general minerals and inorganic constituents (including alkalinity, chloride, nitrate, sulfate, selenium, and total dissolved solids [TDS]) at concentrations higher than the assumed naturally occurring background levels. VOCs have been detected only occasionally at low levels in the groundwater monitoring wells at the site, and therefore, “plume” boundaries have not been established. Additionally, according to the Urban Development Area Phase I ESA, the presence of elevated general minerals and inorganic constituents does not represent a contaminant plume, and background concentrations (concentration limits) have not been established. Groundwater contamination from the former landfill is considered a potential REC. However, as the REC pertains to the quality of the groundwater, potential impacts related to groundwater contamination are discussed in Chapter 4.8, Hydrology and Water Quality, of this EIR.

The RWQCB issued a “Notice of Cleanup Program Site Case and Request for Additional Groundwater Monitoring, Old Davis Landfill” on July 26, 2023. The letter requires the City of Davis to perform additional groundwater monitoring in response to concerns expressed by a Davis resident regarding “potential risks the landfill may pose to properties south of the landfill that are proposed for residential development.” The letter states that the RWQCB “does not believe a risk is posed to the residential and commercial properties proposed for development if the development is connected to the existing City municipal water system and the City water system is the sole means of water used by the development.”

#### Other Potential On-Site Recognized Environmental Conditions

The following additional potential environmental concerns were identified for the project site/BRPA site:

- **Subsurface Anomalies:** In addition to the aforementioned potential RECs, four pipes extend from the ground within the portion of the former structure area associated with the barn. Although the Urban Development Area Phase II ESA did not identify evidence of underground storage tanks (USTs) near the pipes, two subsurface anomalies were identified that could be possibly related to USTs. The first is north of the former barn location, and the second is near the southwestern portion of the former residence location. Based on a Yolo County Environmental Health Division (YCEHD) permit for abandonment of a septic tank at the former residence, the third subsurface anomaly may be associated with a partial basement and/or abandoned septic tank.



- **On-Site Wells:** A total of 10 wells are present within the urban development area. The on-site wells are comprised of the following: two soil vapor monitoring wells on the project site/BRPA site boundary south of the Blue Max Kart Club area; four groundwater monitoring wells in the northeastern portion of the urban development area, two of which are associated with the Old Davis Landfill; three agricultural wells, with two in the central portion and one in the northwestern corner of the urban development area; and one domestic water well located in the former structure area (see Figure 4.7-2). It should be noted that three groundwater monitoring wells are located north of the project site/BRPA site (see Figure 4.7-1). Private wells carry the potential to be contaminated by both naturally occurring sources and by human activities, with contaminants potentially released into the environment through ground-disturbing construction activities in the event the on-site wells are disrupted.<sup>16</sup>
- **Natural Gas Pipeline:** Within the central portion of the urban development area, a natural gas pipeline traverses the project site in a north-to-south direction.

It should be noted that previous reviews conducted by Geocon that identified off-site facilities in the vicinity of the project site/BRPA site that were listed by the YCEHD were summarized as part of the Urban Development Area Phase I ESA. As discussed therein, the former Hunt-Wesson facility at 1111 East Covell Boulevard is listed as a closed Leaking UST (LUST) case approximately 630 feet west of the project site/BRPA site. However, the release was to soil only and a No Further Action Required letter was prepared for the facility on January 1, 1989. Based on the regulatory status and lack of confirmed groundwater impacts, the Urban Development Area Phase I ESA concluded that the Hunt-Wesson facility is unlikely to have caused a REC on-site. Furthermore, the site of the former Hunt-Wesson facility is now developed with the Cannery subdivision.

In addition, Geocon previously reviewed records for a Rent-All Center located south of the site at the East Covell Boulevard/F Street intersection. The review indicated that the facility had two 20,000-gallon USTs used to store gasoline and diesel fuel. However, the USTs were removed by Tank Protection Engineering (TPE) on October 14, 1991. Soils around the site were excavated and sampled according to YCEHD requirements. On June 15, 1992, the YCEHD issued a regulatory closure letter granting “No Further Assessment” status for the former UST release. A final site closure letter was issued by the RWQCB in March 1996. Based on the regulatory closure status and the lack of confirmed groundwater impacts, the Urban Development Area Phase I ESA concluded that the facility presents a low risk of impacts to the project site/BRPA site.

Finally, the Haussler Property is located east of the project site/BRPA site at 2002 Renoir Drive. The Urban Development Area Phase I ESA indicates that the facility had two USTs. Laboratory analysis of soil samples collected from the former location of the USTs indicated non-detectable levels of hydrocarbons. A letter from the YCEHD to the Yolo County District Attorney’s Office dated July 6, 1990, stated that the USTs were illegally removed from the ground and transported to another property. However, based on the lack of detectable petroleum hydrocarbons at the former UST location and removal of the USTs, the Urban Development Area Phase I ESA concluded that the Haussler Property presents a low risk of impacting the project site/BRPA site.

<sup>16</sup> U.S. Centers for Disease Control and Prevention. *Water Contamination and Diseases*. Available at: <https://www.cdc.gov/healthywater/drinking/private/wells/diseases.html>. Accessed March 2024.





## **Urban Agricultural Transition Area**

The UATA portion of the project site/BRPA site is located immediately north of the urban development portion of the site and is comprised of irrigated farmland (see Figure 4.7-5).

Structures are not present within the UATA. An unpaved road bisects the UATA from north to south. A PG&E buried gas line proceeds near the eastern UATA boundary. The UATA is bounded to the west by F Street and Union Pacific Railroad (UPRR) tracks. The site of the former Old Davis Landfill is located to the east of the southern portion of the UATA, and a residential subdivision is located to the southwest.

The existing potential hazards associated with the UATA are described in further detail below and are based on the UATA Phase I and Phase II ESAs.

### **Organochlorine Pesticides and Arsenic**

The UATA has been subject to agricultural uses, including row and grain crops, since prior to 1937. The UATA Phase I ESA concluded that, although persistent pesticides, such as arsenical pesticides or OCPs, may have been historically applied at the UATA portion of the project site/BRPA site, such chemicals are typically associated with orchards, rather than row and grain crops. In addition, records of unregulated chemical use were not identified by the UATA Phase I or Phase II ESAs.

Testing for pesticide residues is generally considered appropriate if an agricultural property would be developed for residential or other sensitive land uses, or if shallow soil would be exported from an agricultural property for residential use. The UATA is not proposed for development, but would provide a buffer between the urban development portion of the project site/BRPA site and the surrounding agricultural uses to the north and dirt from the UATA would be used for fill at the project site/BRPA site. Thus, the UATA Phase II ESA assessed existing UATA soil conditions for use as fill, rather than for potential hazards to new residential development, as the Proposed Project and BRPA would import up to one million cubic yards (CY) of soil from depths up to 10 feet to use as fill. Soil sample locations are shown in Figure 4.7-6.

According to the UATA Phase II ESA, arsenic was detected in the soil samples at concentrations ranging from 6.1 to eight mg/kg, which are greater than the DTSC screening level for arsenic in residential soil (0.11 mg/kg). However, as noted in the UATA Phase II ESA, the arsenic levels detected in the soil samples are within the typical range of regional background soil arsenic concentrations. The OCP dichlorodiphenyldichloroethylene (DDE), an insecticide extensively used in the 1940s and 1950s, was detected at concentrations ranging from 1.1 to 5.2 µg/kg, which is less than the DTSC screening level (2,000 µg/kg). Other OCPs were not detected at concentrations exceeding the corresponding screening levels.

### **Potential Contaminants Associated with Landfill Operations**

The UATA is located west of the Old Davis Landfill. According to the UATA Phase II ESA, TPH is a common landfill constituent. Because TPH is commonly found in landfills, the UATA Phase II ESA included subsurface soil testing for TPH. Elevated TPH levels indicating soils affected by gasoline, diesel fuel, or motor oil were not identified by the UATA Phase II ESA.



