

## 4.6 HAZARDS AND HAZARDOUS MATERIALS

This EIR section analyzes the potential for adverse impacts on human health and the environment from exposure to hazardous materials located on site due to previous land uses. A hazardous material is defined as any material that due to its quantity, concentration, physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the work place or environment. Hazardous materials include, but are not necessarily limited to, inorganic and organic chemicals, solvents, mercury, lead, asbestos, paints, cleansers, or pesticides that were used in previous activities at the site as well as activities on neighboring sites.

Specifically, previous activities at the project site include the operation of a former oil tank farm and associated activities and buildings. The Initial Study (Appendix A) identified that the potential for impacts from hazardous materials would be limited to those associated with former uses on site, particularly the potential for discovery of any undetected contamination at the RV/boat storage lot portion of the project site. In particular, the Initial Study identified potential impacts associated with the following thresholds: whether the proposed project would create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials; or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. In addition, although not originally identified in the Initial Study, this section also addresses the potential impacts associated with methane and hydrogen sulfide gas.

Issues scoped out from detailed analysis in the EIR include the possible safety hazard resulting from hazardous emissions or hazardous material handling in proximity to a school or airport, as the project is not located within 0.25 mile of an existing or proposed school or in proximity to an airport or private airstrip; location on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, as all known contamination at the site has been fully remediated; impairment of emergency response plan implementation, as none of the vehicular access points to the project site are located along major thoroughfares, and no constraints to emergency response plans would result from the proposed project; and exposure of people or structures to a significant risk of loss, injury, or death involving wildland fires since the project site is not located within the vicinity of any wildland area.

Data used to prepare this section were taken from various sources, including but not limited to documentation from the following sources prepared for the project site: 2002 Health Risk Assessment; 2001 Assessment and Remediation of Contamination Found at Former Underground Storage Tank Location; 2003 Petitioned Health Consultation; 2004 No Further Action Letter and Certificate of Completion; 2002 Remedial Action Plan; and the 2003 Phase I Environmental Site Assessment (ESA) Report prepared for the RV & Boat Storage facility. Full bibliographic entries for all reference materials are provided in Section 4.6.5 (References) at the end of this section.

## 4.6.1 Existing Conditions

The project site is located approximately one-half mile from the Pacific Ocean, and is adjacent to the following uses:

- East (across Newland Street)—Single-family residential housing
- North (adjacent and across Lomond Drive)—Single-family and multiple-family residential housing
- West—Open space/wetlands/flood control channel
- South—Open space/wetlands/flood control channel

### ■ Historical Review of Project Site and Adjacent Uses

From the 1950s until 2002, the majority of the site was used as an oil storage facility and pipeline terminal. Owned by Mills Land and Water Company (Mills), the property was leased to Wilshire Oil Company in 1956, and subsequently to Golden West Refining Company (Golden West) in 1988 for construction and operation of the Huntington Beach marine pipeline terminal (HBMPPT). When Golden West developed the site as an oil pipeline terminal, it was improved with several buildings, aboveground storage tanks (ASTs), pumps, sumps, pipelines, and two underground storage tanks (USTs), including one diesel-fuel tank and one waste-oil tank. In March 1998, Golden West initiated the process of decommissioning the terminal. Subsequent to partial decommissioning, Golden West assigned the Mills lease to CENCO Refining Company (Cenco) in May 1998. Cenco intended to continue operations at the marine pipeline terminal. However, in October 1998, Cenco reached an agreement with the City of Huntington Beach and other parties to halt efforts to continue operation at the terminal. They also agreed to complete decommissioning, initiated by Golden West, by October 1999. All structures related to former oil storage/pipeline uses were decommissioned and demolished in 2001.

The northeast 4.5-acre corner of the site is currently used for RV/boat storage, which began in 1994. An oil well was formerly located on this property; the well was plugged and abandoned in July 1966. No other historic uses have been identified on this portion of the site.

