SECTION 4.7

Hazards and Hazardous Materials

4.7 HAZARDS AND HAZARDOUS MATERIALS

This section addresses the potential presence of, and risk of exposure to, hazardous materials at the project site. The information presented in this section pertaining to hazardous materials at the site is based primarily on a Phase I Environmental Site Assessment ~~(ESA)~~, Willow Springs II Apartment Complex, Camino Vista Road, Goleta, California (Phase I ESA), prepared by Rincon Consultants, Inc. (November 3, 2008), along with a letter regarding the Phase I ESA to serve as an Addendum (Phase I Addendum) (December 9, ~~2009~~2008) and a Soil Stockpile Screening Level Risk Assessment prepared by AMEC Geomatrix, Inc. (March 18, 2009), and correspondence between the applicant and the City of Goleta (City) and the Santa Barbara County Fire Department Fire Prevention Division (FPD). Citadel Environmental Services, Inc. conducted a peer review of these assessments and documents. These reports are provided in **Appendix E**.

4.7.1 Existing Conditions

Potential for Hazardous Materials at the Site

The purpose of the Phase I ESA was to review past and present land use practices and to evaluate the presence, or likely presence, of hazardous substances or petroleum products that have been discharged on or within the project site's soil, ground water, or surface waters. The assessment included a review of historical uses of the project site, site reconnaissance, and database records review for known contamination at the site and surrounding properties.

Site History

Historical aerial photographs and topographic maps of the project site and vicinity, and previous environmental assessments were reviewed to ascertain historical land uses for the site. The historical aerial photographs are provided in Appendix C. The project site was either vacant or used for orchard and row crop farming between 1925 and 1975, and vacant from 1982 through 2005. Since 2005 the site has been used for soil stockpiling. There are no permanent structures on-site and no evidence to suggest the site has been used for hazardous materials generation, storage, or dumping.

Site Reconnaissance

Site reconnaissance investigations were conducted by Rincon Consultants on October 8 and October 23, 2008 during the Phase I ESA. The purpose of the reconnaissance investigations was to observe existing site conditions and to obtain information indicating the possible presence of recognized environmentally hazardous conditions in connection with the project site. The project site is located in an area with surrounding land uses comprised primarily of residential, commercial, and industrial uses. Properties in the immediate vicinity of the project site include apartments to the south and private offices, manufacturing facilities, and light industrial-related facilities to the east. Immediately north is vacant undeveloped land between the project site and the UPRR and Highway 101 regional transportation corridor.

Database Records Review for Site and Neighboring Properties

The County of Santa Barbara Fire Department Leaking Underground Storage Tank Unit (LUST) and the Central Coast Regional Water Quality Control Board (RWQCB) had no records of USTs or hazardous materials being on the project site at any time in the past.

According to the Phase I ESA (November 2008), regulatory database records provided by Environmental Data Resources, Inc. (EDR) were reviewed to recognize hazardous environmental concerns in connection with the project site and its surroundings. These regulatory database records were obtained from Federal, State, and County lists. The project site was not identified in the database as containing hazardous materials; however, the review did identify hazardous waste sites within 0.25 miles of the project site.

The records searches for surrounding hazardous materials facilities included neighboring properties within 0.25 mile of the project site. The results are summarized below in **Table 4.7-1**.

Table 4.7-1
Neighboring Hazardous Materials Sites

Facility Name	Facility Address	Distance from Project Site	Data Base Reference
Bergen Brunswig-Santa Barbara	99 Aero Camino	Adjacent – East	HIST UST, LUST, HAZNET
Montgomery Kone, Inc.	75 Aero Camino	Adjacent – East	HAZNET
Sorenson Precision, Inc. / Sorenson Collision	6406 Camino Vista	Adjacent – East	HAZNET, RCRA-SQG, FINDS
Laurie Sorenson / Ridel Corp.	57 Aero Camino	Less than 0.125 mile, East	HAZNET, RCRA-SQG, FINDS
Goleta Transmission / Channel Island Marine	74 Aero Camino	Less than 0.125 mile, East	HAZNET
Bell – Everman, Inc.	82 Aero Camino	Less than 0.125 mile, East	HAZNET
Schrader Engineering	92 Aero Camino	Less than 0.125 mile, East	HAZNET
Macaluso Property (formerly Automated Business Forms)	137 Aero Camino	0.125 to 0.25 mile	SCP
JS Graphix, Inc.	136 Aero Camino	0.125 to 0.25 mile	FINDS, RCRA-NONGEN
Superconductor Technologies, Inc.	150 Aero Camino	0.125 to 0.25 mile	RCRA-SQG, FINDS
Arrowhead Santa Barbara Branch	122 Aero Camino	0.125 to 0.25 mile	HIST UST, LUST, CORTESE
Continental Baking Co.	153 Aero Camino	0.125 to 0.25 mile	LUST, CORTESE
Santa Barbara Research Center	163 Aero Camino	0.125 to 0.25 mile	FINDS, HAZNET, RCRA-NONGEN
Raytheon Company	7 South Los Carneros Road	0.125 to 0.25 mile	RCRA-SQG, FINDS

