

## **IV. Environmental Impact Analysis**

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### **F. Hazards and Hazardous Materials**

#### **1. Introduction**

This section of the Draft EIR provides an analysis of the Project's potential impacts with regard to hazards and hazardous materials. The analysis is based in part on the *Phase I Environmental Site Assessment* (Phase I ESA) prepared for the Project Site by Northgate Environmental Management, Inc. and dated March 8, 2016, and the *Phase II Environmental Site Assessment* (Phase II ESA) also prepared for the Project Site by Northgate Environmental Management, Inc., and dated May 3, 2016. These documents are included in Appendix J and Appendix K of this Draft EIR, respectively.

#### **2. Environmental Setting**

##### **a. Regulatory Framework**

There are several federal, state, regional, and local regulations that govern the generation, handling, use, storage, and disposal of hazards and hazardous materials. These regulations are complex and have varying degrees of overlap. They address a myriad of aspects associated with hazards and hazardous waste, including: (1) the use, storage, and management of hazardous materials; (2) the generation, handling, and disposal of hazardous waste; (3) underground storage tanks; (4) aboveground storage tanks; (5) asbestos; (6) lead-based paint; (7) polychlorinated biphenyl; (8) oil wells; and (9) oil field-related activities and methane gas. Each of these categories and relevant regulations governing them are discussed below.

##### **(1) Hazardous Materials Use, Storage, and Management**

###### ***(a) Emergency Response and Community Right-to-Know Act (Superfund Amendments and Reauthorization Act, Title III)***

In 1986, Congress adopted the Emergency Planning and Community Right-to-Know Act (42 United States Code Sections 11001–11050) as Title III of the federal Superfund Amendments and Reauthorization Act. This Act establishes reporting and planning requirements for businesses that handle or store specified hazardous materials. These reports and plans provide federal, state, and local emergency planning and response

agencies with information about the amounts of potentially hazardous materials that businesses use, release, and/or spill. They also provide the public with information about potential hazards in their communities.

In California, many of the requirements of the Emergency Planning and Community Right-to-Know Act overlap with regulations adopted under the State's Waters Bill and La Follette Bill, both of which are discussed below. The Emergency Planning and Community Right-to-Know Act consists of four separate programs that include requirements for planning for emergency response; requirements for reporting leaks and spills; requirements for reporting hazardous materials inventories; and annual reporting of total releases of specified "toxic chemicals."

*(b) Waters Bill*

Businesses in California that handle hazardous materials are required to comply with California's Hazardous Materials Release Response Plans and Inventory Law (Assembly Bill [AB] 2185; Health and Safety Code Section 25500 *et seq.*), also known as the Waters Bill. Basic requirements of hazardous materials planning under the Waters Bill include the development of detailed inventories of the hazardous materials used and stored on-site, a program of employee training for hazardous materials release response, and the identification of emergency contacts and response procedures. Any facility that meets minimum thresholds for established categories of waste must comply with the reporting requirements and file a business emergency plan with the local administering agency. The local administering agency within the Project area is the Long Beach Fire Department (LBFD). The LBFD refers to the required business emergency plan as a Hazardous Materials Emergency Business Plan. The Hazardous Materials Emergency Business Plan must include a complete inventory of all hazardous materials used and stored at a site in quantities above the associated thresholds and a program of employee training for hazardous materials releases.

*(c) Unified Hazardous Waste and Hazardous Materials Management  
Regulatory Program*

In 1994, Senate Bill (SB) 1082 established the Unified Hazardous Waste and Hazardous Materials Management Regulatory Program. The Long Beach Certified Unified Program Agency (CUPA) is designed to consolidate and administer hazardous material permits, inspections, and enforcement activities throughout the City's jurisdiction. Oversight of the Long Beach CUPA is shared by the LBFD and the Long Beach Health Department.<sup>1</sup>

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<sup>1</sup> Long Beach Fire Department, Long Beach CUPA, [www.longbeach.gov/fire/fire-prevention/cupa/](http://www.longbeach.gov/fire/fire-prevention/cupa/), accessed March 23, 2017.

The Unified Hazardous Waste and Hazardous Materials Management Regulatory Program consolidates and coordinates the six state programs that regulate business and industry use, storage, handling, and disposal of hazardous materials and hazardous wastes. The CUPA requirements include submittal of the following: Business Information Form; Hazardous Materials System BP-8 Computer Listing of Inventory Submitted; Annual Inventory Update Form; and Regulated Substance Registration Form.

*(d) La Follette Bill*

The La Follette Bill (AB 3777; Health and Safety Code Sections 25531 *et seq.*) requires risk planning and accident prevention provisions for facilities that use or store Acutely Hazardous Materials. Acutely Hazardous Materials (known as Extremely Hazardous Substances under the Emergency Planning and Community Right-to-Know Act) are defined as any chemical designated as an extremely hazardous substance in the Code of Federal Regulations, Title 40, Part 355 (40 Code of Federal Regulations 355), Appendix A. Under the La Follette Bill, facilities that store or utilize certain types and quantities of hazardous materials at or above the thresholds defined by the bill may be required to develop Risk Management Plans. Risk Management Plans require management, engineering, and safety studies, as well as the construction of physical improvements, if warranted, designed to minimize the potential for hazardous materials accidents and, if an accident does occur, to minimize the impacts of such an event. Risk Management Plans are process-specific rather than project-specific. As such, they focus on the use of hazardous materials in various operations. Quantity thresholds as defined under the bill vary for different hazardous constituents. The La Follette Bill requires that Risk Management Plans be updated every three years for continuing operations or whenever the process changes to the extent that the current Risk Management Plan does not reflect the revised process.

The State Office of Emergency Services has delegated authority to local agencies to administer the Waters and La Follette Bills. In the City of Long Beach (City), the LBFD issues permits for hazardous materials handling (in accordance with the La Follette Bill), enforces AB 2185 (per the Waters Bill), and administers the applicable sections of the Long Beach Fire Code, including Chapter 8.86 (Hazardous Materials Release Response Plans and Inventory). As the administering agency, the City of Long Beach requires that Risk Management Plans be filed with the Long Beach Division of Environmental Health and with the LBFD. The LBFD administers the requirements of these bills through a combination of Fire Department inspections, plan checks, disclosure requirements associated with Hazardous Materials Business Plans, and requirements for the preparation and filing of Risk Management Plans. Any business handling hazardous materials (as defined in Section 25500 of California Health and Safety Code, Division 20, Chapter 6.95) is required to obtain a local fire department permit and register the business as a hazardous materials handler.

*(e) Federal and California Occupational Safety and Health Acts*

The federal Occupational Safety and Health Act of 1970, as amended, which is implemented by the Occupational Safety and Health Administration (OSHA) (29 United States Code, Sections 651–678) also contains provisions with respect to hazardous materials management. Federal Occupational Safety and Health Act requirements, set forth in 29 Code of Federal Regulations Section 1910 *et seq.*, are designed to promote worker safety, worker training, and worker right-to-know policies. A major component of the federal regulations is the requirement that employers implement the Occupational Safety and Health Act Hazard Communication Standard to provide information to employees about the existence and potential risks of exposures to hazardous substances in the workplace. As part of the Hazard Communication Standard, employers must obtain material safety data sheets from chemical manufacturers that identify the types and handling requirements used in given areas and make this data available to their employees; label chemical containers in the workplace; develop and maintain a written hazard communication program; and develop and implement programs to train employees about hazardous materials. Employers are also required to train a team of employees to appropriate federal Occupational Safety and Health Act-defined levels, to respond to accidental releases of hazardous materials, and, as appropriate, to retain on-call contractors to perform hazardous materials accidental release responses (per 29 Code of Federal Regulations 1910.120, Hazardous Waste Operations and Emergency Response Standards).

Since the State of California has a state plan with provisions at least as stringent as those required by the federal OSHA, the United States Department of Labor has delegated the authority to administer the Occupational Safety and Health Act regulations to the State. The California Occupational Safety and Health Act program (codified in California Code of Regulations, Title 8, and in the Labor Code Sections 6300–6719) is administered and enforced by the Division of Occupational Safety and Health (DOSH, but better known as Cal/OSHA), a unit of California’s Department of Industrial Relations.

The state Act is similar to the federal program, but in addition to the provisions identified above, it requires employers to implement a comprehensive, written Injury and Illness Prevention Program. This employee safety program covers the full range of potential workplace hazards, including those associated with hazardous materials.