**Figure 4.7-5  
Urban Agricultural Transition Area Survey Area**





**Figure 4.7-6  
UATA Phase II ESA Soil Sampling Locations**





Heavy metals formerly noted as “CAM 17 metals” are currently listed in Table II, California Code of Regulations (CCR) Title 22, Section 66261.24(a)(2)(A). The list includes, but is not limited to, metals such as antimony, barium, chromium, cobalt, copper, mercury, nickel, silver, and zinc. Heavy metals are commonly found in the environment and, in small amounts, are required for maintaining good health. However, in larger amounts, such metals can become toxic or dangerous. Heavy metal toxicity can lower energy levels and damage the functioning of vital organs, including the brain, lungs, kidney, and liver. Long-term exposure to CAM 17 metals can lead to gradually progressing physical, muscular, and neurological degenerative processes that imitate diseases, such as multiple sclerosis, Parkinson’s disease, Alzheimer’s disease, and muscular dystrophy. Repeated long-term exposure of some heavy metals and their compounds may even cause cancer.<sup>17</sup>

According to the UATA Phase II ESA, the subsurface soil samples were tested for CAM 17 metals. CAM 17 metals were detected at concentrations less than the screening levels for residential soil, with the exception of arsenic which was detected at concentrations ranging from 6.1 to eight mg/kg. As discussed above, the UATA Phase II ESA concluded that existing levels of arsenic are representative of background conditions.

### **Off-Site Improvement Areas**

Off-site improvements associated with the Proposed Project and BRPA would include, but are not necessarily limited to, a new roundabout along Pole Line Road and new traffic signals at intersections along Pole Line Road and East Covell Boulevard. Additionally, if determined to be feasible, the Proposed Project and BRPA would include a pedestrian/bicycle undercrossing at Pole Line Road. This EIR also evaluates the conceptual landing area for a potential future grade-separated crossing to the west at F Street/UPRR. Ultimately, the feasibility of the pedestrian/bicycle crossings would depend on the UPRR and City of Davis limitations, landing constraints, potential impacts to the surrounding area, and other factors to be determined in coordination with the UPRR and the City. It should be noted that the off-site areas were not specifically evaluated in the Phase I and II ESAs prepared for the project site/BRPA site.

### **4.7.3 REGULATORY CONTEXT**

The following discussions contain a summary of regulatory controls pertaining to hazardous substances, including federal, State, and local laws and ordinances.

#### **Federal Regulations**

Federal agencies that regulate hazardous materials include the USEPA, the Occupational Safety and Health Administration (OSHA), the U.S. Department of Transportation (DOT), and the National Institute of Health (NIH). 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 the Resource Conservation and Recovery Act (RCRA). On August 1, 1992, however, the California 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). The following federal laws and related regulations govern hazardous materials.

<sup>17</sup> National Center for Biotechnology Information, National Institutes of Health. *Toxicity, mechanism and health effects of some heavy metals*. Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4427717>. Accessed March 2024.





### **Occupational Safety and Health Act**

Congress passed the Occupational Safety and Health Act (29 U.S.C. Section 651 et seq. [1970]) 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. In order to establish standards for workplace health and safety, the Act also created the National Institute for Occupational Safety and Health (NIOSH) as the research institution for OSHA. OSHA is a division of the U.S. Department of Labor that oversees the administration of the Act and enforces standards in all 50 states. OSHA requires 40 hours of training for hazardous materials operators, as well as an annual eight-hour refresher course, which includes training regarding personal safety, hazardous materials storage and handling, and emergency response.

### **Comprehensive Environmental Response, Compensation, and Liability Act**

The CERCLA (42 U.S.C. Section 9601 et seq. [1980]) provides a federal “Superfund” to clean up uncontrolled or abandoned hazardous-waste sites as well as accidents, spills, and other emergency releases of pollutants and contaminants into the environment. Through CERCLA, the USEPA was given power to seek out those parties responsible for any release and assure their cooperation in the cleanup. The USEPA cleans up orphan sites when potentially responsible parties cannot be identified or located, or when they fail to act. Through various enforcement tools, USEPA obtains private party cleanup through orders, consent decrees, and other small party settlements. The USEPA also recovers costs from financially viable individuals and companies once a response action has been completed. The USEPA is authorized to implement the CERCLA in all 50 states and U.S. territories.

### **Superfund Amendments and Reauthorization Act of 1986**

The Superfund Amendments and Reauthorization Act (SARA) of 1986 (Title III; Section 305[a]) reauthorized CERCLA to continue cleanup activities around the country. Several site-specific amendments, definition clarifications, and technical requirements were added to the legislation, including additional enforcement authorities. In addition, Title III of SARA authorized the Emergency Planning and Community Right-to-Know Act (EPCRA). SARA, Title III provides funding for training in emergency planning, preparedness, mitigation, response, and recovery capabilities associated with hazardous chemicals. Title III of SARA addresses concerns about emergency preparedness for hazardous chemicals, and emphasizes helping communities meet their responsibilities in preparing to handle chemical emergencies and increasing public knowledge and access to information on hazardous chemicals present in their communities.

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

The RCRA (42 U.S.C. Section 6901 et seq. [1976]) gives USEPA the authority to control hazardous waste from the “cradle-to-grave,” which includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled USEPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. The federal Hazardous and Solid Waste Amendments (HSWA) are the 1984 amendments to RCRA that focused on waste minimization and phasing out land disposal of hazardous waste as well as corrective action for releases. Some of the other mandates of this law include increased enforcement authority for USEPA, more stringent hazardous waste management standards, and a comprehensive UST program. States have the authority to



implement individual hazardous waste programs in lieu of the RCRA as long as the state program is as stringent as federal RCRA requirements and is approved by the USEPA.

### **Toxic Substances Control Act**

The Toxic Substances Control Act (TSCA) of 1976 (15 U.S.C. Section 2601 et seq. [1976]) provides USEPA with authority to require reporting, record-keeping and testing requirements, and restrictions related to chemical substances and/or mixtures. Certain substances are generally excluded from TSCA, including, among others, food, drugs, cosmetics, and pesticides. TSCA addresses the production, importation, use, and disposal of specific chemicals including PCBs, asbestos, radon, and LBP.

### **U.S. Department of Transportation**

Transportation of hazardous materials is regulated by the DOT's Office of Hazardous Materials Safety. The office formulates, issues, and revises hazardous materials regulations under the Federal Hazardous Materials Transportation Law. The hazardous materials regulations cover hazardous materials definitions and classifications, hazard communications, shipper and carrier operations, training and security requirements, and packaging and container specifications. The hazardous materials transportation regulations are codified in 49 CFR Parts 100 to 185.

The hazardous materials transportation regulations require carriers transporting hazardous materials to receive required training in the handling and transportation of hazardous materials. Training requirements include pre-trip safety inspections; use of vehicle controls and equipment, including emergency equipment; procedures for safe operation of the transport vehicle; training on the properties of the hazardous material being transported; and loading and unloading procedures. All drivers must possess a commercial driver's license as required by 49 CFR Part 383. Vehicles transporting hazardous materials must be properly placarded. In addition, the carrier is responsible for the safe unloading of hazardous materials at the site, and operators must follow specific procedures during unloading to minimize the potential for an accidental release of hazardous materials.

### **Asbestos Hazard Emergency Response Act**

The 1986 Asbestos Hazard Emergency Response Act (AHERA) was signed into law as Title II of the TSCA, requiring the Asbestos Model Accreditation Plan (MAP) for accrediting individuals conducting asbestos inspection and corrective-action activities in schools and public and commercial buildings. The MAP provides guidance on the minimum training requirements for accrediting asbestos professionals, such as procedural entry, exit, sampling and monitoring, safety hazards, and relevant federal, State, and local regulatory standards.