Descriptions of the databases referenced in Table 4.7~~6~~-1 are as follows:

- *SCP:* Site Cleanup Program (formerly called "Spills, Leaks, Investigation, and Cleanup SLIC). This list includes facilities that have had known spills, leaks, investigations, or clean-ups of hazardous wastes or substances (information provided by the Central Coast ~~California~~ Regional Water Quality Control Board [RWQCB]).

- *CORTESE:* Identified Hazardous Waste and Substance Sites. This database (from the California Environmental Protection Agency [CAL EPA]) identifies public drinking water wells with detectable levels of contamination, hazardous substance sites selected for remedial action, sites with known toxic material identified through the abandoned site assessment program, sites with USTs having a reportable release, and all solid waste disposal facilities from which there is known migration.
- *FINDS:* Facility Index System. Contains both facility information and pointers to other sources that contain more detail.
- *HAZNET***:** Hazardous Waste Information System. Data that is extracted from the copies of hazardous waste manifests received each year by the California Department of Toxic Substances Control (DTSC).
- *HIST UST***:** The Hazardous Substance Storage Container Database is a historical listing of underground storage tank (UST) sites. The State Water Resources Control Board (SWRCB) maintains the site;
- *LUST***:** Leaking Underground Storage Tank records contain an inventory or reported LUST incidents. This database is maintained by the SWRCB.
- *RCRA-SQG***:** RCRAInfo is US EPA's comprehensive information system providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976, Title 42 of the United States Code, Sections 6901 et seq., which was amended by ~~and~~ the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRAInfo replaces the data and recording abilities of the Resource Conservation and Recovery Information System (RCRIS). The RCRAInfo database includes selected information on sites that generate, store, treat, or dispose of hazardous waste as defined by RCRA. Conditionally exempt small quantity generators (CESQGs) generate less than 100 kilograms (kg) of hazardous sate, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.
- *RCRA-NONGEN***:** The database includes selective information on sites that generate, transport, store, treat, and/or dispose of hazardous waste, as defined by RCRA. Non-Generators do not presently generate hazardous waste.

The EDR database search revealed that two of the neighboring properties represent potential environmental concerns for the proposed project site; they are: 1) 99 Aero Camino, occupied by the Bergen Brunswig Drug Company, and 2) 137 Aero Camino, known as the Macaluso Property (formerly occupied by Automated Business Forms). The locations of these properties are shown in **Figure 4.7-1**. These properties are potential environmental concerns due mainly to their close proximity to the project site and records of a contamination release to groundwater in combination with the directional flow of the underlying groundwater containing the release toward the proposed project site, as described further below. The remaining neighboring properties identified in the database were determined to not represent an environmental concern based on the nature of the operations at those facilities, the regulatory status of hazardous materials (e.g. "closed cases"), and directional groundwater flow.

99 Aero Camino - Bergen Brunswig Drug Company Property

An Addendum to the Phase I ESA (Rincon Consultants, Inc., December 9, 2008) incorporates a review of the RWQCB files for the property at 99 Aero Camino. Records indicate that in September 1988, gasoline constituents were detected in groundwater while performing the excavation and removal of a 10,000-gallon capacity UST. The former tank was located in the northwest corner of the property, adjacent to the eastern boundary of the project site. Analysis

Source: Rincon Consultants, November 3, 2008.

Approximate Site Boundary

Soil Stockpile

(1) Bergan Brunswick (99 Aero Camino)

(2) Macaluso Property (137-139 Aero Camino)

