

4.10

HAZARDS

INTRODUCTION

The Hazards section of the EIR describes existing and potentially occurring hazards and hazardous materials on the project site. The section discusses potential impacts posed by these hazards to the environment, as well as to workers, visitors, and residents within and adjacent to the project site. More specifically, the section describes potential effects on human health that could result from soil or groundwater contamination stemming from past uses of the site, or from exposure to hazardous materials used in adjacent agricultural operations. The Hazards section is based on the *Phase I Environmental Site Assessment, Covell Village, Yolo County, California* (“Phase I Report”) prepared by Geocon Consultants, Inc.¹, and the *Old Davis Landfill Report*².

ENVIRONMENTAL SETTING

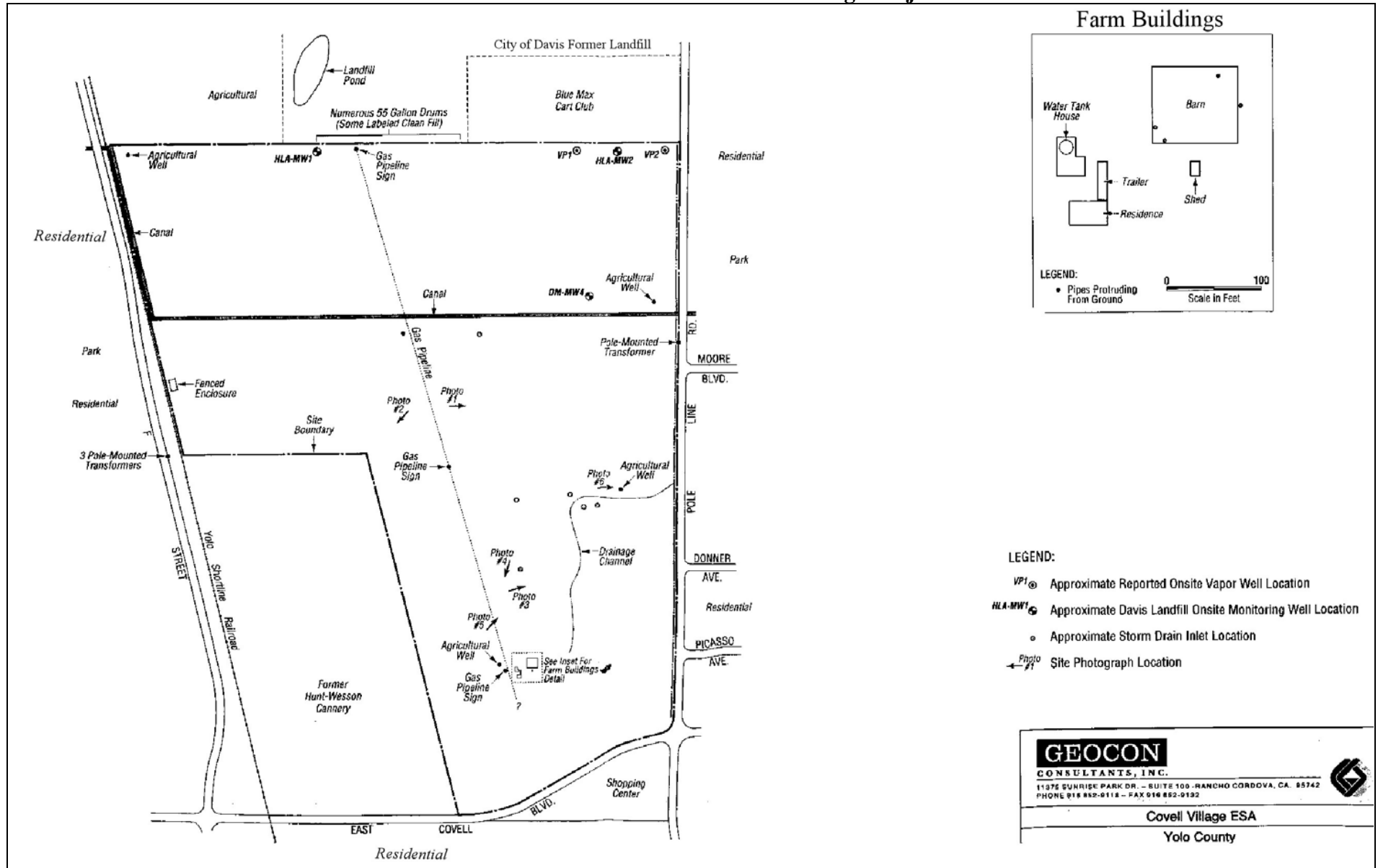
Existing Project Site Land Uses

The June 2003 Phase I Environmental Site Assessment (ESA) performed by Geocon Consultants, Inc. notes that at the time of the assessment, wheat was being grown on the site. A farm house, barn, water tank house, and shed are present in the south central portion of the project site. A septic tank is located on the north side of the farm house. In addition, an agricultural well, natural gas pipeline, and pole-mounted transformer are located on the west side of the farm house. An additional agricultural well is located on the eastern portion of the site (See Figure 4.10-1).

According to the Phase I Report, the barn is located east of the farm house and contains a boat, motorcycles, furniture, a disassembled building, one argon tank, one acetylene tank, one carbon dioxide tank, one oxygen tank, a welding machine, and farm tools. Two 1.5-inch diameter steel pipes protrude from the ground within the southwest portion of the barn and another 1.5-inch diameter steel pipe protrudes from the ground in the northwest portion of the barn. A 1-inch diameter steel pipe is protruding from the ground outside the east wall of the barn. The purpose of these pipes is currently unknown. The shed, located south of the barn, contains a carbon dioxide gas cylinder and steel scrap.

The area around the farm house also contains a trailer, which is used for furniture storage. Adjacent to the east side of the trailer is a hole in the ground, which may be an old septic pit (Phase I Report, p. 4). In addition, a modified drainage channel begins near the farm house and trends northeasterly to the property boundary. Another drainage channel, known as Channel “A”, currently bisects the project site from west to east.

Figure 4.10-1
Environmental Conditions of the Covell Village Project Site



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 Yolo County

Additional features noted during the Phase I assessment include:

- natural gas pipeline signs in the central portion of the site;
- several storm drain manholes trending northerly through the site;
- two storm drain risers in the east central portion of the site;
- agricultural wells in the east central portion of the site, and at the northwest and northeast corners of the property; and
- a groundwater monitoring well near the north central site boundary.

