

3.9 HAZARDOUS WASTE AND MATERIALS

This section describes the existing setting related to hazardous waste and materials based on the current conditions, a regulatory database search of the area, and applicable federal, state, and local regulations. Based on an evaluation of existing conditions, the potential for hazardous materials impacts related to construction and operation of the proposed light-rail transit (LRT) is discussed, and mitigation measures to minimize or eliminate impacts are presented.

3.9.1 Regulatory Setting

3.9.1.1 State and Federal

The California Environmental Protection Agency (Cal/EPA) unifies the State's environmental authority under a single cabinet-level agency and addresses the greatest environmental and health risks. Cal/EPA oversees the following agencies: Air Resources Board, Integrated Waste Management Board, Department of Pesticide Regulation, State Water Resources Control Board (SWRCB), the Office of Emergency Services, and Department of Toxic Substances Control (DTSC). The DTSC is responsible primarily for regulating hazardous materials and enforcing the Resource Conservation Recovery Act in California and for overseeing the investigation and remediation of contaminated sites. The SWRCB and the branch Regional Water Quality Control Boards (RWQCBs) are responsible primarily for protecting groundwater and surface water resources from hazardous materials.

The California Health and Safety Code (Sections 25316 and 25317) identifies the substances, materials, and wastes that require removal, including petroleum and petroleum by-products, waste oil, crude oil, and natural gas. Other pertinent regulations include:

- California Hazardous Waste Control Law, California Health and Safety Code, Division 20, Chapter 6.5
- California Accidental Release Program, California Health and Safety Code (Sections 25531 through 25543.3)
- Carpenter-Presley-Tanner Hazardous Substances Account Act, California Health and Safety Code, Division 20, Chapter 6.8
- Government Code Section 65962.5, Cortese List
- Porter-Cologne Water Quality Act

The primary federal laws regulating hazardous materials/waste are the Resource Conservation and Recovery Act of 1976 (RCRA) and the Comprehensive Environmental Response and the Compensation and Liability Act (CERCLA) of 1980. RCRA regulates the generation, transportation, treatment, storage, and disposal of hazardous waste through comprehensive life cycle or “cradle to the grave” tracking requirements. The purpose of CERCLA, often referred to as Superfund, is to clean up contaminated sites so that public health and welfare are not compromised. CERCLA defines the term “hazardous substance” as any substance, material, or waste, the exposure to which results in, or may result in, adverse effects on health or safety. Other federal laws relating to hazardous substances, materials, or waste include the following:

- Superfund Amendments and Reauthorization Act
- Occupational Safety and Health Act

- Safe Drinking Water Act
- Atomic Energy Act
- Federal Insecticide, Fungicide, and Rodenticide Act
- Toxic Substances Control Act
- Clean Air Act Amendments

3.9.1.2 Regional and Local

In 1996, Cal/EPA adopted regulations to establish a Unified Hazardous Waste and Hazardous Materials Management Regulatory Program and designated local agencies called Certified Unified Program Agencies (CUPA). These local agencies regulate hazardous substances management with respect to the following areas: hazardous waste generators and treatment facilities, underground storage tanks (UST), aboveground storage tanks (AST), risk management and accidental release prevention programs, and hazardous materials release response plans and inventories (business plans). The business plans include Unified Fire Code hazardous materials management plans and inventories. The Unified Fire Code regulates the type, configuration, and quantity of hazardous materials that may be stored within structures or in outdoor areas.

The CUPA for the cities of Glendora, San Dimas, La Verne, Pomona, and Claremont is the Los Angeles County Fire Department, Hazardous Material Division. The CUPA for the City of Montclair is the San Bernardino County Fire Department, Hazardous Materials Division. In addition, each City has a general plan that includes regulations associated with hazardous materials and utilizes the local CUPAs to ensure compliance. Additional pertinent departments include the Los Angeles County Department of Public Works and the San Bernardino County Department of Environmental Health.

The SWRCB oversees the nine California RWQCBs that are responsible for protecting groundwater and surface water resources from hazardous materials within their respective area. The Los Angeles RWQCB includes Glendora, San Dimas, La Verne, Pomona, and Claremont; the Santa Ana RWQCB includes Montclair.

