

4.6 HAZARDS AND HAZARDOUS MATERIALS

This EIR section describes the existing physical setting of the project site as it relates to hazards and hazardous materials. This section also provides a summary of the hazardous materials records search performed for the project site, and assesses the potential for adverse impacts on human health and the environment from exposure to hazardous materials resulting from project implementation. Hazardous materials include, but are not necessarily limited to, solvents, mercury, lead, asbestos, fuels, oils, paints, cleansers, and pesticides that are used in activities such as construction activities or building or grounds maintenance. Potential effects include those associated with exposure to hazardous materials used, stored, transported, or disposed of during construction activities or proposed project operations. Potential water quality effects from runoff that could contain hazardous or polluted materials during construction or operational activities are discussed in Section 4.7 (Hydrology and Water Quality). Impacts related to toxic air contaminants that could be emitted during construction and operation of the project are discussed in Section 4.2 (Air Quality).

The following issues were scoped out of the EIR in the project's Initial Study (IS) and do not require additional analysis in the EIR: (1) impairment of emergency response plan implementation; and (2) exposure of people or structures to a significant risk of loss, injury, or death involving wildland fires.

Data used to prepare this section were taken from the *Preliminary Environmental Site Assessment-Phase I Update* (ESA) and *Subsurface Assessment—Phase II* (Phase II) prepared by California Environmental Geologist and Engineers Inc. in May 2008 (Appendix F). Full bibliographic entries for all reference materials are provided in Section 4.6.5 (References) at the end of this section.

4.6.1 Environmental Setting

■ Definitions

Chapter 6.5 of the *California Health and Safety Code* sets forth definitions and regulations related to hazardous materials management and disposal. This EIR uses the definition given in this chapter, which defines a hazardous material as:

Any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or environment. "Hazardous Materials" include but are not limited to, hazardous substances, hazardous waste, and any material which the handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or environment.

A "hazardous waste" for the purpose of this analysis, is any hazardous material that is abandoned, discarded, or recycled, as defined by Section 25124 of the *California Health and Safety Code*. The criteria that characterize a material as hazardous include ignitability, toxicity, corrosivity, reactivity, radioactivity, or bioactivity.

■ Site History

According to the preliminary ESA, the proposed project site was in agricultural use beginning sometime prior to 1938. The initial mall development commenced during the mid-1960s. Montgomery Ward and the auto service building were constructed approximately in 1966. Currently, the proposed project site remains occupied by a vacant retail building and a vacant auto service building surrounded by commercial properties.

■ On-Site and Adjacent Uses

The 15.85-acre project site is located in the northern portion of the City of Huntington Beach, adjacent to the west of the existing Bella Terra Mall. The site is currently developed with the vacant Montgomery Ward Building and an associated auto repair facility. The 190,100-square-foot (sf) Montgomery Ward building occupies the eastern portion of the project site while the 18,600 sf auto repair facility is located on the southwestern portion of the project site.

The project site is located approximately 3.5 miles north of the City's Downtown. The site is surrounded in its entirety by commercial and institutional development. Adjacent surrounding uses are as follows:

- *East:* The existing Bella Terra Mall is located directly adjacent to the project site to the east. The mall contains approximately 1 million sf of commercial/retail space and is anchored by Kohl's Department Store and a twenty-screen Theater Complex. In addition to the retail establishments, the mall features two public art sculptures, an entertainment plaza with open-air amphitheater, and an open-space plaza.
- *North & Northeast (across Center Avenue):* A mixture of commercial, office, hotel, and residential uses occupy areas north and northeast. The Old World Village, a Bavarian-themed residential, shopping, dining, and entertainment center, is located north of the project site across Center Avenue. Seawind Village, a multi-family apartment complex is further to the north along Huntington Village Lane. One Pacific Plaza, a 400,000 sf office development, and Hotel Huntington Beach, a 224-room hotel development, are located to the northeast between Center Avenue and I-405.
- *West (across the Union Pacific Railroad [UPRR] tracks):* The College Country Center, a shopping center containing approximately 60,000 sf of retail and office space, is located west of the project site on the opposite side of the UPRR tracks. A former Levitz furniture store, consisting of approximately 230,000 sf of retail showroom and distribution space and 331 parking stalls on 11.7 acres, is also located west of the project site on the opposite side of the UPRR tracks, immediately south of the College Country Center. Golden West College, an educational institution consisting of 14,000 students and staff, is located approximately 945 feet west across Gothard Street.
- *South & Southeast:* Commercial and office development is located south of the project site across Edinger Avenue, with single-family residential units located further to the south.

■ Phase I Environmental Site Assessment

A Preliminary Environmental Site Assessment (ESA) Phase I Update and Subsurface Assessment—Phase II provides information concerning the past and existing conditions on a site and is intended to

provide a review of known and observable conditions to allow evaluation of the environmental conditions. These conditions may include an existing release, past release, or threat of release of hazardous substances into structures, soil, groundwater, or surface water of the site.

The preliminary ESA evaluation for this project was conducted by California Environmental Geologist and Engineers Inc., with findings provided in its ESA report dated May 6, 2008. The site's ESA included the following activities and components:

- Reconnaissance survey of the project site to make visual observations of existing site conditions and activities
- Review of underground storage tank files and industrial waste records maintained by the County of Orange Health Care Agency and Regional Water Quality Control Board
- Review of previous environmental site assessment reports on file with regulatory agencies
- Review of historical USGS topographic maps
- Research of historical Sanborn Fire Insurance maps maintained by EDR, Inc.
- Contract with the South Coast Air Quality Management District to review their files
- Review of Oil Field maps and oil well records maintained by the State of California Division of Oil, Gas, and Geothermal Resources
- Review of the local, state, and federal agency lists and maps of suspect or known contaminated sites
- A review of government records database of suspect or known contaminated sites conducted by EDR, Inc.
- Soil and soil vapor sampling
- Findings and Opinions
- Conclusion and Recommendations

■ Records Search

A government agency database records search was conducted by EDR Inc. for California Environmental Geologist and Engineers Inc. on July 19, 2005. The records search identifies properties located in the general vicinity of the proposed project site which may have contributed to a release of hazardous substances (e.g., spills, leaks, incidents, etc.) to the soil and/or groundwater. The records search is designed to meet the search requirements of the Environmental Protection Agency's (EPA) Standards and Practices for All Appropriate Inquiries (40 CFR Part 312) and the American Society for Testing of Materials (ASTM) Standard Practice for Environmental Site Assessments (E 1527-05).

The search radius (distance from project site) is dependent upon the applicable standards for each database and is identified below for each of the respective database listings. The project site itself was listed in the Cortese, LUST, and CA SLIC databases searched by EDR Inc. In addition, there are a variety of identified sites within the vicinity of the project site that are listed on the databases, as illustrated in Table 4.6-1 (Data Search Result). Many sites are located in multiple databases.