*(f) Uniform Fire Code*

The Uniform Fire Code regulates the types, configuration, and quantities of hazardous materials that can be stored within structures. The Uniform Fire Code also regulates the storage of hazardous materials (e.g., storage tanks) in outdoor areas. These regulations are implemented by the LBFD through regular inspections of on-site operations

and through issuance of notices of violation in cases where storage facilities do not meet code requirements. In addition to regulations governing hazardous materials handling, there are reporting requirements associated with a hazardous materials release. These reporting provisions require, in some instances, notification of the local CUPA, the State Office of Emergency Services, and National Response Center, if warranted.

*(g) City of Long Beach Municipal Code*

Title 8, Health and Safety, of the Long Beach Municipal Code (LBMC) addresses codes and measures regarding hazardous materials. Chapter 8.85 (Underground and Aboveground Storage Tanks) designates the City to prevent injury or damage to businesses or property due to air pollution. Chapter 8.86 (Hazardous Materials Release Responses Plans and Inventory) designates the Long Beach CUPA as the local authority for underground and aboveground storage tank compliance. Chapter 8.87 (Hazardous Waste Control) designates the Long Beach CUPA as the local authority to enforce California Health and Safety Code Division 20, Chapter 6.5. Chapter 8.88 (Hazardous Materials Clean-Up) requires site characterization, site remediation, and initial and final reports for contaminated sites in accordance with state and local laws and regulations.

*(h) City of Long Beach General Plan Public Safety Element*

The City's General Plan Public Safety Element was adopted in May 1975 and includes policy guidelines related to the City's safety goals, fire protection, geologic hazards, crime prevention, utilities, industrial/transportation, disaster operations, and risk management, and also includes program and ordinance recommendations. The fire protection section of the Public Safety Element presents established fire demand zones determined on the basis of hazards, station locations, manpower, and equipment. Specific fire hazardous land uses are delineated, and fire protection measures are recommended. Through the City's Department of Emergency Preparedness, elaborate provisions for disaster operations have been established where manpower, communications, evacuation, community resources, and safety for citizens are discussed and reviewed. The Risk Management section of the Public Safety Element discusses factors related to risk management and the process of establishing levels of acceptable risk regarding a variety of potential hazards, including oil storage tanks and tank rupture. The Public Safety Element is a planning document that primarily addresses hazards that could affect large segments of the population and does not include specific regulatory requirements.

## (2) Hazardous Waste Generation, Handling, and Disposal

### (a) *Federal Resource Conservation and Recovery Act and California Hazardous Waste Control Law*

The federal Resource Conservation and Recovery Act (RCRA) (42 United States Code Sections 6901–6992k) regulates the generation, transportation, treatment, storage, and disposal of hazardous waste. Under RCRA regulations, hazardous wastes must be tracked from the time of generation to the point of disposal. The RCRA program also establishes standards for hazardous waste treatment, storage, and disposal units, which are intended to manage hazardous wastes in a manner that minimizes present and future threats to the environment and human health. At a minimum, each generator of hazardous waste must register and obtain a hazardous waste activity identification number. If hazardous wastes are stored for more than 90 days or treated or disposed of at a facility, any treatment, storage, or disposal unit must be permitted under RCRA.

RCRA classifies users that generate greater than 1,000 kilograms (approximately 2,205 pounds) per month of non-acutely hazardous waste as “large quantity generators.” Large quantity generators are subject to the life cycle hazardous waste management requirements of RCRA. RCRA requires large quantity generators to maintain inspection logs of hazardous storage locations, records of the quantity of hazardous waste being generated and stored on-site, manifests of pick-ups of these wastes from the site by licensed hazardous waste transporters, and records from the licensed treatment/storage/disposal facilities which receive and ultimately treat or dispose of the waste.

RCRA allows individual states to develop their own programs for the regulation of hazardous waste as long as they are at least as stringent as the federal act. The State of California has developed the California Hazardous Waste Control Law (Health and Safety Code Section 25100 *et seq.*; 22 California Code of Regulations Section 66260.1 *et seq.*), which is modeled closely after RCRA. However, unlike RCRA, the Hazardous Waste Control Law does not recognize a threshold below which generators are exempt from some or all of the Hazardous Waste Control Law requirements.

The United States Environmental Protection Agency (USEPA) has delegated state-wide RCRA enforcement to the State of California. Primary authority for the statewide administration and enforcement of Hazardous Waste Control Law rests with the California Environmental Protection Agency’s (CalEPA) Department of Toxic Substances Control (DTSC). The DTSC has delegated to local agencies the authority to inspect and regulate hazardous waste generators. As previously indicated, the LBFD is a CUPA under the Unified Program, as described above.

Both RCRA and the Hazardous Waste Control Law require businesses to prepare biennial hazardous waste reports that identify the nature and quantity of each type of hazardous waste generated and the treatment, disposal method, and facilities used for each waste (40 Code of Federal Regulations 262.41(a) and 22 California Code of Regulations 66262.41). These reports must be submitted to the DTSC.

*(b) Federal and California Occupational Safety and Health Acts*

The federal OSHA and Cal/OSHA regulations also contain worker safety provisions with respect to routine hazardous waste management operations and emergency responses involving hazardous wastes. The provisions are included in the Hazardous Waste Operations and Emergency Response Standard (29 United States Code 651 *et seq.*; 29 Code of Federal Regulations 1910.120; 40 Code of Federal Regulations 311), which requires a written health and safety program, worker training, emergency response training, medical surveillance, and measures to reduce worker exposure to hazardous waste.

*(c) Uniform Fire Code*

The Uniform Fire Code regulates hazardous waste storage facilities through regular site inspections by the LBFD and through the issuance of notices of violations and subsequent code enforcement in cases where storage facilities do not meet code requirements.

### (3) Underground Storage Tanks

*(a) Resource Conservation and Recovery Act, Subtitle I*

In 1984, Congress adopted a national underground storage tank (UST) regulatory program (42 United States Code 6991 *et seq.*), commonly referred to as RCRA Subtitle I. Regulations implementing this program are found at 40 Code of Federal Regulations 280. Subtitle I authorized the USEPA to issue regulations establishing minimum standards for new and existing (those installed after December 22, 1988) USTs. The program outlines strict standards for upgrading existing USTs and associated piping; installing new USTs; corrosion protection for USTs and associated piping; spill and overfill protection; leak detection, reporting of releases, and corrective actions; on-site practices and record keeping; UST closure standards; and financial responsibility requirements for owner and operators of USTs. After 1998, all nonconforming tanks were required to be upgraded or closed.

(b) *California Code of Regulations and California Health and Safety Code*

Prior to the adoption of the federal UST regulatory program, in 1983 the State of California initiated the regulation of USTs storing hazardous substances. California has since further defined the federal laws and regulations related to the UST program. California Health and Safety Code, Division 20, Chapter 6.7, governs the UST program, and the California Code of Regulations Title 23, Division 3, Chapter 16 and Chapter 18 regulates the program. The State's UST program regulates various elements including registration of USTs; permitting of USTs; establishment of UST construction and operational standards; installation of leak detection systems and/or monitoring of USTs for leakage; establishment of UST closure requirements; licensing of UST contractors; establishment of financial responsibility requirements; release reporting and corrective action; and enforcement.

The State's UST program has been amended frequently to incorporate the federal requirements. As with the federal standards, the State's UST program required that all tanks have leak detection, corrosion protection, and spill and overflow devices by December 1998. USTs that did not meet the 1998 requirements were required to be immediately retrofitted or removed. One notable difference between the federal and state regulations is that under the State's UST program, the demarcation date between "existing" and "new" USTs is January 1, 1984 (as opposed to December 22, 1988).

The State Water Resources Control Board (SWRCB) oversees the statewide UST program (23 California Code of Regulations Section 2610 *et seq.*). The administration of the UST regulatory and permit program is performed by local agencies. In the City of Long Beach, the administration of the UST program is under the jurisdiction of the LBFD. The responsibility for oversight of leaking USTs (LUSTs) lies with the California Regional Water Quality Control Board—Los Angeles Region (LARWQCB). The City of Long Beach's UST regulations are contained in LBMC Chapter 18.48, also known as the Long Beach Fire Code.

