

4.6 HAZARDS AND HAZARDOUS MATERIALS

This EIR section describes the existing physical setting of the Specific Plan area (referred to as 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. 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).

Data used to prepare this section were taken from the EDR DataMap Environmental Atlas report prepared by Environmental Data Resources Inc (EDR Inc.) in September 2008, as well as documents provided by the City of Huntington Beach. The Executive Summary of the EDR report is provided in Appendix D (EDR Report). Full bibliographic entries for all reference materials are provided in Section 4.6.5 (References) at the end of this section.

The City of Huntington Beach received one letter in response to the Initial Study/Notice of Preparation (IS/NOP) prepared for the proposed project from Department of Toxic Substance Control (DTSC). It requests several areas related to hazardous materials be taken into consideration in preparation of the EIR. This comment letter from DTSC was taken into consideration during preparation of this EIR, and has been addressed in this section. All other comments received, if relevant, have been addressed in the appropriate section within this document.

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. 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.

Hazard versus Risk

Workers and general public health are potentially at risk whenever hazardous materials have been used or where there could be an exposure to such materials. Inherent in the setting and analyses presented in this section are the concepts of the “hazard” of these materials and the “risk” they pose to human health. Exposure to some chemical substances may harm internal organs or systems in the human body, ranging from temporary effects to permanent disability, or death. Hazardous materials that result in adverse effects are generally considered “toxic.” Other chemical materials, however, may be corrosive, or react with other substances to form other hazardous materials, but they are not considered toxic because organs or systems are not affected. Because toxic materials can result in adverse health effects, they are considered hazardous materials, but not all hazardous materials are necessarily “toxic.” For purposes of the information and analyses presented in this section, the terms hazardous substances or hazardous materials are used interchangeably and include materials that are considered toxic.

The risk to human health is determined by the probability of exposure to a hazardous material and the severity of harm such exposure would pose. That is to say, the likelihood and means of exposure, in addition to the inherent toxicity of a material, are used to determine the degree of risk to human health. For example, a high probability of exposure to a low toxicity chemical would not necessarily pose an unacceptable human health or ecological risk, whereas a low probability of exposure to a very high toxicity chemical might. Various regulatory agencies, such as the Environmental Protection Agency (EPA), State Water Resources Control Board (SWRCB), the California Department of Toxic Substances Control (DTSC), and state and federal Occupational Safety and Health Administrations (OSHA) are responsible for developing and/or enforcing risk-based standards to protect the public and the environment.

■ On-Site and Adjacent Uses

The Specific Plan project site is located approximately three miles north of the City’s Downtown, directly southwest of I-405. Currently, the primary land use within the Specific Plan is commercial (including a variety of retail and office uses), as well as residential uses south of Adams Avenue along portions of Beach Boulevard. The Specific Plan boundaries are primarily defined by the irregular edges of the residential neighborhoods that lie immediately to the east and west of the corridors. At the southern edge of the site’s boundaries lie additional residential uses and protected wetlands; at the northern end of the Specific Plan, additional commercial and residential uses abut the site.

■ Records Search

A review of federal and state regulatory agency databases was conducted by Environmental Data Resources Inc. (EDR Inc.) on September 11, 2008. 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 existing and historic hazardous materials likely to be encountered within the Specific Plan were identified through a search of federal and state regulatory agency databases for a 0.5-mile buffer area surrounding the Specific Plan project site. The agency lists identify facilities permitted to use hazardous materials, as well as environmental cases and spill sites. Figure 4.6-1 (Overview of Hazardous Material Waste and Disposal Sites) identifies the location of hazardous material waste and disposal sites within the 0.5-mile buffer area. Detailed information, including the precise location and identity of these hazardous material sites, is identified in the EDR report (Appendix D). A summary of the sites likely to affect or be affected by the proposed Specific Plan are listed in Table 4.6-1 (Summary of Permitted Facilities using Hazardous Materials) and Table 4.6-2 (Summary of Environmental Cases and Spill Sites).

Permitted Facilities Using Hazardous Materials

Permitted uses of hazardous materials include those facilities that use hazardous materials or handle hazardous wastes in accordance with current hazardous materials and hazardous waste regulations. Because the use and handling of hazardous materials at permitted sites are subject to strict regulations, the potential for a release of hazardous materials from these sites is considered low, although there can be instances of unintentional chemical releases. In such cases, the site would be tracked in the environmental databases as an environmental case (described separately below). Permitted sites without documented releases are, nevertheless, potential sources of hazardous materials in the soil and/or groundwater (compared to sites where there are no hazardous materials used or stored) because of accidental spills, incidental leakage, or spillage that may have gone undetected. Table 4.6-1 identifies the type and total number of permitted facilities within the 0.5-mile buffer area of the Specific Plan boundaries. Many of the facilities are permitted for more than one hazardous material use and, therefore, could appear in more than one database.