3.9.2 Existing Conditions

This section identifies locations along the project alignment that have the potential for contamination from hazardous materials or from the migration of contaminants from adjacent sites with known or suspected subsurface impacts. Information on hazardous materials has been identified from review of available literature from applicable federal, state, and local agencies.

A Phase I Environmental Site Assessment (ESA) of the entire 24-mile Pasadena to Montclair corridor, including the Metropolitan Transportation Authority (Metro) right-of-way, station locations, and parking sites, was conducted in 2003 and 2005. A Phase II ESA was also conducted in 2005 to assess whether contamination was present in the subsurface soils. The Phase II ESA included 125 borings placed approximately 1,000 feet apart within the railroad right-of-way and analyses of select samples. Furthermore, a Supplemental Phase I ESA was conducted in 2011 and included a review of an updated environmental database report to evaluate existing conditions along the Azusa to Montclair project, including the proposed traction power supply substation locations, and site inspections and historical review of parking sites. The purpose of the Phase I ESA was to identify, to the extent feasible, pursuant to

the processes prescribed in the American Society for Testing and Materials International (ASTM) E1527-05, recognized environmental conditions (REC) in connection with the site. According to ASTM E1527-05, RECs are defined as:

“...the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a 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 term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include *de minimis* conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.”

Visual inspections of the railroad right-of-way were conducted between November 10 and 24, 2003; June 6 through June 24, 2005; July 20, 2005; and June 2, 2011. Potential parking sites were inspected from the accessible property boundaries and public access areas and the observations were supplemented with the reviews of the environmental database reports. On-site properties are considered to be the railroad right-of-way and properties to be used for parking facilities and traction power supply substations (TPSS). Off-site properties are properties within a 1,000-foot buffer zone on either side of the right-of-way and outside of the right-of-way.

Environmental database reports from 2003, 2005, and 2011 were reviewed for local, state, and federal listings for properties within 1,000 feet of the railroad right-of-way. Regulatory database lists were reviewed for cases pertaining to leaking Underground Storage Tanks (LUSTs), hazardous waste sites, and other sites of environmental concern. Historical information was obtained from a review of aerial photographs, Sanborn Maps, and historical topographic maps of the right-of-way and adjacent sites.

While conducting the ESAs, each contaminated or potentially contaminated facility was classified as “High,” “Moderate,” or “Low” after considering the potential impacts that could result from the type of operation, proximity to the railroad right-of-way and proposed parking sites, estimated hydrogeologic gradient, field observations, and regulatory information. In general, the classifications have the following meanings:

- **High**—Facilities with known or probable soil/groundwater contamination (e.g., leaking Underground Storage Tanks [LUSTs], visual soil staining) and facilities where remediation is incomplete or undocumented, and where the contamination is known or suspected.
- **Moderate**—Facilities with identified or potential soil contamination (e.g., LUSTs), where remediation is in progress, or with groundwater contamination that does not appear to be migrating and has not been reported. Facilities with a heavy industrial/manufacturing background that typically use or have used significant quantities of hazardous materials may also be classified as Moderate.
- **Low**—Facilities that have completed remediation, have not reported releases of hazardous substances, have historically utilized only small amounts of known contaminants (e.g., small quantity generators or USTs), or, based on their distance and/or direction from the construction area are considered unlikely to negatively affect the site.

Based on the results of the Supplemental Phase I ESA, on-site and off-site properties were identified to have a Moderate to High potential to affect the project and are discussed in the following section.