### **Lead-based Paint Regulations**

Lead pollutants are regulated by several laws administered by the USEPA, including the TSCA, the Residential Lead-based Paint Hazard Reduction Act of 1992, the Clean Air Act, the Clean Water Act (CWA), the Safe Drinking Water Act (SDWA), the RCRA, and CERCLA. The aforementioned regulations address lead in paint, dust and soil, and air and water, as well as the disposal of lead wastes. Regulations specific to LBP include, but are not limited to, the Lead Renovation Repair and Painting Program Rule, the Lead Abatement Program, the residential Lead-based Paint Disclosure Program, and Residential Hazards of Lead in Paint, Dust and Soil. Such regulations require risk assessments, inspections, and work practices that work to minimize exposure to lead hazards.





## **State Regulations**

CalEPA and the SWRCB establish rules governing the use of hazardous materials and the management of hazardous waste. Within CalEPA, 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). The following discussion contains the applicable State laws.

## **Regional Water Quality Control Board**

The CalEPA and the Office of Emergency Services (OES) establish regulations governing the use of hazardous materials in California. Within CalEPA, DTSC has primary regulatory responsibility for hazardous waste management. Enforcement of regulations can be delegated to local jurisdictions that enter into agreements with DTSC for the generation, transport, and disposal of hazardous materials under the authority of the Hazardous Waste Control Law. Along with the DTSC, the RWQCB is responsible for implementing regulations pertaining to management of soil and groundwater investigation and cleanup. The RWQCB's regulations are contained in Title 27 of the CCR. The DTSC, RWQCB, and/or a local agency typically oversee investigation and cleanup of contaminated sites.

## **Department of Toxic Substances Control**

The DTSC was established to protect California against threats to public health and degradation to the environment and to restore properties degraded by past environmental contamination. Through statutory mandates, DTSC cleans up existing contamination, regulates management of hazardous wastes, and prevents pollution by working with businesses to reduce hazardous waste and use of toxic materials in California. DTSC regulates the generation, transportation, treatment, storage, and disposal of hazardous waste in California. In addition, DTSC's Site Mitigation and Brownfields Reuse Program oversees the cleanup of State Superfund sites. State Superfund sites are additionally known as Annual Workplan sites, listed sites, or Cortese List sites. Superfund sites demonstrate evidence of a hazardous substance release or releases that could pose a significant threat to public health and/or the environment. DTSC requires responsible parties to cleanup such sites. When responsible parties cannot be found or where they do not take proper and timely action, DTSC may use State funds to undertake the cleanup.

## **Cortese List**

Pursuant to Government Code Section 65962.5(a), the DTSC must compile and update, as appropriate and at least annually, submit to the Secretary for Environmental Protection a list of all of the following:

1. All hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code.
2. All land designated as hazardous waste property or border zone property pursuant to former Article 11 (commencing with Section 25220) of Chapter 6.5 of Division 20 of the Health and Safety Code.
3. All information received by the DTSC pursuant to Section 25242 of the Health and Safety Code on hazardous waste disposals on public land.
4. All sites listed pursuant to Section 25356 of the Health and Safety Code.



## **California Code of Regulations**

Hazardous waste is characterized and defined in CCR, Title 22, Sections 66261.2. Soils that meet the descriptions of the characteristics of hazardous waste defined therein and contain contaminants above regulatory screening levels are considered hazardous waste and must be handled and disposed of as such. The CCR includes the California Health and Safety Code.

### **California Health and Safety Code**

The handling and storage of hazardous materials is regulated at the federal level by the USEPA under CERCLA, as amended by the SARA. Under SARA Title III, a nationwide emergency planning and response program was established that imposed reporting requirements for businesses that store, handle, or produce significant quantities of hazardous or acutely toxic substances as defined under federal laws. SARA Title III required each state to implement a comprehensive system to inform federal authorities, local agencies, and the public when a significant quantity of hazardous, acutely toxic substances are stored or handled at a facility.

Ammonia is an example of an acutely hazardous material (AHM) that is regulated by the California OES under the California Accidental Release Program (CalARP), the USEPA under the Risk Management Program (40 CFR 68), and OSHA under the Process Safety Management Program (OSHA 1910.119). The CalARP and Risk Management Program require that all facilities that store, handle, or use AHMs above a minimum quantity, known as the threshold planning quantity, are required to develop a plan and prepare supporting documentation that summarizes the facility's potential risk to the local community and identifies safety measures to reduce potential risks to the public.

The HWCL, Chapter 6.5 of the California Health and Safety Code, is administered by the CalEPA to regulate hazardous wastes. While the HWCL is generally more stringent than RCRA, until the USEPA approves the California program, both the State and federal laws apply in California. The HWCL lists 791 chemicals and about 300 common materials that may be hazardous; establishes criteria for identifying, packaging, and labeling hazardous wastes; prescribes management controls; establishes permit requirements for treatment, storage, disposal and transportation; and identifies some wastes that cannot be disposed of in landfills.

In California, the underground storage of hazardous materials is regulated by Chapter 6.7 of the California Health and Safety Code, pursuant to the Underground Storage of Hazardous Substances Act. Under Section 25280, the USTs used for the storage of substances hazardous to public health and safety and to the environment are stored prior to use or disposal in thousands of underground locations in the State. The USTs used for storage are potential sources of contamination of the ground and underlying aquifers, and may pose other dangers to public health and the environment. Chapter 6.7 establishes orderly procedures that will ensure that newly constructed USTs meet appropriate standards and that existing tanks be properly maintained, inspected, tested, and upgraded so that the health, property, and resources of the people of the State will be protected.

### **California Vehicle Code Section 31303**

The California Highway Patrol (CHP) and California Department of Transportation (Caltrans) are the enforcement agencies for hazardous materials transportation regulations. Hazardous materials and waste transporters are responsible for complying with all applicable packaging, labeling, and shipping regulations. California Vehicle Code Section 31303 regulates the transport of hazardous materials.





## **Emergency Response to Hazardous Materials Incidents**

California has developed an emergency response plan to coordinate emergency services provided by federal, State, and local governments and private agencies. Response to hazardous material incidents is one part of this plan. The plan is managed by OES, which coordinates the responses of other agencies, including CalEPA, CHP, California Department of Fish and Wildlife (CDFW), Central Valley RWQCB, and the Davis Fire Department (DFD).

## **Unified Hazardous Materials Management Regulatory Program**

On January 1, 1996, CalEPA implemented a unified hazardous waste and hazardous materials management regulatory program (Unified Program), to consolidate the administration of specified statutory requirements for the regulation of hazardous wastes and materials. The Unified Program is implemented at the local level by government agencies certified by the Secretary of CalEPA. The Certified Unified Program Agency (CUPA) is responsible for implementation of the Unified Program. CUPA is certified and responsible for oversight of the following consolidated programs: Hazardous Materials Release Response Plans and Inventories (Business Plans); California Accidental Release Program; Underground Storage Tank Program; Aboveground Petroleum Storage Act; Hazardous Waste Generator and Onsite Hazardous Waste Treatment (tiered permitting) Programs; and California Uniform Fire Code: Hazardous Materials Management Plans and Hazardous Material Inventory Statements.

## **Local Regulations**

Relevant Yolo County guidelines and regulations, as well as City of Davis General Plan goals and policies, related to hazards and hazardous materials are discussed below.

## **Yolo County Environmental Health Division**

The YCEHD is the CUPA for local implementation of the California Accidental Release Prevention Program and several other hazardous materials and hazardous waste programs. YCEHD is responsible for regulating hazardous materials business plans and chemical inventory, hazardous materials storage, hazardous materials management plans, and risk management plans. The goal of YCEHD is to protect and enhance the quality of life of Yolo County residents by identifying, assessing, mitigating, and preventing environmental hazards.