Table 4.6-1 Data Search Result

<i>Agency Database</i>	<i>Survey Distance</i>	<i>Number of Sites Identified</i>
United States Environmental Protection Agency (EPA) National Priority List (NPL) for Superfund Sites	1.0 mile	0
U.S. Proposed NPL List	1.0 mile	0
U.S. National Priority List Deletions (Delisted NPL) List	1.0 mile	0
NPL Recovery List (Federal Superfund Liens)	Property	0
U.S. EPA Comprehensive Environmental Response, Compensation and Liability Index System (CERCLIS) List	0.5 mile	0
U.S. EPA CERCLIS—No Further Remedial Action Planned (CERCLIS-NFRAP)	0.5 mile	1
U.S. EPA Resource Conservation and Recovery Act (RCRA) Corrective Action (CORRACTS) List	1.0 mile	0
U.S. EPA RCRA Permitted Treatment, Storage, and Disposal (TSD) Facilities	0.5 mile	0
U.S. EPA RCRA Registered Large Generators of Hazardous Waste (RCRIS LQG)	0.5 mile	1
U.S. EPA RCRA Registered Small Generators of Hazardous Waste (RCRIS SOG)	0.25 mile	6
U.S. EPA Emergency Response Notification System (ERNS) List	0.25 mile	4
U.S. Hazardous Materials Incident Reporting System (HMIRS)	0.125 mile	0
U.S. Engineering Controls Sites (ENG Controls) List	0.5 mile	0
U.S. Record of Decision (ROD) List	1.0 mile	0
State Hazardous Waste Sites (Cal-Sites)	1.0 mile	0
State Hazardous Material Incidents, Including Accidental Releases and Spills (CHMIRS)	0.125 mile	1
State Hazardous Waste and Substances Sites (Cortese)	0.5 mile	15
State Proposition 65 Database (Notify 65)	0.25 mile	0
State Toxic Pits Cleanup Act Sites (Toxic Pits)	1.0 mile	0
State Permitted Solid Waste Landfill, Incinerators or Transfer Stations (SWF/LF) List	0.5 mile	0
State Waste Management Unit Database System (WMDUS/SWAT)	0.5 mile	0
State Leaking Underground Storage Tank (LUST) List	0.5 mile	23
State Bond Expenditure Plan (CA Bond Exp. Plan)	1.0 mile	0
State Underground Storage Tanks (UST) List	0.25 mile	3
State Site Cleanup (SLIC) List	0.5 mile	6
HAZNET	0.25	17
Orange County Industrial Site	0.5	2
State Voluntary Cleanup Program (VCP)	1.0 mile	0
State Underground Storage Tanks on Indian Land (Indian UST)	Property	0
State Leaking Underground Storage Tanks on Indian Land (Indian LUST)	0.5 mile	0
State Facility Inventory Database of historic active and inactive UST locations (CA FID UST)	0.25 mile	1
State Hazardous Substance Storage Container Database of historic UST sites (HIST UST)	Property	0
Facility Index System (FINDS)	0.5 miles	25
State Drycleaners List	0.25 mile	0

Table 4.6-1 Data Search Result

<i>Agency Database</i>	<i>Survey Distance</i>	<i>Number of Sites Identified</i>
State Well Investigation Program (WIP) List	0.25 mile	0
Other Local, State, and/or Federal Databases including, but not limited to, Brownfield listings, Current and Former Department of Defense Sites, Consent Decrees, Records of Decision, Deed Restrictions, Hazardous Materials or Waste Tracking Systems and Facility Registries, and Enforcement Activities (see EDR report for complete listing of databases and search radii)	Varied according to database	0

The proposed project site was identified in the Cortese, LUST, and CA SLIC databases. A summary of potential on-site hazardous materials is presented below. A former Levitz Furniture facility located about 1,000 feet to the west; the former Broadway Goodyear facility, located about 1,200 feet to the east; the former Chevron gas station, located about 2,000 feet to the east; and the former dry cleaners, located about 1,600 feet to the east-northeast of the property, were identified in the LUST database. The status of the LUST cases are reported as “case closed” indicating that remedial action is completed, or was deemed unnecessary, by the local regulatory agency. Based on its cross-gradient location relative to the project site, and its regulatory status of being a closed case, these facilities are not anticipated to have a negative environmental impact on the proposed project site.

The former JC Penny facility, located about 300 feet to the east has a currently “open” case with the regulatory agency. This property was identified in the LUST database. According to documents available through the California Environmental Protection Agency (Cal EPA), State Water Resources Control Board, and GeoTracker Database, this facility is undergoing post-remediation verification monitoring. Based on the on-going post-remediation monitoring, agency status, and location relative to the project site, JC Penny’s is not anticipated to have a negative environmental impact to the proposed project site.

Golden West College is located west (across Gothard Street) and cross-gradient of the project site. This property was identified in the RCRA-SQG, LUST, CA FID, UST, HIST UST, and SWEEPS databases. There was a release of gasoline-affected groundwater at the College in 1988. The status of the LUST case is reported as “case closed” indicating that remedial action is completed, or was deemed unnecessary, by the local regulatory agency. Based on its cross-gradient location relative to the project site, and its regulatory status of being a closed case, this facility is not anticipated to have a negative environmental impact on the proposed project site.

According to the preliminary ESA, based upon review of the site assessment and clean-up data for the off-site properties, no evidence was found to indicate that these off-site facilities have impacted, or will impact, the soil or groundwater beneath the project site.

■ Potential On-Site Hazardous Materials

A site reconnaissance of the proposed project site was performed as part of the preliminary ESA in July 2005. The site reconnaissance consisted of the observation and documentation of existing site conditions accessible by foot, and observation and documentation of the nature of neighboring property developments within ¼-mile of the project site.

The project site has historically been used for retail and automotive repair purposes. Underground and aboveground storage tanks have been historically present at the proposed project site. Seven underground storage tanks were historically present on the site. The tanks were used for storage of fuel and new and used motor oil. During the site reconnaissance, small aboveground oil tanks were observed within the former automotive center. Furthermore, during the site reconnaissance, evidence of hazardous material use within the automotive center included the presence of waste oils, greases, automotive battery storage, and patched asphalt indicative of former underground storage tank locations. Minor oil stains and small containers of what appeared to be waste oil were also observed within the vicinity of the automotive center building.

Hydraulic hoists are located within the vacant Montgomery Ward automotive repair facility. Some of the hydraulic oil reservoirs are located above ground within the basement of the automotive repair facility. No leaks of hydraulic oil were observed in the area of the hydraulic oil reservoirs. Minor oil staining was observed in the vicinity of the concrete surface near two hydraulic hoists.

A sump was observed within the basement of the Montgomery Ward automotive repair facility. The sump contained water at the time of the site reconnaissance, as the entire basement was flooded. No sheens and/or odors were noted within the sump at the time of the site reconnaissance. According to the ESA, previous reports indicated the presence of a three-stage automotive clarifier. The clarifier was not observed during the site reconnaissance conducted for the ESA investigation. Other aboveground storage tanks related to the groundwater/vapor treatment system were observed on the southwest corner of the site.

Small containers, typically five gallons or less, of what appeared to be waste oil were observed in several locations within the Montgomery Ward automotive repair facility. No other evidence of containers of hazardous or unidentified substances was observed in the vicinity of the proposed project site at the time of the site reconnaissance for the ESA investigation. Disposal bins were observed adjacent to the north of the retail building and the automotive facility. The disposal bins contained non-hazardous debris at the time of the site reconnaissance. No other evidence of on-site disposal or landfill of solid waste material was observed in the vicinity of the proposed project site at the time of the site reconnaissance.

Slab-mounted transformers maintained by Southern California Edison (SCE) are located through the project site. However, transformers containing polychlorinated biphenyls (PCB) were not observed on the project site at the time of the site reconnaissance. Fluorescent lights were observed in the interior areas of the on-site structures. Fluorescent light ballasts manufactured prior to 1977 (and fluorescent light ballasts without a date of manufacture) may have ballast capacitors that contain PCBs, which is recognized by the Environmental Protection Agency (EPA) as a suspect carcinogen. Used fluorescent lamp tubes are considered to be hazardous mercury-bearing waste requiring proper disposal in accordance with local, State, and federal requirements. The on-site ballasts were not inspected during the site reconnaissance.

An idle groundwater treatment system associated with remedial clean-up of the former Montgomery Ward automotive repair facility is present on site. The system located adjacent to the Montgomery Ward automotive repair facility previously discharged treated water to the adjacent drainage channel under

National Pollutant Discharge Elimination System (NPDES) permit CAG918001. No evidence of wastewater treatment or disposal systems was observed in the vicinity of the project site during the site reconnaissance for the ESA investigation.

Five on-site and one off-site groundwater monitoring wells were observed near the automotive repair facility during the site reconnaissance. About ten vapor extraction system (VES) wells were also noted beneath the southwest corner of the property. Several areas of horizontal VES wells and horizontal interceptor trenches were located beneath the southwest portion of the auto repair facility during the site reconnaissance. The groundwater wells and VES wells are associated with the former assessment and remedial clean-up of the fuel release which occurred beneath that portion of the project site. These wells should be abandoned under permits issued by the Orange County Health Care Agency (OCHCA). No other evidence of dry wells, irrigation wells, injection wells, abandoned wells, monitoring wells or other wells were observed in the vicinity of the project site at the time of the site reconnaissance for the ESA investigation.