Environmental Cases and Spill Sites

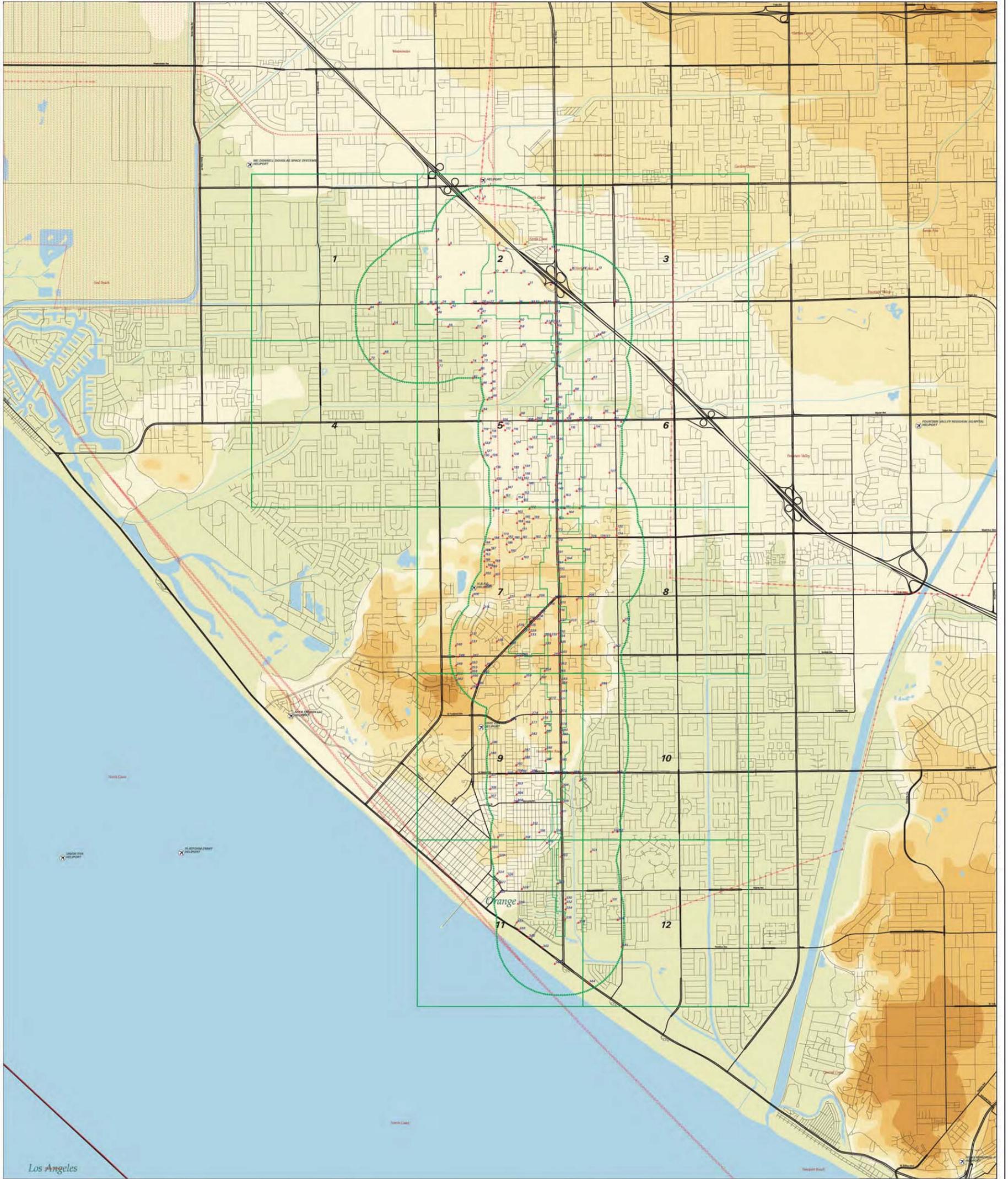
Environmental cases are opened for those sites that are suspected of releasing hazardous materials or have had cause for hazardous materials investigations and are identified on regulatory agency lists. Identification of hazardous materials in soil or groundwater at these sites is generally detected during site disturbance activities, such as removal or repair of an underground storage tank (UST), a spill of hazardous materials, or excavation for construction purposes. The status of each case can change with time, and new cases are periodically added to the databases. Table 4.6-2 list the type and number of "Environmental Cases," "Environmental Cases—No further Action or Referred to Another Agency," and "Spill Sites" within a 0.5-mile buffer of the Specific Plan boundaries. Many of the facilities are permitted for more than one hazardous material use and, therefore, could appear in more than one database.

Table 4.6-1 Summary of Permitted Facilities using Hazardous Materials

Agency Database	No. of Sites Identified
RCRA-LQG—Resource Conservation and Recovery Act Information System Large Quantity Generators: Sites that generate, transport, store, treat, and/or dispose of hazardous wastes as defined by the <i>Resource Conservation and Recovery Act</i> . Facilities permitted to generate more than 1,000 kilograms (kg) of hazardous waste or over 1 kg of acutely hazardous waste per month.	4
RCRA-SQG—Resource Conservation and Recovery Act Information System Small Quantity Generators: Sites that generate, transport, store, treat and/or dispose of hazardous wastes as defined by the <i>Resource Conservation and Recovery Act</i> . Facilities permitted to generate more than 100 kg per month but less than 1,000 kg per month of non-acutely hazardous materials.	166
SWEEPS UST- Statewide Environmental Evaluation and Planning System: This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.	71
UST—Underground Storage Tanks: Facilities permitted to maintain underground storage tanks (USTs).	101
CA FID UST—Facility Inventory Database: Facilities on a historical listing of active and inactive USTs.	70
Cal-ARP/RMP/PSM—California Accidental Release Prevention Program/Risk Management Plan/ Process Safety Management: On June 21, 1996, the EPA finalized the Chemical Accident Prevention Provisions regulation (40 CFR Part 68), which requires facilities that handle regulated substances, in quantities that exceed the listed threshold, to prepare and submit a Risk Management Plan (RMP). In California, if a facility is required to complete a RMP, then that facility is also required to complete the California Accidental Release Prevention (CalARP) Program, the requirements of which encompass the requirements of the RMP. The Occupational Safety and Health Administration (OSHA) finalized the Process Safety Management (PSM) standard in February 1992, which requires facilities to develop PSM programs for processing and handling particular regulated substances.	3 ^a
HIST UST—Hazardous Substances Storage Contained Database: Facilities on a historic list of UST sites.	86
AST—Aboveground Petroleum Storage Tank Facilities: Facilities with registered above ground storage tanks	1
DRYCLEANERS—Dry Cleaner Related facilities: A list of drycleaner-related facilities that have EPA ID numbers, which are facilities with certain SIC codes, such as: power laundries; family and commercial laundries; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; dry-cleaning plants except rugs; carpet and upholstery cleaning; industrial laundries; laundry and garment services.	22
TRIS—Toxic Chemical Release System: Facilities that release toxic chemicals to the air, water, and land in reportable quantities under the <i>Emergency Planning and Community Right-to-Know Act</i> (SARA Title III, Section 313).	1
EMI—Emissions Inventory Data: Toxics and criteria pollutant emissions data collected by the California Air Resources Board (ARB) and local air pollution agencies.	158
HAZNET—Hazardous Waste Information System: Facilities that have filed hazardous waste manifests with the Department of Toxic Substances Control (DTSC).	654
FINDS—Facility Index System: FINDS contains both facility information and "pointers" to other sources of information that contain more detail. These include: Resource Conservation and Recovery Information System (RCRIS); Permit Compliance System (PCS); Aerometric Information Retrieval System (AIRS); FATES (which includes both the FIFRA [<i>Federal Insecticides Fungicide Rodenticide Act</i>] and the [<i>Toxic Substances Control Act</i>] TSCA Enforcement System); FTTS (which includes the FIFRA/TSCA Tracking Systems); <i>Comprehensive Environmental Response, Compensation, and Liability Act</i> (CERCLIS); DOCKET (enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes); Federal Underground Injection Control (FURS); Federal Reporting Data System (FRDS); Surface Impoundments (SIA); TSCA Chemicals in Commerce Information System (CICS); PCB Activity Database System (PADS); RCRA-J (<i>Resource Conservation and Recovery Act</i> for medical transporters/ disposers); Toxic Chemical Release Inventory System (TRIS); and TSCA.	215
PADS—The PCB Activity Database: Identifies generators, transporters, commercial storers and/or brokers, and disposers of PCBs who are required to notify the United States Environmental Protection Agency of such activities.	2
MLTS—The Material Licensing Tracking System: Sites which possess or use radioactive materials and are subject to NRC licensing requirements.	1

SOURCE: EDR 2008

a. City of Huntington Beach, written communication, March 20, 2009.