#### (4) Aboveground Storage Tanks

In 1989, California established the Aboveground Petroleum Storage Act instituting a regulatory program covering aboveground storage tanks (ASTs) containing specified petroleum products (Health and Safety Code Sections 25270–25270.13). The Aboveground Petroleum Storage Act applies to facilities that have a storage capacity of 10,000 gallons or more or are subject to oil pollution prevention and response requirements under 40 Code of Federal Regulations Part 112 of the Clean Water Act. Oil pollution prevention requirements must be met if the facility has a cumulative aboveground oil storage capacity of 1,320 gallons or more and may reasonably be expected to discharge oil in harmful quantities into navigable waters. DTSC regulations may apply if ASTs

contain hazardous waste and are stored longer than 90, 180, or 270 days (depending on other criteria).

Under the Aboveground Petroleum Storage Act, each owner or operator of a regulated AST facility must file biennially a storage statement with the SWRCB disclosing the name and address of the AST facility; the contact person for the facility; and the location, size, age, and contents of each AST that exceeds 10,000 gallons in capacity and that holds materials that are at least five percent petroleum. In addition, each owner or operator of a regulated AST must prepare a Spill Prevention Control and Countermeasure Plan in accordance with federal and state requirements (40 Code of Federal Regulations 112 and Health and Safety Code Section 25270.5[c]). The intent of this plan is to minimize the potential for accidental release of oil or petroleum products into or upon the navigable waters of the United States or adjoining shoreline. Compliance is required for facilities that have a total aboveground oil storage capacity in excess of 1,320 gallons or a total UST oil storage capacity in excess of 42,000 gallons (unless the USTs are subject to all the technical requirements of 40 Code of Federal Regulations 280 or a state program approved under requirements of 40 Code of Federal Regulations 281).

Groundwater monitoring also may be required if the tank exterior surface, connecting piping, and the floor directly beneath the tank cannot all be monitored by direct viewing. Notification to the state Office of Emergency Services is required immediately upon discovery of any spill or release of 42 gallons or more of petroleum (per Health and Safety Code Section 25270.8). Currently, the responsibility for inspecting ASTs and ensuring that Spill Prevention Control and Countermeasure Plans have been prepared lies with the RWCQBs.

## (5) Asbestos

### *(a) Toxic Substances Control Act*

In 1976, the federal Toxic Substances Control Act (TSCA) (15 United States Code Sections 2601–2671) established an evaluation system to identify chemicals that may pose hazards. TSCA also established a process by which public exposure to hazards may be reduced through manufacturing, distribution, use, and disposal restrictions or labeling of products. Under TSCA, the USEPA has enacted strict requirements on the use, handling, and disposal of asbestos-containing materials (ACMs). These regulations include the phasing out of friable asbestos and ACMs in new construction materials beginning in 1979 (per 40 Code of Federal Regulations 763).<sup>2</sup> In addition, due to potential adverse health

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<sup>2</sup> *Friable asbestos is asbestos that when dry can be crumbled, pulverized, or reduced to powder by hand pressure.*

effects in exposed persons, in 1989 the USEPA banned most uses of asbestos in the country. Although most of the ban was overturned in 1991, the current banned product categories include corrugated paper, roll board, commercial paper, specialty paper, flooring felt, and any new uses. TSCA is enforced by the USEPA through inspections of places in which ACMs are manufactured, processed, and stored and through the assessment of administrative and civil penalties and fines, as well as injunctions against violators.

*(b) Federal Resource Conservation and Recovery Act and State Hazardous Waste Control Law*

Under the federal RCRA, asbestos is not regulated as hazardous waste, but under the State Hazardous Waste Control Law, it is considered a “non-Resource Conservation and Recovery Act” or “California-only” hazardous waste. The DTSC classifies ACMs as hazardous waste if they are friable and contain 1 percent or more asbestos (California Code of Regulations, Title 22, Section 66261.24). Non-friable bulk asbestos-containing waste is considered by the DTSC as nonhazardous regardless of its asbestos content, so it is not subject to regulation under California Code of Regulations, Title 22, Division 4.5. The DTSC regulates the packaging, on-site accumulation, transportation (through standards applicable to transporters of hazardous waste), and disposal of asbestos when it is considered a hazardous waste.

*(c) Federal and California Occupational Safety and Health Acts*

The federal and state OSHA regulate asbestos as it relates to employee safety through a set of general notification requirements and corrective actions to reduce potential exposure levels. The federal OSHA Worker Exposure Rule for Asbestos (29 Code of Federal Regulations 1910.1001 and 1926.1101) requires certain actions on the part of any employer whose employees are potentially exposed to asbestos fiber levels above the permissible exposure limit (0.2 fiber per cubic centimeter of air, averaged over an 8-hour day). These actions include corrective measures to reduce exposure levels; notification of employees (including warning signs and labels); controlled access; use of protective equipment; implementation of engineering and housekeeping controls; and employee training programs.

OSHA has established an action level for workplace exposure as well. If an employee could be exposed above the action level, employers must begin compliance activities such as notification, employee training, air monitoring and, in some cases, medical surveillance. In buildings that contain ACMs at levels below OSHA exposure standards, the USEPA still recommends that building owners inform building occupants of the presence and location of ACMs. In addition to these regulations, contractors involved in asbestos surveys and removal are required to be certified by OSHA.

*(d) Connelly Act*

The Connelly Act (AB 3713; Health and Safety Code Section 25915 *et seq.*) establishes notification requirements for all owners and employees working within any pre-1979 building known to contain ACMs. The notification requirements of the Connelly Act are enforced by Cal/OSHA.

*(e) National Emission Standards for Hazardous Air Pollutants*

The USEPA has established National Emission Standards for Hazardous Air Pollutants (NESHAP) (40 Code of Federal Regulations 61 Part M) that govern the use, removal, and disposal of ACMs as a hazardous air pollutant. NESHAP regulations concern the manufacture, spraying, and fabricating of ACMs, as well as its application, removal, and disposal. NESHAP regulations mandate the removal of friable ACMs before a building is demolished and include notification requirements prior to demolition. The regulations also mandate removal techniques, limit visible emissions of dust to the outside air during removal or renovation, specify disposal procedures, and include provisions governing the packaging and labeling of asbestos wastes. NESHAP regulations are promulgated and enforced by the USEPA. Responsibility for implementing these requirements has been delegated to the State of California, which in turn has delegated the responsibility to the South Coast Air Quality Management District (SCAQMD). The SCAQMD implements NESHAP through its Rule 1403, discussed below.

*(f) South Coast Air Quality Management District Rule 1403*

SCAQMD Rule 1403, Asbestos Emissions from Renovation/Demolition Activities, regulates asbestos as a toxic material and controls the emissions of asbestos from demolition and renovation activities by specifying agency notifications, appropriate removal procedures, and handling and clean up procedures. Rule 1403 applies to owners and operators involved in the demolition or renovation of structures with ACMs, asbestos storage facilities, and waste disposal sites. Pursuant to Rule 1403, owners and operators are required to survey structures for ACMs; notify the appropriate agencies of the intent to remove asbestos; follow applicable removal procedures and time schedules; adhere to handling, clean-up, storage, and disposal requirements; and maintain proper records regarding the removal of asbestos.

## (6) Lead-Based Paint

*(a) Residential Lead-Based Paint Reduction Act, Title X*

Lead exposure is regulated by various agencies at the federal and state levels. The Consumer Products Safety Commission specified limits on lead content in products such as corrosion inhibitors, pigments, and dyeing agents in 1972. The USEPA has been

mandated to protect building occupants from the hazards associated with lead-based paint as described in Title X, the Residential Lead-Based Paint Reduction Act of 1992 (of the Housing and Community Development Act of 1992). Title X amends TSCA, Title IV (Lead Exposure Reduction) and contains all the USEPA mandates for targeting housing owner and occupant notification and the regulation of lead-based paint activities occurring in targeted housing. Under TSCA Section 402(a)(1), the USEPA is developing new disposal standards for lead-based paint wastes.

At present, RCRA and state regulations generally apply to the disposal of lead but not specifically lead-based paint.