Aerial Photographic Site Features

Aerial photographs for the years 1964, 1995, and 2003 available from the United States Department of Agriculture and the City of Davis were reviewed during the preparation of this report. Similar site conditions exist for the 1964, 1995, and 2003 photographs. The site appears to be agricultural land and a cluster of farm house buildings are visible within the south central portion of the site. In addition, a drainage canal can be seen trending from the farm house areas to the eastern property boundary. The exception is that in the 1964 photograph, sewage disposal ponds are located northwest of the Davis Landfill facility. However, in the 1995 photograph, the sewage disposal ponds are gone. Mr. Bob Weir of the City of Davis informed Geocon that the disposal ponds were removed in approximately 1972.

Historic Topographic Maps

Geocon reviewed the 1954 U.S. Geological Survey (USGS) “Davis, California” 15 minute topographic map and the 1952 USGS “Davis, California” 7.5 minute topographic map (photorevised 1981) in order to obtain information relative to the topography, previous development, and uses of the site and properties located in the site vicinity.

Review of the 1954 topographic map illustrated two structures on the southern portion of the project site. In addition, an unimproved access road is shown leading from the two structures south to Covell Boulevard, and a drainage canal is shown meandering through the southern portion of the site.

Other Maps

A review of the 1993 Munger Map Book indicates that one gas well was drilled within the northwest corner of the project site in 1980 by Hilliard Oil and Gas; however, the well was a dry hole. To determine if additional gas wells had been drilled after 1993, the California Division of Oil and Gas (DOG) was contacted by Geocon. Maps maintained and updated by the DOG did not show any existing or abandoned gas wells on the project site.

Interviews

Geocon conducted interviews with three persons familiar with the project site. Mr. John Whitcomb, who has been familiar with the site for approximately 52 years, indicated that the farm house was built in the 1920s. Mr. Whitcomb does not believe that the house has a heating oil underground storage tank (UST), and he further indicated that he does not believe any USTs are located on the site.

Mr. Lor Shepard, who has been familiar with the project site since approximately 1975, stated that the project site has always been used for agricultural purposes, with tomatoes being the primary crop. Mr. Shepard further stated that a well exists on the site.

An interview was also conducted with a Mr. Wolf, who has been the site tenant for the last six years. Mr. Wolf was unaware of any onsite USTs and indicated that the farm house has a septic tank and probably a leach field; however, he was unaware of the location.

Potential Onsite Hazards

Pesticides

According to the Phase I assessment by Geocon, historical aerial photos and maps show the property has been farmed since at least the early 1960s. The Yolo County Department of Agricultural Commissioner's Office (YCDAC) keeps pesticide application records for a 7-year period. Pesticide and herbicide use on crops historically grown at the project site include Warrior, Tillman, and Sencor for tomatoes, Buctril and In-Place for wheat, and Roundup ultra and Goal 2X for corn. Modern pesticides are regulated by the State of California, and generally break down quickly in the environment (i.e. are "non-persistent.") However, many pesticides typically used prior to the last two or three decades were persistent in the environment. For instance, the California Department of Toxic Substances Control has concluded that DDT and its degradation compounds are ubiquitous in agricultural soils throughout California, due to the extensive historical use of this pesticide. DDT or other persistent pesticides may have been historically applied on the project site, although these chemicals were typically associated with orchards, as opposed to row and grain crops.

Transformers

Electrical transformers are devices used to transfer electricity from one circuit to another, usually through a change in voltage, current, phase, or other electric characteristic. One pole-mounted transformer is located at the eastern boundary of the project site, three pole-mounted transformers are located along the western boundary of the project site, and one pole-mounted transformer is located west of the farm house.

Typically, transformers are a health concern if they were installed prior to the late 1970s because they utilized Polychlorinated Biphenyls (PCBs). A PCB transformer is a

transformer that contains PCBs at concentrations greater than 500 parts per million (ppm). Polychlorinated biphenyls (PCBs) were used in electrical transformers because of their useful quality as being a fire retardant. A representative of Geocon contacted PG&E regarding the potential presence of PCBs within pole-mounted electrical transformers located in the Davis area. Ted Robinson with PG&E stated that if the transformers present on the project site were installed prior to 1979 that they may contain more than 50 parts per million (ppm) PCB. If the transformers were installed after 1979 they should contain less than 50 ppm PCB. Mr. Robinson further stated that PG&E is fully responsible for PCB leakage from the transformers (Phase I Report, p. 15).

Wells

Groundwater Monitoring Wells

Three groundwater monitoring wells (HLA-MW1 and 2; and DM-MW-4) are located on the Covell Village project site to monitor the possible groundwater effects from the Davis Landfill (see below discussion for Davis Landfill). According to the Phase I Report (p. 16), Mr. Weir of the City of Davis stated that they have been monitoring the Davis Landfill for approximately ten years and detections of Volatile Organic Compounds (VOCs) have been decreasing over time.

Gas Wells

In addition to the groundwater monitoring wells associated with the decommissioned Davis Landfill, two (2) double-nested vapor wells are located in the northeast corner of the Covell Village project site to evaluate potential gas impacts from the adjacent former Davis Landfill. As previously mentioned, one (1) gas well was drilled within the northwest corner of the project site in 1980 by Hilliard Oil and Gas; however, the well was a dry hole.

Agricultural Wells

Figure 4.10-1 shows that the project site contains four agricultural wells, which are used for irrigation purposes.

Gas Pipeline

Geocon consulted with Mr. Gary Meis of PG&E regarding the buried natural gas pipeline, which traverses the project site from northwest to southeast. Mr. Meis said that the natural gas pipeline is inspected visually and by gas detector on an annual basis and he knows of no problems with the PG&E pipelines in the project site vicinity.

Asbestos and Lead-Based Paints

Review of aerial photographs of the project site and interviews with client representatives by Geocon indicate that the onsite buildings have been in existence prior to the ban of asbestos-containing materials and lead-based paints.

Off-Site Land Uses

At the time Geocon surveyed the project site to identify any potential environmental constraints (April 2003), a representative of Geocon also performed a survey of adjacent properties from public thoroughfares to assess if facilities and/or structures located on these properties are operated by entities that potentially use, store, generate, or dispose of hazardous materials/wastes.

Generally, the subject property is bordered on three sides (west, east, and south) by existing urban uses, which are primarily residential. The ConAgra property, Northstar Development, and the California Northern Railroad tracks are located west of the site, while Pole Line Road and residential neighborhoods are located east of the site. A go-cart track (Blue Max Cart Club), the former Davis landfill facility, and agricultural property are located adjacent to the northern boundary of the site. The go-cart track occupies a portion of the former Davis Landfill. Approximately fifty 55-gallon drums, some with markings indicating “fill soil” were noted by the Geocon employee on a portion of the former Davis landfill facility. The northern boundary of the residential portion of the site is coterminous with the northern boundaries of the existing neighborhoods to the east and west of the site.

Surrounding Hazardous Materials

The Phase I Site Assessment includes the results of a search performed for the site by Environmental Data Resources Inc. (EDR). EDR searched federal, state, and local databases for the project site and surrounding area. The project site was not listed on any of the searched databases of hazardous materials sites.