Legend

- | | | | | |
|---------------|----------------|------------|-------------------------|----------------------------------------------|
| Roads | Waterways | Pipelines | Superfund Sites | Listed Sites |
| Major Roads | Study Boundary | Powerlines | Federal DOD Sites | Earthquake Epicenters (Richter 5 or greater) |
| Contour Lines | Fault Lines | Railroads | Indian Reservations BIA | |
| | Water | | | |

0 19 39 58 78 97 117
Elevation in Feet

0 1/4 1/2 1
Scale in Miles



Source: EDR DataMap, Environmental Atlas, 2008.

FIGURE 4.6-1
Overview of Hazardous Material Waste and Disposal Sites



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Table 4.6-2 Type and Number of Environmental Cases and Spill Sites

Agency Database	Number of Sites Identified
Environmental Cases	
SLIC—Spills, Leaks, Investigations, and Cleanup Program: Sites with small to medium non-fuel contamination. Most are regulated under site cleanup requirements	13
CERCLIS—Comprehensive Environmental Response, Compensation and Liability Information System: Sites that are either proposed to or on the National Priorities List (NPL) and sites that are in the screening and assessment phase for possible inclusion on the NPL	0
RAATS—RCRA Administrative Action Tracking System: Enforcement actions taken under RCRA pertaining to major violations	0
VCP—Voluntary Cleanup Program: Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have requested that DTSC oversee investigation and/or cleanup activities and have agreed to cover DTSC's costs	0
DEED—Deed Restriction Listing: Sites that have been issued a deed restriction because of presence of hazardous materials	0
NOTIFY 65—Proposition 65 Records: Facilities that have reported a release that could threaten a drinking water source	0
SWF/LF—Solid Wastes Facilities and/or Landfills Sites: Contain an inventory of solid waste disposal facilities or landfills in a particular state. Active, inactive, or closed solid waste disposal sites.	3
CA WDS—Water Discharge System, California Water Resources Control Board: Sites that have been issued waste discharge requirements	19
FTTS: Tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-To-Know-Act) over the previous five years	6
LUST—Leaking Underground Storage Tanks: An inventory of reported leaking underground storage tank incidents	147
CORTESE: 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	0 ^a
WMUDS/SWAT—Waste Management Unit Database System: Used for program tracking and inventory of waste management units. The source is the State Water Resources Control Board (SWAT).	3
CA BEP—Bond Expenditure Plan: Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds.	0
EnviroStor: DTSC recently replaced the "CalSites" database with a new database of hazardous substance release sites, known as the "EnviroStor" database. The DTSC's site Mitigation and Brownfield Reuse Program's (SMBRP's) EnviroStor database identifies sites that have known contamination or sites for which there may be reasons to investigate further.	8
RESPONSE: Sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk	1
DOT OPS: Department of Transportation, Office Pipeline Safety Incident and Accident data	1
Environmental Cases - No Further Action or Referred to Another Agency	
CERCLIS-NFRAP—Comprehensive Environmental Response, Compensation, and Liability Information System- No Further Remedial Action Planned: Sites that have been removed or archived from the inventory of CERCLIS sites.	4
Spill Sites	
Emergency Response Notification System (ERNS): Records and stores information on reported releases of oil and hazardous substances	33
Hazardous Materials Incident Report System (HMIRS): Contains hazardous material spill incidents reported to the Department of Transportation	0

Table 4.6-2 Type and Number of Environmental Cases and Spill Sites

Agency Database	Number of Sites Identified
CHMIRS—California Hazardous Material Incident Report System: Information on reported hazardous material incidents, i.e. accidental releases or spills	82

SOURCE: EDR Inc. 2008

a. The EDR Report indicated 80 Cortese sites, but the City has reported only one remaining Cortese site, and it is not within a half mile of the Specific Plan area. March 20, 2009.

■ Other Hazardous Materials

Since the Specific Plan project site is already fully developed, it is likely that existing structures could contain hazardous materials such as the following:

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. Many of the structures located within the project site were constructed prior to 1980 and may have been built with materials containing friable asbestos. Therefore, demolition of some of the existing structures within the project site could result in the release of friable asbestos.

Electromagnetic Fields

High-voltage (maximum of 230,000 volt) power transmission towers are located in the northernmost portion of the project site at the Southern California Edison (SCE) easement along Center Avenue near the Golden West Transit Center. 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. However, the National Institute of Environmental Health Sciences (NIEHS) concludes that EMF exposure cannot be recognized as entirely safe because of weak scientific evidence that exposure may pose a leukemia hazard. Calculations suggest that on average, between five percent and 15 percent of childhood leukemias could be caused by exposures to EMF with confidence intervals including zero percent. The risk of getting leukemia prior to age 15 in the United States is about 0.05 percent (5/10,000 people). This would make the lifetime risk of childhood leukemia attributable to EMF (again, conditional on the risk being real) between 2.5 and 7.5 per 100,000 people. On a yearly basis this conditional risk is approximately 15 times less than the lifetime risk of two to six additional cases per million children per year. Therefore, at this time, it is impossible to say whether EMFs pose any health risk, and if so, at what level of exposure risk develops (NIEHS 1999).

According to the 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 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.

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. Lead may also be found in upper layers of soil as a result of vehicle emissions prior to the use of unleaded fuel. 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. Since many of the structures within the project site were constructed prior to this time, it is likely that lead-based paint was used and abatement may be required if such structures are targeted for future redevelopment under the proposed project.

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 Union Pacific Railroad (UPRR) tracks cross Edinger Avenue and are located adjacent to the northern portion of the project boundaries.

Methane Gas

The majority of the southern and southwestern portion of the City, including the southern portion project site along Beach Boulevard (south of Ellis Avenue), is entirely within a methane gas overlay district designated by the City. As such, methane gas, commonly known as natural gas, may underlay the site. Potential hazards associated with methane include fire or explosion due to methane gas accumulations, since it is a highly flammable substance, and human health risks associated with natural gas poisoning. Special development regulations, including the City's Methane Hazard Mitigation Plan, apply to projects located in methane overlay districts.

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.

Polychlorinated Biphenyls (PCB)

Polychlorinated Biphenyls (PCBs) have been widely used in transformer fluids and dielectrics. Due to health impacts, the Environmental Protection Agency (EPA) banned some uses of PCBs in 1977 and most production use in 1979. However, old transformers and other materials (e.g., capacitors and hydraulic fluids) still in use or abandoned in place may contain PCBs. Fluorescent light ballasts manufactured after 1979 should not contain PCBs and are required by law to contain a label that states that no PCBs are present within the units. If older structures (pre-1979) are targeted for future redevelopment under the proposed project, some could contain florescent light ballasts with PCBs.

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 there under):

- *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 regulations and agencies pertaining to hazardous materials management and worker safety which are applicable to the City and the proposed Specific Plan are described below.

California Environmental Protection Agency

The California EPA (Cal/EPA) has broad jurisdiction over hazardous materials management in the state. Within Cal/EPA, the DTSC has primary regulatory responsibility for hazardous waste management and cleanup. Enforcement of regulations has been delegated to local jurisdictions that enter into agreements with DTSC for the generation, transport, and disposal of hazardous materials under the authority of the Hazardous Waste Control Law.

