



4.8 HAZARDS AND HAZARDOUS MATERIALS

<i>Would the project:</i>	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			✓	
b. 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?		✓		
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?		✓		
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?		✓		
e. 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?				✓
f. 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?				✓
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?		✓		
h. 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?				✓

a) *Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*

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

Operation of the proposed MUST facility would involve the handling/use and storage of hazardous materials (e.g., chlorine and other chemicals associated with the treatment of urban runoff). The project would be subject to compliance with existing regulations, standards, and guidelines established by the U.S. Environmental Protection Agency (EPA), State, and the City of Long Beach related to the storage, use, and disposal of hazardous materials. The project is subject to compliance with the existing hazardous materials regulations, which are codified in California Code of Regulations Titles 8, 22, and 26, and their enabling legislations set forth in Health and Safety Code Chapter 6.95 as well as California Code of Regulations Title 49. Both the Federal and State governments require any business, where the maximum quantity of a regulated substance exceeds the specified threshold quantity, register



with the City as a manager of regulated substances and prepare a Risk Management Plan. The Risk Management Plan must contain an off-site consequence analysis, a five-year accident history, an accident prevention program, an emergency response program, and a certification of the truth and accuracy of the submitted information. Businesses would be required to submit their plans to the Certified Unified Program Agency (CUPA) (City of Long Beach, Department of Environmental Health [DEH]), which would make the plans available to emergency response personnel. The Risk Management Plan must identify the type of business, location, emergency contacts, emergency procedures, mitigation plans, and chemical inventory at each location. The City of Long Beach Fire Department (acting as the CUPA as well) would be responsible for enforcing all laws and regulations pertaining to any aboveground or underground storage tanks as well.

While the risk of exposure to hazardous materials cannot be eliminated, best management practices can be implemented to reduce risk to acceptable levels. Adherence to existing regulations would ensure compliance with safety standards related to the use and storage of hazardous materials, and the safety procedures mandated by applicable Federal, State, and local laws and regulations, which would ensure that risks resulting from the routine transportation, use, storage, or disposal of hazardous materials or hazardous wastes associated with implementation of the proposed project would be less than significant.

Mitigation Measures: No mitigation is required.

- b) ***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?***

Less Than Significant Impact With Mitigation Incorporated.

Short-Term Impacts

Construction Equipment

During project construction, there is a possibility of accidental release of hazardous substances such as petroleum-based fuels or hydraulic fluid used for construction equipment. The level of risk associated with the accidental release of hazardous substances is not considered significant due to the small volume and low concentration of hazardous materials utilized during construction. The construction contractor would be required to use standard construction controls and safety procedures that would avoid and minimize the potential for accidental release of such substances into the environment. Standard construction practices would be observed such that any materials released are appropriately contained and remediated as required by local, State, and Federal law.

Contaminated Soil

Based on the State Water Resource Control Board's (SWRCB) GeoTracker online database, one on-site property (where conveyance segment 9 traverses, as depicted on Exhibit 2-3, Project Overview), specifically located at 960 De Forest Avenue, has reported a release to soil/groundwater at the project site. From approximately 1930 to 1965, this property was used for electric rail-car repair, maintenance, and inspection. In 1965, Southern Pacific Transportation Company (SPTCo) acquired the property. From 1967 to 1992, SPTCo leased the property to various entities for bulk transfer and storage of liquid petroleum and chemical products. Operators of the property during this period included:

- Gunco Chemical and Manufacturing Company, 1967-1971;
- Charter International Oil Company, 1971-1985; and
- Bulk Terminal Company, 1985-1992.



Three primary chemical storage and distribution areas were located on the property. These included the North Aboveground Storage Tank (AST) Pad, Overhead Piperack Area, and South AST Pad. The North AST Pad included the storage of different chemicals in 10 ASTs. This tank farm was constructed with a concrete and asphalt floor, divided into secondary containment with cinder-block walls. The Overhead Piperack Area was used to transfer chemicals. Ten product delivery pipes were installed and connected the Overhead Pipe Rack to the North AST Pad. Approximately 18 to 26 ASTs were installed in 1980 on a continuous concrete pad surrounded by a secondary-containment wall, referred to as the South AST Area.