No evidence of strong, pungent, or noxious odors was noted on the proposed project site at the time of the site reconnaissance for the ESA investigation. Furthermore, no evidence of stressed vegetation was observed in the vicinity of the proposed project site at the time of the site reconnaissance for the ESA investigation. Automotive batteries were previously stored and serviced within the northern portion of the former Montgomery Ward automotive repair facility. The concrete flooring located within the battery storage area is significantly degraded. The concrete flooring appeared to be etched from spillage of battery (sulfuric) acid. Areas of oil-stained concrete were also observed within the automotive repair facility. No other evidence of staining or residues was observed in the vicinity of the project site at the time of the site reconnaissance for the ESA investigation. Furthermore, no evidence of pits, ponds, and/or lagoons was observed in the vicinity of the proposed project site at the time of the site reconnaissance for the ESA investigation.

Asbestos

Asbestos, a naturally occurring fibrous material, was used in many building materials for fireproofing and insulating properties before many of its most common construction-related uses were banned by the EPA between the early 1970s and 1991 under the authority of the *Clean Air Act* (CAA) and the *Toxic Substances Control Act* (TSCA). Loose insulation, ceiling panels, and brittle plaster are potential sources of friable (easily crumbled) asbestos. Since inhalation of airborne asbestos fibers is the primary mode of asbestos entry into the body, friable asbestos presents the greatest health threat. Nonfriable asbestos is generally bound to other materials such that it does not become airborne under normal conditions. Any activity that involves cutting, grinding, or drilling during demolition (especially demolition of older (pre-1980 structures), or relocation of underground utilities, could result in the release of friable asbestos fibers unless proper precautions are taken. Asbestos-related health problems include lung cancer and asbestosis. The structures located on the project site were constructed during the 1960s and may have been built with materials containing friable asbestos. Therefore, demolition of the existing structures at the project site could result in the release of friable asbestos during the project's construction phase.

Electromagnetic Fields

High-voltage (maximum of 230,000 volt) power transmission towers are located northwest of the project site south of Center Avenue and west of the railroad tracks (Thoreson 2008). These electrical transmission towers generate invisible electric and magnetic lines of force referred to as electromagnetic fields (EMF). EMFs are invisible lines of force associated with the production, transmission, and use of electric power such as those associated with high-voltage transmission lines, secondary power lines, and home wiring and lighting. EMFs consist of electric fields (voltage) and magnetic fields (the movement of electricity) that are emitted from power lines, electrical facilities, and electrical appliances. The strength of the electric field decreases rapidly with distance from the source. Magnetic fields also decrease with distance from the source, but easily pass through most objects.

There has been public concern about the potential health effects, particularly leukemia in children, associated with long-term exposure of EMFs from such sources as transmission lines, electrical facilities, and appliances. Determining what effects, if any, low-frequency fields may have on living tissue over long periods of time has proven to be a very difficult scientific challenge. The human body's cells have their own electric fields, and some laboratory studies have shown that these internal fields can be disrupted by exposure to even low-energy EMFs. Additionally, low level fields are emitted by home wiring, appliances, and electric blankets.

A number of studies have looked at the potential health hazard posed by the long-term exposure of both animals and humans to low-frequency electromagnetic radiation. Since 1980, more than 90 epidemiological studies have been performed to determine whether there is a link between EMFs and potential health effects. Although some studies have found a link between EMFs and increased birth defects in animals, or an increased risk of cancer, especially leukemia, lymphomas, and brain cancer, in electrical workers or even in children living near high-voltage power lines, other studies have found no clear link. At this time, it is impossible to say whether EMFs pose any health risk, and if so, at what level of exposure risk develops.

According to the National Institute of Environmental Health Sciences (NIEHS) because the use of electric power is so widespread, humans are constantly exposed to electric and magnetic fields. The Electric and Magnetic Fields Research and Public Information Dissemination (EMF RAPID) Program, was a six-year project with the goal of providing scientific evidence to determine whether exposure to power-frequency EMF involves a potential risk to human health led by two U.S. government institutions, the National Institute of Environmental Health Sciences (NIEHS) of the National Institutes of Health and the Department of Energy (DOE), with input from a wide range of public and private agencies. In 1999, at the conclusion of the EMF RAPID Program, the NIEHS reported to the U.S. Congress that the overall scientific evidence for human health risk from EMF exposure is weak. Federal and state agencies have reviewed past studies to determine if exposure to EMF causes adverse health effects, and have found no basis for setting health standards to date (NIEHS 2002).

Lead

Lead is a naturally occurring metallic element. Among its numerous uses and sources, lead can be found in paint, water pipes, solder in plumbing systems, and in soils around buildings and structures painted with lead-based paint. In 1978, the federal government required the reduction of lead in house paint to less than 0.06 percent (600 parts per million). Because of its toxic properties, lead is regulated as a hazardous material. Excessive exposure to lead can result in the accumulation of lead in the blood, soft tissues, and bones. Children are particularly susceptible to potential lead-related health problems because it is easily absorbed into developing systems and organs. Inspection, testing, and removal (abatement) of lead-containing building materials must be performed by state-certified contractors who are required to comply with applicable health and safety and hazardous materials regulations. Buildings that have been constructed prior to 1978 and that contain lead-based paints could require abatement prior to construction activities for the proposed project. Since the structures at the project site were constructed during the mid-1960s, it is likely that lead-based paint was used or that abatement will be required during the project's construction phase.

Lead Arsenate

Lead arsenate is used as an herbicide, insecticide or rodenticide. Lead arsenates were historically used by railroad companies as a means of weed control along a railroad right-of-way. Pesticide residues from lead arsenate bind tightly to the surface soil layer, where they can remain for decades. As a result, such residues, if present, could pose a human health risk when the soil is excavated. Lead and arsenic are the primary constituents of lead arsenate pesticide. Both lead and arsenic could be toxic at high concentrations in soils and are highly toxic to humans. The UPRR tracks are located west of the proposed project site. The preliminary ESA and the government agency database records search did not identify lead arsenate as a potential hazardous material either at the proposed project site, or within one mile of the proposed project site (Appendix F).

Methane Gas

The proposed project site is not within a methane overlay district designated by the City; however, it should be noted that petrogenic sources are not the sole source of methane gas and that biogenic sources, such as peat, are also capable of methane gas production. Peat and organic soil occurrences are estimated to be quite widespread in the City in former marshes and closed depressions where quiet water and vegetation were abundant. Due to the location and design of the proposed project, the Huntington Beach Fire Department (HBFD) would require the Applicant to test for the presence of methane gas to determine if a problem exists and to rule methane out as a potential concern. A methane sample plan would be submitted to the HBFD for review and approval, prior to the commencement of sampling. In the event that significant levels of methane gas are discovered, appropriate measures to reduce the potential impacts of methane gas to future occupants and visitors of the project site would be required as per City Specification No. 429 *Methane District Building Permit Requirements*. Identification of these measures would be required prior to plan approval.

Peat and Organic Soils

Peat and organic soils occurrences are estimated to be quite widespread in the City in former marshes and closed depressions where quiet water and vegetation were abundant. Peat and organic soils are highly susceptible to large long-term settlement due to their low density. This potential hazard is routinely evaluated by standard soils and foundation engineering and testing required by the City of Huntington Beach grading and building codes.

4.6.2 Regulatory Framework

A number of federal, State, and local laws have been enacted to regulate the management of hazardous materials. Implementation of these laws and the management of hazardous materials are regulated independently of the CEQA process through programs administered by various agencies at the federal, State, and local levels. An overview of the key hazardous materials laws and regulations that could apply to the proposed project is provided below.