Hazardous materials incidents that require emergency response are handled by the Yolo County Environmental Health HazMat Unit, along with local fire and law enforcement agencies. The level of response is dependent on the size and nature of the incident and the level of threat to public health and the environment. The Yolo County Environmental Health HazMat Unit also handles all after-hours calls and complaints for YCEHD, including sewage spills, food-borne illness complaints, abandoned waste, animal bite reports, housing complaints, and communicable disease reports. HazMat Unit staff work closely with other YCEHD staff in handling matters after hours.

## **Yolo County Emergency Operations Plan**

The Yolo County Emergency Operations Plan (EOP) provides the structure and processes that all partner agencies within the County use to respond to and recover from major emergency or disaster events.<sup>18</sup> The Yolo County EOP provides an overview of the jurisdiction's approach to emergency operations. It identifies emergency response policies, describes the response and recovery organization, and assigns specific roles and responsibilities to County departments,

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<sup>18</sup> Yolo County Office of Emergency Services. *County of Yolo Emergency Operations Plan*. June 6, 2024.



agencies, and community partners. The EOP has the flexibility to be used for all emergencies and will facilitate response and recovery activities efficiently and effectively.

### **Yolo County Operational Area Hazard Mitigation Plan**

The 2023 Yolo County Operational Area Hazard Mitigation Plan (HMP) was prepared to support the EOP and is an update to the previous 2018 plan. The HMP was prepared pursuant to the requirements of the Disaster Mitigation Act of 2000 so that Yolo County would be eligible for the Federal Emergency Management Agency's (FEMA) Pre-Disaster Mitigation and Hazard Mitigation and Grant Programs. The HMP is a multi-jurisdictional plan that geographically covers the entire area within Yolo County's jurisdictional boundaries, which includes the cities of Davis, West Sacramento, Winters, and Woodland. The purpose of the HMP is to reduce the risk to life and property in Yolo County by decreasing the long-term vulnerability from hazards through coordinated planning, partnerships, capacity building, and effective risk-reduction measures.

### **City of Davis General Plan**

The following goals and policies from the City's General Plan related to hazards and hazardous materials are applicable to the Proposed Project and BRPA.

#### Hazards Chapter

Goal HAZ 3    Provide for the safety and protection of citizens from natural and environmental hazards.

Policy HAZ 3.1    Provide for disaster planning.

Goal HAZ 4    Reduce the use, storage, and disposal of toxic and hazardous substances in Davis, and promote alternatives to such substances and their clean up.

Policy HAZ 4.1    Reduce and manage toxics within the planning area.

Policy HAZ 4.2    Provide for the proper disposal of hazardous materials in Davis.

Policy HAZ 4.3    Reduce the potential for pesticide exposure for people, wildfire and the environment.

Policy HAZ 4.4    Increase awareness of agricultural chemical use impacting Davis residents.

Policy HAZ 4.5    Minimize impacts of hazardous materials on wildlife inhabiting or visiting the Davis area.

Policy HAZ 4.7    Ensure that remediation of hazardous waste sites is conducted in the most timely and environmentally responsible manner possible.

### **City of Davis Multi-Hazard Functional Planning Guide**

According to the City's General Plan, the DFD maintains the City's Multi-Hazard Functional Planning Guide, which plans for emergency management and evacuation in the event of disasters. The Guide includes operating procedures in the event of a disaster, as well as descriptions of emergency evacuation routes in Davis.



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

The following section describes the standards of significance and methodology used to analyze and determine the potential impacts of the Proposed Project and BRPA 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 Guidelines Appendix G, an impact related to hazards and hazardous materials is considered significant if the Proposed Project or BRPA 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 (see Chapter 5, Effects Not Found to be Significant);
- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area (see Chapter 5, Effects Not Found to be Significant);
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; and/or
- Expose people or structures, either directly or indirectly, to the risk of loss, injury or death involving wildland fires (see Chapter 4.15, Wildfire).

As noted above, impacts related to whether the Proposed Project or BRPA would result in any of the following impacts are discussed in Chapter 5, Effects Not Found to be Significant, of this EIR:

- 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 (see Chapter 5, Effects Not Found to be Significant);
- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area (see Chapter 5, Effects Not Found to be Significant);

Impacts related to wildland fires are addressed in detail in Chapter 4.15, Wildfire, of this EIR. Thus, further discussion related to exposure of people or structures, either directly or indirectly, to the risk of loss, injury, or death involving wildland fires is not included in this chapter.





## **Method of Analysis**

The following sections describe the methods of analysis used to determine the presence of RECs and other potential hazards for the Phase I and Phase II ESAs prepared for the Proposed Project by Geocon.

### **Phase I Environmental Site Assessments – Urban Development Area and Urban Agricultural Transition Area**

Geocon performed two Phase I ESAs for the project site/BRPA site to evaluate whether evidence of RECs exists that indicate the site could have been impacted by releases of hazardous materials. The Phase I ESAs were performed in general accordance with the American Society for Testing and Materials (ASTM) E1527-21 standard. The following tasks were performed as part of the Phase I ESAs:

- Historical records such as aerial photographs, historical topographic maps, City directories, and other readily available historical sources were evaluated, as available, to research the history of the site and vicinity;
- Federal, State, and local environmental databases were reviewed to identify sites that use, store, or have released hazardous materials. The database search was performed by Environmental Data Resources, Inc. (EDR), an environmental database research firm. The EDR database reports (presented as Appendix C to the Phase I ESAs [see Appendices F and G of this EIR]) provide federal and State information intended to meet ASTM guidelines for Phase I ESAs. Regulatory files were reviewed for the identified sites, subject to the limitations of the ASTM guidance document;
- A surface reconnaissance of the project site/BRPA site and surrounding off-site areas visible from the site boundaries was performed on foot by Geocon on October 12 and 13, 2023 for the Urban Development Area Phase I ESA and October 12 and November 3, 2023 for the UATA Phase I ESA; and
- Persons with knowledge of the site were interviewed.

For further details regarding the methodology and results of the Urban Development Area and UATA Phase I ESAs prepared by Geocon, please see Appendices F and G of this EIR.

### **Phase II Environmental Site Assessments – Urban Development Area, Urban Agricultural Transition Area, and Firing Range**

As discussed throughout this chapter, Geocon performed three Phase II ESAs related to different areas of the project site/BRPA site. The methods of analysis of the Phase II ESAs are described in further detail below.

#### **Urban Development Area Phase II Environmental Site Assessment**

Geocon divided the site into 25 sampling grids of roughly equal area and obtained four samples from each grid at various locations to test for concentrations of pesticides or herbicides within on-site soils, PCB associated with one pole-mounted transformer, ACMs and LBP associated with existing structures, and on-site USTs. A total of 100 soil samples were collected from the project site/BRPA site on October 12 and 13, 2023. The samples were delivered for testing to California Laboratory Services (CLS), a SWRCB-certified laboratory.

Soil sampling activities, sample collection, sample handling procedures, and chemical analysis procedures were conducted within the agricultural area in accordance with California DTSC



guidance documents, including the Interim Guidance for Sampling Agricultural Properties (Third Revision). Specifically, discrete surface soil samples were taken from the upper six inches of soil (beneath the vegetative layer, if present). Each discrete surface soil sample was obtained with hand tools and was placed in a one-gallon resealable plastic bag for homogenization by kneading and shaking. After homogenization, the samples were labelled and delivered to CLS for OCP and arsenic analysis. In addition, duplicate composite soil samples from each of the 25 sampling grids were submitted for OCP analysis.