3.9.2.1 On-site Environmental Concerns

The following environmental concerns identified on site have a classification criterion of High:

- Evidence of Staining, three locations along railroad right-of-way
 - An area of stained soil was observed south of the railroad right-of-way between the rail line and an adjacent property in San Dimas. The source of the staining is not known.
 - An unlabeled 55-gallon drum was observed north of the rail line in La Verne. Staining was observed beneath the drum. Staining was also observed extending onto the railroad right-of-way from the adjacent property to the north.
 - A mining operation was observed north of the railroad right-of-way in Montclair. In this area, an unlined drainage channel, a buried spur, and staining were observed. In addition, a tar-like substance was observed adjacent to the south of the mining operations. This substance appears to have been dumped on site.
- **Coast Foundry at 2707 North Garey Avenue in Pomona (proposed site of parking structure)**—Due to known contamination from a LUST, as well as the long-time industrial/manufacturing use of this property, this site was classified as a high potential to adversely affect the project.
- **Apex Painting at 2700 North Garey Avenue in Pomona**—A spill of oil, diesel, paint thinner, and paint occurred in 1995. The responsible party was reported to be dumping on the railroad track and north along the fence. The responsible party would not repair leaking blasting equipment and was reported to change data sheets to non-hazardous material disposal. The spills affected the land, soil ballast, and non-hazardous material dumpsters. There was no other action taken in this case. This facility was classified as High based on the soil contamination within the railroad right-of-way and the possibility of it extending into areas where project construction may occur.

The following environmental concerns identified on site have a classification criterion of Moderate:

- **Metro right-of-way at 300 South Vermont Avenue in Glendora**—This facility was listed as disposing of 1.75 tons of contaminated soil from a site cleanup. This facility was classified as a moderate potential to adversely affect the project based on the potential for residual contamination following the site cleanup.
- **San Dimas Maintenance Yard at 301 South Walnut Avenue in San Dimas (proposed site of parking structure)**—An inert waste disposal site, closed at an unknown date, was in the vicinity of this site. The site is currently a city maintenance facility. This was classified as a moderate potential to adversely affect on the project based on the long-term industrial use of the property and the potential associated unknown impacts.
- **Paper Pak at 2321 Arrow Highway in La Verne (proposed site of parking structure)**—This facility has received closure for a former UST release; however, this facility was classified as a moderate potential to adversely affect the project based on residual contamination following the remediation, and the long-time industrial use of the property and potential associated unknown impacts.
- **Metrolink Maintenance Yard at 2701 North Garey Avenue in Pomona**—This facility has received closure for removal of a LUST; however, this facility was classified as Moderate, based on the potential for residual soil contamination. In addition, the site is currently occupied by the Metrolink Yard and it is likely that hazardous materials are used on site.

Between June 6 and June 27, 2005, a Phase II ESA was conducted along the railroad right-of-way that included 125 borings, placed approximately 1,000 feet apart, along the Gold Line 24-mile railroad right-of-way. Soil samples were collected at the surface, and at 3, 5, and 10 feet (where applicable) below ground surface (bgs) for lithological observation and laboratory analysis. Selected soil samples were analyzed for pH, total petroleum hydrocarbons (TPH), VOCs, semi-volatile organic compounds (SVOCs), organochlorine pesticides (OCPs), and Title 22 metals.

The following summarizes the materials detected at or near regulatory action levels from the 69 borings advanced during the Phase II ESA along Gold Line Phase 2b (borings E-60 through E-128):

- Two surface samples at borings E-96 and E-98 had pH values approaching the corrosive limit of 12.0, reported at 11.1 and 11.27, respectively.
- Two surface samples had TPH (C₂₂₋₃₆) concentrations greater than 1,000 milligrams per kilogram (mg/kg) at borings E-74 and E-113, detected at 2,010 mg/kg and 1,600 mg/kg, respectively. Potentially significant petroleum impacts were detected primarily in the surface samples; the maximum concentration of TPH (C₂₂₋₃₆) detected from a 3-foot bgs sample was 226 mg/kg from E-75.
- Twenty-five samples were found to contain arsenic above the Southern California background concentration of 20 mg/kg from the surface to 5 feet bgs. Eight of the surface samples (E-70, E-90, E-93, E-94, E-101, E-108, E-120, and E-122) also exceeded 50 mg/kg. Boring E-122 had 10 times the soluble limit threshold concentration (STLC) limit for California hazardous waste designation at a maximum 177 mg/kg. Soluble concentrations of arsenic above the STLC limit of 5.0 milligrams per liter (mg/l) were detected in E-101.
- The detected concentrations of lead did not exceed the industrial preliminary remediation goal of 800 mg/kg in the samples analyzed. Lead exceeded 10 times the STLC of 50 mg/kg at nine locations, with a maximum 153 mg/kg at E-88. Three samples exceeded the STLC of 5 mg/l (E-88, E-90, and E-110).