The following sites were identified in the Yolo County Department of Health (YCDH) case file review:

- Crossroad Place (Note: Current Covell Village Project Site), Northwest Corner of Pole Line Road and Covell Boulevard.

Review of Lowry/Krazan (LK) workplan prepared for Union Bank (dated September 21, 1993) for the installation of a gas monitoring system at the Covell Village project site found a discussion of Phase I and Phase II site investigation reports prepared for the project site by Harding Lawson Associates (HLA). The HLA Phase I Hazardous Materials Site Assessment (dated January 5, 1990) reportedly included the following onsite concerns: 1) potential use of pesticides on crops; 2) presence of a

historical landing strip; 3) discolored soil near the drum storage areas between the house and barn; and 4) possible onsite disposal of drilling mud from the natural gas exploration boring. The HLA Phase II Site Investigation (dated March 9, 1990) reportedly only addressed the potential pesticide usage and the disposal of drilling mud. The HLA Phase II scope of work included drilling one soil boring and three monitoring wells and the collection of soil and groundwater samples. Groundwater was encountered between 27 and 35 feet below ground surface (bgs) with a southerly flow direction. The HLA reports were not made available to Geocon for review and the analytes tested for and boring locations were not included within the LK workplan. The LK workplan did state that the HLA report concluded that “all constituents were below their respective laboratory detection limits.” Information obtained by Geocon from Ms. Christie Huerta with Union Bank indicates that LK installed two (2) double-nested vapor wells in the northeast corner of the Covell Village project site to evaluate potential impacts from the adjacent former Davis landfill facility. According to Ms. Huerta, methane gas was not detected in each well. Vapor concentrations of freon, methylene chloride, and hydrocarbons were reported for each vapor well. The LK site investigation data was generated for a bankruptcy foreclosure and was not made available for Geocon due to confidentiality. The locations of the apparent vapor well locations identified in the LK workplan are presented in Figure 4.10-1.

- Hunt-Wesson Facility, 1111 Covell Boulevard

A review of the case file information indicates that this facility had one 1,000-gallon UST, two 10,000-gallon and two 20,000-gallon bunker oil/fuel oil USTs. The 1,000-gallon UST was suspected of leaking and was removed on June 30, 1986. The tank excavation revealed soil contamination. The excavation continued to a depth of 23 feet bgs. The excavated soil was graded to 10 inches in thickness and underwent photodegradation. A soil boring was performed on July 25, 1986 and converted into monitoring well MW-1 based on a directive given by the YCDH. One soil sample collected at 28.5 feet bgs was analyzed for total petroleum hydrocarbons such as gasoline (TPHg) and benzene, toluene, ethylbenzene, and total xylenes (BTEX). TPHg and benzene were detected in the soil sample at 120 milligrams per kilogram (mg/kg) and 2,400 micrograms per kilograms respectively. A groundwater sample was collected from MW-1 on August 4, 1986. TPHg and BTEX were not detected in the groundwater sample collected from MW-1. On January 1, 1989, the YCDH sent a Site Closure letter granting “no further assessment” status for the former gasoline UST release at this facility.

On October 23, 1996, W.A. Craig, Inc. (WAC) removed two 10,000-gallon and two 20,000-gallon USTs at the Hunt-Wesson Facility. On

December 2, 1996, ten soil borings were advanced by WAC at the former UST locations. Soil samples were collected in the native soil immediately below the former excavation bottom approximately 12 to 13.5 feet bgs and submitted to the laboratory for analytical testing. TPHg, TPH as diesel (TPHd), TPH as motor oil (TPHmo), BTEX, and methyl tert-butyl ether (MTBE) were not detected in any of the soil samples collected from the borings. Soil samples were also collected from the backfill areas at a depth of 8 feet bgs and composited by the laboratory prior to analysis. TPHd and TPHmo were detected in the composite soil samples at concentrations up to 13 mg/kg and 65 mg/kg, respectively. An inspection was performed by the YCDH on January 6, 1997 and issued Certificate of Satisfactory Completion and required no further work for the removal of the two 20,000-gallon USTs. Based on the regulatory status of this former tomato processing facility and lack of confirmed groundwater impacts, this facility presents a low risk of impacting the project site (Phase I Report, p. 12).

- Rent-All Center, 2020 F Street.

The Rent-All Center is located south of the project site at the intersection of Covell Boulevard and F Street. A review of the case file information indicates that this facility had two 20,000-gallon USTs that were used to store gasoline and diesel fuel. The USTs were removed by Tank Protection Engineering (TPE) on October 14, 1991. At the time of the tank removal, soil contamination was evident in the excavation and soil stockpile and the presence of hydrocarbon odor was noted. Excavation of approximately 50 cubic yards of impacted soils was performed and the soil was stockpiled onsite. Soil samples were collected from the native soil below the two former UST locations and from the soil stockpile. The soil samples were analyzed for TPHg, TPHd, and BTEX. TPHg was detected in the soil samples collected from the stockpile at concentrations up to 1.3 mg/kg. TPHd was detected in one soil sample collected from the stockpile at 6.9 mg/kg. On October 31, 1991, the UST piping and the dispenser island were removed by TPE. Soil samples were collected from the native soil beneath the piping and dispenser island. TPHg and TPHd were detected in the soil sample collected from beneath the former dispenser island at 520 and 4,000 mg/kg, respectively. Based on the elevated levels of TPHg and TPHd in the soil samples collected from beneath the former dispenser island, overexcavation of 90 cubic yards of impacted soil in the area of the former dispenser island was performed by TPE on January 8 and 9, 1992 in accordance with the YCDH requirements. On June 15, 1992, the YCDH issued a Site Closure letter granting “no further assessment” status for the former UST release at this facility. A final site closure letter was submitted by the Central Valley Regional Water Quality Control Board (CVRWQCB) in March 1996. Based on the regulatory closure status and the lack of confirmed groundwater impacts, this facility

presents a low risk of impacting the Covell Village project site (Phase I Report, p. 13).

- Robert Haussler Property, 2002 Renoir Drive.

The Haussler Property is located east of the Covell Village project site, northeast of the intersection of Covell Boulevard and Pole Line Road. A review of the case file information indicates that this facility had two USTs that had not been used for six or seven years. In April 1989, the YCDH informed the UST owner that the USTs would need to be properly abandoned if there was no future intention to use the tanks. According to the Davis Fire Department, the property possessed an abandoned UST and that it exceeded the time period that allows for temporary abandonment according to the Uniform Fire Code. The tank owner was negligent of actions to comply with hazardous waste regulations and was in violation of the California Code of Regulations. On June 19, 1990, a YCDH representative was present during the collection of soil samples from the former UST location. Laboratory results indicated non-detectable levels of hydrocarbons. In a letter dated July 6, 1990, sent by the YCDH to the Yolo County District Attorney's Office, it was stated that the USTs were illegally removed from the ground and were transported to another property for other use. The case was forwarded by the YCDH to the Yolo County District Attorney's Office on July 5, 1990 for appropriate action. Based on the lack of detectable petroleum hydrocarbons at the former UST location, this facility presents a low risk of impacting the Covell Village project site.