Neighboring Hazardous Waste Properties

FEET 0 150 300

FIGURE 4.7-1

of a water sample collected from the excavation identified the presence of benzene, toluene, xylenes, and total petroleum hydrocarbons (TPH) at concentrations above the FPD action levels in effect at that time. According to the Phase I Addendum, a characterization report was prepared in April 1989 and included the testing results from four groundwater wells and three soil borings on the project site. Groundwater was encountered at approximately 8.5 feet below ground surface (bgs) and the groundwater direction was determined to be south-southwest. The two wells located closest to the project site were Monitoring Wells 3 and 4 (MW3 and MW4), which were located in the former tank excavation area. The groundwater wells were sampled and analyzed in February and March 1989 for TPH, benzene, toluene, ethylbenzene, and xylenes (BTEX). Benzene was detected during both sampling events in MW3, at 3.1 parts per billion (ppb) and 1.4 ppb, and in the second sampling event in MW4 at 3.9 ppb. Low levels of toluene were detected in MW3, as well. TPH was not detected in wells MW3 or MW4. None of the soil samples collected during the characterization contained TPH or BTEX. RWQCB provided that the April 1989 assessment report identifies "very minor" groundwater degradation in the shallow saturation zone, which appears to be "insignificant."[1] The RWQCB also stated, "Without denying the possibility of unidentified pollution on this property, which would have to be mitigated if found, we consider this case closed."

137 Aero Camino - Automated Business Forms Property

According to the FPD files, the former Automated Business Forms operation stored solvent and isopropyl alcohol (approximately 100 gallons) on their property in 1986. The property soil tested positive for tetrachloroethylene (PCE) and TPH at concentrations exceeding the FPD action levels. In 1995, at the RWQCB's direction, three wells were constructed to monitor groundwater. Contamination from trichloroethylene (TCE) and PCE were detected in groundwater at concentrations exceeding the Basin Plan Water Quality Objective (WQO) of 5 micrograms per liter (µg/L) for each constituent. The contaminants identified during the monitoring (PCE, TCE, TPH) are components of, or degradation products of, the type of solvent stored on-site. Additionally, TPH may have been stored on-site in the form of Stoddard solvent, gasoline, diesel fuel, lubricant, etc. The RWQCB noted that the chlorinated solvent plume in groundwater has not been demonstrated to be "stable." Historic groundwater flow directions monitored from January 1995 to May 2004, have varied from southeast, south-southeast, west-northwest, west-southwest and northwest in the shallow water-bearing zone. During the May 2004 sampling event, PCE and TCE were detected at concentrations ranging between 12 to 62 µg/L and 13 to 25 µg/L, respectively. In March 2006, PCE was reported in groundwater at concentrations ranging from 11 to 29 micrograms per liter (µg/L). Per a letter dated June 12, 2006, the RWQCB provided that the case should remain open at these detection levels.

Existing On-site Stockpiles

The on-site soil stockpile contains soil excavated during the development of a parking structure (Campus Parking Structure III) at the nearby University of California Santa Barbara (UCSB) campus. As documented by the United States Geological Survey (USGS), native soils at the UCSB campus are composed of shallow terrace deposits overlying Monterey formation shale and contain naturally occurring crude oils and tar seeps. The stockpiled soil was placed on-site in May 2005. The stockpile measures approximately 385 feet long (north-south), 120 to 160 feet wide (east-west), and 8 to 10 feet in height. It has a volume of approximately 17,000 cubic yards.

[1] Letter from RWQCB to Bergen Brunswig Drug Company, May 15, 1989.

A Soil Stockpile Screening– Level Risk Assessment (Assessment) of the on-site stockpiled soil was completed by AMEC Geomatrix, Inc. (AMEC) in March 2009 utilizing existing sampling data. The FPD has reviewed the Assessment, which was prepared in response to FPD comments and questions raised following the initial submittal of soil sampling data to FPD in 2007.

Stockpile Soil Sampling

Five grab samples were collected from the soil stockpile for analysis of TPH and lead. TPH was detected in all five samples, ranging from 440 milligrams per kilogram (mg/kg) to 900 mg/kg of total carbon range TPH. Total lead was detected at typical background soil concentrations (ranging between 2.55 mg/kg and 4.93 mg/kg).

The TPH identified in the five grab samples was evaluated based on the carbon chain range which generally classifies TPH with carbon ranges of C6-C11 as TPH volatile (tendency to vaporize) range organics (TPHvro), with carbon ranges of C12-C23 as TPH diesel range organics (TPHdro), and with carbon ranges of C24 and above as TPH oil range organics (TPHoro). The samples collected contained TPH from the C7-C36 range, with 72% of the samples registering above C24. Based on the TPH results, the stockpiled soil was covered in sheeted plastic. The sheeted plastic has since been removed following the testing and conclusions described below.