Various chemical releases have been reported, including, but not limited to, the following:

- A release of approximately 18,000 gallons of xylenes from underground piping near the Overhead Piperack Area in 1979;
- A spill of unknown quantity of petroleum product known as transmix from tank No. 4 of the North AST Pad on 30 August 1990;
- A spill of approximately 50 to 100 gallons of propylene glycol methyl ether (1-methoxy-2-propanol) on 9 July 1991; and
- Releases of sulfuric acid on and near the South AST Pad, including a spill of unknown quantity in July 1991.

Past investigations documented the presence of chlorinated VOCs and aromatic VOCs (primarily xylenes) in soil and groundwater beneath the site. In addition to these conditions, concentrations of methyl tertiary butyl ether (MTBE), tertiary butyl alcohol (TBA), and fecal coliform have been observed in groundwater. MTBE and TBA have not been used at the site or observed at high concentrations in soil gas or soil at the site; thus, these hazardous materials are anticipated to originate from an off-site use. Remedial actions that have occurred at the site to-date include the following:

- Soil excavation and disposal of TPH-impacted materials in 2003, related to the 1990 transmix release;
- SVE from 2003 to 2004; and
- Thermally enhanced SVE utilizing hot air injection from 2004 to 2006.

In 1996, Union Pacific Railroad (UPRR) acquired the property by merger with SPTCo, and it has been vacant since that time. From 1997 to 1998, UPRR's contractor demolished and removed the Warehouse, North and South AST Pads, Overhead Piperack, and associated belowground pipes, railroad tracks, pavement, and general debris. The site currently sits as vacant disturbed land.

Subsequently, total petroleum hydrocarbon (TPH)-impacts soils associated with the transmix release in 1990 were excavated and removed from the site in 2003. ERM, on behalf of UPRR, installed a soil vapor extraction (SVE) system in 2003, which operated until 2004, and was enhanced with thermal injection from 2004 to 2006. ERM estimated that over 60,000 pounds of contaminants were removed from the site by the SVE technology. RWQCB staff approved the decommissioning of the SVE system in May 2007, since it achieved maximum efficiency, in terms of its ability to remove absorbed contaminants. The project underwent further remedial actions by the City of Long Beach in the 2000s, including additional excavation of impacted soil, imported clean backfill material, confirmation soil sampling for volatile organic compounds (VOCs), and groundwater monitoring.

The RWQCB determined that the City of Long Beach fulfilled the site assessment requirements and soil cleanup criteria for an industrial and commercial land use scenario, the current designated zoning, and a no-further-action (NFA) action letter for soil only at the site was issued by the RWQCB on April 23, 2012.

Development of the proposed project would not require any rezoning of the site. However, construction activities could expose construction workers to residual soil and groundwater contamination at the site. The project would be



required to comply with Mitigation Measure HAZ-1 pertaining to notification of proposed work to the RWQCB and preparation of a Soils Management Plan (SMP). A qualified professional engineer or professional geologist would be required to prepare the SMP prior to any site disturbance activities at this property.

Overall, if potentially contaminated soil is identified during site disturbance activities for the project, as evidenced by discoloration, odor, detection by instruments, or other signs, the professional engineer or professional geologist would be required to inspect the site, determine the need for sampling to confirm the nature and extent of contamination, and provide a written report to the project applicant, representatives of the RWQCB, and City of Long Beach stating the recommended course of action.

Depending on the nature and extent of contamination, the professional engineer or professional geologist would be required to temporarily suspend construction activity at the location, as necessary, for the protection of workers or the public. If, in the opinion of the professional engineer or professional geologist, significant remediation may be required, the City shall contact representatives of the RWQCB for guidance and possible oversight. With compliance with Mitigation Measures HAZ-1 and HAZ-2, impacts pertaining to known and unknown soil contamination during site disturbance would be reduced to less than significant levels.

Contaminated Groundwater

In addition to the former on-site former UPRR Bulk Terminal property, six other off-site properties located in the immediate vicinity of the project site, have reported releases to the groundwater, are undergoing investigation/remediation, and remain open with the RWQCB; refer to Table 4.8-1, Open Groundwater Contamination Sites.