- Old Davis Landfill, County Road 28H.

The Old Davis Landfill is located immediately north of the Covell Village project site. A review of the case file information indicates that this facility is owned by the City of Davis Public Works Department (CDPWD). The landfill was used as a burn dump prior to 1969. Open-pit burning began in the 1940s or 1950s. The landfill began operating in 1969 and was used until 1975 according to the CDPWD. 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 no leachate collection systems were installed. During an inspection performed by the CVRWQCB on October 28, 1985, it was noted that the landfill was capped with three to four feet of cover when the landfill closed and that it was in good condition. Based on these observations, the CVRWQCB proposed to rescind the Waste Discharge Requirements prescribed for the landfill. In 1992, Dames & Moore (D&M) conducted a Solid Waste Water Quality Assessment Test (SWAT) to assess the possibility of leakage from the landfill. Three

groundwater monitoring wells were installed within the landfill facility (DM-MW1 through 3). In addition, two existing wells located within the Covell Village project site (HLA-MW1 and 2) were incorporated into the SWAT investigation for a total of 5 groundwater monitoring wells. Vadose soil impacts were not detected immediately beneath the landfill facility. Trace level volatile organic compound (VOC) concentrations were detected in the downgradient wells including vinyl chloride, trichloroethylene, cis-1,2-dichloroethylene, 1,2-dichloropropane and 1,4-dichlorobenzene. Elevated selenium, chloride and nitrate were further reported for the downgradient wells. D&M concluded that groundwater downgradient of the former landfill facility had been impacted by landfill leakage with some contaminant levels above California Maximum Contaminant Levels. In 1996, D&M prepared an Evaluation Monitoring Report (EMP) for the former landfill facility. The scope of work included the performance of cone penetrometer testing (CPT) including 5 probes located within the site, and the installation of two downgradient wells, including one well located at the Covell Village project site (DM-MW-4). Only one VOC (1,2-DCP) was detected in groundwater samples obtained from the onsite CPT probes at concentrations ranging from 0.72 to 1.2 ug/l. VOCs were not detected in any of the onsite wells during four sampling events performed in 1995 and 1996. Based on the low levels detected, D&M recommended no further action, with semi-annual groundwater monitoring. The City of Davis began semi-annual monitoring of the landfill facility in 1999. The months of February and August were selected because groundwater levels are at the highest and lowest points, respectively, and because samples in 1995 and 1996 were taken during those months.

Groundwater Sampling in 2003

The results of sampling in February 2003 did not indicate detectable VOCs in any of the monitoring wells. Only dichlorodifluoromethane was detected in onsite wells HLA-MW1 & 2 and DM-MW4 at concentrations ranging from 1.5 to 6.4 ug/l between 1999 and 2002. The CVRWQCB completed a Monitoring Report Compliance Checklist for the landfill facility in March 2002 confirming that formal monitoring should continue in addition to a determination of background water quality. Based on the results of groundwater monitoring activities and documented VOC impacts, this facility has a high potential of impacting the Covell Village project site.

Groundwater Sampling in 2004

The *City of Davis, Old Davis Landfill Report, First Half – 2004* in addition to providing a background to the Davis Landfill, includes groundwater monitoring results from 2004. The Report states that the

aforementioned groundwater wells were sampled on Tuesday, February 10, 2004. The results showed little change in inorganic aqueous chemistry. Nitrate concentrations were found in all wells except for wells DM1 and DM3. Elevated nitrate levels were found offsite in HLA-1 and HLA-2 and onsite at DM2. High selenium concentrations were also found at these three wells.

One organic compound, dichlorodifluoromethane (Freon-12), was detected at monitoring well DM1. This compound has been detected onsite in the past and the concentration of 5.1 parts per billion (ppb) was slightly higher than the previous results of 3.90 ppb. Both levels are well below the State's Action Limit for drinking water standards.

Groundwater Flow Direction

Groundwater is generally encountered in the site vicinity between 20 and 30 feet below the ground surface (bgs). As mentioned above (see Crossroads Place bullet), groundwater was previously encountered on the project site between 27 and 35 feet bgs with a southerly flow direction.

REGULATORY CONTEXT

The term hazardous substance refers to both hazardous materials and hazardous wastes. A material is defined as hazardous if it appears on a list of hazardous materials prepared by a federal, state or local regulatory agency or if it has characteristics defined as hazardous by such an agency.

The California Environmental Protection Agency, Department of Toxic Substances Control (CAL-EPA, DTSC) defines hazardous waste, as found in the California Health and Safety Code Section 25141(b), as follows:

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

Many agencies regulate hazardous substances. The following discussion contains a summary review 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 Environmental Protection Agency (EPA), the Occupational Safety and Health Administration (OSHA), the Department of Transportation (DOT), and the National Institute of Health (NIH). The following federal laws and guidelines govern hazardous materials.

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

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

State Regulations

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

- Public Safety/Fire Regulations/Building Codes
- Hazardous Waste Control Law
- Hazardous Substances Information and Training Act
- Air Toxics Hot Spots and Emissions Inventory Law
- Underground Storage of Hazardous Substances Act
- Porter-Cologne Water Quality Control Act

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

Assembly Bill 387 and Senate Bill 162

On January 1, 2000, two new laws affecting schools became effective: Assembly Bill (AB) 387 and Senate Bill (SB) 162. These bills require that the DTSC be involved in the environmental review process for the proposed acquisition and/or construction of school properties utilizing state funding. These new laws address concerns raised by parents, teachers, local communities, and the Legislature over school site properties that are or may be contaminated by hazardous materials and may pose a health threat to children and school faculty. DTSC's role in the assessment, investigation, and cleanup of proposed school sites is to ensure that selected properties are free of contamination, or if the property is contaminated, that it is cleaned up to a level that is protective of the students and faculty who will occupy the new school.

In conjunction, AB 387 and SB 162 provide a comprehensive program to ensure that hazardous material contamination issues are adequately addressed prior to school development. The program involves the preparation of a Phase I Environmental Site Assessment to determine whether a release of a hazardous material has occurred onsite in the past or if there may be a naturally occurring hazardous material present at the site. Based on the information gathered, the Phase I should conclude that either 1) no recognized environmental conditions were identified, or 2) a Preliminary Endangerment Assessment (PEA) is necessary.