■ Federal

Several federal agencies regulate hazardous materials. These include the Environmental Protection Agency (EPA), Department of Labor (Federal Occupational Health and Safety Administration [OSHA]), and the Department of Transportation (DOT). Applicable federal regulations are contained primarily in Titles 10, 29, 40, and 49 of the Code of Federal Regulations (CFR). In particular, Title 49 of the CFR governs the manufacture of packaging and transport containers, packing and repacking, labeling, and the marking of hazardous material transport. Some of the major federal laws and issue areas include the following statutes (and regulations promulgated there under):

- *Resources Conservation and Recovery Act (RCRA)*—hazardous waste management
- *Hazardous and Solid Waste Amendments Act (HSWA)*—hazardous waste management
- *Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)*—cleanup of contamination
- *Superfund Amendments and Reauthorization Act (SARA)*—cleanup of contamination
- *Emergency Planning and Community Right-to-Know (SARA Title III)*—business inventories and emergency response planning
- *Clean Air Act (CAA)*—Asbestos National Emission Standards for Hazardous Air Pollutants (NESHAP) rules
- *Toxic Substances Control Act (TSCA)*—Asbestos Ban and Phase-out rules
- Federal Regulation 49 CFR Title 14 Part 77- Establishes standards and notification requirements for objects affecting navigable airspace.

The EPA is the primary federal agency responsible for implementation and enforcement of hazardous materials regulations. In most cases, enforcement of environmental laws and regulations established at the federal level is delegated to State and local environmental regulatory agencies. The US Consumer Product Safety Commission (CPSC) has also developed bans on the use of asbestos in certain consumer products such as textured paint and wall patching compounds.

■ State

Primary state agencies with jurisdiction over hazardous chemical materials management are the Department of Toxic Substances Control (DTSC) and the Regional Water Quality Control Board (RWQCB). Other state agencies involved in hazardous materials management are the Department of Industrial Relations (State OSHA implementation), state Office of Emergency Services (OES—California Accidental Release Prevention implementation), Department of Fish and Game (DFG), Air Resources Board (ARB), Department of Transportation (Caltrans), State Office of Environmental Health Hazard Assessment (OEHHA—Proposition 65 implementation), and the California Integrated Waste Management Board (CIWMB). The enforcement agencies for hazardous materials transportation regulations are the California Highway Patrol (CHP) and Caltrans. Hazardous materials waste transporters are responsible for complying with all applicable packaging, labeling, and shipping regulations.

Hazardous chemical and biohazardous materials management laws in California include the following statutes (and regulations promulgated thereunder):

- *Hazardous Materials Management Act*—business plan reporting
- *Hazardous Waste Control Act*—hazardous waste management
- *Safe Drinking Water and Toxic Enforcement Act of 1986* (Proposition 65)—releases of and exposure to carcinogenic chemicals
- *Hazardous Substances Act*—cleanup of contamination
- Hazardous Waste Management Planning and Facility Siting (*Tanner Act*)
- Hazardous Materials Storage and Emergency Response
- State Aeronautics Act contained in the California Resources Code Section 21001, et seq.—aeronautic safety

State regulations and agencies that are specifically applicable to the project site include the *Hazardous Materials Management Act* and the OSHA, which are further described below.

Hazardous Materials Management Act

A hazardous material is any substance that possesses qualities or characteristics that could produce physical damage to the environment and/or cause deleterious effects upon human health (Title 22, CCR). The *Hazardous Materials Management Act* (HMMA) requires that businesses handling or storing certain amounts of hazardous materials prepare a Hazardous Materials Business Plan (HMBP), which includes an inventory of hazardous materials stored on site (above specified quantities), an emergency response plan, and an employee training program. Businesses that use, store, or handle 55 gallons of liquid, 500 pounds of a solid, or 200 cubic feet of a compressed gas at standard temperature and pressure require HMBPs. Plans must be prepared prior to facility operation and are reviewed/updated biennially (or within 30 days of a change).

Occupational Health and Safety Administration (OSHA)

Site safety requirements are generally based on the specifications of Cal-OSHA. Applicable specifications prepared by OSHA related to earth resources consist of Section 29 CFR Part 1926 (Department of Labor 1989), which focuses on worker safety during excavation, shoring, and trenching.

State Aeronautics Act

The *State Aeronautics Act* is contained in the *California Public Resources Code* Sections 21001, *et seq.* and is established for several purposes, including encouraging development of private flying and general use of air transportation, fostering and promoting safety in aeronautics, protecting residents in the vicinity of an airport from unreasonable intrusions from airport noise, and establishing regulations for allowing the conduct of aviation activities in a manner not inconsistent with the rights of others.

■ **Local**

General Plan Hazardous Materials Element

The City of Huntington Beach General Plan Hazardous Materials Element identifies various policies and programs for addressing and mitigating risks from hazardous materials and hazardous wastes. The key goal of the Hazardous Materials Element is to “reduce, to the greatest degree possible, the potential for harm to life, property and the environment from hazardous materials and hazardous waste.” While the development proposed for the project site would not use substantial quantities of hazardous materials, both retail commercial and residential uses can generate hazardous waste in the form of household products, paint, pesticides, and used electronics. Accordingly, the following goals and policies could apply to the proposed project:

- Goal HM 1** Reduce, to the greatest degree possible, the potential for harm to life, property, and the environment from hazardous materials and hazardous waste.
 - Objective HM 1.1** Promote the proper handling, treatment, and disposal of hazardous materials and hazardous waste.
 - Policy HM 1.1.4** Implement federal, state, and local regulations for the handling, storage, and disposal of hazardous materials.
 - Objective HM 1.2** Avoid, to the extent feasible, risks from hazardous materials to sensitive uses such as hospitals, schools, residences, and environmentally sensitive areas.
 - Policy HM 1.2.1** Support land use patterns that avoid development of hazardous waste generators adjacent to sensitive uses.
 - Policy HM 1.2.2** Ensure that hazardous waste transportation activities are conducted in

a manner that will minimize risks to sensitive uses.

Policy HM 1.2.3 Support land use or developments adjacent to or within close proximity of sensitive uses, which do not utilize, store, handle, or contain hazardous materials and/or waste, and which would create an unsafe, unhealthy, or hazardous condition for adjacent uses.

Objective HM 1.3 Reduce the amount of hazardous waste in the City.

Policy HM 1.3.1 Encourage practices and technologies which will reduce the generation of hazardous waste at their source.

Policy HM 1.3.2 Promote the recovery and recycling of hazardous materials.

Objective HM 1.4 Promote the identification and remediation of existing hazardous waste sites.

Policy HM 1.4.2 Require containment of the hazardous waste site, thereby ensuring the contaminated waste does not migrate or contaminate an adjacent site, nor contaminate the groundwater.

Objective HM 1.6 Ensure effective emergency response and emergency preparedness to minimize the risk to public health and safety and damage to property and the environment from hazardous materials incidents such as spills or contamination.

Consistency Analysis

Construction and operation of the proposed project would not involve the use of large quantities of hazardous materials, while any commonly used hazardous materials would be used and stored in accordance with applicable regulations. The proposed mix of retail commercial and residential uses places sensitive uses within the project site, which suggests that permitted retail commercial uses be screened for the routine use of hazardous materials and certain uses (dry cleaning establishments with plant on premises) may not be appropriate within the retail commercial portion of the proposed project pursuant to Policy HM 1.2.3. Demolition of existing structures is unlikely to result in a release of hazardous materials provided that all applicable regulations regarding removal of asbestos-containing-materials and lead-based-paint are followed. Implementation of the proposed project is not expected to include the use of hazardous materials or generate substantial quantities of hazardous waste, and would not create an unsafe or hazardous condition for adjacent uses. The closest existing sensitive uses to the project site are the residences of Old World Village (approximately 0.9 mile northwest) and Golden West College (approximately 0.35 mile west). However, the closest future sensitive uses to the project site are

the future residents of The Ripcurl project (proposed adjacent to the west across the UPRR tracks). Hazardous materials associated with the proposed project would consist mostly of typical household-type cleaning products and maintenance products (e.g., paints, solvents, cleaning products). However, the proposed project would be required to comply with federal and State laws to eliminate or reduce the consequence of hazardous materials accidents. The proposed project would not conflict with the applicable goals and policies of the City of Huntington Beach General Plan Hazardous Materials Element.