Geocon collected post-demolition soil samples in the former structure area in accordance with the DTSC's Interim Guidance Evaluation of School Sites with Potential Soil Contamination as a Result of Lead from Lead-based Paint, Organochlorine Pesticides from Termiticides, and Polychlorinated Biphenyls from Electrical Transformers. Each former structure location (i.e., the residence, trailer, barn, and shed) was divided into sampling grids of roughly equal area. One surface sample (zero to six inches below ground surface [bgs]) and one subsurface sample (two to 2.5 feet deep) were collected from each location with a decontaminated three-inch-diameter hand auger, for a total of 32 samples. Each discrete soil sample was placed in a one-gallon resealable plastic bag for homogenization by kneading and shaking. After homogenization, the samples were labelled and delivered to CLS for pesticide and metals analysis. Nine composite field samples and one composite duplicate sample were tested for OCP, and a total of 17 discrete field samples and three discrete duplicate samples were tested for lead.

Geocon delivered each soil sample to CLS and requested for each area described above to be tested using the following laboratory methods:

- Total Arsenic by USEPA Method 6010B;
- Total Lead by USEPA Method 6010B; and
- OCPs by USEPA Method 8081A.

For further details regarding the methodology and results of the Urban Development Area Phase II ESA prepared by Geocon, please see Appendix H of this EIR.

In addition, a geophysical investigation was performed by Advanced Geological Services (AGS) on November 3, 2023, to assess the potential for USTs to be located within the former structure area. AGS used ground conductivity electromagnetic equipment, ground-penetrating radar (GPR), and a handheld Schondstedt metal magnetic locator. Electromagnetic data was collected at a frequency of five samples per second throughout the area along parallel traverses spaced six feet apart. Following the electromagnetic survey, AGS scanned the area with the handheld Schondstedt metal magnetic locator, which does not record data. Any anomalies interpreted from the locator were marked on the ground using paint and pin flags. The GPR system, using a recording window of 60 nanoseconds, was used to further investigate the anomalies and to investigate areas where the electromagnetic method was ineffective because of rebar or surface metal.

#### Urban Agricultural Transition Area Phase II Environmental Site Assessment

On March 4, 2024, Geocon divided the UATA into 18 sampling grids of approximately equal area and collected four surface soil samples from each grid. Sample handling and chemical analysis was conducted in accordance with the DTSC's Interim Guidance for Sampling Agricultural Properties. The surface soil samples were taken from the upper six inches of soil (beneath the vegetative layer, if present). Each discrete surface soil sample was obtained with hand tools and





was placed in a one-gallon resealable plastic bag for homogenization by kneading and shaking. After homogenization, the samples were labelled and delivered to McCampbell Analytical, Inc. (MAI) for OCP and arsenic analysis. MAI tested 20 samples for total arsenic using USEPA Method 6020, and 20 samples for OCPs using USEPA Method 8081 A/B.

Subsurface soil samples were collected from the area adjacent to the Old Davis Landfill on March 11, 2024. Two soil borings were performed at the location of the proposed Channel A realignment south of the Old Davis Landfill, and two soil borings were performed at the eastern edge of the UATA boundary, west of the Old Davis Landfill (see Figure 4.7-6). At each boring location, Geocon obtained three soil samples from depths of zero to one foot, five to six feet, and nine to 10 feet bgs, respectively. Each sample was labeled and delivered to MAI for heavy metals analysis using USEPA Methods 6020 and 7471B, and TPH analysis using USEPA Methods 8021B/8015B-modified/8015B. In addition, a portion of each sample was sent to Sunland Analytical for soil salinity analysis, including potential of hydrogen (pH), electrical conductivity, and total dissolved salts.

For further details regarding the methodology and results of the UATA Phase II ESA prepared by Geocon, please see Appendix I of this EIR.

#### Firing Range Phase II Environmental Site Assessment

As part of the Firing Range Phase II ESA, Geocon used a hand auger to collect a surface soil sample (zero to six inches bgs) and a subsurface soil sample (12 to 18 inches bgs) from 15 locations in the northeastern portion of the project site/BRPA site and three duplicate samples, for a total of 33 soil samples. The samples were placed in a resealable plastic bag for homogenization by kneading and shaking. After homogenization, the samples were labelled and delivered to CLS for total lead analysis. CLS analyzed the 33 soil samples for total lead using USEPA Method 6010B.

For further details regarding the methodology and results of the Firing Range Phase II ESA prepared by Geocon, please see Appendix J of this EIR.

#### Project-Specific Impacts and Mitigation Measures

The following discussion of impacts is based on implementation of the Proposed Project or the BRPA in comparison with the standards of significance identified above.

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

Because the Proposed Project and the BRPA would be developed within the same overall site boundaries and, due to their components, would have similar potential to create a significant hazard through the routine transport, use, or disposal of hazardous materials, the below discussion applies to both development scenarios.

#### Proposed Project, Biological Resources Preservation Alternative

A significant hazard to the public or the environment could result from the routine transport, use, or disposal of hazardous materials. Projects that involve the routine transport, use, or disposal of hazardous materials are typically industrial in nature. The



Proposed Project and BRPA would not be industrial in nature, as both development scenarios would primarily result in residential uses, with other uses including neighborhood services and public, semi-public, educational, and recreational uses, none of which are industrial. During operations, hazardous material use would be limited to landscaping products such as fertilizer, pesticides, and typical commercial and maintenance products (cleaning agents, degreasers, paints, batteries, and motor oil). In addition, the fire station would include fuel storage use during training exercises that could then be released into the environment. Landscaping and fire station activities would include the proper handling and usage of such materials in accordance with label instructions, which would ensure that adverse impacts to human health or the environment would not occur. Therefore, operation of the Proposed Project or the BRPA would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

Construction activities associated with development of the Proposed Project and BRPA, including the proposed off-site improvements, would involve the use of heavy equipment containing fuels, oils, and various other products such as concrete, paints, and adhesives. The project contractor would be required to comply with all California Health and Safety Codes, as well as with local ordinances regulating the handling, storage, and transportation of hazardous and toxic materials. Pursuant to California Health and Safety Code Section 25510(a), except as provided in subdivision (b),<sup>19</sup> the handler or an employee, authorized representative, agent, or designee of a handler, must, upon discovery, immediately report any release or threatened release of a hazardous material to the CUPA (in the case of the Proposed Project and BRPA, the YCEHD) in accordance with the regulations adopted pursuant to Section 25510(a). The handler or an employee, authorized representative, agent, or designee of the handler must provide all relevant State, City, or County personnel with access to the handler's facilities. For the Proposed Project and BRPA, the contractors would be required to notify the YCEHD in the event of an accidental release of a hazardous material, who would then monitor the conditions and recommend appropriate remediation measures.

Based on the above, the Proposed Project and BRPA would not create a significant hazard to the public or the environment through the routine handling, transport, use, or disposal of hazardous materials, and a ***less-than-significant*** impact could occur.

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 likely release of hazardous materials into the environment. Based on the analysis below and with implementation of mitigation, the impact is *less than significant*.**

<sup>19</sup> Subdivision (a) does not apply to a person engaged in the transportation of a hazardous material on a highway that is subject to, and in compliance with, the requirements of Sections 2453 and 23112.5 of the Vehicle Code.





Because the Proposed Project and the BRPA would be developed within the same overall site boundaries and, due to their components, would have similar potential to create a significant hazard to the public or environment through reasonably foreseeable upset or accident conditions involving the likely release of hazardous materials into the environment, the below discussion applies to both development scenarios. In accordance with the *California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal.4th 369 (CBIA), where existing hazardous conditions already occur on the project site/BRPA site or vicinity, the discussions below focus on the potential for development of the Proposed Project or BRPA to exacerbate risks associated with such conditions.

### Proposed Project, Biological Resources Preservation Alternative

The following discussions detail the potential for the Proposed Project and BRPA to create a significant hazard to the public or the environment through the likely release of OCPs and arsenic, PCBs, ACMs, LBPs and lead-affected soils, potential contaminants associated with the Old Davis Landfill, and other potential RECs.