### ■ Contamination at the Project Site

Presently, a majority of the project site has been remediated (approximately 19.5 acres), and no further contamination exists within that area. No remediation has occurred on the existing RV/Boat Storage area at the northeast corner of the site, although no contamination has been documented in this area.

Prior to remediation activities, the primary constituents of concern (COC) at the project site were crude oil and its fractions, including polyaromatic hydrocarbons (PAHs); fuel-related hydrocarbons, including diesel, gasoline, and benzene, toluene, ethylbenzene, and total xylenes (BTEX); Volatile Organic Compounds (VOCs); and lead. A remedial action plan was prepared in 2002 to address these COCs; the site remediation process is described on the following page.

Groundwater contamination at the project site consisted of low levels of petroleum hydrocarbons in localized areas of impacted soil. However, in most areas of the site, groundwater was not impacted by contaminants. Thus, as discussed in the 2002 Remedial Action Plan, remediation of the impacted soil was

anticipated to ultimately result in decreased levels of contaminants in the groundwater. The March 2004 Former Dry Well Groundwater Investigation Report confirmed this assumption, and states that groundwater at the project site is not contaminated. Further, the City does not rely on groundwater resources underlying the project site due to saltwater intrusion.

Following extensive soil excavation and remediation activities on the site, all hazardous materials and contaminated soils formerly present at the oil storage site were removed in accordance with a Remedial Action Plan. After remediation activities were completed, the site was leveled and backfilled with certified “clean” backfill material. A No Further Action Letter and Certificate of Completion regarding the remedial action were issued by the California Regional Water Quality Control Board—Santa Ana Region on June 24, 2004. As such, there are no remaining on-site activities associated with this work. The City issued a letter on July 27, 2004 stating that the site has met City-established cleanup criteria. Appendix H includes both letters issued verifying completion of site remediation.

With respect to the RV/Boat Storage area, a Phase I Environmental Site Assessment (ESA) was prepared for a 64-acre property comprised of seven individual and distinct parcels, including the existing 4.5-acre RV/Boat Storage area on the project site, in April 2003. At the time the Phase I ESA was prepared, the soil remediation activities on the 19.5-acre portion of the project site (further described below) were completed, and soil and groundwater contamination were not expected to significantly impact the RV/Boat Storage area. The Phase I ESA indicated that a plugged and abandoned oil well (known as Pacific Supply Cooperative “Mills”), and two groundwater monitoring wells are located on the RV/Boat Storage property. The extent of contamination, if any, associated with the oil well is unknown. The oil well was abandoned in consultation with the California Department of Conservation, Division of Oil, Gas and Geothermal Resources (DOGGR) in July 1966. The on-site inspection, historical aerial photograph review and government agency review of the site revealed no evidence of current recognized environmental conditions in connection with the property. However, due to the migratory nature of contamination and historic on-site uses, sampling in RV/boat storage area would confirm the absence of contamination.

## ■ Overview of Site Remediation Process

In January 2000, two waste-oil USTs were removed under the direction of Environmental Engineering & Contracting, Inc. (ECC) and oversight of the Orange County Health Care Agency (OCHCA). In June 2000, Cenco retained Versar, Inc. (Versar) to provide technical advice and recommendations for a Phase II Site Assessment for the property, which included the former waste-oil UST area. Following submittal of the Versar 2000 workplan, Cenco engaged another consultant, TRC, to perform site investigations with respect to the waste-oil USTs, which were subsequently performed in September 2001 and in January 2002.