Applied Environmental Technologies (AET) completed additional sampling in October 2006 over the entire stockpile including 100 soil samples (approximately 1 soil sample per 170 cubic yards of soil). The soil samples were collected from 50 locations spaced 30 feet apart. Composite samples were collected from an interval at 1 to 5 feet below the surface of the stockpile and from an interval at 5 to 10 feet below the surface of the stockpile. Samples were analyzed for specific carbon chain lengths to correspond to TPHvro, TPHdro and TPHoro classifications. Additionally, five samples exhibiting the highest concentrations of TPH were analyzed for volatile organic compounds (VOCs), including benzene, toluene, ethylbenzene, and xylenes (BTEX) and methyl tertiary butyl ether (MTBE), polynuclear aromatic hydrocarbons (PAHs), and metals. TPH was identified in 84 of the 100 samples analyzed, at concentrations ranging between 26 mg/kg and 790 mg/kg. Neither VOCs nor PAHs were identified in the selected samples and metals were identified well below their total threshold limit concentrations (TTLCs). AET concluded that TPH was present throughout the stockpile, and that the broad range of hydrocarbons detected and the lack of detectable concentrations of VOCs, PAHs, or elevated metals was indicative of naturally occurring crude oils and not refined petroleum products. The results of AETs soil sampling were transmitted to the FPD in January 2007. The FPD subsequently requested a soil stockpile screening level risk assessment ~~Health Risk Screening Assessment~~ for the stockpiled soil before it could be cleared for use.

Screening Risk Assessment

At the request of the FPD, the Soil Stockpile S~~s~~creening L~~l~~evel R~~r~~isk A~~a~~ssessment (Assessment) was prepared by AMEC Geomatrix, Inc. (AMEC) in March 2009 utilizing the preexisting data from the AET investigations in 2006. To complete the A~~a~~ssessment, potential heath risks were evaluated considering three steps: hazard identification, exposure assessment, and risk characterization. Initially, the stockpiled soil results were compared with the San Francisco Regional Water Quality Board (SFRWQCB) Environmental Screening Levels (ESLs), which, after a revision in 2008 are increasingly being utilized to evaluate risk, determine whether remedial action and/or additional site assessment is warranted, and review case closure

requirements throughout California. The contaminants of concern (hazard) were divided into three groups: TPHvro (C6-C11), TPHdro (C12-C23) and TPHoro (C24- C44+). The exposure assessment identified the following groups of potential receptors: 1) construction workers, 2) future trench / utility workers, and 3) future residents. A conservative evaluation of exposure pathways was utilized to identify the following exposure routes: incidental ingestion of soil, dermal contact with soil, exposure to groundwater contamination, and inhalation of particulates.

The screening criteria addressed the usage of ESLs as an appropriate risk based approach for evaluating potential exposures to TPH in soil. It was stated that if sample results exceed an ESL value, it does not indicate that adverse health effects would occur, or that the site would pose a risk, but it suggests that further evaluation of potential risks is warranted. The risk characterization completed by AMEC compared the values of the ESLs of the respective TPH ranges to the 95% Upper Confidence Limit (UCL) values calculated for the stockpile sample results. To be more conservative, AMEC calculated the 95 percent UCL for each respective range of hydrocarbons, both including and excluding the censored (non-detectable) data from the available data. This approach assumed that all soils would be mixed during grading activities.

The ~~screening level a~~Assessment concluded that the detected levels of TPH found in the on-site soil stockpile should not result in unacceptable human health risks to future receptors at the site under the conditions evaluated (construction, future on-going maintenance, residential use). The 95 percent UCL values for all three TPH ranges are below the direct exposure ESLs for construction / trench workers and residents. The calculated 95% UCL values for all three TPH ranges are also below the groundwater protection ESLs. AMEC and Citadel confirmed that the use of such groundwater protection ESLs is very conservative.

The FPD concurred with the findings of the A~~a~~ssessment (FPD, 2009, provided in Appendix E), including the following comments:

- The censored (non-detectable results) provide a very conservative 95% UCL for each TPH range, all of which are below the respective ESLs for all groups of potential receptors.
- The UCSB campus, where the stockpiled soils were sourced, has native soils composed of shallow terrace deposits overlying the Monterey formation of shale. This campus includes areas that have historically been used for obtaining asphalt and tars due to the historic naturally occurring crude oil and tar seeps. Thus FPD concurs that the impacts found in these soils are most likely naturally occurring crude oil remnants.
- The FPD has no further requirements for the Willow Springs Soil Stockpile, and is closing its file on the site as a contamination site.

Health Risk Assessment of Toxic Air Contaminants From Adjacent Uses

A Health Risk Assessment (HRA) identifies all businesses within 2,000 feet of the project site that may engage in business/manufacturing practices that result in the release of toxic air contaminants and or hazardous air pollutants, and determines emission levels of any toxic air contaminants or hazardous air pollutants (TACs/HAPs). In preparation of this analysis County Air Pollution Control District (APCD) confirmed that there are no identified stationary toxic sources near the project site. The nearest source, the Ellwood Onshore Facility owned by Venoco Inc., is located at 7979 Hollister Avenue and is more than 3.5 miles from the Willow Springs II site.