General Plan Environmental Hazards Element

The City of Huntington Beach General Plan Environmental Hazards Element includes policies which address both natural and man-made hazards and identifies the potential methods used to reduce risks associated with those hazards. The discussion below identifies goals and objectives presented in the Environmental Hazards Element of the General Plan that are potentially relevant to the proposed project.

- Goal EH 3** Ensure the safety of the City’s businesses and residents from methane hazards.
 - Objective EH 3.2** Minimize methane hazards in the identified Methane Overlay District, and other areas outside the Methane Overlay Districts as may later be defined, through the regulation of construction and adherence to the City’s Methane Hazard Mitigation Plan.
 - Policy EH 3.2.2** Establish, enforce, and periodically update testing requirements for sites proposed for new construction within the identified Methane Overlay District.
 - Objective EH 3.3** Maintain knowledge of methane levels and preparedness for the provision of emergency services.
 - Policy EH 3.3.1** Monitor methane levels in the identified Methane Overlay District.

- Goal EH 6** Ensure the safety of the City’s businesses and residents from the hazards of peat.
 - Objective EH 6.2** Minimize peat hazards through the regulation of construction.

Consistency Analysis

The proposed project is not located within an identified Methane Overlay District. Consequently, implementation of the proposed project would not conflict with the applicable policies. According to the City’s Environmental Hazard Element, the site is in an area of known peat deposits. Although peat layers were encountered during the geotechnical investigation, hazards associated with the subsidence or collapse of these organic soils would be avoided through the use of a pile foundation that would not depend on the peat for its support (see Section 4.4 [Geology and Soils]). In addition, the proposed project would comply with the City of Huntington Beach grading and building codes to ensure that peat

and organic soils occurrences are evaluated by standard soils and foundation engineering and testing. Therefore, implementation of the proposed project would not conflict with this policy.

4.6.3 Project Impacts and Mitigation

■ Analytic Method

The analysis in this section focuses on the potential for construction and operation of the proposed project to result in the release of hazardous materials into the environment. The information used in the preparation of this section was derived from previously prepared reports documenting environmental investigations of the project site, including but not limited to the preliminary ESA. In determining the level of significance, the analysis assumes that construction and operation of the proposed project would comply with all applicable federal, State, and local laws and regulations.

The proposed project contains two options, as identified in Chapter 3 (Project Description). These include the GPA/ZTA Option 1 (Option 1) and the GPA/ZTA Option 2 (Option 2). Option 1 would include 713 residential units and 138,085 sf of commercial space. Option 2 would include 538 residential units and 414,255 sf of commercial space. Both GPA/ZTA options would result in an increase in allowable uses compared to the existing General Plan and Zoning designations for the project site; however, the ratios of the type of land uses would differ. Implementation of the proposed project would result in the development of a mixed-use scenario in which *either* more residential uses would be permitted (Option 1) *or* more commercial uses would be permitted (Option 2).

For the purposes of this analysis, full buildout under either scenario would result in similar impacts. Since Option 1 and Option 2 propose the same land uses, the difference lying in the ratio of commercial and residential uses, implementation of one Option would not be inherently different from the other in terms of potential impact resulting from hazards and hazardous materials. Therefore, the following impact analysis applies to both Option 1 and Option 2, as impacts would be the same for either GPA/ZTA option.

■ Thresholds of Significance

The following thresholds of significance are based on Appendix G of the 2008 CEQA Guidelines. For purposes of this EIR, implementation of the proposed project may have a significant adverse impact if it would do any of the following:

- Create significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within ¼ mile of an existing or proposed school

- Located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result create a significant hazard to the public or the environment
- Located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport and as a result in a safety hazard for people residing or working in the project area
- Located within the vicinity of a private airstrip and as a result in a safety hazard for people residing or working in the project area
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan
- Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands

■ Effects Not Found to Be Significant

The Initial Study prepared for the proposed project determined that implementation of the proposed project would result in a less-than-significant impact or no impact pursuant to the following thresholds of significance:

Threshold	Would the proposed project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?
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Development under Option 1 or Option 2 of the proposed project would not result in the increased likelihood of hazardous materials incidents. With regard to emergency response plans, the project site does not currently, and would not in the future, serve a function in any emergency response or evacuation plan. The proposed driveway access would be constructed per City codes to allow adequate emergency vehicle access. Development under Option 1 or Option 2 of the proposed project would not constrain implementation of the City’s existing Emergency Management Plan. No further analysis is required in the EIR.

Threshold	Would the proposed project expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?
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The project site and surrounding area are characterized by features typical of the urban landscape and include retail-commercial uses. No wildlands exist within the immediate vicinity of the proposed project site. Consequently, development under Option 1 or Option 2 of the proposed project would not result in the exposure of people or structures to hazards associated with wildland fires. No further analysis of this issue is required in the EIR.

■ Impacts and Mitigation Measures

Threshold	Would the proposed project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?
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Impact 4.6-1 Implementation of either Option 1 or Option 2 of the proposed project could involve the routine use, storage, transport, or disposal of hazardous materials, but no significant hazard to the public or the environment is anticipated to occur. Compliance with local, state, and federal regulations would ensure that this impact would remain *less than significant*.

Development under Option 1 or Option 2 would be similar and the use, storage, transport, or disposal of hazardous materials would also be similar under either Option 1 or Option 2.

Exposure of the public or the environment to hazardous materials could occur in the following manners: improper handling or use of hazardous materials or hazardous wastes particularly by untrained personnel; transportation accident; environmentally unsound disposal methods; or fire, explosion or other emergencies. The severity of potential effects varies with the activity conducted, the concentration of and type of hazardous material or wastes present, and the proximity of sensitive receptors.

The types and amounts of hazardous materials would vary according to the nature of the activity at the project site. In some cases, it is the type of hazardous material that is potentially hazardous; in others, it is the amount of hazardous material that could present a hazard. Whether a person exposed to a hazardous substance suffers adverse health effects as a result of that exposure depends upon a complex interaction of factors that determine the effects of exposure to hazardous materials: the exposure pathway (the route by which a hazardous material enters the body); the amount of material to which the person is exposed; the physical form of the hazardous material (e.g., liquid, vapor) and its characteristics (e.g., toxicity); the frequency and duration of exposure; and the individual's unique biological characteristics, such as age, gender, weight, and general health. Adverse health effects from exposure to hazardous materials may be short-term (acute) or long-term (chronic). Acute effects can include damage to organs or systems in the body and possibly death. Chronic effects, which may result from long-term exposure to a hazardous material, can also include organ or systemic damage, but chronic effects of particular concern include birth defects, genetic damage, and cancer.

Hazardous materials regulations were established at the State level to ensure compliance with federal regulations intended to reduce the risk to human health and the environment from the routine use of hazardous substances.

Hazardous Materials Use and Storage

Hazardous materials associated with the occupancy of the residential component of either Option 1 or Option 2 of the proposed project would consist mostly of typical household cleaning products. The types of hazardous materials that could be present during operation of the retail and residential uses of the proposed project could also include other maintenance products (e.g., paints and solvents) and

grounds and landscape maintenance products formulated with hazardous substances, including fuels, cleaners and degreasers, solvents, paints, lubricants, adhesives, sealers, and pesticides/herbicides.