#### *Organochlorine Pesticides and Arsenic*

According to the Urban Development Area Phase II ESA, arsenic was not detected in any of the 25 discrete surface soil samples or three duplicate surface soil samples obtained from the urban development area. Specifically, laboratory analysis indicated that arsenic was not present in soils collected at areas formerly used as agricultural fields at a concentration exceeding the applicable laboratory reporting limit (two mg/kg). In addition, OCPs were not found in excess of the applicable DTSC screening level for the samples obtained from the former agricultural area. Thus, the Urban Development Area Phase II ESA did not identify potential impacts associated with arsenical pesticides or OCPs in the agricultural portion of the urban development area.

Laboratory analysis of composite surface soil samples obtained from the former structure area identified the OCP toxaphene in four of the five samples at concentrations exceeding the DTSC screening level for toxaphene in residential soils. Specifically, toxaphene was detected in shallow soil at the former barn/shed area, and at the northern end of the former residence/trailer area (near the barn) at concentrations ranging from 1,000 to 1,200,000 µg/kg. The DTSC screening level for toxaphene in residential soil is 450 µg/kg. Thus, the potential presence of OCP-impacted soil within the former structure area is considered a REC, and the Proposed Project and BRPA could expose construction workers to hazardous materials during ground-disturbing activities.

With respect to the UATA, laboratory analysis for arsenic conducted as part of the UATA Phase II ESA identified arsenic levels ranging from 6.1 to 8.0 mg/kg, which is greater than the DTSC screening level for arsenic in residential soil (0.11 mg/kg). However, similar arsenic concentrations were detected in the subsurface soil samples collected at depths up to nine feet from borings B-24-01 through B-24-04 (5.9 to 8.7 mg/kg). Therefore, the UATA Phase II ESA concluded that the identified arsenic levels are representative of background soil conditions and, thus, are not considered a REC. In addition, the OCP DDE was detected at concentrations ranging from 1.1 to 5.2 ug/kg, which is less than the DTSC screening level for DDE in residential soil (2,000 ug/kg). Additional OCPs were not detected at concentrations above the laboratory



reporting limits. Based on the findings of the UATA Phase II ESA, use of the UATA soils as fill as part of the Proposed Project or BRPA would not create a significant hazard to the public or environment related to the release of OCPs or arsenic.

### *Polychlorinated Biphenyls*

As previously discussed, as part of the site reconnaissance conducted for the Urban Development Area Phase I ESA, a single pole-mounted electrical transformer was observed near the former structure area in the southern portion of the urban development area. The transformer was not labeled to indicate whether PCBs were present in the dielectric fluid, but evidence of leaking was not observed. Although PG&E did not respond to requests from Geocon for more-specific information regarding the age or PCB content of the transformer, the Urban Development Area Phase I ESA found that PG&E is responsible for the maintenance and/or disposal of transformers containing PCBs in its service territory. Such actions are subject to applicable regulations of the TSCA, as administered and enforced by the YCEHD. Given the required compliance with applicable regulations, the Urban Development Area Phase I ESA did not recommend further investigation of potential adverse effects associated with PCBs.

### *Asbestos-Containing Materials*

The only existing on-site structure is the two-story water tank house within the former structure area. While the Urban Development Area Phase II ESA did not include observations of ACMs on the structure exterior, the interior of the structure was inaccessible and, thus, could contain unknown hazardous building construction materials. The potential presence of ACMs within the tank house is, therefore, considered a REC, as construction workers could come into contact with and be exposed to asbestos during demolition and ground-disturbing activities associated with the Proposed Project or BRPA.

### *Lead-Based Paints and Lead-Affected Soils*

As previously discussed, the only existing on-site structure is the water tank house within the former structure area. While the Urban Development Area Phase II ESA did not include observations of LBP on the structure exterior, the interior of the structure was inaccessible and, thus, could contain unknown hazardous building construction materials, including LBPs. In addition, lead was detected in the 16 discrete surface soil samples and two duplicate surface soil samples obtained as part of the Urban Development Area Phase II ESA from the former structure area at concentrations ranging from 6.6 to 93 mg/kg. The lead concentration in one surface soil sample (F11-0, 93 mg/kg) and its co-located duplicate sample (F22-0, 83 mg/kg) exceeded the DTSC screening level for lead in residential soil (80 mg/kg). The samples were obtained approximately 25 feet north of the former residence footprint at the northern end of a former residential trailer footprint. Thus, the soils within the former structure area are potentially impacted by lead.

The Firing Range Phase II ESA included the sampling and testing of 33 soil samples collected from the northeastern portion of the project site/BRPA site for the presence of lead associated with leftover ordnance. Laboratory analysis of the soil samples identified lead concentrations below the DTSC screening level for residential soil. Because the presence of lead was measured at concentrations less than the





corresponding DTSC screening level, the Firing Range Phase II ESA concluded that the soils located near the former firing range would not pose a substantial risk of adversely affecting human health.

Based on the above, the potential presence of LBP and lead-affected soils within the former structure area is considered a REC, and construction workers could come into contact with and be exposed to lead during demolition and ground-disturbing activities associated with the Proposed Project or BRPA.

#### *Potential Contaminants Associated with Landfill Operations*

According to the UATA Phase II ESA, laboratory analysis of soil samples obtained from the western and southern edges (Borings B24-01 through B24-04) of the Old Davis Landfill did not detect concentrations of hazardous metals exceeding the applicable concentration thresholds for residential soils, with the exception of arsenic. However, as discussed above, detected arsenic levels are representative of background conditions. Petroleum hydrocarbons were not detected. Salt concentrations in surface soils were higher than those detected in subsurface soil, but the UATA Phase II ESA determined that such levels are likely the result of former agricultural uses, rather than activities associated with the Old Davis Landfill. Based on the findings of the UATA Phase II ESA, use of the UATA soils as fill as part of the Proposed Project or BRPA would not create a significant hazard to the public or environment related to the release of hazardous metals, petroleum hydrocarbons, or salt concentrations.

#### *Other Potential On-Site RECs*

Consistent with Mitigation Measure 4.10-4 of the Covell Village Project EIR, a determination of whether the four pipes extending from the ground within the barn area of the former structure area are associated with USTs would be required prior to issuance of a grading permit for any portion of the project site/BRPA site. The Urban Development Area Phase II ESA included a geophysical survey that did not conclusively identify evidence of USTs near the pipes located at the former barn area. However, three subsurface anomalies were identified: one located north of the former barn, one near the southwestern corner of the former residence, and a third at the northeastern side of the former residence. According to the Urban Development Area Phase II ESA, the first two anomalies could be related to USTs. Based on a YCEHD permit for abandonment of a septic tank at the former residence, the third anomaly may be associated with a partial basement and/or abandoned septic tank.

Additionally, as previously discussed, 10 wells are located within the urban development area, including two soil vapor monitoring wells; four groundwater monitoring wells, two of which are associated with the Old Davis Landfill; three agricultural wells, and one domestic water well. The project applicant intends to abandon all on-site agricultural and domestic water wells. The Urban Development Area Phase II ESA recommends that the project applicant coordinate with the City of Davis and the RWQCB to determine the fate of the on-site groundwater monitoring wells and proper abandonment of the soil vapor monitoring wells, if the project applicant is not subject to landfill post-closure requirements. According to the Central Valley RWQCB, the residential and commercial components evaluated throughout this EIR would not risk groundwater contamination from the existing groundwater



monitoring wells if the Proposed Project and BRPA connected to the existing City municipal water system as the sole means of water supply.<sup>20</sup> If the Proposed Project and BRPA do not comply with applicable setbacks established by the YCEHD to avoid the foregoing features as part of the project design, a significant impact could occur. If the on-site water wells and monitoring wells are to be abandoned, the project applicant would be required to abandon the foregoing wells in accordance with the standards set forth in California Department of Water Resources Bulletin 74-81.