In consultation with the County Fire Protection District Hazardous Materials Unit (HMU), a data base search was conducted to determine the types of chemicals that are used, and waste generated, within a 2,000-foot radius of the project site. A complete list of the types of chemicals and quantities by facility name and address is provided in Appendix E. A review of these chemicals determined that none are listed as acutely hazardous by the California Department of Industrial Relations in the California Code of Regulations, Title 8 *Industrial Relations*, Division 1 *Department of Industrial Relations*, Chapter 4 *Division of Industrial Safety*, Subchapter 7. *General Industry Safety* Orders, Group 16. *Control of Hazardous Substances*, Article 109. *Hazardous Substances and Processes*, Section §5189, *Process Safety Management of Acutely Hazardous Materials*, Appendix A - *List of Acutely Hazardous Chemicals, Toxics and Reactives*.

Old Oil Wells

Rincon Consultants, Inc. evaluated the location of the Amerada Hess Corporation "Perry" 1 well in their November 2008 Environmental Site Assessment for the project site, including a review of the Department of Conservation, Division of Oil, Gas and Geothermal Resources maps. Based on that review, the "Perry" 1 well was located approximately 300 feet to the east along Aero Camino. No oil wells were identified on the Willow Springs II project site.[2]

General Plan Safety Element, Airport Influence Area

The Santa Barbara Municipal Airport (SBMA) is located approximately 0.24 mile south of the project site, within the City of Santa Barbara. The airport encompasses an area of approximately 948 acres and serves both private planes and commercial airliners on four runways. Flight operations occur between the hours of 6 AM and midnight.

The City General Plan and the Santa Barbara County Association of Government's (SBCAG) Airport Land Use Plan (ALUP) establish an Airport Influence Area (AIA) around the Santa Barbara Municipal Airport within which land uses could be influenced by airport-related safety considerations. The AIA is concerned with a significant risk of upset potential with "unlikely" frequency of occurrence, but a "major" consequence. Most of the City of Goleta, including the entire project site, is within the AIA. For varying levels of safety concerns within the AIA relative to the proximity to the airport runways, the ALUP identifies three distinct safety zones: clear zone, approach zone, and one-mile zone of the runway end, also referred to as Safety Areas 1, 2, and 3, respectively. The project site does not lie within any of three safety zones. The nearest zone is an approach zone located 0.30 mile to the east.

Regulatory Framework

Federal Authorities and Administering Agencies

SARA 42 U.S.C. Section 11001 et. seq.

The Superfund Amendments and Reauthorization Act (SARA) amended the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, 42 U.S.C. Sections 9601 et. seq.) on October 17, 1986. SARA reflected EPA's experience in administering the complex Superfund program during its first six years and made several important changes and additions to the program. SARA also required the EPA to revise the Hazard Ranking System to ensure

[2] Geosyntec Draft EIR comment letter dated December 6, 2011 (included in Section 9.0 *Response to Comments*).

that it accurately assessed the relative degree of risk to human health and the environment posed by uncontrolled hazardous waste sites that may be placed on the National Priorities List.

Resource Conservation and Recovery Act (RCRA) 42 U.S.C. Section 6901 et seq.

RCRA gave the EPA the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. The RCRA also set forth a framework for the management of non-hazardous wastes.

The 1986 amendments to RCRA enabled the EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. RCRA focuses on active and future facilities. However, once hazardous materials have been released to the environment, they are deemed a waste as soon as the medium they have impacted is disturbed or moved. Therefore, contaminated soil can be regulated under RCRA. The California Department of Toxic Substance Control implements the RCRA in California via Unified Program Agencies. In Santa Barbara County, the Unified Agency is the Santa Barbara County Fire Department. The hazardous waste regulations are in the ~~California~~ Code of Federal Regulations Title 40 ~~22~~, Parts 260 to 299~~Division 4.5 (Title 22, Div 4.5)~~.

State Authorities and Administering Agencies

California Office of Emergency Services

The California Office of Emergency Services coordinates the emergency response to an accidental release of acutely/extremely hazardous materials.