Along with the DTSC, the RWQCB is responsible for implementing regulations pertaining to management of soil and groundwater investigation and cleanup. RWQCB regulations are contained in Title 27 of the *California Code of Regulations* (CCR). Additional state regulations applicable to hazardous materials are contained in Title 22 of the CCR. Title 26 of the CCR is a compilation of those sections or titles of the CCR that are applicable to hazardous materials.

Department of Toxic Substances Control

Resource Conservation and Recovery Act (RCRA) of 1976 is the principal federal law that regulates the generation, management, and transportation of hazardous materials and other wastes. The DTSC regulates hazardous waste in California primarily under the authority of the federal RCRA, and the California Health and Safety Code. Other laws that affect hazardous waste are specific to handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning. In addition, DTSC reviews and monitors legislation to ensure that the position reflects the DTSC's goals. From these laws, DTSC's major program areas develop regulations and consistent program policies and procedures. The regulations spell out what those who handle hazardous waste must do to comply with the laws. Under RCRA, DTSC has the authority to implement permitting, inspection, compliance, and corrective action programs to ensure that people who manage hazardous waste follow State and federal

requirements. As such, the management of hazardous waste in the proposed Specific Plan would be under regulation by the DTSC to ensure compliance with state and federal requirements pertaining to hazardous waste.

California law provides the general framework for regulation of hazardous wastes by the Hazardous Waste Control Law (HWCL) passed in 1972. DTSC is the state's lead agency in implementing the HWCL. The HWCL provides for state regulation of existing hazardous waste facilities, which include "any structure, other appurtenances, and improvements on the land, used for treatment, transfer, storage, resource recovery, disposal, or recycling of hazardous wastes," and requires permits for, and inspections of, facilities involved in generation and/or treatment, storage and disposal of hazardous wastes.

Tanner Act

Although there are numerous state policies dealing with hazardous waste materials, the most comprehensive is the *Tanner Act* (AB 2948) that was adopted in 1986. The *Tanner Act* governs the preparation of hazardous waste management plans and the storage of hazardous waste in the State of California. The *Tanner Act* also mandates that each county adopt a Hazardous Waste Management Plan. To be in compliance with the *Tanner Act*, local or regional hazardous waste management plans need to include provisions that define (1) the planning process for waste management, (2) the permit process for new and expanded facilities, and (3) the appeal process to the state available for certain local decision.

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).

California Accidental Release Prevention Program (CalARP)

The CalARP program (CCR Title 19, Division 2, Chapter 4.5) covers certain businesses that store or handle more than a certain volume of specific regulated substances at their facilities. The CalARP program regulations became effective on January 1, 1997, and include the provisions of the Federal Accidental Release Prevention Program (Title 40, CFR Part 68) with certain additions specific to the State pursuant to Article 2, Chapter 6.95, of the Health and Safety Code.

The list of regulated substances is found in Article 8, Section 2770.5 of the CalARP program regulations. The businesses that use a regulated substance above the noted threshold quantity must implement an accidental release prevention program, and some may be required to complete a Risk Management Plan (RMP). An RMP is a detailed engineering analysis of the potential accident factors present at a business

and the mitigation measures that can be implemented to reduce this accident potential. The purpose of an RMP is to decrease the risk of an off-site release of a regulated substance that might harm the surrounding environment and community. An RMP includes the following components: safety information, hazard review, operating procedures, training, maintenance, compliance audits, and incident investigation. The RMP must consider the proximity to sensitive populations located in schools, residential areas, general acute care hospitals, long-term health care facilities, and child day-care facilities, and must also consider external events such as seismic activity.

Worker and Workplace Hazardous Materials Safety

Occupational safety standards exist in federal and state laws to minimize worker safety risks from both physical and chemical hazards in the workplace. The California Division of OSHA is responsible for developing and enforcing workplace safety standards and assuring worker safety in the handling and use of hazardous materials. Authority to implement workplace safety regulations is under jurisdiction of Cal-OSHA in Title 8 of the CCRs. Among other requirements, Cal-OSHA obligates many businesses to prepare Injury and Illness Prevention Plans and Chemical Hygiene Plans. The Hazard Communication Standard requires that workers be informed of the hazards associated with the materials they handle. For example, manufacturers are to appropriately label containers, Material Safety Data Sheets are to be available in the workplace, and employers are to properly train workers.

Hazardous Materials Transportation

The CHP and Caltrans are the enforcement agencies for hazardous materials transportation regulations on State roads, and local agencies (Fire and Police departments) are the enforcement authority on local streets. Transporters of hazardous materials and waste are responsible for complying with all applicable packaging, labeling, and shipping regulations. The OES also provides emergency response services involving hazardous materials incidents.

Investigation and Cleanup of Contaminated Sites

The oversight of hazardous materials release sites often involves several different agencies that may have overlapping authority and jurisdiction. The DTSC and RWQCB are the two primary state agencies responsible for issues pertaining to hazardous materials release sites. Air quality issues related to remediation and construction at contaminated sites are also subject to federal and state laws and regulations that are administered at the local level.

Investigation and remediation activities that would involve potential disturbance or release of hazardous materials must comply with applicable federal, state, and local hazardous materials laws and regulations. The DTSC has developed standards for the investigation of sites where hazardous materials contamination has been identified or could exist based on current or past uses. The standards identify approaches to determine if a release of hazardous wastes/substances exists at a site and delineate the general extent of contamination; estimate the potential threat to public health and/or the environment from the release and provides an indicator of relative risk; determine if an expedited response action is required to reduce an existing or potential threat; and complete preliminary project scoping activities to

determine data gaps and identify possible remedial action strategies to form the basis for development of a site strategy.

■ Regional

Orange County Certified Unified Program Agency (CUPA)

The Environmental Health Division was designated by the State Secretary for Environmental Protection on January 1, 1997 as the “CUPA” for the County of Orange. CUPA is the local administrative agency that coordinates six programs (Hazardous Waste, Underground Storage Tanks (UST), Aboveground Storage Tanks (AST), Hazardous Materials Disclosure (HMD), Business Plan and California Accidental Release Program (CalARP)) regulating hazardous materials and hazardous wastes in Orange County. County and City Fire Agencies within Orange County have joined the CUPA as Participating Agencies, administering one or more of the six CUPA programs in their jurisdictions. In most cities, Environmental Health administers the Hazardous Waste, Underground Storage Tank, and Aboveground Storage Tank programs while the Fire Agencies administer the other three elements listed above.