A natural gas pipeline also traverses the project site/BRPA site in a north-to-south direction within the central portion of the urban development area and the eastern boundary of the UATA. Thus, without proper avoidance of the buried gas pipeline during construction, a significant hazard to the public or environment could be created. With respect to project design, the land use plan places the natural gas pipeline within greenbelt areas to allow access for maintenance and inspection.

Based on the findings of the Urban Development Area Phase II ESA, without proper abandonment of USTs (if present), avoidance or abandonment of on-site wells, and avoidance of the natural gas pipeline within the project site/BRPA site, the Proposed Project and BRPA could exacerbate existing hazardous conditions and create a significant hazard to the public or environment.

### Conclusion

Based on the above, development of the Proposed Project or BRPA could create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment related to OCPs, ACMs, LBPs and lead-affected soil, potential USTs, on-site water wells and monitoring wells, and the buried natural gas pipeline. Therefore, a **significant** impact could occur.

### Mitigation Measure(s)

Implementation of the following mitigation measures, which are applicable to both the Proposed Project and the BRPA, would reduce the above potential impact to a *less-than-significant* level.

### *Proposed Project and Biological Resources Preservation Alternative*

4.7-2(a) *Prior to issuance of a demolition permit by the City for the on-site two-story tank house, shallow soil impacted by toxaphene at the former barn, shed, and trailer locations within the project site/Biological Resources Preservation Alternative (BRPA) site shall be removed and disposed of off-site in accordance with federal, State, and local regulations at an appropriate Class I or Class II facility permitted by the Department of Toxic Substances Control (DTSC), or other options implemented as deemed satisfactory by Yolo County Environmental Health Division (YCEHD) and/or DTSC. The removal and off-site disposal of soil impacted by toxaphene shall concurrently address the limited area where lead was detected at concentrations exceeding the*

<sup>20</sup> Central Valley Regional Water Quality Control Board. Notice of Cleanup Program Site Case and Request for Additional Groundwater Monitoring, Old Davis Landfill (T10000021241), 24998 County Road 102, Davis, Yolo County. July 26, 2023.



screening level for residential soil in the Urban Development Area Phase II Environmental Site Assessment (ESA) prepared for the Proposed Project by Geocon Consultants, Inc. (Geocon). The soil removal shall be performed under the oversight of the YCEHD, unless the YCEHD defers oversight to a State agency. Verification soil sampling and laboratory analysis shall be required to demonstrate that the impacted soil was removed, and a completion report shall document the proper handling and disposal of the impacted soil. Results of soils sampling, analysis, and the completion report shall be submitted for review and approval to the City of Davis Department of Community Development and Public Works Utilities and Operations Department (PWUO).

- 4.7-2(b) *Prior to issuance of a demolition permit by the City for the on-site two-story tank house, the interior of the water tank house shall be surveyed for asbestos-containing materials (ACMs) in accordance with applicable Yolo-Solano Air Quality Management District (YSAQMD) regulations, including, but not necessarily limited to, Rule 9.9, Section 401. Written notification to YSAQMD shall be provided a minimum of 10 working days prior to commencement of any demolition activity, whether asbestos is present or not. The structure interior shall also be inspected for deteriorated (peeling/flaking) lead-based paint (LBP) prior to demolition activities. If LBP 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 California Air Resources Board recommendations and OSHA requirements. The demolition contractor shall be informed that all paint on the interior of the structure shall be considered as containing lead.*

*The contractor shall follow all work practice standards set forth in the Asbestos National Emission Standards for Hazardous Air Pollutants (Asbestos NESHAP, 40 CFR, Part 61, Subpart M) regulations, as well as Section V, Chapter 3 of the OSHA Technical Manual. Work practice standards generally include appropriate precautions to protect construction workers and the surrounding community, and appropriate disposal methods for construction waste containing lead paint or asbestos in accordance with federal, State, and local regulations subject to approval by the City Engineer.*

- 4.7-2(c) *Prior to commencement of construction activities, the locations of the geophysical anomalies identified at the former barn and residence locations identified in the Urban Development Phase II ESA prepared for the Proposed Project by Geocon shall be investigated through exploratory trenching. The results of the investigation and any soil sampling and analysis that occurs shall be submitted for review and approval to the City of Davis Department of Community Development and Public Works Utilities and Operations Department (PWUO). If evidence of underground storage tanks (USTs) is not found, further mitigation shall not be required.*





*If USTs are identified, the project applicant shall submit an Authority to Remove Underground Storage Tanks Application to the YCEHD for review and approval, pursuant to the requirements set forth in Yolo County Code Section 6-11.12.8. As part of the Authority to Remove Underground Storage Tanks Application, the project applicant shall also pay associated fees. At minimum, the Authority to Remove Underground Storage Tanks Application shall detail the following:*

- The proposed schedule for collection and sampling of soils beneath the on-site USTs and along piping runs;*
- The DTSC and U.S. Environmental Protection Agency (USEPA) standards against which collected on-site soils shall be tested;*
- Applicable work practice standards, in accordance with the Occupational Safety and Health Administration (OSHA) Technical Manual, that shall be implemented to ensure appropriate precautions are incorporated to protect construction workers and the surrounding community during removal of the on-site USTs and associated piping runs;*
- The proposed disposal methods for on-site soils associated with the USTs and piping runs;*
- The proposed date of UST closure inspection; and*
- The methods with which soils shall be remediated on-site, if contaminants in tested soils exceed applicable standards. If on-site remediation is not possible, the methods and routes in which contaminated soils shall be hauled to an appropriate facility for disposal.*

*In accordance with California Code of Regulations (CCR) Title 22, Division 4.5, Chapter 32, the existing on-site USTs and primary piping shall be managed as hazardous waste upon removal, unless such facilities are cleaned on-site and certified by a YCEHD representative as non-hazardous in accordance with DTSC hazardous waste regulations. UST removal and sampling activities shall be witnessed by a YCEHD representative.*

4.7-2(d) *Prior to commencement of construction activities, the project applicant shall hire a licensed well contractor to obtain a well abandonment permit from YCEHD for all on-site water supply wells, and properly abandon the on-site water supply wells in accordance with Department of Water Resources Bulletin 74-81 (Water Well Standards, Part III). Verification of abandonment shall be submitted for review and approval of the City of Davis Department of Community Development and YCEHD.*

4.7-2(e) *Prior to commencement of construction activities, the project applicant shall consult with the Central Valley Regional Water Quality Control Board (RWQCB) and YCEHD to determine if on-site monitoring wells can be abandoned. Confirmation shall be obtained from the YCEHD documenting that the proposed development is not subject to landfill*



*post-closure requirements associated with CCR Title 27 Section 21190(g). If additional soil vapor monitoring is not anticipated to be performed, soil vapor monitoring wells VP1 and VP2 shall be abandoned under permit from the YCEHD.*

*If the Central Valley RWQCB and YCEHD confirm that all or a portion of on-site monitoring wells may be abandoned, the project applicant shall hire a licensed well contractor to obtain a well abandonment permit from YCEHD for the identified on-site monitoring wells to be abandoned, and properly abandon the wells in accordance with Department of Water Resources Bulletin 74-81 (Water Well Standards, Part III). Verification of abandonment shall be submitted for review and approval of the RWQCB, City of Davis Department of Community Development, and YCEHD.*

*If the Central Valley RWQCB and YCEHD prohibit the abandonment of all or a portion of the on-site monitoring wells, the project applicant shall ensure that the improvement plans show that all project improvements comply with applicable minimum setback distances established by the YCEHD Water Well Program. Verification that the improvement plans properly document minimum setback distances shall be subject to review and approval of the Public Works Utilities and Operations Department (PWUO), RWQCB, and YCEHD.*

- 4.7-2(f) *Prior to commencement of grading and construction, the construction contractor, a representative from Pacific Gas & Electric Company (PG&E), and a representative from the City of Davis Public Works Department shall meet on the project site/BRPA site and the applicant shall prepare site-specific safety guidelines for construction in the field in and around the buried natural gas pipeline, to the satisfaction of the Public Works Department. The safety guidelines and field-verified location of the on-site buried natural gas pipeline shall be noted on the improvement plans and included in all construction contracts involving the project site/BRPA site.*

**4.7-3 Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. Based on the analysis below, the impact would be *less than significant*.**

Because the Proposed Project and the BRPA would be developed within the same overall site boundaries and, due to their components, would have similar potential to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25-mile of an existing or proposed school, the below discussion applies to both development scenarios.