Decommissioning and demolition of the structures at the site was completed in the fall of 2001. Following completion of these efforts, TRC began the Phase II Site Assessment in September 2001, based on the workplan prepared by Versar, to determine whether soil and groundwater had been impacted by operations at the site. The assessment included the completion of soil borings at former soil stockpiles in the northwestern part of the site, beneath the former ASTs, in the area of the former USTs,

along the pipelines, and at other selected locations throughout the site. Groundwater samples were obtained during the completion of some of the soil borings. In addition, soil samples were collected along the perimeter of the former ASTs for lead analysis. As discussed above, the report concluded that impacted groundwater contained low levels of petroleum hydrocarbons in localized areas of impacted soil. In most areas of the site, groundwater was not impacted by contaminants.

During the period from November 2001 to January 2002, excavation and backfilling activities were undertaken by Cenco to remediate visibly impacted soils at the site. The excavated soil was stockpiled on-site pending disposal at an approved facility. The excavated areas were subsequently backfilled. Following backfilling activities, TRC was contracted to collect confirmation samples from the former excavations in January 2002. During January 2002, samples were collected from excavation at the former USTs, as well as from the sidewalls of the excavation site. Further, in February 2002, TRC undertook a soil sampling program to determine the lateral and vertical extent of soluble lead concentrations in the area of the former ASTs.

Subsequent to the February 2002 site investigation, the Remedial Action Plan was prepared in September 2002. The objective of the Remedial Action Plan was to complete the environmental investigations at the site, perform remedial actions with respect to impacted soil at the site, as defined by the results of the environmental investigations, and restore the site for use and future development.

The remediation efforts focused on several areas of concern (AOC) including the following: former ASTs; perimeter area—former ASTs; soil stockpiles; former petroleum pipelines; crude booster pump area; north center pump; southwest corner pump; skim oil pump; former UST area; and SCE sampling area. These particular AOCs were the focus of further investigation and subsequent remediation, as required. The remediation efforts were undertaken in a phased approach at the project site, as outlined below.

- Phase 1—Surficial Cleanup
- Phase 2—Lead-Impacted Soil Remediation
- Phase 3—Soil Stockpile Remediation
- Phase 4—Excavation of AST Bottoms
- Phase 5—Excavation of Former Pipeline and Pump Areas
- Phase 6—Excavation of Crude Booster Pump Area
- Phase 7—Excavation of Former UST and SCE Sampling Areas
- Phase 8—Impacted Soil Disposal
- Phase 9—Backfilling Operations

After several years of decommissioning and remediation work at the site, and completion of Phases 1-8 identified above, the RWQCB reviewed the Remedial Action Report and Request for Closure dated December 8, 2003, Corrective Action Report, Former Waste Oil Tank dated April 21, 2003, and the Groundwater Investigation Former Dry Well report dated March 8, 2004. Upon review of the applicable remediation work and documentation, the RWQCB determined that the low concentrations of residual hydrocarbons and metals remaining at the site are not a threat to the beneficial uses of the Santa Ana Pressure Groundwater Subbasin. Consequently, the RWQCB declared that no further action is necessary at the site on June 24, 2004. In addition, on July 27, 2004, the City of Huntington Beach Fire Department (HBFD) determined that the submitted data in the above referenced reports meet the City's cleanup

criteria as outlined in City Specification #431-92. Phase 9 was completed in June 2005 after certification of clean soil import by the HBFD.

### ■ PCBs

As identified from site reconnaissance, there are currently two utility poles located in the middle of the eastern portion of the project site just south of the RV/Boat Storage area, as well as light poles surrounding the RV/Boat Storage area. Additional light poles are located on the western and northern portions of the project site. There is at least one transformer located on the utility poles south of the RV/Boat Storage area. Presently, it is unknown whether the existing utility and light poles could contain polychlorinated biphenyls (PCBs), as these materials were not previously identified in the environmental documentation prepared for the project site.

### ■ Methane and Hydrogen Sulfide Gases

The site is 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 apply to projects located in methane overlay districts.