■ 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 under the Specific Plan 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

Implementation of the proposed Specific Plan would permit the redevelopment of Beach Boulevard and Edinger Avenue with mixed-uses and higher densities than currently exists. Development of such residential and commercial uses would not result in the use, storage, or transport of large quantities of hazardous materials. Any commonly used hazardous materials would be used and stored in accordance with applicable regulations, similar to what presently occurs with medical wastes and gases used by the hospital and other medical businesses in the Specific Plan area. 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. 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) but could also

include oils, lubricants and refrigerants associated with building mechanical and HVAC systems. However, future development under 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 southern portion of the Specific plan is located within a Methane Overlay District. The City has set minimum requirements for new building construction within methane overlay districts in order to reduce the hazards presented from accumulations of methane gas by requiring the appropriate testing and mitigation measures for all new buildings within the methane districts. In addition, portions of the project site appear to be in areas of known peat deposits. Hazards associated with the subsidence or collapse of such organic soils would be avoided through the use of appropriate foundational supports (refer to Section 4.5 [Geology and Soils]). Future development under the proposed project would be required to comply with the City of Huntington Beach grading and building codes to ensure that methane and peat hazards are evaluated by standard testing methods and appropriate engineering and

reduction methods are applied to reduce potential hazard. Therefore, implementation of the proposed project would not conflict with these policies.

City Specification 431-92

The City of Huntington Beach Specification 431-92, Soil Clean-Up Standard (City Specification 431-92), dated July 30, 1992, governs investigation and remedial efforts of contaminated soils. The HBFD is the local oversight agency for soil remediation.

4.6.3 Project Impacts and Mitigation

■ Analytic Method

The analysis in this section focuses on the use, disposal, transport, or management of hazardous or potentially hazardous materials resulting from future growth that would be permitted under the proposed Specific Plan. The information in this section is based upon a review of the EDR report that was prepared for the proposed project. In determining the level of significance, the analysis assumes that construction and operation of future development under the proposed project would comply with all applicable federal, State, and local laws and regulations.

■ Thresholds of Significance

The following thresholds of significance are based on Appendix G of the 2009 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	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?
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The Joint Forces Training Center Los Alamitos (JFTC) is the nearest airfield, which is located approximately five miles northwest of the Specific Plan boundaries within the City of Los Alamitos. The project site is not within the height restriction zone for the JFTC (OCALUC 2004). Implementation of the proposed Specific Plan would not place people or structures within the flight pattern of the JFTC, which would be subject to the potential of off-airport accidents. No impact would occur.

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 project site. Consequently, development under the Specific Plan would not result in the exposure of people or structures to hazards associated with wildland fires. No impact would occur.

■ 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 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. With compliance with local, state, and federal regulations, this impact is considered *less than significant*.**

Implementation of the proposed project would result in an increase in development intensity that would allow for additional growth within the Beach and Edinger Corridors, including residential, commercial, office, and mixed-uses. Exposure of the public or the environment to hazardous materials could occur in

the following manner: 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 individual development sites. 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 future residential uses within the project site would consist mostly of typical household cleaning products. The types of hazardous materials that could be present during operation of the commercial, office, and residential uses of the proposed project could also include other maintenance products (e.g., paints and solvents); oils, lubricants and refrigerants associated with building mechanical and HVAC systems; and grounds and landscape maintenance products formulated with hazardous substances, including fuels, cleaners and degreasers, solvents, paints, lubricants, adhesives, sealers, and pesticides/herbicides. In addition, medical establishments will continue to operate within the Specific Plan area and have associated medical wastes and gases.

To ensure that workers and others at individual development sites within the Specific Plan 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 individual development sites 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 to a *less than significant* level for future uses that could be developed under the Specific Plan.

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 commercial, office, and residential uses under the proposed project are expected to include household cleaning and maintenance products, pesticides and herbicides, paints, solvents and degreasers. The project site is in an urban area that is already heavily developed with commercial uses. Therefore, when compared to the current uses and levels of generation, it is unlikely that implementation of future development under the Specific Plan would substantially increase the amount of hazardous materials and/or waste brought to, or generated by, the site. In addition, Beach Boulevard is a major transportation corridor, and because it is a state highway it is used for the transport of hazardous material generated from various areas in and outside of the City of Huntington Beach. It is not expected that adoption of the Specific Plan would have any affect on the current use of Beach Boulevard for this purpose.

During construction of future development projects, hazardous materials in the form of paints, solvents, glues, roofing materials and other common construction materials containing toxic substances may be transported to individual sites, 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 individual sites 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 future development under the proposed project, including residential, office, and commercial uses, 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 of new development, future projects within the Specific Plan may generate hazardous and/or toxic waste depending on the age of

structures to be redeveloped or other potential soil or groundwater contamination based on previous uses. 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*.

Summary

Future development under the Specific Plan would be required to comply with applicable laws and regulations that would reduce the risk of hazardous materials use, transportation, and disposal through the implementation of established safety practices, procedures, and reporting requirements. This impact is considered *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 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. However, with compliance with existing regulations and implementation of mitigation measures, this impact is considered *less than significant*.**

Construction Effects

As implementation of the proposed Specific Plan would primarily result in urban infill and redevelopment with mixed-uses within the project site, existing structures may need to be demolished prior to the construction of new buildings. Demolition of existing structures could result in exposure of construction personnel and the public to hazardous substances such as asbestos or lead-based paints, depending on the age of the structure. In addition, the disturbance of soils could result in the exposure of construction workers or nearby employees to health or safety risks if contaminated soils are encountered during construction. Exposure to contaminated structures or soil could occur from asbestos or lead in older buildings, unknown contaminants that have not been previously identified, or existing contamination present at locations identified in the site records search.

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

Demolition Activities

An overall development schedule of specific future projects is not associated with approval of the proposed Specific Plan. However, implementation of the proposed project assumes that older buildings could be demolished as uses are redeveloped according to the new land uses and densities that are permitted in the Specific Plan. With that activity, construction workers and nearby workers and/or future residents could potentially be exposed to airborne lead-based paint, dust, asbestos fibers, mold, and/or other building contaminants. In addition, there is the possibility that future development may also uncover previously undiscovered soil contamination. This could result in a potentially significant impact.

Lead and Asbestos

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, Title 40 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. All demolition that could result in the release of lead and/or asbestos must be conducted according to Cal/OSHA standards. Adherence to existing regulations, which require appropriate testing and abatement actions for hazardous materials, would ensure that impacts are *less than significant*.

Soil and Groundwater Contamination

Unknown Contaminated Sites

Aside from the potential release of hazardous materials from demolition of existing structures within the project site, grading and excavation of sites for future development resulting from implementation of the proposed project may also expose construction workers and the public to potentially unknown hazardous substances present in the soil or groundwater. If any unidentified sources of contamination are encountered during grading or excavation, the removal activities required could pose health and safety risks such as the exposure of workers, materials handling personnel, and the public to hazardous materials or vapors. Such contamination could cause various short-term or long-term adverse health effects in persons exposed to the hazardous substances. In addition, exposure to contaminants could occur if the contaminants migrated from the contaminated zone to surrounding areas either before or after the surrounding areas were developed, or if contaminated zones were disturbed by future development at the contaminated location. If exposed to hazardous substances, this would result in a significant hazard to the public.