Local Regulations

The following are applicable goals and policies from the City of Davis General Plan related to hazards:³

Disaster Planning

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

Policy HAZ 3.1 Provide for disaster planning.

Toxics

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, wildlife, 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 4.6 Increase awareness of asbestos in the community.
- Policy HAZ 4.7 Ensure that remediation of hazardous waste sites is conducted in the most timely and environmentally responsible manner possible.

Combined Pollutants

- Goal HAZ 5 Reduce the combined load of pollutants generated in the City by 30 percent by the year 2010.
- Policy HAZ 5.1 Reduce the combined load of pollutants generated in the City's wastewater, stormwater, and solid waste streams. Such pollutants include, but are not limited to toxic and hazardous substances.

IMPACTS AND MITIGATION MEASURES

Standards of Significance

In accordance with CEQA, the effects of a project are evaluated to determine if they would result in a significant adverse impact on the environment. An EIR is required to focus on these effects and offer mitigation measures to reduce or avoid any significant impacts that are identified. The criteria, or standards, used to determine the significance of impacts may vary depending on the nature of the project. For the purposes of this EIR, an impact is considered potentially significant if the Proposed Project would:

- increase the potential for accidental release of hazardous substances;
- allow development that would be inconsistent with the City's General Plan;
- allow development that would be inconsistent with other City plans, policies or ordinances;
- create any health or safety hazards or potential health or safety hazards; or
- expose people to existing sources of potential health or safety hazards.

Method of Analysis

Site conditions and impact assessments for this chapter are based on the Phase I Environmental Site Assessment prepared for the project site by Geocon in June 2003. An onsite and offsite analysis was conducted by Geocon for the Covell Village project. The onsite Phase I survey was conducted April 23, 2003 to assess site conditions. The offsite Phase I survey was also conducted during April 2003 to assess the conditions of the properties surrounding the project site.

Project Impacts and Mitigation Measures

4.10-1 Presence of pesticide and herbicide residues on the project site.

Proposed Project

Historical aerial photos and maps show the property has been farmed since at least the early 1960s. Information obtained from the YCDAC indicates that pesticide application records are kept for a 7-year period. Pesticide and herbicide use on crops historically grown at the project site include Warrior, Tillman, and Sencor for tomatoes, Buctril and In-Place for wheat, and Roundup Ultra and Goal 2X for corn (Phase I Report, p. 15). Modern pesticides are generally considered non-persistent in the environment. Persistent pesticides may have been historically applied at the project site, although these chemicals are typically associated with orchards as opposed to row and grain crops.

The Phase I Report (p. 19) states that based on the intended residential development planned for the project site and the dedication of a school site, surface soil sampling and testing for pesticides and associated heavy metals should be performed and would be required by the DTSC prior to any planned public school site construction. Therefore, because the extent to which pesticides on the site may pose a health concern to construction workers, future residents, and future students is unknown, the Proposed Project would have a *significant* impact.

High Density Alternative

Implementation of the High Density Alternative would not be likely to change the potential for exposure to persistent pesticide and herbicide residues on the project site. As with the Proposed Project, development of the High Density Alternative would require surface soil sampling and testing for such residues. However, because the presence or absence of these hazardous materials has not yet been established, the impact would be considered *significant*.

Mitigation Measure(s)

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

The following measure is identified for the Proposed Project and the High Density Alternative. It should be noted that upon approval of current project entitlements by City Council and successful passage of a Measure J Vote, the project would require additional approvals including but not limited to the issuance of grading permits.

4.10-1 In conjunction with a tentative map application or final planned development application creating parcels that would accommodate sensitive receptors, the project applicant shall provide to the City of Davis a detailed environmental assessment pertaining to the on-

site soils. If no pollutants of concern are detected, further mitigation is not necessary. If the assessment finds concentrations of a pesticide or herbicide, prior to issuance of a grading permit the City of Davis shall require the applicant to remediate the pesticide or herbicide to the satisfaction of Yolo County Environmental Health Department and the DTSC.

4.10-2 Impacts from polychlorinated biphenyl (PCB)-containing transformers.

Proposed Project

Pole-mounted transformers are located along the western and eastern edges of the property. Typically, transformers are a health concern if they were installed prior to the late 1970s because they utilized Polychlorinated Biphenyls (PCBs). A number of adverse health effects are associated with this chemical. When PCB fluid is partially burned, as it may be in a transformer fire, the PCB fluid produces by-products including polychlorinated dibenzodioxin and polychlorinated dibenzofurans, which are much more toxic than the PCBs themselves. The Phase I Report notes that the date of installation of the transformers is currently unknown. Polychlorinated biphenyls (PCBs) were used in electrical transformers because of their useful quality as being a fire retardant. These transformers were manufactured between 1929 and 1977. The majority of these PCB-containing transformers were installed in apartments, residential and commercial buildings, industrial facilities, campuses, and shopping centers constructed before 1978. Therefore, it is unlikely that the transformers located along the southern boundary of the project site are PCB transformers. However, because the date of installation of the transformers is unknown, the potential exists for the transformers to be PCB transformers. The exposure of construction workers and future employees and/or consumers and/or residents associated with the Proposed Project to PCB transformers could cause a *significant* impact.

High Density Alternative

Due to the fact that the High Density Alternative would place residential structures near existing pole-mounted transformers, as would the Proposed Project, implementation of the Alternative would not change the potential for exposure to PCBs from the electrical transformers on the project site. Because the transformers along the eastern and western boundaries of the site have not yet been examined for PCBs, the impact would be considered *significant*.

Mitigation Measure(s)

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

The following measure is identified for the Proposed Project and the High Density Alternative.

4.10-2 *In conjunction with the submittal of any tentative map application, the project applicant shall provide to the City of Davis an assessment conducted by PG&E pertaining to the contents of the existing pole-mounted transformers located along the western and eastern edges of the property. If the transformers are found to be non-PCB-containing transformers, further mitigation shall not be required. If the transformers are found to be PCB-containing transformers, the maintenance and/or disposal of the transformers will be subject to the regulations of the Toxic Substances Control Act (TSCA) under the authority of the Yolo County Environmental Health Department.*

4.10-3 Exposure of construction workers to asbestos and lead-based paint.

Proposed Project

According to the Phase I Report prepared for the project site by Geocon, existing structures on the project site were built prior to the mid-1970s. Therefore, the potential exists for asbestos-containing materials (ACMs) to be present in the buildings. These materials can include, but are not limited to resilient floor coverings, drywall joint compounds, acoustic ceiling tiles, piping insulation, electrical insulation and fireproofing materials. Portions of the site were initially developed in the early 1920s.

Lead-based paints could also be present in the existing structures. Typically, exposure to lead from older vintage paint is possible when the paint is in poor condition or is being removed. In construction settings, workers could be exposed to airborne lead during renovation, maintenance, or demolition work. Lead-based paints were phased out of production in the early 1970s. The onsite buildings were constructed prior to the ban on lead-based paints and, therefore, may contain these materials.