**Table 4.8-1
Open Groundwater Contamination Sites**

Facility Name	Location
On-site Property	
City Owned (Formerly Union Pacific Railroad Company [UPRR] Bulk Terminal)	960 De Forest Avenue
Off-site Properties	
Formerly Robertshaw Controls Company	100 West Victoria Street
Long Beach Industrial Park	3701 Pacific Place
Chevron Service Station #9-4839	601 West Willow Street
Thompson Family Trust	741 West 17 th Street
Ready Self Storage	800 West 15 th Street
Formerly MTA Division 12 Bus Maintenance Facility	970 West Chester Place

Source: California Environmental Protection Agency, *Cortese List Data Resources*, <http://www.calepa.ca.gov/SiteCleanup/CorteseList/>, accessed May 24, 2017.

Based on files reviewed, groundwater may be approximately 8 to 13 below ground surface (bgs), but is anticipated to vary depending the location within the project site. It is likely that dewatering activities would be required for construction of the project, posing a risk of exposure of potentially contaminated groundwater to construction workers. Mitigation Measure HAZ-3 would require a Construction Workers Safety Plan (CWSP) that would provide guidance for handling, segregating, and characterizing potentially contaminated groundwater extracted during dewatering activities in order to minimize impacts to worker safety and the environment. If the water is determined to be contaminated, the CWSP would provide recommendations for proper handling to minimize risk of exposure. Further, all discharge during dewatering would be required to comply with a Dewater Permit with the RWQCB. With implementation of the recommended Mitigation Measure HAZ-3, impacts pertaining to existing potential groundwater contamination on-site would be reduced to less than significant levels.



Roadway Resurfacing

Lead-based paints (LBPs) were commonly used in traffic striping materials before the discontinued use of lead chromate pigment in traffic striping/markings materials and hot-melt Thermoplastic stripe materials (discontinued in 1996 and 2004, respectively). Installation of conveyance facilities within roadway right-of-way could involve the disturbance of existing on-site traffic striping materials, which may involve LBPs. Mitigation Measure HAZ-4 would ensure proper disposal of traffic striping materials. With compliance with the recommended mitigation measure HAZ-4, impacts in this regard would be reduced to less than significant levels.

Long-Term Operational Impacts

As discussed in Response 4.8(a), adherence to existing regulations would ensure compliance with safety standards related to the accidental conditions involving hazardous materials during project operations would reduce impacts in this regard to less than significant levels.

Mitigation Measures:

HAZ-1 The City of Long Beach shall retain a qualified California-Registered Geologist or a California-Registered Civil Engineer to prepare a Soils Management Plan (SMP) prior to the issuance of any grading permit at or near the property located at 960 De Forest Avenue, Long Beach. As part of the SMP, the qualified professional shall notify the Los Angeles Regional Water Quality Control Board (RWQCB) of proposed activities at this property. The SMP shall include, but not be limited to:

- Land use history, including description and locations of known contamination;
- The nature and extent of previous investigations and remediation at the site;
- Identified areas of concern at the site, in relation to proposed activities;
- A listing and description of institutional controls, such as the City's excavation ordinance and other local, state, and federal regulations and laws that would apply to the project;
- Names and positions of individuals involved with soils management and their specific role;
- An earthwork schedule;
- Requirements for site-specific Health and Safety Plans (HSPs) to be prepared by all contractors at the project site. The HSP should be prepared by a Certified Industrial Hygienist and would protect onsite workers by including engineering controls, personal protective equipment, monitoring, and security to prevent unauthorized entry and to reduce construction related hazards. The HSP should address the possibility of encountering subsurface hazards including hazardous waste contamination and include procedures to protect workers and the public;
- Hazardous waste determination and disposal procedures for known and previously unidentified contamination, including those associated with any soil export activities, if applicable;
- Requirements for site specific techniques at the site to minimize dust, manage stockpiles, run-on and run-off controls, waste disposal procedures, etc.; and
- Copies of relevant permits or closures from regulatory agencies.