In addition, although no formal testing has been completed at this time, the City has identified similar developments in the project area that have encountered issues with hydrogen sulfide gas. Hydrogen sulfide gas is often produced by bacterial breakdown of organic matter, and can cause adverse health effects on those exposed to the gas. Similar neighborhoods in the area of the project site that are located adjacent to wetlands have resulted in a buildup of gas accumulation under the large compacted soil sites (Bogart 2005). Soil compaction within areas that include high levels of organic decomposition, such as wetlands, can lead to an accumulation of gas that is essentially trapped beneath the soil. Appropriate measures for gas release, such as venting structures, reduce the potential risk posed by hydrogen sulfide gas.

## 4.6.2 Regulatory Framework

The management of hazardous materials and hazardous wastes, which includes chemicals, radioactive, and biohazardous materials, is accomplished pursuant to numerous laws and regulations at all levels of government.

### ■ Federal

Primary federal agencies with responsibility for hazardous materials management include the Environmental Protection Agency (EPA), Department of Labor (Federal Occupational Health and Safety Administration [OSHA]), Department of Transportation (DOT), and Nuclear Regulatory

Commission (NRC). 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

## ■ 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 Occupational Health and Safety Administration [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).

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

- *Hazardous Materials Management Act*—business plan reporting
- *Hazardous Waste Control Act*—hazardous waste management
- *Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65)*—releases of and exposure to carcinogenic chemicals
- *Hazardous Substances Act*—cleanup of contamination
- Hazardous Waste Management Planning and Facility Siting (*Tanner Act*)
- Hazardous Materials Storage and Emergency Response
- *California Medical Waste Management Act*—medical and biohazardous wastes

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

### **Hazardous Materials Management Act**

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

require HMBPs. Plans must be prepared prior to facility operation and are reviewed/updated biennially (or within 30 days of a change).

### **Occupational Health and Safety Administration (OSHA)**

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

## ■ Local

### **General Plan Hazardous Materials Element**

The City of Huntington Beach General Plan Hazardous Materials Element identifies various policies and programs addressing hazards from hazardous materials and hazardous waste, and the potential methods to reduce risks associated with those hazards. 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.” The site would not use substantial quantities of hazardous materials or generate hazardous waste; however, 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 1.2** Support land use patterns that avoid development of hazardous waste generators adjacent 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 1.3.2. Promote the recovery and recycling of hazardous materials.

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

**Policy 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.

## Consistency Analysis

Implementation of the proposed project would result in the development of residential uses at a former industrial site. These new uses would not generate hazardous waste materials, unlike the potential for industrial sites, adjacent to existing residential uses. With the exception of the RV/Boat Storage lot, the project site has been completely remediated from hazardous materials found in the soil and groundwater, as a majority of the site was formerly used as an oil storage facility and pipeline terminal. A No Further Action Letter and Certificate of Completion regarding the remedial action were issued by the California Regional Water Quality Control Board—Santa Ana Region on June 24, 2004. With implementation of the proposed project and the corresponding remediation of hazardous materials, there is a substantial reduction in the potential for harm from hazardous materials and hazardous waste. As such, the proposed project would not conflict with the applicable goals and policies of this element.

### **General Plan Environmental Hazards Element**

The Environmental Hazards Element identifies various policies addressing natural and human-related hazards and the potential methods to reduce risks associated with those hazards. The discussion below identifies goals and objectives presented in the Environmental Hazards Element of the General Plan related to hazards 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.

**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.

## Consistency Analysis

The proposed project is located within an identified Methane 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. As discussed in Impact 4.6-2, implementation of MM 4.6-2(a) would be required to address the potential hazards of the accumulation of methane and hydrogen sulfide gas at the project site by ensuring appropriate testing and methods of gas reduction, as required by the HBFD. Consequently, 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. On July 27, 2004, the HBFD determined that the majority of the project site, which was remediated to the satisfaction of the RWQCB, also met the City's cleanup criteria as outlined in City Specification #431-92.