It is also possible that old underground storage tanks (USTs) that were in use prior to permitting and record keeping requirements may be present in the project site. If an unidentified UST were uncovered or disturbed during construction activities, it would be closed in place or removed. Removal activities could pose both health and safety risks, such as the exposure of workers, tank handling personnel, and the public to tank contents or vapors. Potential risks, if any, posed by USTs would be minimized by managing the tank according to existing Orange County standards as enforced and monitored by the Department of Environmental Health. The extent to which groundwater may be affected, if at all, depends on the type of contaminant, the amount released, and depth to groundwater at the time of the release. If groundwater contamination is identified, remediation activities would be required by the Santa Ana Regional Water Quality Control Board (SARWQCB) prior to the commencement of any new construction activities.

Existing Contaminated Sites

Another potential hazard to construction workers and the public could involve construction activities on existing sites that may potentially be contaminated. Existing sites that may potentially contain hazardous materials in the project site include the sites that are identified in Table 4.6-2, which includes a range of sites with a variety of potential sources of contamination, including various forms of chemical waste, cleaners, auto-repair facilities, and gas stations. However, any new development occurring on these documented hazardous materials sites would have to be preceded by remediation and cleanup under the supervision of the State Department of Toxic Substance Control (DTSC) before construction activities could begin, if such actions have not already occurred.

In order to address the potential for encountering contamination within the project site, mitigation measures MM4.6-1 and MM4.6-2 would minimize the potential risk of contamination by implementing investigation and remediation efforts at future development sites. As such, the potential impacts associated with unknown contamination would be reduced to a *less-than-significant* level.

MM4.6-1 Prior to the issuance of grading permits on any project site, the site developer(s) shall:

- *Investigate the project site to determine whether it or immediately adjacent areas have a record of hazardous material contamination via the preparation of a preliminary environmental site assessment (ESA), which shall be submitted to the City for review. If contamination is found the report shall characterize the site according to the nature and extent of contamination that is present before development activities precede at that site.*
- *If contamination is determined to be on site, the City, in accordance with appropriate regulatory agencies, shall determine the need for further investigation and/or remediation of the soils conditions on the contaminated site. If further investigation or remediation is required, it shall be the responsibility of the site developer(s) to complete such investigation and/or remediation prior to construction of the project.*
- *If remediation is required as identified by the local oversight agency, it shall be accomplished in a manner that reduces risk to below applicable standards and shall be completed prior to issuance of any occupancy permits.*
- *Closure reports or other reports acceptable to the Huntington Beach Fire Department that document the successful completion of required remediation activities, if any, for contaminated*

soils, in accordance with City Specification 431-92, shall be submitted and approved by the Huntington Beach Fire Department prior to the issuance of grading permits for site development. No construction shall occur in the affected area until reports have been accepted by the City.

MM4.6-2

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 of the proposed project, 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., City of 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.

Compliance with existing regulations and implementation of mitigation measures MM4.6-1 and MM4.6-2 would ensure that construction workers and the general public would not be exposed to any unusual or excessive risks related to hazardous materials during construction activities. As such, impacts associated with the exposure of construction workers and the public to hazardous materials during construction activities would be *less than significant*.

Operational Effects

The precise potential future increase in the amount of hazardous materials utilized in the project site as a result of implementation of the proposed Specific Plan cannot be predicted because specific development projects are not identified in the Specific Plan. The following discussion focuses on the potential nature and magnitude of risks associated with the accidental release of hazardous materials often used during operation of typical residential, commercial, and office mixed-use development projects.

Development under the proposed project would include the use of and storage of common hazardous materials such as paints, solvents, and cleaning products. Additionally, building mechanical systems and 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 individual project sites throughout the Specific Plan. 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 compared to other similar development or to existing conditions.

Through future development under the proposed Specific Plan, 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 throughout the site and the impact would be *less than significant*.

Electromagnetic Fields

High-voltage (maximum of 230,000 volt) power transmission towers are located in the northernmost portion of the project site at the Southern California Edison (SCE) easement along Center Avenue near the Golden West Transit Center. This particular area is designated as Town Center Neighborhood, which would allow for a wide range of housing and mixture of uses. Therefore, the potential for EMF exposure could exist for future residents in that area; however, this new designation is not significantly different from the Mixed-Use Vertical (MV-F8-d) land use designation that currently exists on the SCE site and adjacent parcel.

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.

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

The southern portion of the Specific Plan (south of Ellis Avenue) is located within a designated methane gas overlay district. The City has set minimum requirements for new building construction within the methane overlay districts in order to reduce the hazards presented from accumulations of methane gas by requiring the appropriate testing and mitigation measures for all new buildings within the methane districts. Therefore, implementation of the following mitigation measure would be required to address the potential for methane gas accumulation.

MM4.6-3 *Prior to the issuance of grading permits, future development in the Specific Plan 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 future development 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 MM4.6-3 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 the proposed project could 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. With compliance with existing regulations, this impact is considered less than significant.**

Figure 4.6-2 (Schools within 0.25 Mile of Project Area) depicts the location of the public and private schools located within ¼ mile of the Specific Plan boundaries. No additional schools are proposed in the project site as a result of the Specific Plan. Similar to existing conditions in the project site, common hazardous materials could be used in the construction and operation of new development in the Specific Plan, including the use of standard construction materials (e.g., paints, solvents, and fuels), cleaning and other maintenance products, diesel and other fuels (used in construction and maintenance equipment and vehicles), and the limited application of pesticides associated with landscaping around new developments. None of these materials would result in hazardous emissions or are considered acutely hazardous.

Although hazardous materials and waste generated from future development may pose a health risk to nearby schools, all businesses that handle or transport hazardous materials would be required to comply with the provisions of the local, state, and federal regulations for hazardous wastes. In particular, Chapter 6.95 of the California *Health and Safety Code* requires businesses that handle more than a specified amount of hazardous materials on-site to submit a Hazardous Materials Business Plan. Such businesses are required to provide emergency response plans and procedures, training program information, and a hazardous material chemical inventory disclosing hazardous materials stored, used, or handled on site. The intent of the hazardous materials disclosure is to assist in mitigating a release or threatened release of a hazardous material and to minimize any potential harm or damage to human health or the environment. Emergency responders use the information provided in planning for and handling emergencies involving hazardous materials.