HAZ-2 If potentially contaminated soil is identified during site disturbance activities for the project, as evidenced by discoloration, odor, detection by instruments, or other signs, a qualified California-Registered Geologist or a California-Registered Civil Engineer retained by the City of Long Beach shall inspect the site, determine the need for sampling to confirm the nature and extent of contamination, and provide a written report to the project applicant, representatives of the Los Angeles Regional Water Quality Control Board (RWQCB), and City of Long Beach stating the recommended course of action.

Depending on the nature and extent of contamination, the professional engineer or professional geologist shall have the authority to temporarily suspend construction activity at that location for the protection of workers or the public. If, in the opinion of the professional engineer or professional geologist, substantial remediation may be required, the City of Long Beach shall contact representatives of the Los Angeles Regional Water Quality Control Board (RWQCB) for guidance and possible oversight.

HAZ-3 Prior to issuance of a Dewatering Permit for the proposed project, a Construction Workers Safety Plan (CWSP) shall be developed by a qualified California-Registered Geologist or a California-Registered Civil Engineer, retained by the City of Long Beach. At a minimum, the CWSP shall include guidance for handling, segregating, and characterizing potentially contaminated groundwater extracted during dewatering activities in order to minimize impacts to worker safety and the environment. The CWSP shall also require that the Contractor comply with any requirements made by a Dewatering Permit issued by the Los Angeles Regional Water Quality Control Board (RWQCB), as applicable.

HAZ-4 Prior to site disturbance activities, the City of Long Beach shall retain a lead specialist to conduct sampling activities to verify whether or not on-site traffic striping materials are associated with lead-based paints above regulatory thresholds. The lead specialist shall report the findings to the City of Long Beach City Engineer, and shall include recommendations for the construction contractor regarding proper handling and disposal of materials, if necessary.

c) ***Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?***

Less Than Significant Impact With Mitigation Incorporated. The following schools currently exist within 0.25-mile of the project site:

- Edison Elementary: Located approximately 250 feet east of the MUST site at 625 Maine Avenue;
- Lafayette Elementary: Located approximately 340 feet east of Segment 6 at 2445 Chestnut Avenue;
- Los Cerritos Elementary: Located adjacent to Segment 5 at 515 West San Antonio Drive;
- Colin Powell Elementary: Located 920 feet west of Segment 3 at 150 West Victoria Street; and
- Jordan High School: Located adjacent to Segment 2 at 6500 Atlantic Avenue.

The proposed project may involve potential disturbance of soil contamination at 960 De Forest Avenue (as discussed above in Response 4.8(b)). However, this particular property is located greater than 0.25-mile of any existing or proposed school site. Thus, impacts in this regard would be less than significant. Further, any handling of potentially contaminated soils would be required to comply with Federal, State, and local laws and regulations as well as Mitigation Measure HAZ-1. Project construction would also potentially involve the handling of LBPs associated with traffic striping during installation of conveyance facilities within roadway right-of-way. Compliance with Mitigation Measure HAZ-4 would reduce impacts in this regard, also reducing impacts pertaining to proximity to a school site.

Operations of the project would also involve the handling of hazardous materials at the MUST facility, which is located within 250 feet of Edison Elementary School. As discussed in Response 4.8(a), project operations would involve the handling/use and storage of hazardous materials (e.g., chlorine and other chemicals associated with the treatment of water). The project would be subject to compliance with existing regulations, standards, and guidelines



established by the EPA, State, and the City of Long Beach related to the storage, use, and disposal of hazardous materials. The project would be required to register with the City as a manager of regulated substances and prepare a Risk Management Plan. The Risk Management Plan must contain an off-site consequence analysis, a five-year accident history, an accident prevention program, an emergency response program, and a certification of the truth and accuracy of the submitted information. Businesses would be required to submit their plans to the City of Long Beach, DEH, which would make the plans available to emergency response personnel. The City of Long Beach Fire Department (acting as the CUPA as well) would be responsible for enforcing all laws and regulations pertaining to any aboveground or underground storage tanks as well. Adherence to existing regulations would ensure compliance with safety standards related to the use and storage of hazardous materials, and the safety procedures mandated by applicable Federal, State, and local laws and regulations, which would ensure that risks resulting from the routine transportation, use, storage, or disposal of hazardous materials or hazardous wastes associated with implementation of the proposed project would be less than significant.