Although remediation of oil-impacted soils was officially completed in 2004 at the majority of the project site resulting from former oil tank farm activities, there remains a possibility that some contaminated soil could remain in the RV/boat storage area. Due to the migratory nature of oil in the soil, the risk remains for oil contamination to exist in soil areas that have not been previously trenched for sampling and investigation. As such, the Applicant will be required to demonstrate that the soil meets the Soil Clean-Up Standard at the RV/boat storage area. If soil remediation is required, a remediation plan is required to be submitted to the City Planning, Public Works, and HBFD for review and approval in accordance with City Specification No. 431-92.

## **4.6.3 Project Impacts and Mitigation**

### **■ Analytic Method**

The analysis in this section focuses on the use, disposal, and transport of hazardous or potentially hazardous materials on the project site. The probability for risk of upset, and the severity of consequences to people or property associated with the increased use, transport, and/or disposal of hazardous materials associated with implementation of the proposed project are also analyzed. The information in this section is based upon reviews of previously prepared reports documenting environmental investigations at the project site, including but not limited to, the Remediation Plan, the Phase I ESA for the RV/Boat Storage area, and discussions with Department of Public Works staff.

In determining the level of significance, the analysis assumes that construction and operation of the proposed project would comply with relevant federal and state laws and regulations, City General Plan policies, and ordinances.

### **■ Thresholds of Significance**

Implementation of the proposed project could result in potentially significant impacts if the project would do the following:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment

## ■ Impacts and Mitigation Measures

Threshold	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials
-----------	---

**Impact 4.6-1      Implementation of the proposed project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.**

Implementation of the proposed project would involve the development of 204 attached multi-family residential units consisting of 123 triplex units and 81 duplex units, as well as a two-acre public park on the northeastern corner of the site. Construction and operation of the proposed residential uses would not require extensive or on-going use of materials that would create a significant hazard. Likewise, implementation of the proposed project would not provide for the transport or disposal of hazardous materials.

While not anticipated to be significant, some common hazardous materials would be used in varying amounts during construction and operation of the proposed project. Some examples of hazardous materials handling during construction operations include fueling and servicing construction equipment on-site, and the transport of fuels, lubricating fluids, and solvents. These materials are generally disposed of at nonhazardous Class II and III landfills (along with solid waste). In addition, the types and quantities of typical hazardous materials that could be present during operation of the residential uses are expected to include household-type maintenance products (e.g., paints, solvents, cleaning products, pesticides/herbicides).

While these materials are common throughout developed urban areas, exposure of construction workers or future residential occupants to hazardous materials could occur in the following manner: improper handling or use of hazardous materials or hazardous wastes during construction or operation of the project, particularly by untrained personnel; transportation accident; environmentally unsound disposal methods; or fire, explosion or other emergencies. Construction workers and future residents could be exposed to hazards associated with accidental releases of hazardous materials, which could result in adverse health effects.

The use, transport, and disposal of any hazardous materials during construction and operation of the proposed project would be subject to federal, state, and local health and safety requirements. Adherence to existing regulations would ensure that only commonplace use of typical hazardous materials would occur onsite, and compliance with existing safety standards related to the use, disposal, and transport of hazardous materials and wastes would ensure that risks resulting from the routine use of hazardous materials and disposal of hazardous wastes would be *less than significant*. No mitigation is required.

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
-----------	---

**Impact 4.6-2            Implementation of the proposed project could 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.**

### ***Construction Effects***

Given the historic oil-related operations associated with the site, the potential exists for hazardous materials to be encountered. In particular, due to the former presence of oil-impacted soil at the project site, remediation efforts were necessary for the graded/vacant portion of the project site. Remediation at the project site followed EPA guidelines and standards, and consisted of cleanup of all impacted soil. Excavated areas were backfilled with mechanically treated soil that is within acceptable total recoverable petroleum hydrocarbon (TRPH) concentrations. The required remediation at the site was completed and reports were sent to the Orange County Health Department, RWQCB, and the City of Huntington Beach. The RWQCB issued a No Further Action letter and Certification of Completion in 2004 regarding the current graded/vacant portion of the site.