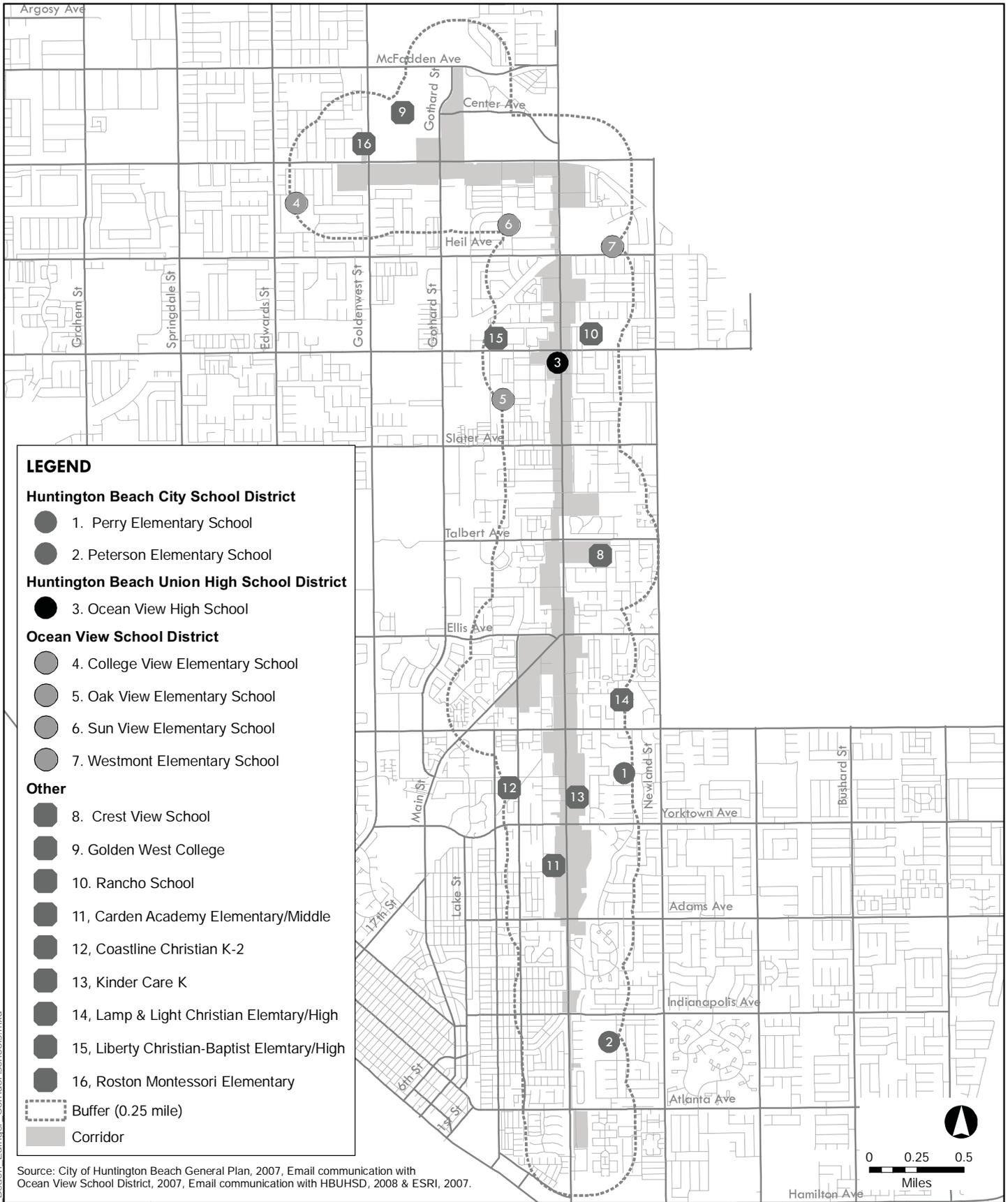


FIGURE 4.6-2
Schools within 0.25 Mile of Project Area



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The routine use, transport, and disposal of hazardous materials in the project site would be subject to a wide range of laws and regulations intended to minimize potential health risks associated with their use or the accidental release of such substances. Compliance with existing regulations would minimize the risks associated with the exposure of sensitive receptors, including schools, to hazardous materials. Therefore, future development under the proposed project would result in a *less-than-significant* 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 Individual sites within the Specific Plan are included on a list of hazardous materials sites and as a result could create a significant hazard to the public or environment. However, with implementation of mitigation measures, this impact is considered *less than significant*.

As identified in Table 4.6-2, the Specific Plan and/or its immediate surroundings contains sites that have been identified on various regulatory databases as being contaminated from the release of hazardous substances in the soil or groundwater. Implementation of the proposed project could lead to development of these sites. As discussed under Impact 4.6-2, development of these sites would be required to undergo remediation and cleanup before construction activities can begin. If contamination at any specific project site were to exceed regulatory action levels, the project Applicant would be required to undertake remediation procedures prior to grading and development under the supervision of appropriate regulatory oversight agencies (e.g., Huntington Beach Fire Department, Orange County Environmental Health Division, Department of Toxic Substances Control, or Regional Water Quality Control Board), depending on the nature of any identified contamination. Thus, implementation of mitigation measures MM4.6-1 and MM4.6-2, above, would ensure that contaminated sites undergo remediation activities prior to development activities. Consequently, if future development under the Specific Plan is located on a site that is included on a list of hazardous materials sites, remediation would ensure that this impact would be reduced to a *less-than-significant* level.

Threshold	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?
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Impact 4.6-5 Implementation of the proposed Specific Plan would not result in a safety hazard for people residing or working in the project area. This impact is considered *less than significant*.

Although there are no private airstrips in the nearby vicinity, there is an existing helipad in the project site located on the rooftop of the tallest structure at the southwest corner of Beach Boulevard and Warner Avenue.

A helipad is a designated area, including buildings or facilities, intended to be used for the landing and takeoff of helicopters. Due to the potential for an increase in residential uses within the project site, it is assumed that additional helipads would be discouraged for future development because of noise and other safety issues. Safety issues include hazards posed to aircraft from structures located within navigable airspace and crash hazards posed by helicopters to people and property on the ground. However, the existence of such a facility does not necessarily represent an impending impact for future residents. The existing helipad has not been used in over two years.⁵ Existing residential uses currently surround the entirety of the Specific Plan boundaries, and implementation of the proposed project would increase the number of future residents potentially exposed to helipad safety hazards. Conversely, helipads also represent a safety feature on tall buildings in that they can be used during emergencies, such as a fire in the building.

Should new helipads or heliports be proposed in the future within the project site, such developments would be required to be submitted through the City to the Airport Land Use Commission for Orange County (ALUC) for review and action (pursuant to Public Utilities Code Section 2166.5). While not anticipated, any future helipad or heliport project must comply with the State permit procedure provided by law and with all conditions of approval imposed or recommended by the Federal Aviation Administration (FAA), by the ALUC for Orange County, and by Caltrans/Division of Aeronautics, in addition to any other local requirements. As such, because existing and future helipads/heliports are required to comply with such regulations, this impact would be *less than significant*.

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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Impact 4.6-6 Implementation of the Specific Plan could impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. However, with implementation of mitigation measures, this impact is considered *less than significant*.

The City of Huntington Beach Emergency Disaster Plan is the guiding document in the event of emergencies within the City. According to the Emergency Disaster Plan, which is continually updated every two years, the potential for a major calamity increases with the urbanization of previously unpopulated areas, and with the advent of industrial processes using hazardous materials. The Emergency Disaster Plan notes that the impact of disasters such as earthquakes, fires, and floods has become magnified as more high-risk land in the region is developed in response to pressure of urban growth. In addition, the unprecedented use of hazardous chemicals in industry and agriculture increases the potential for disaster. Transportation accidents can almost instantaneously produce mass casualties.