To ensure that workers and others at the project site are not exposed to unacceptable levels of risk associated with the use and handling of hazardous materials, employers and businesses are required to implement existing hazardous materials regulations, with compliance monitored by State (e.g., OSHA in the workplace or DTSC for hazardous waste) and local jurisdictions (e.g., the Huntington Beach Fire Department). Adherence to existing hazardous materials regulations would ensure compliance with existing safety standards related to the handling, use and storage of hazardous materials, and compliance with the safety procedures mandated by applicable federal, State, and local laws and regulations (RCRA, California *Hazardous Waste Control Law*, and principles prescribed by the California Department of Health Services, Centers for Disease Control and Prevention, and National Institutes of Health)

Should the use and/or storage of hazardous materials at the project site rise to a level subject to regulation, those uses would be required to comply with federal and State laws to eliminate or reduce the consequence of hazardous materials accidents resulting from routine use, disposal and storage of hazardous materials on the project site during both the construction and operation phases of the project. Therefore, compliance with applicable regulations would reduce the risk of project-induced upset from hazardous materials (under either Option) to a *less than significant* level.

Transportation of Hazardous Materials

The USDOT Office of Hazardous Materials Safety prescribes strict regulations for the safe transportation of hazardous materials, as described in Title 40, 42, 45, and 49 of the *Code of Federal Regulations*, and implemented by Title 17, 19, and 27 of the CCR.

The transportation of hazardous materials can result in accidental spills, leaks, toxic releases, fire, or explosion. The types of hazardous materials that could be present during operation of the retail and residential uses of either Option 1 or Option 2 of the proposed project are expected to include household cleaning and maintenance products, pesticides and herbicides, paints, solvents and degreasers. The quantities of these products routinely in use or stored on the project site is unlikely to result in an increase in the amount of hazardous materials and/or waste brought to, or generated by, the site uses when compared to the current uses and levels of generation. During the construction phase, hazardous materials in the form of paints, solvents, glues, roofing materials and other common construction materials containing toxic substances may be transported to the site, and construction waste that possibly contains hazardous materials could be transported off the site for purposes of disposal. Appropriate documentation for all hazardous waste that is transported off site in connection with activities at the project site would be provided as required to ensure compliance with the existing hazardous materials regulations described above. Adherence to these regulations, which requires compliance with all applicable federal and State laws related to the transportation of hazardous materials, would reduce the likelihood and severity of accidents which might occur during transit, reducing potential impacts to a level that is *less-than-significant*.

Disposal of Hazardous Waste

Operation of either Option 1 or Option 2 of the proposed project would not require the handling of hazardous or other materials that would result in the production of large amounts of hazardous waste. During the construction phase, either Option 1 or Option 2 of the proposed project may generate hazardous and/or toxic waste. Federal, State, and local regulations govern the disposal of wastes identified as hazardous which could be produced in the course of demolition and construction. Asbestos, lead, or other hazardous materials encountered during demolition or construction activities would be disposed of in compliance with all applicable regulations for the handling of such waste, reducing the potential impacts of disposal of site-generated hazardous wastes to a level that is *less-than-significant*.

Threshold	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
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Impact 4.6-2 **Implementation of either Option 1 or Option 2 of the proposed project could create a potential significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. This impact would be *less than significant*.**

Construction Effects

Demolition, grading and excavation activities for development under either Option 1 or Option 2 of the proposed project could result in the exposure of construction personnel and the public to previously unidentified hazardous substances in the soil. Exposure to unanticipated hazardous substances could occur from previously unidentified soil contamination caused by the site's historic agricultural use, migrating contaminants originating at nearby listed sites (e.g., Golden West College), or from construction-related soil contamination caused by spillage and/or mixing of construction trash and debris into the soil during the original mid-1960s construction of the site or from unknown wells. Exposure to hazardous materials during construction activities could occur as a result of any of the following:

- Direct dermal contact with hazardous materials
- Incidental ingestion of hazardous materials (usually due to improper hygiene, when workers fail to wash their hands before eating, drinking, or smoking)
- Inhalation of airborne dust released from dried hazardous materials

If any unidentified sources of contamination are encountered during demolition, grading, or excavation, the removal activities required could pose health and safety risks capable of resulting in various short-term or long-term adverse health effects in exposed persons.

In order to address the potential for encountering unknown contamination within the project area, mitigation measure **MM4.6-1** would minimize the potential risk of contamination by implementing investigation and remediation efforts at the proposed project site. As such, the potential impacts associated with unknown contamination would be reduced to a *less-than-significant* level.

MM4.6-1

In the event that previously unknown or unidentified soil and/or groundwater contamination that could present a threat to human health or the environment is encountered during construction in the project area, construction activities in the immediate vicinity of the contamination shall cease immediately. If contamination is encountered, a Risk Management Plan shall be prepared and implemented that (1) identifies the contaminants of concern and the potential risk each contaminant would pose to human health and the environment during construction and post-development and (2) describes measures to be taken to protect workers, and the public from exposure to potential site hazards. Such measures could include a range of options, including, but not limited to, physical site controls during construction, remediation, long-term monitoring, post-development maintenance or access limitations, or some combination thereof. Depending on the nature of contamination, if any, appropriate agencies shall be notified (e.g., Huntington Beach Fire Department). If needed, a Site Health and Safety Plan that meets Occupational Safety and Health Administration requirements shall be prepared and in place prior to commencement of work in any contaminated area.

Demolition of existing structures in preparation for the construction of development under either Option 1 or Option 2 of the proposed project could result in exposure of construction personnel and the public to hazardous substances such as asbestos or lead-based paints. Federal and State regulations govern the renovation and demolition of structures where materials containing lead and asbestos are present. These requirements include: SCAQMD Rules and Regulations pertaining to asbestos abatement (including Rule 1403), Construction Safety Orders 1529 (pertaining to asbestos) and 1532.1 (pertaining to lead) from Title 8 of the California Code of Regulations, Part 61, Subpart M of the Code of Federal Regulations (pertaining to asbestos), and lead exposure guidelines provided by the U.S. Department of Housing and Urban Development (HUD). Asbestos and lead abatement must be performed and monitored by contractors with appropriate certifications from the State Department of Health Services. In addition, Cal-OSHA has regulations concerning the use of hazardous materials, including requirements for safety training, availability of safety equipment, hazardous materials exposure warnings, and emergency action and fire prevention plan preparation. Cal-OSHA enforces the hazard communication program regulations, which include provisions for identifying and labeling hazardous materials, describing the hazards of chemicals, and documenting employee training programs.

Implementation of mitigation measure **MM4.6-1** and adherence to all local, State and federal regulations would reduce potentially significant impacts associated with the potential exposure of unknown hazardous materials through future project construction activities to a **less-than-significant** level by ensuring remediation of contaminated soils containing hazardous materials prior to development of either Option 1 or Option 2 of the proposed project, and by providing supplemental procedures in the event of unanticipated discoveries of contaminants.

Operational Effects

While it is anticipated that operation of either Option 1 or Option 2 of the proposed project would not create a significant hazard to the public or the environment through reasonably foreseeable upset or accident conditions involving the release of hazardous materials into the environment, this operational analysis presents the potential possibilities of such a risk.

Development under either Option 1 or Option 2 of the proposed project would include the use of and storage of common hazardous materials such as paints, solvents, and cleaning products. Additionally, grounds and landscape maintenance could also use a variety of products formulated with hazardous materials, including fuels, cleaners, lubricants, adhesives, sealers, and pesticides/herbicides. The properties and health effects of different chemicals are unique to each chemical and depend on the extent to which an individual is exposed. The extent and exposure of individuals to hazardous materials would be limited by the relatively small quantities of these materials that would be stored and used on the project site. As common maintenance products and chemicals would be consumed by use and with adherence to warning labels and storage recommendations from the individual manufacturers, these hazardous materials would not pose any greater risk than at any other similar development.

Through development of either Option 1 or Option 2 of the proposed project, hazardous materials could be stored within the project site, but the materials would generally be in the form of routinely used common chemicals. Therefore, the probability of a major hazardous materials incident would be remote. Minor incidents would be more likely, but the consequences of such accidents would likely not be severe due to the types of common chemicals anticipated to be used at the site and the impact would be *less than significant*.