Central Coast Regional Water Quality Control Board

The RWQCB and Santa Barbara County Fire Department's Fire Prevention Division, Site Mitigation Unit (FPD) enforce Federal and State site remediation regulations. The FPD is the lead agency for the area and has instituted a Site Mitigation Program responsible for the supervision of cleanup at sites located throughout the County. The County will grant closure of an impacted site when confirmatory samples of soil and groundwater reveal that levels of contaminants are below the standards set by the FPD and the RWQCB.

California Division of Oil, Gas, and Geothermal Resources

The DOGGR is mandated by Section 3106 of the Public Resources Code to supervise the drilling, operation, maintenance, and abandonment of oil wells for the purpose of preventing: 1) damage to life, health, property, and natural resources; 2) damage to underground and surface waters suitable for irrigation or domestic use; 3) loss of oil, gas, or reservoir energy; and 4) damage to oil and gas deposits by infiltrating water and other causes.

Local Authorities and Administering Agencies

City of Goleta Inland Zoning Ordinance

The City's Inland Zoning Ordinance and other implementing ordinances (including subdivision and grading ordinances) require development plans to identify the location of areas of geologic, seismic, flood, and other hazards (Section 35-317.3(2). Article III, Chapter 35 of the Goleta Municipal Code).

Santa Barbara County Site Mitigation Unit

The Santa Barbara County Fire Department Site Mitigation Unit (SMU) oversees both the Certified Unified Program Agency (CUPA) inspection and disclosure program for Underground and Aboveground Storage Tanks (USTs and ASTs), as well as the Leaking Underground Fuel Tank (LUFT) program (by way of grant funding from the State of California Water Resources Control Board) in all cities and unincorporated portions of Santa Barbara County. The SBCFD SMU oversees general permitting and operation of USTs and ASTs as the CUPA. If any releases or contamination associated with a UST is identified, County Fire oversees the assessments and remediation under the LUFT program.

4.7.2 Thresholds of Significance

The City of Goleta's *Environmental Thresholds and Guidelines Manual* contains thresholds that categorize the significance of impacts to public safety resulting from the involuntary exposure to hazardous materials. However it focuses on identifying activities that include the installation of, or modification to, facilities that handle hazardous materials, the transportation of hazardous materials, or non-hazardous land uses exercised in proximity to hazardous facilities. The proposed project would not involve such facilities.

The following threshold~~s~~ of significance ~~are~~ is based on Appendix G of the CEQA Guidelines. For purposes of this EIR, implementation of the proposed project may have a significant adverse impact with respect to hazards and hazardous materials if it would:

a. 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.

4.7.3 Project Impacts

Based on the Phase I ESA summarized above and the Soil Stockpile Risk Level Assessment, there is a potential that soil contamination exists relative to past agricultural operations and subsequent soil stockpiling. There is also a potential to expose future residents to VOCs due to groundwater contamination from neighboring properties. Therefore, there is the potential to expose the public (residents, their guests, workers) to significant hazards associated with past releases of hazardous materials on or adjacent to the project site.

Potential Exposure to Agricultural Chemicals (Impact HAZ 1)

Given the site's historical use as an orchard, there is a potential that its soils contain pesticides or other chemicals routinely used in agricultural production. Preparation of the site for fill and minimal excavation for portions of utility line installation could result in exposure of construction workers these agricultural chemicals. Most of the site would be capped with fill soil to protect underlying archaeological resources. This would also prevent exposure of residents to agricultural chemicals, if present in the site soils. However, exposure of future residents to agricultural chemicals may occur in areas outside of sensitive archaeological areas that would not be filled or that would contain minimal fill depths. Exposure of construction workers and/or residents to agricultural chemicals is considered a **potentially significant impact**.

Potential Impacts Associated with Neighboring Hazardous Materials Sites (Impact HAZ 2)

99 Aero Camino - Bergen Brunswig Property

Per the Phase I ESA, the groundwater wells at 99 Aero Camino are impacted with TPH, benzene, and toluene at levels the RWQCB considers "minor." The contamination was remediated in year 2000, and subsequently the case was closed. Groundwater monitoring wells are located within 10 feet of the project site to the east. The groundwater gradient is generally to the south and southwest, which could have made it possible for contaminated groundwater to migrate below the project site from that direction. However, the project does not include direct use of the underlying groundwater for any purposes. Water resources to serve the site for both potable water and irrigation would be supplied through the Goleta Water District. Site grading involving excavation into the existing native soils would be limited to areas outside the 2.56-acre archaeological site area (as described in Section 4.4 *Cultural Resources*) and minor excavations involving a portion of a water pipeline trench and a sewer manhole within the archaeological area. Areas outside the archaeological boundary would be over-excavated to depths of either two feet below the footings, or three feet below existing grade, whichever is deepest, and one foot of scarification. Landscape installation would not extend below the depth of fill within the archaeological area or below the depth of over-excavation in the non-archaeological areas. As such, it is not expected that excavation would enter groundwater (at highest levels of 8.5 to 10 feet below the surface); and thus, there would be no dewatering required during the construction period. While there would be no direct contact with the groundwater, there is a potential for the liquid contaminants to emit gases.