*(b) Federal and California Occupational Safety and Health Acts*

Federal OSHA requirements, set forth in 29 Code of Federal Regulations Section 1910 *et seq.*, are designed to promote worker safety, worker training, and worker right-to-know policies. Requirements include: the General Industry Respiratory Protection Standard (29 Code of Federal Regulations 1910.134) for the use of respiratory protection devices intended to control occupational diseases caused by breathing air contaminated with harmful dusts, fogs, fumes, mists, gases, smokes, sprays, or vapors; the Lead in General Industry Standard (29 Code of Federal Regulations 1910.1025), which is applicable to all occupational exposures to lead, except for lead exposures in the construction industry, to protect employees from significant lead exposures and to educate the employees on health hazards associated with lead; and the General Industry Hazard Communication Standard (29 Code of Federal Regulations 1910.1200), which applies to all employees exposed to chemical and physical hazards in the general industry sector. OSHA requirements set forth in 29 Code of Federal Regulations Section 1926 *et seq.* are designed to promote safety during construction. These requirements include: the Construction Industry Hazard Communication Standard (29 Code of Federal Regulations 1926.59), which comprehensively address the evaluation and communication of chemical and physical hazards to employees in the construction sector; and the Lead in Construction Standard (29 Code of Federal Regulations 1926.62), which addresses the demolition, salvage, removal, alternation, etc. of lead-containing materials and lead contamination/emergency clean up, transportation, disposal, storage, or containment of lead or materials containing lead on the site or location at which construction activities are performed, including maintenance activities associated with construction activities. As with 29 Code of Federal Regulations 1910.134, the Respiratory Protection in Construction Standard (29 Code of Federal Regulations 1926.103) is applicable to all employees who are required or choose to wear respiratory protection devices. The intent of the standard is to control occupational diseases caused by breathing air contaminated with harmful dusts, fogs, fumes, mists, gases, smokes, sprays, or vapors. This standard requires the establishment of a written respiratory protection program whenever employees are required or choose to wear respirators.

California Code of Regulations, Title 8, Section 1532.1 is a rule developed by OSHA in 1993 and adopted by the State of California. This rule is comparable to the federal standards described above. While this regulation has been updated several times since 1993, one important difference with the federal standard is the additional requirement to notify Cal/OSHA in writing before abating 100 square feet or more of lead-based paint. California Code of Regulations, Title 17, Division 1, Chapter 8 requires that all consultants and contractors conducting activities involving lead-based paint or lead hazards be certified. This regulation also defines lead-based paint, lead hazards, and lead clearance criteria. This regulation requires that the California Department of Health Services be notified in writing before all hazard-related testing and hazard mitigation-related abatement activities.

California Code of Regulations, Title 22, Section 66261.24 is the State's version of the requirements for testing of all waste streams prior to disposal.

### (7) Polychlorinated Biphenyls

Polychlorinated biphenyls (PCBs) can be found in older transformers and other electrical equipment. Due to their hazardous properties, all aspects of PCBs are strictly regulated by the USEPA under TSCA. These regulations ban the manufacture of PCBs, although the continued use of existing PCB-containing equipment is allowed. Transformer oil containing PCBs at a concentration exceeding five parts per million is the California-regulated concentration for hazardous waste, though PCBs in transformer oil at a concentration up to 50 parts per million are currently allowed in transformers in California. TSCA contains provisions controlling the continued use and disposal of existing PCB-containing equipment, as well as the disposal of hazardous waste building materials, and includes life cycle provisions similar to those in RCRA. In addition to TSCA, provisions relating to PCBs are contained in the California Hazardous Waste Control Law, which lists PCBs as hazardous waste.

### (8) Oil Wells and Methane Gas

In compliance with California Public Resources Code Section 3229, Division 3, before commencing any work to abandon any well, the owner or operator shall file with the California State Division of Oil, Gas and Geothermal Resources (DOGGR) a written notice of intention to abandon the well (DOGGR Form OG108). Abandonment shall not proceed until approval is given by DOGGR. If a written response to the notice of intention is not received from DOGGR within 10 working days, the proposed abandonment shall be deemed to have been approved. If abandonment operations have not commenced within one year of receipt of the notice of intention, the notice of intention shall be deemed canceled.

## b. Existing Conditions

The current and past land uses within the Project Site were identified to assess their potential to present concerns relative to the presence of hazards and/or the handling of hazardous materials. These concerns are classified as Recognized Environmental Conditions (RECs), which are defined in the American Society for Testing and Materials (ASTM) Standard E1527-13 as the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, past release, or material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. The Phase I ESA identified the following RECs in connection with the Project Site:

- The northern portion of the Project Site was previously occupied by a gasoline station and is listed by the Regional Water Quality Control Board (RWQCB) as an open LUST facility. The gas station, including USTs, product lines, and dispenser islands, was removed and demolished in 1998. Soil impacted with total petroleum hydrocarbons as gasoline (TPH-g) and benzene, toluene, ethylbenzene, and xylenes (BTEX) were discovered during soil removal activities. Numerous subsurface investigations have been conducted since the closure of the gas station, and remedial actions, including soil excavation, groundwater removal, dual-phase extraction (DPE), and air sparging (i.e., a remediation technology that removes constituents primarily through volatilization), have occurred in this area. Remediation and monitoring activities, as well as groundwater monitoring, are currently underway and subject to RWQCB oversight.
- Six plugged-abandoned soil/gas wells owned by Chevron are located on the Project Site. These wells were installed between 1927 and 1929. All but one well was abandoned between 1956 and 1959 prior to construction of the existing hotel. The remaining well was abandoned in 1973. Well reabandonment is underway and subject to DOGGR oversight.
- A gasoline service station with known leaks is located off-site, upgradient and northeast of the Project Site, directly across the intersection of Pacific Coast Highway and Second Street, at 6401 East Pacific Coast Highway. It is listed as a LUST site for a release of gasoline, benzene, and methyl-tert-butyl-ether (MTBE) to groundwater. The plume is shown to extend to the southwest, beneath Pacific Coast Highway, towards the site.

The Phase I ESA did not include an asbestos or lead-based paint survey. However, based on the age of the existing buildings on the Project Site, asbestos and lead paint are likely to be present.

Additionally, the Phase I ESA did not reveal any historic RECs. However, it did identify one potential environmental concern:

- A reported 8-inch petroleum pipeline for crude oil that was listed as in-service as of December 2011 extends beneath the Project Site on the southernmost portion of the property adjacent to Pacific Coast Highway.

## (1) Current and Historical Uses of the Project Site

### *(a) Historical Uses*

As further discussed in the Phase I ESA, based on a review of historic documents, the Project Site has been developed with a variety of land uses throughout the years. For most of the early 20th Century, the Project Site was part of an active oil field. By 1952, the majority of the oil derricks on-site had been removed, and the number of oil derricks located in the vicinity had been reduced. By 1963, the Project Site was developed with a hotel complex that included a commercial building in the northern portion of the site and the polygonal structure in the center of the site containing the hotel guestrooms and pool. By this time, the gas station mentioned above was located on the northern portion of the Project Site. As previously indicated, this gas station was demolished in 1998. Additional commercial development began to appear in the immediate vicinity by 1972, including two gas stations located north and northeast of the Project Site. By 1994, only one of these two stations remained.

### *(b) Current Uses*

The Project Site currently consists of a two-story hotel, surface parking lot, and a vacant lot that was previously occupied by the gas station. The hotel includes ballrooms and meeting spaces, a restaurant, laundry room, pool, and associated paved parking. A small temporary structure utilized as a fruit stand is currently located on the vacant lot. The remainder of the Project Site is covered by paving and landscaped areas.

## (2) Hazardous Materials Database Search

A government environmental records search was performed as part of the Phase I ESA for the Project Site. The records search included numerous government databases such as those of registered USTs, operators who are hazardous waste generators, former landfills, and sites with a known hazardous materials release. A full list of the databases searched is included in the Phase I ESA. Based on the regulatory database report, the Project Site and several surrounding properties have been identified in a number of database records as having been adversely affected by hazardous materials releases, including petroleum hydrocarbons.

The Project Site is listed at the address 6280 East Second Street on several of the databases, including the Geotracker, SWEEPS UST, CA HIST UST, CA UST, CA HIST CORTESE, and CA UST databases. The database listings indicate the presence of two 12,000-gallon USTs of motor vehicle fuel installed in 1992, a 550-gallon UST for waste oil installed in 1968, and two 10,000-gallon USTs installed in 1983 associated with the former gasoline service station. The LUST database listing indicates that the facility is open for remediation for a gasoline release impacting an aquifer used for drinking water supply. The remedial actions listed include excavation and disposal of impacted materials.

To determine the extent of on-site contamination from the former on-site gas station, a Phase II ESA was completed. Total petroleum hydrocarbons, benzene, and ethylbenzene were detected in several soil samples at concentrations that exceeded their respective screening criteria, and benzene and MTBE were identified in groundwater beneath the site of the former gas station. Benzene, ethylbenzene, and other gasoline-related volatile organic compounds (VOCs) were detected at elevated concentrations in soil samples. Remediation of this site is currently underway under the supervision of the RWQCB (Case #908030052). The goal of this remediation is to remove the gasoline contaminated soil in order to obtain regulatory closure for future land use.