Electromagnetic Fields

High-voltage (maximum of 230,000 volt) power transmission towers are located northwest of the project site south of Center Avenue and west of the railroad tracks. Therefore, the potential for EMF exposure exists for future residents of The Village at Bella Terra project. No health-based standards for EMF exposure currently exist because it is not possible to identify field strengths at which health effects are likely to occur. In addition, there is an absence of a scientific model of the mechanism by which EMF exposure might affect humans (i.e., what aspect of fields is important in the body, or time spent in the field). There are also no federal, State, or local standards or regulations addressing residential exposure to EMFs. The City has no required setbacks from sources of EMFs.

Construction of the proposed project would not cross the power transmission towers site or come within close proximity of the towers site. Future residents of The Village at Bella Terra site would be southwest of the transmission towers. Future development on the project site would be required to provide at least 5 feet of separation from the SCE transmission towers. Nonetheless, future residents could be exposed to EMF from the transmission towers. EMF exposure may induce electric fields and current in the human body for nearby residents. However, as previously discussed, decades of scientific research and investigations have not been able to conclude that EMF causes cancer or other adverse health effects.

As there are no health-based or regulatory risk standards for EMFs, describing impacts of the current or potential effects of EMFs would necessarily be speculative in nature. CEQA Guidelines Section 15145 states that if, after thorough investigation, a lead agency finds that a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impact. Pursuant to this Section, the assessment of the effects of EMFs in this EIR is limited to the qualitative discussion above and no significant impacts related to EMFs are identified. The existing scientific data are

inconclusive and potential impacts are speculative in nature. Therefore, this impact would be *less than significant*.

Methane Gas

As previously discussed, the project site is not located within a designated methane gas overlay district; however, it should be noted that petrogenic sources are not the sole source of methane gas and that biogenic sources, such as peat, are also capable of methane gas production. Peat and organic soils occurrences are estimated to be widespread in the City. Due to the proposed below-grade construction, the HBFD will require the Applicant to test for the presence of methane gas to determine if a problem exists and to rule methane out as a potential concern.

MM4.6-2 *Prior to the issuance of grading permits, the project shall comply with HBFD City Specification No. 429, Methane District Building Permit Requirements. A plan for the testing of soils for the presence of methane gas shall be prepared and submitted by the Applicant to the HBFD for review and approval, prior to the commencement of sampling. If significant levels of methane gas are discovered in the soil on the project site, the Applicant’s grading, building and methane plans shall reference that a sub-slab methane barrier and vent system will be installed at the project site per City Specification No. 429, prior to plan approval. If required by the HBFD, additional methane mitigation measures to reduce the level of methane gas to acceptable levels shall be implemented.*

Implementation of **MM 4.6-2** would reduce any impacts associated with methane gas by ensuring that appropriate testing and methods of gas detection are implemented at the project site, as required by the HBFD. As such, the potential impacts associated with methane gas would be reduced to a *less-than-significant* level.

Threshold	Would the proposed project emit hazardous emissions or handle hazardous or acutely hazardous material, substances, or waste within one-quarter mile of an existing or proposed school?
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Impact 4.6-3 **Implementation of either Option 1 or Option 2 of the proposed project would result in the handling of acutely hazardous materials, substances, or waste within ¼ mile of a proposed school, but would not create a risk to human health from such activities. This impact would be *less than significant*.**

Golden West College is located approximately 945 feet west, or within a ¼ mile, of the proposed project site. No other schools exist within ¼-mile of the proposed project site. Construction activities under future development of either Option 1 or Option 2 of the proposed project would involve the utilization of diesel-powered trucks and equipment, which would result in temporary diesel emissions that have been determined to be a health hazard. Operation of commercial and residential uses under either Option 1 or Option 2 of the proposed project would include the handling and/or storage of potentially hazardous materials on the project site; however, the types of hazardous materials anticipated would be limited to regulated types and quantities (i.e., household cleaners, landscaping chemicals, etc.) Compliance with all applicable local, State, and federal laws and regulations, as described under Section 4.6.2 (Regulatory Framework) above, would regulate, control, or respond to hazardous waste,

transport, disposal, or clean-up in order to ensure that hazardous materials do not pose a significant risk to Golden West College. If ground contamination is found at the project site before or during construction of future development, the implementation of mitigation measure **MM4.6-1** would ensure the health and safety of all students, staff, and visitors at the College. Therefore, future development under Option 1 or Option 2 of the proposed project would result in a *less-than-significant* environmental impact related to the emissions or handling of hazardous materials within the vicinity of schools.

Threshold	Would the proposed project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?
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Impact 4.6-4 **Implementation of either Option 1 or Option 2 of the proposed project would place the project site within a listed hazardous materials site compiled pursuant to Government Code Section 65962.5. This impact would be *less than significant*.**

The project site is located on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. The project site was once occupied by a leaking underground storage tank. According to the preliminary ESA, assessment and remedial clean-up work occurred at the automotive site through the late 1980s and into the early 2000s. A fuel release occurred from an underground storage tank sometime prior to 1986 when the tanks were removed. The clean-up work included excavation and treatment of contaminated soils, implementation of a groundwater pump and treat system, installation of soil vapor extraction and air sparging, and the placement of horizontal extraction wells. This assessment work culminated in 2004 when a Site Closure Report was submitted to the lead enforcement agency, the OCHCA. The Site Closure Report provided documentation that residual levels of gasoline hydrocarbons remained in both soil and groundwater beneath the project site. Though high levels of residual fuel hydrocarbons remain (up to 14,500 mg/Kg of gasoline and 2 mg/kg of benzene in soil; 9,500 mg/L TPH, and 2,000 µg/L benzene in groundwater), the site was recommended for low-risk closure. The consultant for Montgomery Ward/Sears indicated that the remaining residual hydrocarbons in the soil and groundwater would attenuate with time. The OCHCA issued a Remedial Action Completion Certificate, dated December 13, 2004 for the project site. The Regional Water Quality Control Board—Santa Ana Region provided concurrence for the closure. The closure letter indicated “if redevelopment occurs and shallow contaminated soil is encountered, the soil must be handled to current regulatory requirements.” All existing VES and groundwater wells, piping and treatment system components require proper abandonment. Implementation of mitigation measure **MM4.6-3**, below, would ensure that all soils (native and imported) at the proposed project site are in compliance with the City of Huntington Beach’s Specification No. 431-92 Soil Clean-Up Standards prior to grading or building plan approval. Additionally, **MM4.6-3** would ensure that all work conducted for development of the proposed project follows the requirements of the City’s Public Works Department.

Subsurface testing was implemented as part of the site assessment work. Subsurface testing included a shallow soil vapor survey and soil sampling. The soil vapor survey did not indicate evidence of elevated

levels of VOCs in the area of the former gasoline release. Detectable levels of methane and depressed oxygen with elevated carbon dioxide were noted in vapor probes excavated on the northern portion of the project site. This indicates the probability of anaerobic biodegradation of petroleum hydrocarbons in the area. Petroleum hydrocarbons were detected in soil beneath several of the hydraulic lifts and in the soil in the area of the removed oil storage tanks. Low levels of chlorinated solvents including PCE and degradation compounds cis 1, 2-DCE and 1, 1-DCA were also found in shallow soil beneath the northern portion of the automotive repair facility.

One hand auger test hole was excavated beneath the median of Edinger Avenue, south of the release which occurred on the former Montgomery Ward automotive repair facility site. This test hole was excavated in order to evaluate for lateral spreading off-site from the release which occurred beneath the project site. The testing appears to indicate that significant lateral spreading in the soil beneath Edinger Avenue, extending to off-site properties to the south, has not occurred. Impacted groundwater has migrated off site.

Future grading work on the southwestern portion of the project site will likely encounter petroleum hydrocarbon-impacted soils. Complete removal of the impacted soils would require excavations to depths of 15 feet. If redevelopment over the footprint of the residual contamination or immediately adjacent to the contamination is considered under either Option 1 or Option 2 of the proposed project, then removal of the residual petroleum hydrocarbon contamination may be required by OCHCA. Such development would also trigger the need to complete a risk assessment with soil vapor data as the input parameter to evaluate future indoor air quality.