Contaminants identified from this property (e.g. benzene, toluene, TPH, etc.) are considered VOCs and may enter into the indoor air of the residential units as vapors. Indoor exposure would be more of a concern because the vapors are les diluted as they are trapped indoors. This may necessitate further groundwater assessment and engineering controls incorporated into the building design, such as vapor retardants, etc. Contaminants released to the subsurface may have spread through the soil laterally to adjacent properties, due to chemical composition, soil properties, and subsurface conditions. Chemicals with the ability to travel through soil as vapor, such as VOCs and some TPH compounds, may move up through the soil and into overlain buildings through cracks in the foundation and other available pathways. In the event that detectable concentrations of contaminants are identified in the soils and/or groundwater underlying the site, engineering controls, such as installation of passive or active venting systems along with a membrane would be required. This potential for exposure is considered **potentially significant**.

137 Aero Camino - Automated Business Forms Property

The project site is located approximately 150 feet to the north-northwest of the SCP site at 137 Aero Camino. This SCP site remains an open case with the RWQCB because of the presence of PCE and TPH in the soil, TCE and PCE in the groundwater, and an unstable chlorinated solvent plume. The contaminated soil would not directly pose an environmental risk to the proposed project given the distance between this soil and the project site. While groundwater contamination exists, the project is located up-gradient of the contamination and therefore the groundwater contamination is not expected at the site and would not result in the potential for VOCs release at the future residential units. Therefore, potential impacts from exposure to hazardous material contamination at this property are considered less than significant.

Potential Impacts Associated with On-Site Soil Stockpiles

Based on the results of the AMEC screening-level risk assessment, and the FPD review of the assessment, as provided in the July 13, 2009 letter from Steven Nailer of the Hazardous Materials Unit of the Fire Department (included in Appendix E), additional assessment of stockpile soil is not warranted and there are no requirements for additional analysis or notification to future residents or property owners at this time. The soil stockpile has been cleared for use on the site as fill from a hazardous materials exposure standpoint. Exposure impacts from the soil stockpile are considered less than significant.

Health Risk Assessment Regarding Exposure to Toxic Air Contaminants From Adjacent Uses

The project would be located adjacent to an existing industrial area along Aero Camino to the east and near business parks and general commercial uses to the east, southwest, and west. Storage, use, and disposal of hazardous chemicals are subject to Business Plans, which are enforced by the HMU to prevent contamination of the environment. There is no record of hazardous materials and waste generators having contaminated the project site. As described above, consultation with the APCD and County Fire Department HMU list of hazardous materials used within a 2,000-foot radius, including the Aero Camino industrial area, there are no acutely hazardous chemicals being used at this time. Records of hazardous materials are provided in Appendix E. In addition, there are currently no known complaints from existing adjacent residents of Willow Springs I of hazardous chemical odors from the Aero Camino area. Therefore, the risks associated with toxic air contaminants from hazardous chemical use near the project site are considered less than significant.

Potential Impacts Associated with Historic Oil Wells

Based on the Phase I Environmental Site Assessment for the project site performed by Rincon Consultants, including review of relevant historic oil well maps, no oil wells are known to have been located on the project site. Therefore, impacts related to historic oil well activities on the Willow Springs II site are considered less than significant.

General Plan Safety Element, Airport Influence Area

The Federal Aviation Administration (FAA) has completed an aeronautical study (Study No. 2011-AWP-423-OE) of the project in accordance with Title 14 of the Code of Federal Regulations. The study considered the project site location (coordinates), the proposed building heights, frequencies and use of power. The FAA issued the project applicant a "Determination of No Hazard to Air Navigation." The FAA determination notice is provided in Appendix E. Since the project is within the AIA, a real estate disclosure for potential residents would be required under General Plan Policy SE 9.7, and made a condition of approval of the project. Therefore, impacts associated with hazards from an airport-related accident are considered less than significant.

4.7.4 Cumulative Impacts

The project in combination with other developments in the area, as described in Section 3.0 *Related Projects*, would not result in significant cumulative impacts because the potential hazardous materials impacts associated with the project is limited to the site and adjacent uses. There are no related projects adjacent or very close to the project site.