Facilities within 0.25 mile upgradient and/or cross gradient with the potential to impact soil or groundwater quality on the Project Site also are listed in various databases. These listings include the Market Place Sanitary Landfill, approximately 0.018 mile east of the Project Site; the Alamitos Bay Maintenance Yard, approximately 0.02 mile west-northwest of the Project Site; and the Marina Chevron, approximately 0.023 mile north of the Project Site. The landfill is listed as open but inactive and did not accept hazardous materials. The Alamitos Bay Maintenance Yard is listed as a completed LUST site for a gasoline release to the aquifer used for drinking water. Given its cross gradient location and closed regulatory status, this facility does not appear to represent a threat to the Project Site. The Marina Chevron also is listed as a completed LUST site for a gasoline release to the aquifer used for drinking water. However, like the maintenance yard, given its cross gradient location and closed regulatory status, this facility does not appear to represent a threat to the Project Site.

The Exxon Mobil gas station at 6401 East Pacific Coast Highway, approximately 0.02 mile northeast of the Project Site, also is listed in various databases. A release of hydrocarbons was discovered at this facility in 1983 during the removal of USTs. As a result, a hydrocarbon plume was found in the groundwater at concentrations exceeding maximum contaminant levels. Groundwater monitoring wells were installed between 1983 and 1996. Remediation and groundwater sampling continue at the facility. In March 2014, groundwater sampling revealed that concentrations of TPH-g, benzene, and MTBE were extending towards the southwest, across Pacific Coast Highway towards the Project Site.

Given this facility's close proximity to the Project Site, its upgradient location, and the mapped contaminant plume in the direction of the Project Site, this facility is a potential concern for soil, soil vapor, and groundwater quality at the Project Site.

### (3) Hazardous Materials Use and Storage

Currently, operations within the Project Site involve the use of limited quantities of potentially hazardous materials typical of those used on commercial and hotel properties. A chemical storage area on-site was observed to contain glass cleaners, soap, degreasers, and other household cleaning chemicals. A maintenance storage room located near this area was observed to contain several five-gallon buckets of paint and primers, maintenance tools, pesticides, and other general maintenance supplies. A total of ten 55-gallon drums listed to contain non-hazardous sludge and soil cuttings were observed on-site during Phase I ESA site reconnaissance, however these were associated with a geotechnical investigation conducted in February 2016 and were removed following completion of that investigation. Three oil-filled transformers were observed on-site within a fenced enclosure. The transformers are owned and maintained by Southern California Edison (SCE) and are likely non-PCB containing. No evidence of staining, spills, leaks, chemical storage, or releases was observed during site reconnaissance.

### (4) Hazardous Waste Generation, Handling, and Disposal

As described above, small amounts of chemicals for commercial purposes and maintenance are currently used within the Project Site. The hazardous wastes associated with the use of these chemicals are removed from the Project Site by a licensed contractor and managed at licensed waste treatment, disposal, or recycling facilities that are permitted to receive the applicable waste.

### (5) Underground and Aboveground Storage Tanks

As discussed above, the Project Site is listed in multiple databases associated with former USTs. The database listings indicate the presence of two 12,000-gallon USTs of motor vehicle fuel installed in 1992, a 550-gallon UST for waste oil installed in 1968, and two 10,000-gallon USTs installed in 1983 associated with the former gasoline service station. The LUST database indicates the Project Site is open for remediation, and the results of the Phase II ESA indicate elevated concentrations of petroleum hydrocarbons, benzene, and ethylbenzene are still present in on-site soils as a result of this case. The Phase II ESA also identified benzene and MBTE in groundwater beneath the Project Site in excess of state drinking water standards. As noted above, this case is currently undergoing remediation under the supervision of the RWQCB. No evidence of current USTs or ASTs beyond the 55-gallon drums discussed above were noted in the Phase I ESA.

## (6) Asbestos-Containing Materials

Asbestos is a naturally occurring mineral made up of microscopic fibers. Asbestos has unique qualities which include its strength, fire resistance, resistance to chemical corrosion, poor conduction of heat, noise, and electricity, and low cost. Asbestos was widely used in the building industry starting in the late 1800s and up until the late 1970s for a variety of uses, including acoustic and thermal insulation and fireproofing, and is often found in ceiling and floor tiles, linoleum, pipes, structural beams, and asphalt. Despite its useful qualities, asbestos becomes a hazard if the fibers separate and become airborne. Inhalation of airborne asbestos fibers could cause lung diseases. The use of friable asbestos and asbestos-containing materials in new construction materials was banned by the USEPA in 1979. However, any building, structure, surface asphalt driveway, or parking lot constructed prior to 1979 could contain asbestos or ACMs.

An asbestos survey was not included in the Phase I ESA, however, given the age of the buildings on-site, ACMs are likely to be present.

## (7) Lead-Based Paint

Lead is a naturally occurring element and heavy metal that was widely used as a major ingredient in most interior and exterior oil-based paints prior to 1950. Lead compounds continued to be used as corrosion inhibitors, pigments, and drying agents from the early 1950s to 1972, when the Consumer Products Safety Commission specified limits on lead content in such products. While adults can be affected by excessive exposure to lead, the primary concern is the adverse health effects on children. The most common paths of lead exposure in humans are through ingestion and inhalation. Lead-based paint is of concern both as a source of exposure and as a major contributor to lead in interior dust and exterior soil.

A lead-based paint survey was not included in the Phase I ESA, however, given the age of the buildings on-site, lead-based paint is likely to be present.

## (8) Polychlorinated Biphenyls

Typical sources of PCBs include electrical transformer cooling oils, fluorescent light fixture ballasts, and hydraulic oil. In 1976, the USEPA banned the manufacture and sale of PCB-containing transformers. Prior to this date, transformers were frequently filled with a dielectric fluid containing PCB-laden oil. By 1985, the USEPA required that commercial property owners with transformers containing more than 500 parts per million (ppm) PCBs must register the transformer with the local fire department, provide exterior labeling, and

remove combustible materials within 5 meters (per 40 Code of Federal Regulations 761.30, known as the "Fire Rule").

As noted above, three oil-filled transformers were observed on-site within a fenced enclosure. The transformers are owned and maintained by SCE and are likely non-PCB containing. Though not noted in the Phase I ESA, fluorescent light ballasts located on-site may contain PCBs unless explicitly labeled otherwise.

### (9) Abandoned On-Site Wells

Information available from DOGGR indicates there are six oil and gas wells located on the Project Site. All six wells are owned by Chevron and are listed as plugged and abandoned. Another 33 wells are located within 0.25 mile of the Project Site. However, most wells in the vicinity are listed as plugged and abandoned. Eight active wells owned and operated by Synergy Oil and Gas are located 0.2 to 0.25 mile north of and cross gradient from the Project Site. A review of the well logs for the six abandoned wells located on-site indicates they were not abandoned to current standards. While in their current state the abandoned on-site wells are considered a REC on the Project Site, the Phase II ESA did not identify soil or groundwater contamination associated with these wells. In addition, reabandonment of these wells under the supervision of DOGGR is currently underway. Upon completion, the existing on-site oil wells would not be expected to represent a hazard to the Project Site or any future land uses.

### (10) Petroleum Pipeline

As noted above, an 8-inch petroleum pipeline extends along the eastern property line of the site, adjacent to Pacific Coast Highway. The Phase II ESA included groundwater and soil vapor sampling in this area. One groundwater sample contained elevated concentrations of MTBE and tert-butylalcohol, which is a degradation product of MTBE. These substances are likely associated with gasoline, not crude oil. TPH-g was reported in all soil vapor samples collected along the pipeline. Low concentrations of aromatic compounds were also detected. TPH-g and aromatic compounds are related to the former gas station site described above. Nevertheless, based on these results, there is the potential for impacted soil in the pipeline right-of-way.

## 3. Environmental Impacts

### a. Methodology

The Phase I ESA was prepared for the Project Site to evaluate the Project's potential impacts relative to hazards and hazardous materials. The purpose of the Phase I

ESA is to identify RECs and/or potential environmental concerns in connection with the Project Site, including but not limited to the potential for on-site soil or groundwater contamination from historical on-site activities or from adjacent areas, as defined by ASTM Standard E1527-13, and to satisfy the All Appropriate Inquiry standard (40 Code of Federal Regulations Part 312) for any future property transaction. The Phase I ESA included the following services:

- Review of readily available information regarding the history of the Project Site, including historic aerial photographs, maps, previous reports, and other information and discussions with individuals familiar with the Project Site;
- Review of environmental lien documents obtained for the Project Site;
- A reconnaissance of the Project Site and its vicinity;
- Discussions with regulatory officials and review of regulatory agency publications and files, as applicable;
- A review of historic aerial photographs, city directories, and maps of the Project Site; and
- Evaluation of the RECs, development of conclusions and scope of work to evaluate potential on-site contamination concerns.