The potential presence of lead-based paint and/or asbestos on the project site could result in potential hazards to humans in contact with the soil, especially during ground-related construction activities and demolition, which would constitute a *significant* impact.

High Density Alternative

As with the Proposed Project, the High Density Alternative could potentially result in the exposure of construction workers to ACMs or lead-based paint during demolition activities at the former Harbin Ranch headquarters on the project site. Therefore, the impact would be considered *significant*.

Mitigation Measure(s)

Implementation of the following mitigation measures would mitigate potential impacts to a *less-than-significant* level.

The following measures are identified for the Proposed Project and the High Density Alternative.

4.10-3(a) *In conjunction with the application for a demolition permit of an existing structure on the site, the project applicant shall provide to the Community Development Department a detailed assessment pertaining to the potential presence of asbestos-containing materials in project site structures scheduled for demolition. If asbestos-containing materials are not detected, further mitigation shall not be required. If asbestos-containing materials are detected, the application shall include an asbestos abatement plan consistent with local, State, and federal standards, subject to the approval of the Building Official.*

4.10-3(b) *In conjunction with the application for a demolition permit of an existing structure on the site, the project applicant shall provide to the Community Development Department a detailed assessment pertaining to the potential presence of lead-based paint in project site structures scheduled for demolition. If lead-based paint is not detected in the assessment, further mitigation shall not be required. If such paint is found, all loose and peeling paint shall be removed and disposed of by a licensed and certified lead paint removal contractor, in accordance with local, State, and federal regulations. The demolition contractor shall be informed that all paint on the buildings shall be considered as containing lead. The contractor shall take appropriate precautions to protect his/her workers, the surrounding community, and to dispose of construction waste containing lead paint in accordance with local, State, and federal regulations subject to approval of the Building Official.*

4.10-4 Presence of aboveground storage tanks, underground storage tanks, and substance containers.

Proposed Project

As noted in the Phase I Report (p. 4), the barn located east of the farm house contains among other items, one argon tank, one acetylene tank, one carbon dioxide tank, and one oxygen tank. In addition, two 1.5-inch diameter steel pipes protrude from the ground within the southwest portion of the barn and another 1.5-inch diameter steel pipe protrudes from the ground in the northwest portion of the barn. A 1-inch diameter steel pipe protrudes from the ground outside the east wall of the barn. These pipes may indicate the presence of underground storage tanks. The shed, located south of the barn, is a storage shed containing a carbon dioxide gas cylinder and steel scrap.

A septic tank is located on the north side of the farm house. In addition, a hole is located in the ground adjacent to the east side of the trailer; this may be an old septic pit (Phase I Report, p. 4).

Furthermore, the possibility exists that undocumented contaminants have been spilled onto the soil within the proposed project area. According to the Phase I Report (p. 19), the HLA Report mentioned a drum storage area with a stained area between the house and barn. However, this drum storage area was not present during Geocon's site reconnaissance and ground staining was not noted. The introduction of people to the site as a result of the Proposed Project, combined with the potential toxic substances on the site would be considered *significant*.

High Density Alternative

The effects of the High Density Alternative relating to the presence of storage tanks and substance containers would be similar to those of the Proposed Project. Therefore, the impact would be considered *significant*.

Mitigation Measure(s)

Implementation of the following mitigation measures would mitigate potential impacts to a *less-than-significant* level.

The following measures are identified for the Proposed Project and the High Density Alternative.

4.10-4(a) *Prior to the issuance of a grading permit for any portion of the site, including preliminary grading and trenching for infrastructure, the applicant shall submit a detailed assessment of the project site for the review and approval of the City Engineer. The assessment shall include a determination of whether the four pipes extending from the ground within the barn area are associated with underground storage tanks, and if so, the nature of any potential contaminants associated with the tanks. If contaminants are not detected in the environmental assessment, further mitigation shall not be required. If contamination is identified, a remediation plan shall be submitted, and all contaminants shall be removed to the satisfaction of the City of Davis and Yolo County Environmental Health Department.*

4.10-4(b) *Prior to the issuance of a grading permit for any portion of the site, including preliminary grading and trenching for infrastructure, the applicant shall obtain a permit to abandon the on-site septic system from the Yolo County Environmental Health Department. The applicant shall provide the following information for the Environmental Health Specialist to process the request: the assessor's parcel number(s); site soils information; and a detailed site plan including active or inactive wells, water or drainage*

courses, landscape contours, structures, property lines, and easements.

4.10-5 Impacts due to the presence of onsite groundwater monitoring wells (3), agricultural wells (4), and gas wells (3).

Proposed Project

Groundwater Monitoring Wells

As previously mentioned, three (3) groundwater monitoring wells (HLA-MW1 and 2; and DM-MW-4) are located on the Covell Village project site to monitor the possible groundwater effects from the Davis Landfill. According to the Old Davis Landfill Report, the City has been monitoring potential groundwater effects from the landfill site since March 1999. The Phase I Report (p. 14) prepared for the project site states that the Central Valley RWQCB completed a Monitoring Report Compliance Checklist for the landfill facility in March 2002 confirming that formal monitoring should continue.

The applicant has indicated the desire to relocate the onsite groundwater monitoring wells into public areas of the project site plan (i.e., proposed greenbelt areas) as part of the Covell Village project. However, at this time, a determination cannot be conclusively made as to whether the wells would be relocated and where the wells might be placed. Relocation of any monitoring wells would be required to comply with applicable Regional Water Quality Control Board ordinances and policies as well as any applicable local ordinances and policies.

Gas Wells

Two Gas Monitoring Wells

In addition to the three (3) groundwater monitoring wells associated with the decommissioned Davis Landfill, two (2) double-nested vapor wells are located in the northeast corner of the Covell Village project site to evaluate potential gas impacts from the adjacent former Davis Landfill. Each double-nested well contains one shallow (8-10 feet) and one deep (20-22 feet) vapor screened well. The two wells were installed in 1993 by Krazan & Associates under contract with Union Bank for bankruptcy foreclosure due diligence. According to Mr. John Juhrend of Geocon, odors or stained soils were not identified during drilling operations.⁴

Soil gas samples were obtained from the wells by Krazan on October 7, 1993 and analyzed for volatile organic compounds (VOCs), petroleum hydrocarbons, and methane gas. VOCs and petroleum hydrocarbons were detected in each sample at trace concentrations. Methane gas was not detected in each vapor sample.

Furthermore, Geocon sampled the vapor wells on September 22, 2004, and methane and hydrogen sulfide gas were not detected in each sample analyzed.