The Emergency Disaster Plan identifies numerous hazardous situations to which the City would respond including pollution, hazardous or radiological materials spills, and transportation accidents. The Emergency Disaster Plan provides an organizational and procedural framework for the management of emergency incidents, including evacuation procedures and coordination with outside agencies for further protection and assistance. The City has an option, under necessary circumstances, to request mutual aid

⁵ Medel, Rosemary. 2009. Written communication via email with City of Huntington Beach. April 22.

from other jurisdictions, including nearby cities, counties, the California Office of Emergency Services (OES), and ultimately, the Federal Emergency Management Agency (FEMA). The National Hazard Mitigation Plan Program, which is run by FEMA, authorizes the City's Emergency Services Director to modify the City's emergency response protocol and resources as necessary.

As required by law, and as discussed in Section 4.13 (Transportation/Traffic) of this EIR, future projects within the Specific Plan would be required to provide adequate access for emergency vehicles. Additionally, future development would be required to regulate the storage of flammable and explosive materials and their transport within the project site, and would comply with applicable *Uniform Fire Code* regulations for issues including fire protection systems and equipment, general safety precautions, and distances of structures to fire hydrants.

Similar to existing conditions, construction of future development under the Specific Plan could result in short-term temporary impacts on street traffic adjacent to the proposed sites due to roadway and infrastructure improvements and the potential extension of construction activities into the right-of-way. This could result in a reduction of the number of lanes or temporary closure of certain street segments. Any such impacts would be limited to the construction period of individual projects and would affect only adjacent streets or intersections. However, mitigation measure MM4.6-4 would ensure that emergency response teams for the City of Huntington Beach, including the Huntington Beach Fire and Police Departments (HBFD and HBPD, respectively), would be notified of any lane closures during construction activities in the project site and that a minimum one lane would remain open at all times to provide adequate emergency access to the site and surrounding neighborhoods.

MM4.6-4 To ensure adequate access for emergency vehicles when construction activities would result in temporary lane or roadway closures, the developer shall consult with the City of Huntington Beach Police and Fire Departments to disclose temporary lane or roadway closures and alternative travel routes. The developer shall be required to keep a minimum of one lane in each direction free from encumbrances at all times on perimeter streets accessing the project site. At any time only a single lane is available, the developer shall provide a temporary traffic signal, signal carriers (i.e., flagpersons), or other appropriate traffic controls to allow travel in both directions. If construction activities require the complete closure of a roadway segment, the developer shall coordinate with the City of Huntington Beach Police and Fire Departments to designate proper detour routes and signage indicating alternative routes.

Implementation of mitigation measure MM4.6-4 would ensure that future development under the Specific Plan would provide adequate access for emergency vehicles. In addition, existing regulations regulate the storage of flammable and explosive materials and their transport within the project site. Therefore, implementation of the proposed project would not interfere with any emergency response or emergency evacuation plans and this impact would be *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 3-2 (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 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, SCAQMD, and Cal EPA 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 future development under 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 and operational 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*.

Implementation of cumulative development could expose schools to hazardous emissions, depending on the specific location and type of use proposed. Various regulations and guidelines pertaining to abatement of, and protection from, exposure to asbestos and lead have been adopted for demolition activities and would apply to all new development in the County. All demolition that could result in the release of lead and/or asbestos must be conducted according to Cal/OSHA standards. In addition, all businesses that handle or transport hazardous materials would be required to comply with the provisions of the local, state, and federal regulations for hazardous wastes. Businesses that handle more than a

specified amount of hazardous materials on-site are required to submit a Hazardous Materials Business Plan. Compliance with existing regulations would ensure that schools and the general public would not be exposed to any unusual or excessive risks related to hazardous materials during construction and operational activities. Therefore, the cumulative impacts associated with the exposure of schools to hazardous emissions would be less than significant. Compliance with existing regulations would similarly ensure that future development under the Specific Plan would have a less-than-significant impact associated with the handling of hazardous materials within proximity to school sites. Therefore, the proposed project would not make a cumulatively considerable contribution to this effect and cumulative impacts would be *less than significant*.

Future projects in the City and County would be regulated to ensure that either new development would not occur on hazardous materials sites, or for project sites that are listed, impacts would be required to be mitigated by appropriate remediation prior to development. As all contaminated sites are required to be remediated prior to development, this cumulative impact would be less than significant. As the proposed project similarly requires appropriate site investigation and remediation activities prior to development, implementation of the Specific Plan would not make a cumulatively considerable contribution to impacts resulting from development on hazardous materials sites. This cumulative impact would be *less than significant*.

Future development in Orange County, including the cumulative projects, may be located in the vicinity of a private airstrip or helipad. The risk to each future development project posed by a private airstrip is based upon location, and is therefore unique. It is also likely that such risk, if sufficiently high, would be a factor in any decision to approve or deny future development proposals. As a result, cumulative risks to future development associated with proximity to private airstrips would be less than significant. As discussed under Impact 4.6-5, the tallest structure at the southwest corner of Beach Boulevard and Warner Avenue operates a helipad; however, it has not been used in over two years. Although future development would bring additional persons to the area, any risk of accident presented by flight operations at the helipad would be extremely remote and less than significant. This is considered to be a *less-than-significant* impact.

Finally, construction and operation associated with cumulative development could result in activities that could interfere with adopted emergency response or evacuation plans, primarily by temporary construction barricades or other obstructions that could impede emergency access. It is anticipated that future development projects would undergo CEQA review of potential impacts on adopted emergency response or evacuation plans, and would be required to implement measures necessary to mitigate potential impacts. As a result, cumulative development relating to interference with adopted emergency plans would be less than significant. Because the proposed project would be required to implement a mitigation measure to ensure that temporary street closures would not affect emergency access in the vicinity of future development, the proposed Specific Plan would not have a cumulatively considerable contribution to this effect. Therefore, this cumulative impact would be *less than significant*.

4.6.5 References

- Environmental Data Resources Inc. (EDR Inc.). 2008. The EDR Map™ Environmental Atlas™ (EDR), September 11.
- Federal Aviation Administration (FAA). 2008. <https://oeaaa.faa.gov> (accessed March 3, 2008).
- Huntington Beach, City of. 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). 1999. *Health Effects from Exposure to Power-Line Frequency Electric and Magnetic Fields*. <http://www.niehs.nih.gov/health/docs/niehs-report.pdf> (accessed February 18, 2009).
- Orange County Airport Land Use Commission (OCALUC). 2004. *AELUP Height Restriction Zone for JFTB [Joint Forces Training Base Los Alamitos]*. <http://www.ocair.com/aboutJWA/ALUC/losalnotf.pdf> (accessed January 12, 2009).
- San Diego, City of. 2007. Federal Aviation Administration Notification and Evaluation Process Information Bulletin 520, July.
- U.S. Environmental Protection Agency (U.S. EPA). 1999. *EPA Asbestos Materials Bans: Clarification*. May 18, 1999 Website: <http://www.ehso.com/cssasbestos/asbestosban.htm> Accessed on May 12, 2008.