Based on the Phase I ESA, a Phase II ESA also was prepared to assess the potential presence of soil, soil vapor, and groundwater quality impacts related to the former on-site gasoline service station, the abandoned oil/gas wells, and the petroleum pipeline located on-site. The Phase II ESA included the following services:

- Site walk to mark the proposed boring locations and notification to Underground Service Alert for underground utility clearance;
- Preparing a site-specific Health and Safety Plan;
- Collecting and analyzing soil samples for a variety of potential contaminants including total petroleum hydrocarbons, carbon chain (TPH-cc), VOCs, asbestos, SVOCs, organochlorine pesticides (OCPs), and PCBs;
- Collecting and analyzing groundwater samples for VOCs and TPH-cc; and
- Collecting and analyzing soil vapor samples for VOCs and TPH-cc.

Recommendations regarding Project construction and operation are based on the results of the Phase I ESA and Phase II ESA, which are included in their entirety in Appendix J and Appendix K of this Draft EIR, respectively.

## **b. Thresholds of Significance**

Appendix G of the CEQA Guidelines provides thresholds of significance to assess if a project could have a potential significant impact on the environment associated with hazards and hazardous materials. These thresholds of significance are as follows:

Would the project:

- 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?
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?
- 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 create a significant hazard to the public or the environment?
- For a project 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, would the project result in a safety hazard for people residing or working in the project area?
- 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?
- 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?

With regard to the above questions from CEQA Guidelines Appendix G, as evaluated in the Initial Study prepared for the Project, which is included as Appendix A of this Draft EIR, the Project would result in no impacts or less than significant impacts

pertaining to hazardous emissions or hazardous materials handling within 0.25 mile of an existing or proposed school; the site's location within an airport land use plan or within the vicinity of a private airstrip; the Project's potential to impair or interfere with an adopted emergency response plan or emergency evacuation plan; and the Project's potential to expose people or structures to significant risk related to wildland fires. Based on the analysis provided in the Initial Study, no further evaluation concerning these issues is required. The analysis provided below thus focuses on impacts related to the routine transport, use, or disposal of potentially hazardous materials; the potential for reasonably foreseeable upset and accident conditions involving the release of hazardous materials; and the Project's location on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.

### **c. Project Design Features**

No specific project design features are proposed with regard to hazards and hazardous materials.

### **d. Analysis of Project Impacts**

#### **(1) Construction Impacts**

##### *(a) Hazardous Materials Use and Storage*

During Project construction activities, fuel and oils associated with construction equipment, as well as coatings, paints, adhesives, and caustic or acidic cleaners could be used, handled, and stored on the Project Site. The use, handling, and storage of these materials could increase the opportunity for hazardous materials releases and, subsequently, the exposure of people and the environment to hazardous materials. However, all potentially hazardous materials would be used and stored in accordance with manufacturers' instructions. In addition, as described in the Regulatory Framework subsection above, numerous laws and regulations establish specific guidelines regarding risk planning and accident prevention, protection from exposure to specific chemicals, and the proper storage of hazardous materials. Therefore, compliance with all applicable federal, state, and local requirements concerning the use, storage, and management of hazardous materials would effectively reduce the potential for Project construction activities to expose people to a substantial risk resulting from the release of a hazardous material or from exposure to hazardous materials in excess of regulatory standards. Therefore, impacts associated with the use, storage, and management of hazardous materials during construction would be less than significant, and no mitigation measures are required.

*(b) Hazardous Waste Generation, Handling, and Disposal*

Demolition of the existing buildings, removal of structures and construction debris, and grading of the Project Site would involve the use, handling, and disposal of hazardous materials such as fuels, paints, solvents, and concrete additives that would require proper management and, in some cases, disposal. However, Project construction would occur in compliance with all applicable federal, state, and local requirements concerning the handling and disposal of hazardous waste. With compliance with relevant regulations and requirements, Project construction activities would not expose people to a substantial risk resulting from the release of a hazardous material or from exposure to a health hazard. Therefore, impacts associated with hazardous waste management during construction would be less than significant, and no mitigation measures are required.

*(c) Soil and Groundwater Contamination*

As previously indicated, soil, soil vapor, and groundwater within portions of the Project Site have been previously impacted by the release of hazardous materials associated with past uses. More specifically, the LUST database indicates the Project Site is currently open for remediation, and the results of the Phase II ESA indicate elevated concentrations of petroleum hydrocarbons, benzene, and ethylbenzene are still present in on-site soils as a result of this case.

The site of the former gas station at 6280 East 2nd Street (on-site) is currently an open remediation site under the oversight of the RWQCB (Case #908030052). In 2009, an Interim Remedial Action Plan was prepared for the former gas service station site. Preliminary remediation activities took place between April 5 and April 7, 2011, and included excavation of gasoline contaminated soil and confirmation sampling upon removal to verify the site met cleanup criteria. The goal of these remediation activities was to remove all contaminated soil in order to obtain regulatory closure for future land use. A total of 41 pounds of impacted soil were removed from the Project Site, and subsequent groundwater sampling indicated there was a general decrease in TPH-g and MTBE. All contaminated soils removed as part of the preliminary remediation activities were transported and disposed of in accordance with applicable laws and regulations. Remediation of the site is still considered an open case with ongoing remediation, and when complete with closure certified by the RWQCB, the former gas station site is not anticipated to represent a hazard to the Project.

As described in Section II, Project Description, of this Draft EIR, an estimated 7,582 cubic yards of soil would be removed, of which an estimated 6,688 cubic yards

would be reused on-site, for a net export volume of 894 cubic yards.<sup>3</sup> Although grading and excavation of the Project Site would be limited, the potential to encounter petroleum hydrocarbon contamination could occur. Therefore, construction-related earthmoving activities could expose construction workers and the public to contaminants associated with petroleum hydrocarbons, VOCs, and soil gases from previous uses on the Project Site, the Exxon Mobil gas station located across Pacific Coast Highway, and potentially from activities associated with former oil production on-site. This could pose a hazard to the public or the environment through the release of hazardous materials into the environment and could result in a potentially significant impact. In addition, as previously discussed, groundwater and soil vapor contamination have been identified near the 8-inch petroleum pipeline along the eastern edge of the Project Site, which indicates the potential to encounter impacted soil in the pipeline right-of-way. If contaminated soil is encountered and disturbed, construction workers and the public could be exposed to potential safety and health risks during construction of the Project. As such, impacts associated with contaminated soil near the pipeline could be potentially significant.

Mitigation Measures F-1 through F-8, detailed below, require a variety of site surveys, screenings, and remediation activities to reduce potential impacts related on-site contamination to less than significant levels. Implementation of these measures would reduce potential impacts to less than significant levels.

*(d) Underground and Aboveground Storage Tanks*

There are not currently any active USTs or ASTs on-site. However, as previously discussed, multiple USTs have been located on the Project Site in the past, and the site is listed in multiple databases as a LUST site. As a result of the LUST case, various chemical compounds associated with gas stations have been identified in on-site soils, groundwater, and soil vapor. Additionally, the contamination plume from a LUST site across Pacific Coast Highway has moved in the direction of the Project Site. Refer to the discussion above regarding the potentially significant impacts related to the on- and off-site contamination associated with the LUST case. As discussed above, remediation of the on-site LUST case is currently underway.

As noted above, the Project would include limited grading, and excavation to a maximum depth of approximately 11.5 feet would be required for the proposed building foundations. These shallow excavations are not anticipated to encounter any UST or AST, and as such, impacts would be less than significant. Nonetheless, a geophysical survey of the Project Site would be conducted per Mitigation Measure F-2 to locate potential

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<sup>3</sup> *Final earthwork numbers may change based on soil conditions.*

subsurface features or anomalies, including USTs. If discovered, any existing USTs or ASTs located within the grading footprint would be properly abandoned and removed in accordance with all applicable laws and regulations, thus ensuring any potential impact would be less than significant.