Thus, with compliance with existing Federal, State, and local laws and regulations and implementation of Mitigation Measures HAZ-1 and HAZ-4, the project would not result in any significant impacts involving the handling of hazardous materials, substances, or waste within the vicinity of a school. Impacts in this regard would be reduced to less than significant levels.

Mitigation Measures: Refer to Mitigation Measures HAZ-1 and HAZ-4.

- d) ***Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?***

Less Than Significant Impact With Mitigation Incorporated. Government Code Section 65962.5 requires the Department of Toxic Substances Control (DTSC) and the State Water Resources Control Board (SWRCB) to compile and update a regulatory sites listing (per the criteria of the Section). The California Department of Health Services is also required to compile and update, as appropriate, a list of all public drinking water wells that contain detectable levels of organic contaminants and that are subject to water analysis pursuant to Section 116395 of the Health and Safety Code. Section 65962.5 requires the local enforcement agency, as designated pursuant to Section 18051 of Title 14 of the California Code of Regulations (CCR), to compile, as appropriate, a list of all solid waste disposal facilities from which there is a known migration of hazardous waste.

Conveyance segment 9 traverses City-owned property that has been listed pursuant to Government Code Section 65962.5. As discussed in Response 4.8(b), implementation of the recommended Mitigation Measure HAZ-1 would reduce impacts in this regard to less than significant levels.

Mitigation Measures: Refer to Mitigation Measure HAZ-1.

- e) ***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?***

No Impact. The proposed project site is not located within an airport land use plan or within two miles of a public airport or public use airport. The nearest airport to the project site is the Long Beach Airport, located approximately 3.3 miles to the northeast of the project site at 4100 Donald Douglas Drive. In addition, the project site is located outside of the Long Beach Airport Influence Area.¹ Therefore, no impacts would occur in this regard.

Mitigation Measures: No mitigation is required.

¹ Los Angeles County Airport Land Use Commission, *Long Beach Airport, Airport Influence Area Map*, May 13, 2003.



- f) ***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?***

No Impact. There are no private airstrips located within the vicinity of the proposed project, and no impacts would occur in this regard.

Mitigation Measures: No mitigation is required.

- g) ***Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?***

Less Than Significant Impact With Mitigation Incorporated. The proposed project would not physically interfere with an adopted emergency response plan or emergency evacuation plan. Project construction activities could result in short-term temporary impacts to street traffic along roadway right-of-way on-site; refer to Exhibit 2-3, Project Overview. While temporary lane closures would be required, travel along surrounding roadways would remain open and would not interfere with emergency access in the site vicinity. In addition, the project would be required to comply with Mitigation Measure HAZ-5, which requires the construction contractor to notify the Long Beach Fire Department (LBFD), Long Beach Police Department (LBPD), and City of Long Beach Public Works Department of construction activities that would impede movement (such as lane closures) along roadway right-of-way on-site. Compliance with Mitigation Measure HAZ-5 would allow for uninterrupted emergency access to evacuation routes. Thus, impacts in this regard would be reduced to less than significant levels.

Mitigation Measures:

HAZ-5 At least three business days prior to any lane closure, the construction contractor shall notify the Long Beach Fire Department (LBFD) and Long Beach Police Department (LBPD), along with the City of Long Beach City Engineer, of construction activities that would impede movement (such as lane closures) along public roadways in the project area, in order to ensure uninterrupted emergency access and maintenance of evacuation routes. This requirement shall be indicated on project plans and specifications, subject to verification by the City of Long Beach City Engineer.

- h) ***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?***

No Impact. The project site is located within an urbanized area and is not identified as a high fire hazard area in the City.² Thus, no impacts would occur in this regard.

Mitigation Measures: No mitigation is required.

² California Department of Forestry and Fire Protection, *California Fire Hazard Severity Zone Maps*, http://www.fire.ca.gov/fire_prevention/fhsz_maps_losangeles, accessed May 31, 2007.