Based on the lack of detectable methane gas in the vapor wells, Geocon has indicated that a request will be submitted to the Yolo County Environmental Health Department (YCEHD) for approval of the abandonment of the vapor wells. The applicant would be required to comply with all recommendations of the YCEHD.

Natural Gas Well

A natural gas well (labeled as “Nishikawa 1” according to the Phase I Report) was drilled within the northeast corner of the project site in 1980. The well did not yield any natural gas and therefore according to the Department of Conservation, Division of Oil and Gas, in 1980 the well was properly abandoned using cement plugs. More specifically, the well casing was cut off at five feet below grade and fitted with a welded steel plate. An environmental inspection was completed and approved by DOG personnel on May 22, 1980 indicating that the site was cleared and restored to pre-existing conditions.

According to Mr. John Juhrend, Principal of Geocon Consultants, in February 1990, Harding Lawson Associates (HLA) performed soil boring MW-3 near the reported location of the properly abandoned exploratory gas well. Based on the lack of identified contamination, HLA concluded that the abandoned exploratory gas well did not affect site soil or groundwater. Furthermore, observations of the vicinity of the properly abandoned exploratory gas well by Mr. Juhrend in September 2004 did not indicate the presence of discolored soils or improperly discharged drilling muds. Based on the information presented herein, no further environmental assessment is recommended regarding the properly abandoned gas well.

However, according to Mr. Juhrend, Mr. Rob Habel with the DOG stated that the DOG should be notified of planned improvements located within 10 feet of the well to evaluate the need for possible access or engineering controls. According to Geocon, in areas requiring excavation, the well may need to be lowered and resealed and capped. In areas of fill greater than 5 feet or where building improvements are constructed directly over the well location, the well may need to be outfitted with an access riser. In addition, consistent with DOG recommendations, the applicant will be required to disclose the location of the abandoned gas well to the eventual property owner and ensure that the location is readily accessible to a drill rig in case emergency repairs by the DOG are required.

Agricultural Wells

Figure 4.10-1, adopted from the Phase I Report prepared for the project site by Geocon, shows that four (4) agricultural wells are currently located on the project site. The applicant has indicated that the agricultural well in the northwestern corner of the project site would be retained to provide water to the habitat area proposed for the project. According to the applicant the other three wells would most likely be abandoned. Because abandonment of these agricultural wells as well as the on-site groundwater monitoring and gas wells would be in compliance with all applicable federal, State, and local regulations, the impacts to human health would be reduced to a *less-than-significant* level.

High Density Alternative

As with the Proposed Project, implementation of the High Density Alternative may result in the relocation or abandonment of the groundwater monitoring, gas, and agricultural wells located on the project site. Because these wells would be abandoned/relocated according to federal, state, and local regulations, the potential for exposure of workers or residents to hazards associated with on-site wells is *less-than-significant*.

Mitigation Measure(s)

None Required.

4.10-6 Groundwater impacts resulting from the nearby City of Davis Landfill Facility.

Proposed Project

The Phase I Report (p. 19) for the Proposed Project states that the northeastern portion of the project site has been impacted by sporadic low-level VOC groundwater impacts resulting from the former City of Davis Landfill. The Phase I Report further notes that apparently the CVRWQCB is not requiring active remediation of the identified groundwater impacts but is requiring continued monitoring.

The Davis Landfill is located immediately north of the Covell Village project site. A review of the case file information indicates that this facility is owned by the City of Davis. The landfill began operating in 1969 and was used until 1975 according to the City of Davis Public Works Department (CDPWD). 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 no leachate collection systems were installed. In 1992, Dames & Moore (D&M) conducted a Solid Waste Water Quality Assessment Test (SWAT) to assess the possibility of leakage from the landfill. Three groundwater monitoring wells were installed within the landfill facility (DM-MW1 through 3). In addition, two existing wells located within the Covell Village project site (HLA-MW1 and 2) were incorporated into the SWAT investigation for a total of

5 groundwater monitoring wells. Trace level volatile organic compound (VOC) concentrations were detected in the downgradient wells including vinyl chloride, trichloroethylene, cis-1,2-dichloroethylene, 1,2-dichloropropane and 1,4-dichlorobenzene. Elevated selenium, chloride and nitrate were further reported for the downgradient wells. D&M concluded that groundwater downgradient of the former landfill facility had been impacted by landfill leakage with some contaminant levels above California Maximum Contaminant Levels. In 1996, D&M prepared an Evaluation Monitoring Report (EMP) for the former landfill facility. The scope of work included the performance of cone penetrometer testing (CPT) including 5 probes located within the site, and the installation of two downgradient wells, including one well located at the Covell Village project site (DM-MW-4). Only one VOC (1,2-DCP) was detected in groundwater samples obtained from the onsite CPT probes at concentrations ranging from 0.72 to 1.2 ug/l. VOCs were not detected in any of the onsite wells during four sampling events performed in 1995 and 1996. Based on the low levels detected, D&M recommended no further action, with semi-annual groundwater monitoring. According to the City of Davis, the "Evaluation and Monitoring Plan," which was approved by the Regional Water Quality Control Board calls for monitoring twice a year. The City of Davis began semi-annual monitoring of the landfill facility in 1999. The months of February and August were selected because groundwater levels are at the highest and lowest points, respectively, and because samples in 1995 and 1996 were taken during those months.

The CVRWQCB completed a Monitoring Report Compliance Checklist for the landfill facility in March 2002 confirming that formal monitoring should continue in addition to a determination of background water quality. Groundwater sampling in February 2003 did not indicate detectable VOCs in any of the monitoring wells. Only dichlorodifluoromethane was detected in onsite wells HLA-MW1 & 2 and DM-MW4 at concentrations ranging from 1.5 to 6.4 ug/l between 1999 and 2002.

Groundwater sampling in February 2004 showed little change in inorganic aqueous chemistry. Nitrate concentrations were found in all wells except for wells DM1 and DM3. Elevated nitrate levels were found offsite in HLA-1 and HLA-2 and onsite at DM2. High selenium concentrations were also found at these three wells. One organic compound, dichlorodifluoromethane (Freon-12), was detected at monitoring well DM1. This compound has been detected onsite in the past and the concentration of 5.1 parts per billion (ppb) was slightly higher than the previous results of 3.90 ppb. Both levels are well below the State's Action Limit for drinking water standards.

It should be noted that the Proposed Project would provide the City with an additional water supply well location. The City of Davis, Department of Public Works has requested that at least one (1) deep aquifer well be provided to replace one or more aging shallow wells. Based upon the above information, the

possibility cannot be excluded that the new well location could result in potential groundwater impacts associated with the Davis Landfill.

Overall, based on the results of groundwater monitoring activities and documented VOC impacts, this facility could result in *significant* impacts to groundwater on the Covell Village project site.