While not expected, grading and excavation activities for the proposed project could result in the exposure of construction personnel and the public to previously unidentified hazardous substances in the soil. The temporary vehicle storage facility was built in 1994, and as such is not of an age to expect the presence of hazardous materials that could require special handling during demolition activities (such as lead-based paint or asbestos-containing materials). Exposure to contaminated structures or soil could occur from either of the following:

- Previously unidentified oil-impacted soil on the RV/boat storage area
- Potential PCB contamination from existing power line transformers or light ballasts

Exposure to hazardous materials during construction activities could occur through 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

Remediation of oil-impacted soils was officially completed in 2004 at the majority of the project site resulting from former oil tank farm activities. There remains a possibility that some contaminated soil could exist in the RV/boat storage area, due to the migratory nature of oil in the soil. Further, an oil well was formerly located on the RV/boat storage area, and contamination, if any, from the well has not been determined.

The former oil well on-site was abandoned in 1966, and due to regulations adopted by DOGGR since that time, the well may need to be reabandoned to meet current specifications. In addition, the potential exists for grading and excavation activities to damage the oil well during construction. Such damage

could result in health and safety risks to construction workers and the public through exposure to well contents (by direct dermal contact and/or ingestion) or vapors, as well as contamination of the soil at the project site.

Mitigation measures MM 4.6-2(a) through MM 4.6-2(c) would be required to address potential contamination in the RV/Boat Storage area; if contamination is identified, MM 4.6-2(d) through MM 4.6-2(f) would be required.

- MM 4.6-2(a) Prior to issuance of a rough/mass grading permit, sampling shall be performed in the existing RV/Boat Storage area to confirm Total Recoverable Petroleum Hydrocarbons (TRPH) concentrations, if any, are within levels acceptable to the City of Huntington Beach. The extent of sampling shall be determined by the HBFD as that which is appropriate to characterize the extent of potential contamination in the RV/Boat Storage Area. If identified, contamination shall be remediated in accordance with MM 4.6-2(d) through MM 4.6-2(f).*
- MM 4.6-2(b) The developer shall consult with DOGGR to determine if reabandonment of the on-site oil well is necessary. Prior to the issuance of a rough grading permit, the Applicant shall submit evidence of consultation with DOGGR indicating wells have been abandoned to current DOGGR standards.*
- MM 4.6-2(c) In the event that the abandoned oil well is damaged during construction, construction activities shall cease in the immediate vicinity immediately. Remedial plugging operations would be required to re-plug the well to current Department of Conservation specifications. Depending on the nature of soil contamination, if any, appropriate agencies shall be notified (e.g., City of Huntington Beach Fire Department). The developer shall ensure proper implementation of the reabandonment operation in compliance with all applicable laws and regulations.*
- MM 4.6-2(d) Prior to issuance of a rough grading permit, the Applicant shall, in consultation with the City of Huntington Beach and other agencies, as required, formulate a remediation plan if soil contamination is identified in the RV/Boat Storage area. The plan shall include procedures for remediation of the project site to the City of Huntington Beach standards. Plans shall be submitted to Public Works and HBFD for review and approval in accordance with City Specification No. 431-92. The plan shall include methods to minimize remediation-related impacts on the surrounding properties, including processes by which all drainage associated with the remediation effort shall be retained on-site and no wastes or pollutants shall escape the site, and requirements to provide wind barriers around remediation equipment. Qualified and licensed professionals shall perform the remediation activities and all work shall be performed under the supervision of the City of Huntington Beach.*
- MM 4.6-2(e) In the event that previously unknown soil contamination that could present a threat to human health or the environment is encountered during construction, construction activities in the immediate vicinity of the contamination shall cease immediately. 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). A site health and safety plan that meets OSHA requirements shall be prepared and in place prior to the commencement of work in any contaminated area. The developer shall ensure proper implementation of the health and safety plan.*