The assessment has indicated evidence of historical recognized environmental conditions in connection with the project site. The residual gasoline fuel hydrocarbon impacts in both soil and groundwater beneath the site have been issued a Remedial Action Completion Certificate by the lead environmental agency, the OCHCA. However, as part of the HBFD project approval process, approval or final closure from the OCHCA and the RWQCB is required to be on file with the HBFD. Implementation of mitigation measure **MM4.6-3**, below, would ensure compliance with the City's Specification No. 431-92. No additional recognized environmental conditions were ascertained in connection with the property.

MM4.6-3 *Prior to project implementation, the Applicant shall submit for approval a soil testing work plan to the HBFD. All native and imported soils associated with the proposed project site shall meet the standards outlined under the City's Specification No. 431-92 prior to the approval of grading plans and building plans by the HBFD. Additionally, all work at the project site shall conform to the City's Public Works Department requirements (i.e., haul route permits).*

Implementation of mitigation measure **MM4.6-1**, **MM4.6-2**, and **MM4.6-3** would reduce potentially significant impacts associated with the exposure of hazardous materials through project construction activities to a less-than-significant level by ensuring remediation of contaminated soils prior to development in the project area. In fact, development of either Option 1 or Option 2 of the proposed project could result in an overall project benefit since development of the site could require clean-up of the project site if contamination is identified as a result of implementation of the above mitigation measures. Impacts would be *less than significant*.

Threshold	<p>For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?</p> <p>For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?</p>
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Impact 4.6-5 Implementation of either Option 1 or Option 2 of the proposed project would locate the project site within a Height Restriction Zone for the Joint Forces Training Center. This impact would be *less than significant*.

The Joint Forces Training Center (JFTC) is an airfield located approximately 5 miles northwest of the project site at 11200 Lexington Drive within the City of Los Alamitos. On-site facilities include two runways and associated taxiways, ramp space, and hangars. The JFTC is primarily utilized for helicopter training missions. The Airport Land Use Commission (ALUC) for Orange County has adopted an Airport Environs Land Use Plan (AELUP) that seeks to protect the public from the adverse effects of aircraft noise to ensure that people and facilities are not concentrated in areas susceptible to aircraft accidents and that no structures or activities adversely affect navigable airspace. Specific land use regulations regarding Federal Aviation Administration (FAA) notification imaginary surfaces, aircraft noise, and building heights have been implemented at the JFTC. Future development under either Option 1 or Option 2 of the proposed project would place structures at the project site within the Height Restriction Zone for the JFTC. According to the AELUP, the ALUC has specified a height restriction of 200 feet above ground level for all of Orange County. CRF Title 14 Part 77.13 requires that any Applicant who intends to perform any construction or alterations to structures that exceed 200 feet in height above ground level must notify the FAA for project approval. The implementation of either Option 1 or Option 2 of the proposed project would not allow for the construction of structures that exceed 200 feet, and would therefore not require filing the project with the FAA. Adherence to all local, state, and federal regulations would ensure that impacts associated with potential aviation hazards remains *less than significant*.

4.6.4 Cumulative Impacts

The geographic context for the cumulative analysis of hazards and hazardous materials is Orange County, based on the geographic area that could be affected by accidental release into the environment. The cumulative context for the hazards analysis includes future development under the proposed project in combination with the development projects listed in Table 3-3 (Cumulative Projects) in Chapter 3 (Project Description) of this EIR.

Cumulative development within City of Huntington Beach and Orange County would include some industrial and commercial uses, which could involve the use of greater quantities and variety of hazardous products. Commercial, office, retail, and residential development in the area would also increase the use of household-type hazardous materials within the area. Hazardous materials use, storage, disposal, and transport could result in a foreseeable number of spills and accidents. New development in the County would be subject to hazardous materials regulations codified in Titles 8, 22, and 26 of the

CCR. Furthermore, all construction and demolition activities in the County would be subject to Cal OSHA regulations concerning the release of hazardous materials. Compliance with all State, federal and local regulations during the construction and operation of new developments in the County would ensure that cumulative impacts from the routine transportation, use, disposal, or release of hazardous materials would be less than significant. Additionally, because the proposed project would also be required to comply with applicable statutes and regulations, which would ensure that the project would not result in significant public hazards through the routine transport, use, or disposal of hazardous materials, the project's contribution would not be cumulatively considerable and the cumulative impact of the project would be *less than significant*.

Cumulative projects in the City and surrounding area could result in construction activities that could potentially involve the release of hazardous materials into the environment. In particular, cumulative development could occur on properties listed on hazardous materials sites or that were previously used for oil production activities, and/or the demolition of existing structures, which may contain hazardous materials. However, the individual workers potentially affected would vary from project to project. For example, if demolition of existing buildings is required, short-term increases in hazardous materials generation, due to the potential presence of lead-based paints and asbestos-containing materials in existing facilities could occur. However, projects would be required to comply with applicable federal, State, and local regulations. Adherence to applicable regulations and guidelines pertaining to abatement of, and protection from, exposure to oil, pesticides, asbestos, lead, and other hazardous materials would ensure that cumulative impacts from those activities would be less than significant. Site-specific investigations would be conducted at sites where contaminated soils could occur to minimize the exposure of workers to hazardous substances. Additionally, because the proposed project would also be required to comply with applicable statutes and regulations, which would ensure that the project would not result in significant public hazards as a result of the accidental release of hazardous materials, the project's contribution would not be cumulatively considerable and the cumulative impact of the project would be *less than significant*.

In addition to cumulative construction impacts, cumulative development could potentially involve the operation of future uses that could release hazardous materials into the environment. However, similar to potential construction impacts, the transportation, storage, use, and disposal of hazardous materials which could result in reasonably foreseeable upset and accident conditions is strictly regulated by existing statutes. It is anticipated that future development projects will adhere to the applicable federal, State, and local requirements that regulate the release of hazardous materials into the environment, resulting from operational activities. As a result, cumulative impacts would be less than significant. Additionally, because the proposed project would also be required to comply with applicable statutes and regulations, which would ensure that the project would not result in significant public hazards as a result of the accidental release of hazardous materials, the project's contribution would not be cumulatively considerable and the cumulative impact of the project would be *less than significant*.

4.6.5 References

Airport Land Use Commission (ALUC). 2002, December 19. Airport Environs Land Use Plan for John Wayne Airport.

- Federal Aviation Administration (FAA). 2008. <https://oeaaa.faa.gov> (accessed March 3, 2008).
- Huntington Beach, City of (HB). 1996. *City of Huntington Beach General Plan*. <http://www.surfcity-hb.org/citydepartments/planning/gp/>.
- . 2002. *City of Huntington Beach Municipal Code*. http://www.ci.huntington-beach.ca.us/Government/Charter_Codes/municipal_code.cfm.
- National Institute of Environmental Health Sciences (NIEHS). (2002). *Electrical and Magnetic Fields Associated with Use of Electric Power* retrieved from <http://www.niehs.nih.gov/health/topics/agents/emf/docs/emf2002.pdf> on December 10, 2007.
- San Diego, City of. 2007. Federal Aviation Administration Notification and Evaluation Process Information Bulletin 520, July.
- Thoreson, Bryan. (2008). Personal Communication with SCE. May 7.
- URS Corporation California Environmental Geologist and Engineers, Inc. 2005. Phase I Environmental Site Assessment College Country Shopping Center 7302-7400 Center Avenue, Huntington Beach, CA, January 9. Preliminary Environmental Site Assessment—Phase I Update and Subsurface Assessment- Phase II (Western portion of Huntington Beach Mall, Former Montgomery Wards Facility, 777 Edinger Ave, Huntington Beach, CA), September.
- U.S. Environmental Protection Agency (1999). *EPA Asbestos Materials Bans: Clarification. May 18, 1999* Website: <http://www.ehso.com/cssasbestos/asbestosban.htm> Accessed on May 12, 2008.