*(e) Asbestos-Containing Materials*

Based on the age of the existing on-site structures, building components may contain hazardous building materials such as ACMs, which would pose an environmental risk to construction workers and the public in the event the materials are released into the environment during demolition and site clearing activities. Given the likely presence of ACMs within the Project Site, demolition could result in a potentially significant impact.

The Project would comply with all applicable federal, state, and local regulations regarding ACMs, including SCAQMD Rule 1403, which requires that ACMs be removed by a certified asbestos containment contractor in accordance with applicable regulations. Furthermore, Mitigation Measure F-9 would require a comprehensive asbestos survey prior to demolition, subject to approval by the Development Services Department. Therefore, with adherence to applicable regulations and implementation of mitigation, impacts associated with asbestos-containing materials would be reduced to a less than significant level.

*(f) Lead-Based Paint*

As discussed above, based on the age of the existing on-site structures, building components may contain hazardous building materials, such as lead-based paints, which would pose an environmental risk to construction workers and the public in the event the materials are released into the environment during demolition and site clearing activities. Any release of such hazardous materials would result in a potentially significant impact.

However, implementation of Mitigation Measure F-9 would require a comprehensive lead-based paint survey prior to demolition. In the event lead-based paint is found within areas proposed for demolition, suspect materials would be removed and disposed of in accordance with procedural requirements and regulations. Therefore, with implementation of mitigation, impacts related to lead-based paint would be reduced to a less than significant level.

*(g) Polychlorinated Biphenyls*

As described above, the three transformers located on-site are unlikely to contain PCBs. However, fluorescent light ballasts on-site may contain PCBs. Any fluorescent light ballast that do not include the statement "No PCBs" would be disposed of as PCB-

containing waste in accordance with all applicable regulations, including those contained in TSCA per the USEPA. In addition, in accordance with applicable federal, state, and local regulations, the design, construction, and maintenance of new development associated with the Project would not include features that would use or expose persons to PCBs. Therefore, impacts associated with PCBs would be less than significant, and no mitigation measures are required.

#### *(h) Abandoned On-Site Wells/Methane Gas*

As discussed above, six reported abandoned oil wells were identified at the Project Site, and previously unidentified wells also could be located on-site. Based on a review of well records, these wells do not appear to have been abandoned in accordance with current standards. However, as noted above, reabandonment of the known on-site oil wells is currently underway under the supervision of DOGGR. As such, these wells are not anticipated to represent a hazard to the Project. Other potential hazards associated with known and possible unknown oil wells include the sudden release of methane or hydrogen sulfide gas from a well that is disturbed during construction.

Mitigation Measure F-2 would require a geophysical survey to locate subsurface features or anomalies, including any previously unidentified oil wells. If previously unidentified oil wells are encountered, they would be properly abandoned in accordance with all applicable laws and regulations under the supervision of DOGGR, thus reducing any potential impact to a less than significant level.

Although no soil or groundwater contamination associated with on-site oil wells was identified during the course of the Phase II ESA, the on-site wells may have resulted in the release of hazardous materials that could be encountered during construction-related activities on the Project Site. Mitigation Measures F-1 through F-8 would reduce potential impacts associated with the release of hazardous materials during construction to less than significant levels.

## (2) Operational Impacts

### *(a) Hazardous Materials Use and Storage*

Operation of the Project would involve the limited use of potentially hazardous materials typical of those used in commercial developments, including cleaning agents, paints, pesticides, and other materials used for landscaping. All potentially hazardous materials would be used, stored, and disposed of in accordance with manufacturers' specifications and handled in compliance with applicable standards and regulations. Any risks associated with these materials would be adequately reduced to a less than significant level through compliance with these standards and regulations. Therefore, as

the Project would comply with applicable regulations and would not expose persons to substantial risk resulting from the release of hazardous materials or exposure to health hazards in excess of regulatory standards, impacts associated with the use of these hazardous substances during operation of the Project would be less than significant, and no mitigation measures are required.

*(b) Hazardous Waste Generation, Handling, and Disposal*

As discussed above, Project operation would involve the limited use of potentially hazardous materials typical of those used in commercial developments. As is the case under existing conditions, activities involving the handling and disposal of hazardous wastes on-site would occur in compliance with all applicable federal, state, and local requirements. Hazardous wastes would be properly stored and conveyed to licensed waste treatment, disposal, or recycling facilities. Therefore, with compliance with relevant regulations and requirements, operational activities would not expose people to a substantial risk resulting from the release of a hazardous material or from exposure to a health hazard. Potential impacts associated with hazardous waste generation, handling, and disposal during Project operation would be less than significant.

*(c) Soil and Groundwater Contamination*

Relative to the existing contamination on-site, a certificate of occupancy would not be issued for the Project without adequate remediation and associated site clearance by relevant regulatory agencies (e.g., the LARWQCB). Therefore, the Project could not operate without remediation of on-site contamination. However, in the event that elevated concentrations of residual VOCs persist in on-site soils post-construction, long-term vapor mitigation would be implemented prior to site occupancy to reduce soil vapor exposure to site users to acceptable levels in accordance with DTSC and CalEPA regulations. Per Mitigation Measure F-4, this could include the use of a vapor extraction system or a vapor barrier/sub slab depressurization system, depending on the level of VOCs in the soil. As such, with implementation of mitigation, potential impacts would be reduced to less than significant levels.

*(d) Underground and Aboveground Storage Tanks*

Most hazardous substances used in conjunction with Project operations would be stored in small, above ground containers and, where necessary, within appropriate enclosures, subject to relevant permitting requirements. Project plans are not anticipated to involve the construction or installation of underground storage facilities for hazardous materials. Thus, operational impacts associated with USTs and ASTs would be less than significant.

*(e) Asbestos-Containing Materials*

Development of the Project would include the use of commercially sold construction materials that would not include asbestos or asbestos-containing materials. Furthermore, any existing ACMs on the Project Site would be removed in accordance with applicable federal, state, and local regulations prior to demolition. Therefore, Project operation would not increase the occurrence of friable asbestos or ACM at the Project Site, nor would it expose people to substantial risk resulting from the release of a hazardous material or from exposure to a health hazard. Thus, operational impacts associated with asbestos-containing materials would be less than significant, and no mitigation measures are required.

*(f) Lead-Based Paint*

Development of the Project would include the use of commercially sold construction materials that would not include lead-based paint. Furthermore, as with ACMs, any existing lead-containing products currently on the Project Site would be removed and disposed of in accordance with procedural requirements during construction. Therefore, Project operation would not expose persons to lead-based paint, and, as such, would not expose people to substantial risk resulting from the release of a hazardous material or from exposure to a health hazard. Thus, impacts associated with lead-based paint during Project operation would be less than significant, and no mitigation measures are required.

*(g) Polychlorinated Biphenyls*

In accordance with existing regulations, the new electrical systems to be installed as part of the Project would not contain PCBs, and the maintenance of such electrical systems would not expose people to PCBs. In addition, the Project Applicant would comply with applicable laws regulating PCBs. As such, Project operation would not expose people to a substantial risk resulting from the release of a hazardous material or from exposure to a health hazard. Therefore, operational impacts related to PCBs would be less than significant, and no mitigation measures are required.

*(h) Abandoned On-Site Oil Wells/Methane Gas*

As noted above, reabandonment of the known on-site oil wells is currently underway under the supervision of DOGGR. Any previously unknown on-site oil wells also would be abandoned pursuant to these requirements, and if necessary, methane abatement would be developed in conjunction with DOGGR's review. Therefore, any potential impacts associated with on-site oil wells would be reduced to a less than significant level during Project construction. As such, Project operation would not expose people to a substantial risk or health hazard related to oil wells. Impacts associated with abandoned on-site oil

wells during Project operation would be less than significant, and no mitigation measures are required.

## 4. Cumulative Impacts

Construction of the Project in combination with the related projects described in Section III, Environmental Setting, of this Draft EIR, would have the potential to increase the risk for accidental releases of hazardous materials. Similar to the Project, each related project would be required to evaluate potential threats to public safety, including those associated with the generation, use, handling, storage, and/or disposal of hazardous materials, asbestos-containing materials, lead-based paint, polychlorinated biphenyls, and oil and gas. The related projects also would be required to comply with all applicable local, state, and federal laws, rules, and regulations pertaining to hazards and hazardous materials. As environmental safety issues are largely site-specific, this evaluation would occur on a case-by-case basis for each individual project. Therefore, with full compliance with all applicable local, state, and federal laws, rules and regulations, and appropriate mitigation as necessary, cumulative impacts would be less than significant.