*MM 4.6-2(f) Closure reports or other reports acceptable to the HBFD 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 HBFD prior to issuance of grading permits for site development. No construction shall occur on-site until reports have been accepted by the City.*

Additionally, construction workers involved in demolition activities could come into contact with fixtures containing PCBs associated with utility poles or other hazardous materials. In addition to direct human contact or ingestion, improper removal of these substances could result in accidental releases that could contaminate soil or result in improper disposal. PCBs are regulated under the federal *Toxic Substances Control Act*. In California, PCB-containing materials must be disposed of as hazardous waste. Other waste materials containing hazardous substances must also be properly characterized and disposed of, as would be required by implementation of MM 4.6-2(g).

*MM 4.6-2(g) Prior to issuance of a rough grading permit, a Registered Environmental Assessor shall perform a site inspection to identify the potential for presence of PCBs on the site. If the potential for PCBs exists, then the Applicant shall, in consultation with the City of Huntington Beach, sample soil surrounding the affected areas to identify the extent of contamination. If contamination is identified, it shall be remediated in accordance with MM 4.6-2(d) and MM 4.6-2(f).*

Implementation of MM 4.6-2(a) through MM 4.6-2(g) would reduce all potentially significant effects associated with the exposure of hazardous materials through project construction activities to a **less-than-significant** level by ensuring remediation of contaminated soils or structures containing hazardous materials prior to development of the proposed project and by providing supplemental procedures in the event of unanticipated discoveries of contaminants.

### **Operational Effects**

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

As discussed previously in Impact 4.6-1, the proposed project would include the use of and storage of typical residential hazardous materials. The properties and health effects of different chemicals are unique to each chemical and depend on the extent to which an individual is exposed. The extent and exposure of individuals to hazardous materials would be limited by the relatively small quantities of these materials that would be stored and used on the project site. As household-type maintenance products and chemicals would be consumed by use and with adherence to warning labels and storage

recommendations from the individual manufacturers, these hazardous materials would not pose any greater risk than at any other residential development.

With implementation of the proposed project, hazardous materials would be stored within the project site area, but the materials would generally be in the form of routinely used household 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 household chemicals anticipated to be used in residential uses at the site.

The site is also within a designated methane gas overlay district, as discussed previously. In addition, similar to the issue of methane, the City has identified comparable developments in the project area which have resulted in hydrogen sulfide gas accumulation under large compacted soil sites (Bogart 2005). As implementation of the proposed development would require soil compaction, operation of the proposed project could result in an accumulation of gas (either methane or hydrogen sulfide) that could be trapped beneath the soil, which would result in a potentially significant hazard to the public. 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. Although the City does not have adopted measures for measuring hydrogen sulfide, implementation of the following mitigation measure would also be required to address the potential for hydrogen sulfide gas accumulation in order to reduce this impact to a less-than-significant level.

*MM 4.6-2(h) Prior to the issuance of grading permits and during construction, the project shall comply with all provisions of the HBMC Section 17.04.085 and HBFD City Specification 429, Methane District Building Permit Requirements. A plan for the testing of soils for the presence of methane and hydrogen sulfide gases shall be prepared. If necessary, measures to reduce levels of gases to within levels determined acceptable by the HBFD (such as vent systems) shall be implemented, if required by the HBFD.*

Implementation of MM 4.6-2(h) would reduce all potentially significant effects associated with the accumulation of hazardous gases resulting from operation of the proposed project to a **less-than-significant** level by ensuring appropriate testing and methods of gas reduction, as required by the HBFD.

#### 4.6.4 Cumulative Impacts

This cumulative impact analysis considers development of the proposed project, in conjunction with other development in the City, as discussed in Table 3-5 (Cumulative Projects) in Chapter 3 (Project Description). Risks associated with hazardous materials are largely site specific and localized, and are thus limited to the project site.