4.7.5 Mitigation Measures

Potential Exposure to Agricultural Chemicals (Impact HAZ 1)

HAZ 1-1 Prior to any soil disturbance activities at the project site (including soils beneath the stockpile), shallow native soils shall be sampled for pesticides. An experienced environmental professional (e.g., Registered Environmental Assessor, Professional Geologist, or Certified Engineering Geologist) approved by the City shall design and implement a soil sampling and testing plan. Laboratory testing of soil shall be performed to evaluate the presence of contamination. Soil sampling and testing for the presence of pesticides shall be conducted at a minimum in accordance with the California Department of Toxic Substance Control (DTSC) Interim Guidance for Sampling Agricultural Fields for School Sites, dated August 2002, as it may be amended. Further site investigation shall occur in the event that the City determines that, based ~~Depending~~ on the results of this initial testing, further site investigation is ~~and remediation activities may be~~ warranted. The permittee shall prepare a plan for remediation of the site in the event that the City determines that, based on the results of ~~Where indicated as required by~~ the further site investigation, remediation and clean-up measures and activities to mitigate the soil contamination shall be undertaken. Local oversight by the County of Santa Barbara Fire Department Fire Prevention Division and/or Regional Water Quality Control Board is recommended.

Plan Requirements and Timing: Prior to issuance of any Land Use Permit for grading, the permittee ~~applicant~~ shall provide the City ~~of Goleta~~ with the results of the soil sampling tests ~~results~~ along with a plan for remediation, as determined to be warranted by the City,~~needed~~ for review and approval by the City.

Monitoring: The City Planning and Environmental Services Department, in consultation with the County Fire Department ~~staff~~ shall verify compliance with the soil testing, site investigation and remediation plan ~~measures~~ prior to issuance of any Land Use Permit for grading.

Potential Impacts Associated with Neighboring Hazardous Materials Sites (Impact HAZ 2)

HAZ 2-1 Prior to soil disturbance activities involving native soils~~,~~ or imported fill soils that are not associated with the stockpile that underwent the Assessment, the ~~and~~ groundwater in the eastern portion of the project site ~~property~~ near the adjacent Bergen Brunswig (99 Aero Camino) property shall be investigated due to former hazardous material usage at this off-site location. The permittee shall prepare a soil and groundwater sampling and testing plan and a r~~R~~emediation plan according to ~~shall be conducted, as necessary, including~~ the following:

a. The soil shall be sampled for gasoline constituents, including TPH and BTEX.
b. Groundwater shall be sampled for volatile organic compounds (VOCs), including PCE and TCE.
c. Groundwater wells shall be placed outside of the boundary of CA-SBA-56 (archaeological site).
d. Groundwater monitoring well drilling shall be conducted in the presence of a City approved archaeologist and local designated Native American representative.
e. Laboratory testing on soil and/or groundwater shall be performed to evaluate the presence of contamination. Once the project has been initially evaluated via soil and/or groundwater collection and analysis, further site investigation ~~and remediation activities~~ shall occur in the event that the City determines that, based on the results of this initial testing, further site investigation is ~~may be~~ warranted. The permittee shall prepare a plan for remediation of the site in the event that the City determines that, based on the results of ~~Where indicated as required by~~ this further investigation, remediation and clean-up measures and activities to mitigate soil and/or groundwater contamination shall be undertaken.
f. An environmental professional (e.g., Professional Geologist) approved by the City shall provide oversight and project monitoring to ensure the health and safety of all workers. Local oversight by the County of Santa Barbara Fire Department Fire Prevention Division and/or Regional Water Quality Control Board is recommended.

Plan Requirements and Timing: Prior to issuance ~~approval~~ of any Land Use Permit for grading, the permittee shall provide the County Fire Department's Hazardous Materials Unit (HMU) a soil and groundwater sampling and testing plan that incorporates the items outlined above ~~in this mitigation measure~~ for review and approval prior to conducting the testing. Once completed and prior to issuance of any Land Use Permit for grading, the permittee shall also provide the City Planning and Environmental Services Department and the HMU with the results of the soil and groundwater sampling tests. Prior to issuance of any Land Use Permit for grading, the permittee shall provide the City a plan for remediation, as determined to be warranted by the City, for review and approval by the City. Remediation, as determined to be warranted by the City, shall be conducted in accordance with the approved remediation plan.

Monitoring: City staff shall verify compliance with this requirement prior to any Land Use Permit issuance for grading.

4.7.6 Residual Impacts

Implementation of Mitigation Measures HAZ 1-1 and HAZ 2-1, would reduce the project's residual impacts related to hazardous materials upset and exposure to less than significant **(Class II)**.