## 5. Mitigation Measures

**Mitigation Measure F-1: Soil Management Plan.** Prior to the start of construction, the Project Applicant shall prepare a Project-specific Soil Management Plan that shall be reviewed and approved by the City of Long Beach before construction can commence. The Soil Management Plan shall incorporate, but shall not be limited to, the following: (1) Geophysical Survey; (2) Soil Vapor Survey/Health Risk Screening; (3) Soil Transportation Plan; and (4) fugitive dust control measures. The Soil Management Plan shall incorporate methodologies for detecting the various environmental concerns noted in relevant hazardous materials investigations during the construction phase of the Project. The Soil Management Plan shall include measures to address each environmental concern, if encountered, according to the applicable regulatory standards and the mitigation measures contained herein. In addition, the Soil Management Plan shall require notification and reporting, according to protocols of applicable local and state regulatory agencies, including the Department of Toxic Substances Control, the Regional Water Quality Control Board, CalRecycle, California State Division of Oil, Gas and Geothermal Resources, Long Beach Fire Department, and the City of Long Beach.

**Mitigation Measure F-2: Geophysical Survey.** Prior to subsurface disturbance and demolition activities, the Project Applicant shall conduct a geophysical survey to locate subsurface features or anomalies, if

any, that may pose an environmental concern or present a risk of upset at the Project Site. The geophysical survey shall inform the site construction and remediation activities so as to remove or avoid subsurface hazardous materials or associated facilities. The results of the geophysical survey shall be included in the Soil Management Plan, and reviewed and approved by the City of Long Beach. The geophysical survey shall:

- (1) Accurately locate and mark the oil pipeline located along the northeast border of the Project Site; and
- (2) Attempt to detect the presence of the subsurface anomalies, if any, such as underground vaults/features, buried debris, historical dump sites, previously unidentified oil wells, waste drums, or tanks.

**Mitigation Measure F-3: Soil Vapor Survey.** Prior to construction, the Project Applicant shall conduct a systematic soil vapor survey of the Project Site to investigate the possible presence of volatile organic compounds in site soils. The soil vapor survey shall be performed according to the applicable standards of the Department of Toxic Substances Control and the California Environmental Protection Agency. Soil borings shall be placed at a depth of at least five (5) feet below the deepest excavation to occur during construction and soil vapor samples shall be collected at 5 to 10 foot intervals. Soil samples shall be collected at a five (5) foot interval from the soil borings to assess the soil for heavier petroleum hydrocarbons that may be present due to past oil field use of the Project Site. The Soil Vapor Survey shall include, at a minimum, the following:

- (1) Evaluation of methane and hydrogen sulfide concentrations to a depth of at least five (5) feet below the deepest excavation to occur during site construction. These soil vapor boring shall be placed in the vicinity of any abandoned oil wells located during the geophysical survey; and
- (2) Additional soil vapor borings to test for volatile organic compounds on and in the vicinity of the land area where the former on-site gas station was located and in locations where the off-site gas station may have impacted the Project Site through lateral migration of soil vapors.

**Mitigation Measure F-4: Health Risk Screening.** At the completion of the soil vapor survey, a qualified environmental professional shall use the results of the survey to develop a health risk screening that assesses health and safety concerns associated with volatile organic compound levels at the site for construction workers and future site users. The health risk screening assessment shall be performed

according to the applicable standards of the Department of Toxic Substances Control and California Environmental Protection Agency.

In the event the health risk screening assessment indicates that elevated volatile organic compound levels in the soils pose a health risk to site users, the Project Applicant shall further define and implement additional measures to minimize soil vapor exposure to acceptable levels as established by the applicable regulatory agency. Measures to be implemented shall include, but is not limited to, the following:

- (1) During Construction: Volatile organic compound levels shall be monitored in accordance with the South Coast Air Quality Management District Rule 1166, which requires volatile organic compound monitoring of petroleum-impacted soils during construction activities. In the event volatile organic compound concentrations exceed threshold levels specified in Rule 1166, vapor suppression measures shall be required by amending soil with water or chemical foam. Volatile organic compound impacted soils shall be stockpiled and covered in accordance with Rule 1166. Rule 1166 compliance requirements shall be included in the Soil Management Plan; and
- (2) Post Construction: In the event elevated concentrations of volatile organic compounds persist in site soils post-construction, vapor mitigation shall be performed prior to site occupancy to protect future site users. Post-construction long-term vapor mitigation measures selected shall be determined based on the remaining extent of volatile organic compound concentrations and the associated health risk, if any. Mitigation measures associated with post-construction volatile organic compounds control shall include, but is not limited to, the following:
  - (i) Soil Vapor Extraction: Use of a soil vapor extraction system to remove residual volatile organic compounds from the soil. The soil vapor extraction system shall be employed to remediate soil vapor to a level considered safe for uses proposed on the Project Site; and
  - (ii) Vapor Barrier/Sub-slab Depressurization: In the event the soil vapor survey indicates extremely high volatile organic compounds present at the Project Site and results in an elevated human health risk, a vapor barrier and sub-slab depressurization system shall be designed and implemented for the proposed buildings to be constructed at the Project Site.

**Mitigation Measure F-5: Pre-Construction Removal Action.** Prior to construction, the Applicant shall perform pre-construction removal

activities, including sampling, as necessary, to characterize waste, removal action, off-site disposal of characterized waste, and confirmation sampling of removal areas. Pre-construction removal actions shall include the following:

Removal of Debris and Dirt from the Satellite Enclosure: Prior to site construction, debris and dirt located in a satellite enclosure on the southern portion of the Project Site shall be removed. Following removal, representative soil samples from the debris and dirt shall be collected for laboratory analysis to characterize the waste for off-site disposal purposes. Based on the laboratory analysis and waste characterization, the soil and debris shall be disposed of at an appropriate facility.

**Mitigation Measure F-6: Oil Sumps and Mud Pits.** In the event any suspected oil sumps, mud pits, or areas of dark stained soils are identified, these areas shall be added to the site plans included in the Soil Management Plan. The areas shall be excavated and the soil stockpiled on plastic sheeting at the Project Site. The stockpiled soil shall be sampled and laboratory-analyzed in accordance with requirements outlined in the Soil Management Plan and pursuant to the applicable Department of Toxic Substance Control guidelines. The stockpiled soil shall be characterized in accordance with the laboratory analysis and disposed of at a facility that is licensed to accept the soil based on established site action levels.

**Mitigation Measure F-7: Soil Transportation Plan.** Prior to construction, the Applicant shall develop a Soil Transportation Plan in compliance with State of California and federal Department of Transportation requirements for the safe and legal transport to an off-site disposal facility for hazardous materials that may be encountered during construction activities.

**Mitigation Measure F-8:** In accordance with SCAQMD Rule 403, the Project shall incorporate fugitive dust control measures at least as effective as the following measures:

- Use watering to control dust generation during the demolition of structures;
- Use of watering and/or street sweeping for on-site paved roads used for construction activities;
- Clean-up mud and dirt carried onto paved streets from the site;
- Install wheel washers for all exiting trucks, or wash off the tires or tracks of all trucks and equipment leaving the site;
- All haul trucks would be covered or would maintain at least six inches of freeboard;

- Suspend earthmoving operations or additional watering would be implemented to meet Rule 403 criteria if wind gusts exceed 25 mph; and
- An information sign shall be posted at the entrance to the construction site that identifies the permitted construction hours and provides a telephone number to call and receive information about the construction project or to report complaints regarding excessive fugitive dust generation. A construction relations officer shall be appointed to act as a community liaison concerning on-site activity, including investigation and resolution of issues related to fugitive dust generation.

**Mitigation Measure F-9: Asbestos and Lead-Based Paint Abatement.** Prior to demolition activities, a qualified contractor shall perform an asbestos-containing materials and lead-based paint- survey. The qualified contractor shall sufficiently abate the structure(s) to be demolished on the Project Site according to applicable and current local, state, and federal guidelines.

## 6. Level of Significance After Mitigation

The Project would result in less than significant construction-related impacts related to the use, storage, and management of hazardous materials; hazardous waste management; USTs and ASTs; and PCBs. Operational impacts also would be less than significant. However, prior to mitigation, the Project would result in potentially significant impacts related to soil and groundwater contamination, ACMs, lead-based paint, and the existing petroleum pipeline on-site. Implementation of Mitigation Measures F-1 through F-9 would reduce these impacts to less than significant levels. Mitigation Measure F-4 would also reduce the potential for residual post-construction impacts associated with contaminated soils. Therefore, impacts after mitigation would be less than significant.