High Density Alternative

This alternative would result in the construction of 475 more residential units (net) on the project site than would the Proposed Project, thereby increasing the number of people utilizing the City of Davis municipal water system. Because the proposed new City water supply well on the site would be located downgradient from the former Davis landfill site, and because it is known whether the landfill has contaminated groundwater in the project area with VOCs, the potential for impacts to groundwater supply would be considered *significant*.

Mitigation Measure(s)

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

The following measure is identified for the Proposed Project and the High Density Alternative.

4.10-6 *In the event that the water consultant finds that the City's existing water system cannot provide sufficient flow and/or pressure to serve the development and requires the construction of a new deep aquifer well on the project site, the groundwater at the final well location shall be tested for the presence of petroleum-related contaminants, including volatile organic compounds (VOCs). The City Engineer shall be responsible for the oversight of the water quality testing and the review of results.*

4.10-7 Potential hazards associated with future gas station on the project site.

Proposed Project

The Proposed Project includes the construction of a gas station in the Village Center. Common hazards substances associated with gas stations include Toxic Air Contaminants (TACs), such as the fuel oxygenate Methyl Tertiary Butyl Ether (MTBE). MTBE is a clear, colorless, low-viscosity, flammable liquid with a distinctive, ether-like odor. The principal use of MTBE is as an additive to automotive fuels.

The State of California recently concluded that MTBE is not a human carcinogen and does not cause birth defects or infertility (www.foa.org, 9/2004). In addition, in 1995, the World Health Organization concluded that it is "unlikely that MTBE

alone induces adverse acute health effects in the general population under common exposure conditions." (www.foa.org, 9/2004).

In 1998 the International Association of Research on Cancer (IARC), which is a part of the World Health Organization, classified MTBE in category 3. The scale is from 1 to 4. A substance in Group 3 is "not classifiable as to its carcinogenicity to humans." This means that there is not sufficient data to claim a possible cancer risk to man from exposure to MTBE (www.foa.org, 9/2004).

However, the possibility exists that MTBE could cause other adverse health effects on humans. Drinking water containing small quantities of MTBE does not cause any adverse health effects. In any case, should it reach drinking water, MTBE would attract public attention to a gasoline leak because, like all ethers, MTBE has a strong taste and odor, and is detectable at very low levels of concentration. In view of this, the U.S. EPA has recommended an MTBE concentration in drinking water within the range of 20 to 40 ppb or below. These quantities are 20,000 to 100,000 times lower than the lowest concentration that has caused observable health effects in animals, thus ensuring not only consumer acceptance, but also an exceptionally large margin of safety from any possible toxic effects.

Although unlikely, the possibility exists that MTBE could cause adverse health effects on humans primarily related to groundwater contamination. The proposed gas station would comply with all federal, State, and local regulations, which would ensure that any potential hazards associated with the station would have no adverse impacts to human health.

With the acquisition of necessary permits and compliance with federal, State, and local regulations, hazardous materials impacts from future planned land uses would be *less-than-significant*.

High Density Alternative

The High Density Alternative would include the construction of a gas station in the Village Center, and would therefore create the potential for MTBE-related impacts similar to those outlined above for the Proposed Project. However, because construction and operation of the proposed gas station would be in compliance with all applicable federal, State, and local regulations, the impacts to human health would be minimized to a *less-than-significant* level.

Mitigation Measure(s)

None Required.

4.10-8 Impact of the Proposed Project on the existing on-site gas pipeline.

Proposed Project

As indicated in Figure 4.10-1, a high-pressure gas transmission pipeline currently traverses the central portion of the project site in a north-south direction. Geocon consulted with Mr. Gary Meis of PG&E regarding the buried natural gas pipeline. Mr. Meis said that the natural gas pipeline is inspected visually and by gas detector on an annual basis, and he knows of no problems with the PG&E pipelines in the project site vicinity.

Development in this right-of-way (including landscaping) is subject to PG&E approval, and no building construction may occur on the easement because PG&E requires access to the line for general maintenance and monitoring. Greenbelts, parks, and surface streets are the appropriate uses above such an easement. A consent agreement between the developer and PG&E must be in effect before any work in the areas of the gas main begins. Therefore, the Proposed Project could have a *significant* impact to the gas transmission line.

High Density Alternative

Implementation of this alternative would add a total of 1,990 residential units to the project site. Although the applicant would be required to observe the existing PG&E pipeline right-of-way and allow for maintenance and monitoring access, the pipeline would remain in operation during project construction, and would represent a potential hazard to workers. Therefore, the impact would be considered *significant*.

Mitigation Measure(s)

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

The following measure is identified for the Proposed Project and the High Density Alternative.

4.10-8. *In conjunction with the submittal of any tentative map application, the applicant shall provide evidence to the Community Development Department that the site design either has accommodated or will relocate existing gas pipelines in accordance with PG&E standards.*

Cumulative Impacts and Mitigation Measures

4.10-9 Long-term hazards-related impacts from the Proposed Project in combination with existing and future developments in the Davis area.

Proposed Project

Impacts associated with hazardous materials are site-specific and generally do not affect or are not affected by cumulative development. Cumulative effects could be of concern if the project was, for example, part of a larger development in which industrial processes that would use hazardous materials were proposed. However, this is not the case with this project, and project-specific impacts were found to be less-than-significant with the implementation of the recommended mitigation measures. In addition, surrounding development would be subject to the same federal, State, and local hazardous materials management requirements as would the Proposed Project, which would minimize potential risks associated with increased hazardous materials use in the community, including potential effects, if any, on the Proposed Project. Therefore, implementation of the Proposed Project would have a *less-than-significant* impact associated with cumulative hazardous materials use.

High Density Alternative

Implementation of the High Density Alternative would result in the net construction of 475 more residential units on the project site than would the Proposed Project, and therefore introduce a substantially larger number of people to the area. As noted above, however, concerns related to hazardous materials are strictly regulated by various federal, State, and local agencies, which would be actively involved in the permitting process required in order for the Alternative to be developed. Because each separate development proposal in the vicinity of the project site would be required to undergo its own environmental assessments and permitting process, it is considered unlikely that the Covell Village High Density Alternative would result in a cumulative effect to human health from environmental hazards in combination with other projects in the Davis area. Therefore, the cumulative impacts relating to hazardous materials from this alternative would be considered *less-than-significant*.

Mitigation Measure(s)

None Required.

Endnotes

¹ Geocon Consultants, Inc., *Phase I Environmental Site Assessment, Covell Village, Yolo County, California*, June 2003.

² City of Davis Public Works Department, City of Davis, *Old Davis Landfill Report, First Half – 2004*, March 2004.

³ City of Davis, *City of Davis General Plan*, May 2001.

⁴ E-mail communication with Mr. John Juhrend, Geocon Consultants, Inc., October 21, 2004.