Although each development site has potentially unique hazardous materials considerations, it is expected that future growth within the City will generally comply with the range of federal, state, and local statutes and regulations applicable to hazardous materials, and will be subject to existing and future programs of enforcement by the appropriate regulatory agencies. For these reasons, cumulative impacts resulting from

the use, transport, and disposal of hazardous materials, would be less than significant. Consequently, the proposed project's cumulative impact associated with the transport, use, or disposal of hazardous materials would be *less than significant*.

Related development in the City and surrounding area could result in development on land 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 presence of lead-based paints and asbestos-containing materials in existing facilities could occur. However, projects would be required to comply with applicable federal, state, and local regulations. Adherence to applicable regulations and guidelines pertaining to abatement of, and protection from, exposure to oil, pesticides, asbestos, lead, and other hazardous materials would ensure that cumulative impacts from those activities would be less than significant. Site-specific investigations would be conducted at sites where contaminated soils could occur to minimize the exposure of workers to hazardous substances. Additionally, because the proposed project would also be required to comply with applicable statutes and regulations, which would ensure that the project would not result in significant public hazards as a result of the accidental release of hazardous materials, the project's contribution would not be cumulatively considerable and the cumulative impact of the project would be *less than significant*.

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

#### 4.6.5 References

- Bogart, Steven. 2005. Verbal communication with Public Works Engineer, City of Huntington Beach, 5 October.
- California Regional Water Quality Control Board (CRWQCB)—Santa Ana Region. 2001a. *Administrative Civil Liability Complain No. 01-111*, 7 November.
- . 2001b. *Final Comments on Workplan for Phase II Characterization Activities at the Cenco Huntington Beach Marine Terminal, 21471 Newland Street, Huntington Beach, CA*, 22 February.
- . 2002. *Health Risk Assessment, Cenco Huntington Beach Marine Terminal, 21471 Newland Street, Huntington Beach, CA*, 19 June.

- . 2004. *No Further Action at Cenco/Goldenwest Refining Company, Huntington Beach Pipeline Terminal, 21471 Newland Street, Huntington Beach, CA 92646*, 24 June.
- Engberg, Eric. 2005. Telephone communication by EIP Associates with Fire Marshall, City of Huntington Beach, November.
- Huntington Beach Fire Department (HBFD). 2004. *No Further Action at Cenco/Goldenwest Refining Company, Huntington Beach Pipeline Terminal, 21471 Newland Street, Huntington Beach, CA 92646*, 27 July.
- Illinois Department of Public Health. 2005. Environmental Fact Sheet—Hydrogen Sulfide Gas. Website: <http://www.idph.state.il.us/envhealth/factsheets/hydrogensulfide.htm>, accessed 14 October 2005.
- Targhee, Inc. 2002. *Remedial Action Plan—Mills Land & Water Company, Huntington Beach Property, Golden West Refining Company, Huntington Beach Pipeline Terminal, 21471 Newland Street, Huntington Beach, CA*, 3 September.
- . 2003a. *Corrective Action Report, Former Waste-Oil Tank...Goldenwest Refining Company, Huntington Beach Pipeline Terminal*, 21 April.
- . 2003b. *Phase I Environmental Site Assessment Report, Volume I of II, Huntington Beach Property, Huntington Beach Parcels, Huntington Beach, CA 92646 [Parcel 7—APN 148-011-07]*, 29 April.
- . 2004. *Former Dry Well Groundwater Investigation Report...Goldenwest Refining Company, Huntington Beach Pipeline Terminal*, 31 March.
- U.S. Department of Health and Human Services, under a cooperative agreement with the Agency for Toxic Substances and Disease Registry. 2003. *Petitioned Health Consultation, Cenco Property (aka Cenco Tank Farm), Huntington Beach, Orange County, CA*, 25 March.