Proposed Project, Biological Resources Preservation Alternative

The project site/BRPA site is approximately 0.24-mile to the northwest of Birch Lane Elementary School, which is located at 1600 Birch Lane. In addition, the Proposed



Project and BRPA each include a Pre-Kindergarten Early Learning Center and an educational farm. Therefore, the Proposed Project and BRPA would be located within 0.25-mile of an existing school and include proposed schools. However, as discussed under Impact 4.7-1, projects that emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste are typically industrial in nature. The Proposed Project and BRPA would not be industrial in nature and would, instead, consist primarily of residential uses, with other uses including neighborhood services and public, semi-public, educational, and recreational uses, none of which are industrial. Thus, operation of the Proposed Project or BRPA would not result in hazardous emissions or the handling of hazardous or acutely hazardous materials, substances, or waste within proximity to Birch Lane Elementary School or the proposed school sites.

As discussed under Impact 4.7-2, based on the Phase I and II ESAs prepared for the Proposed Project, on-site RECs include OCPs, ACMs, LBPs and lead-affected soil, potential USTs, on-site water wells and monitoring wells, and the buried natural gas pipeline. Ground-breaking and construction activities associated with either the Proposed Project or BRPA could, therefore, release hazardous emissions, materials, substances, and/or waste within 0.25-mile of Birch Lane Elementary School. However, both the Proposed Project and BRPA would both be subject to Mitigation Measures 4.7-2(a) through 4.7-2(f), which would ensure that all identified potential RECs within the project site/BRPA site would be remediated or avoided in accordance with federal, State, and local regulations.

Demolition and/or off-hauling of contaminated building materials and soils could result in contaminated dust emissions during removal and transport. However, such removal and transport activities would be required to occur in accordance with applicable YCEHD and DTSC regulations, which include incorporation of industry standard best management practices (BMPs) during off-hauling activities. As part of the BMPs, during loading activities, the project contractor would be required to place heavy plastic sheeting beneath the trucks to collect any spilled soil. To avoid spreading of the contamination, after each truck is loaded and prior to moving off the plastic sheeting, the top rails, fences, tires, and all other surfaces with visible dust or soil spilled during loading would be removed by dry brushing methods at the point of loading. The collected soil on the plastic would be periodically removed to avoid the spreading of impacted soil on the truck tires. Furthermore, the soil would be transported by a licensed transporter. The trucks would be loaded at the project site/BRPA site and appropriately covered (tarp) in accordance with U.S. Department of Transportation regulations. The loaded trucks would use the most direct routes, which would provide the least risk of exposure to surrounding communities and would avoid the major commute times and residential areas as much as possible. Birch Lane Elementary School does not front East Covell Boulevard, the most direct route to the project site/BRPA site and, thus, loaded trucks would not expose individuals at the school to hazardous materials. All such BMPs would be enforced by YCEHD. As such, through mandatory compliance with YCEHD and DTSC regulations and incorporation of BMPs, demolition and/or off-hauling activities during construction would not result in a significant impact related to contaminated dust emissions to Birch Lane Elementary School.





Based on the above, while the project site/BRPA site is located within 0.25-mile of Birch Lane Elementary School, the Proposed Project and BRPA would not result in substantial adverse effects related to hazardous emissions or the handling of hazardous or acutely hazardous materials, substances, or waste. Therefore, a ***less-than-significant*** impact would occur.

Mitigation Measure(s)

*None required.*

**4.7-4 Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Based on the analysis below, the impact would be *less than significant*.**

Because the Proposed Project and the BRPA would be developed within the same overall site boundaries and, due to their components, would have similar potential to impair or interfere with an adopted emergency response or evacuation plan, the below discussion applies to both development scenarios.

Proposed Project, Biological Resources Preservation Alternative

The City of Davis does not have an adopted emergency evacuation plan. However, according to the City's General Plan, the DFD maintains the City's Multi-Hazard Functional Planning Guide, which plans for emergency management and evacuation in the event of disasters. The Multi-Hazard Functional Planning Guide includes operating procedures in the event of a disaster and descriptions of routes in the City to take in the event of an emergency. According to the guide, all major roads are available for evacuation, depending on the location and type of emergency that arises. Major roads identified for evacuation include, but are not limited to, Interstate 80, Pole Line Road, East Covell Boulevard, F Street, and Mace Boulevard.

The Proposed Project and BRPA would include off-site roadway improvements on Pole Line Road, as well as at the intersection of East Covell Boulevard and L Street. The proposed off-site roadway improvements would result in a new roundabout along Pole Line Road and new traffic signals at intersections along Pole Line Road and East Covell Boulevard.

During project construction, temporary lane closures on the roadways in the vicinity of the project site/BRPA site, including Pole Line Road, may be required; however, any temporary lane closures would be coordinated with City police and fire departments and complete closure of the roadways is not anticipated. Increased peak hour traffic volumes during operation could potentially slow traffic during emergency situations. However, East Covell Boulevard has traffic signals equipped with emergency vehicle pre-emption, providing signal priority to emergency vehicles in the event of an emergency. In addition, the roadway improvements included under the Proposed Project and BRPA, such as the new traffic signals at the Pole Line Road/Donner Avenue and Pole Line Road/Picasso Avenue intersections, would result in improved circulation and emergency access in the project vicinity. Moreover, the construction of the on-site fire station would reduce potential impacts related to accessing the project site/BRPA site during emergency situations. Overall, implementation of City



emergency response plans would not be impaired and emergency access throughout the project site/BRPA site would be provided by internal circulation.

Based on the above information, the Proposed Project and BRPA would not interfere with or impair implementation of an adopted emergency response plan or emergency evacuation plan. Therefore, the project would result in a ***less-than-significant*** impact.

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, compound, 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.

For more details regarding the cumulative setting, refer to Chapter 5, Statutorily Required Sections, of this EIR.

**4.7-5 Cumulative exposure to potential hazards, including wildfire, and increases in the transport, storage, and use of hazardous materials. Based on the analysis below, the cumulative impact is *less than significant*.**

The Proposed Project and the BRPA would be developed within the same overall site boundaries and, due to their components, would have similar potential to result in cumulative exposure to potential hazards and hazardous materials. Therefore, the following discussion applies to both development scenarios.

Proposed Project, Biological Resources Preservation Alternative

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 within the project area. As demonstrated throughout this chapter, potential impacts associated with hazardous materials related to development of the Proposed Project or the BRPA were found to be less than significant with incorporation of mitigation. Cumulative development projects would be subject to the same federal, State, and local hazardous material management requirements as the Proposed Project and BRPA, which would minimize potential risks associated with increased hazardous materials use in the community.

Increased peak hour traffic volumes associated with cumulative conditions could potentially slow traffic during emergency situations. However, as previously discussed, East Covell Boulevard traffic signals would provide priority to emergency vehicles in the event of an emergency and the roadway improvements included under the Proposed Project and BRPA would improve circulation and emergency access in the vicinity. Moreover, inclusion of the on-site fire station would reduce potential impacts related to accessing the project site/BRPA site during emergency situations.



Overall, cumulative impacts associated with exposure to potential hazards, including wildfire, and increases in transport, storage, and use would be ***less than significant***.

Mitigation Measure(s)

*None required.*