3.9.2.2 Off-site Environmental Concerns

The following environmental concerns identified off site have a classification criterion of Moderate:

- **N & G Business Park at 505 Foothill Boulevard in Glendora**—A release of aviation fuel that affected soil only was reported and closed in 1987. In addition, a 100-gallon oil UST was reported to be located approximately 16 feet southeast of the railroad right-of-way. It is unclear if the UST is still located on site. Based on its close proximity to the railroad right-of-way, this facility was classified to have a moderate potential to adversely affect the project.
- **Chevron #9-3657 at 465 Foothill Boulevard in Glendora**—A gasoline leak was reported in 1990 and affected the soil only. A closure letter was issued in 1996. Based on the close proximity to the railroad right-of-way, this facility was classified to have a moderate potential to adversely affect the project.
- **Former SWF/LF Facility at 105-195 East Arrow Highway in San Dimas**—This facility was reported as an inert waste disposal site that is closed; however, the closure date was not noted. Although the waste disposal type was listed as “inert”—based on its proximity to the project, and the unknown landfill boundaries, closure date and method, and the exact type of material accepted—this facility was classified to have a moderate potential to adversely affect the project.

- **DPI Labs, Inc. at 1350 Arrow Highway in La Verne**—The site is reported to have an open site assessment case with the RWQCB of an unreported substance. Potential media affected include the aquifer used for drinking water supply. Based on the proximity to the railroad right-of-way, this facility was classified to have a moderate potential to adversely affect the project.
- **Synthane Taylor at 1440 Arrow Highway in La Verne**—The site is reported to have an open site assessment case with the RWQCB of an unreported substance. Based on the proximity to the railroad right-of-way, this facility was classified to have a moderate potential to adversely affect the project.
- **Chmlite/Moldyne at 2540 Fulton Road in Pomona**—The site is reported to have a release of volatile organic compounds (VOCs) that has potentially affected the drinking groundwater aquifer and an open site assessment case with the RWQCB. Based on the proximity to the railroad right-of-way, this facility was classified to have a moderate potential to adversely affect the project.
- **Simi Insulation at 2705 Towne Avenue in Pomona**—The site is reported to have a release of VOCs that has potentially affected the drinking groundwater aquifer and an open site assessment case with the RWQCB. Based on the proximity to the railroad right-of-way, this facility was classified to have a moderate potential to adversely affect the project.
- **Claremont Colleges at 303 East 1st Street in Claremont**—Several environmental investigations have occurred at this site, and petroleum hydrocarbon impacted soil has been removed. Based on the potential for residual contamination and the proximity to the railroad right-of-way, this facility was classified to have a moderate potential to adversely affect the project.

3.9.2.3 Summary of Existing Conditions

On-site and off-site locations identified to present a Moderate to High hazard were previously investigated along the railroad right-of-way during the 2005 Phase II ESA. Soils that can be classified as potential hazardous waste because of the detected concentrations of arsenic and lead were identified within surface soil samples. Petroleum hydrocarbon concentrations varied throughout the railroad right-of-way; and potentially significant levels were identified within three feet of the ground surface. Proposed parking structure sites in San Dimas, La Verne, and Pomona were identified to have RECs; however, these properties are located outside of the railroad right-of-way. In these areas, soil sampling would be completed prior to construction activities.

3.9.3 Environmental Impacts

3.9.3.1 Evaluation Methodology

The method for assessing impacts involved examining the Study Area for known hazardous materials. The previous and current Phase I ESAs identified potential contaminant sources. The Phase II ESA assessed whether contamination was present in the subsurface soil and, therefore, could be encountered during construction.

3.9.3.2 Impact Criteria

Impacts are considered significant if the project would:

- 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, it would create a significant hazard to the public or the environment
- 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

3.9.3.3 Short-Term Construction Impacts

No Build Alternative

There are no elements of the No Build Alternative anticipated to create construction-period impacts.

Transportation Systems Management (TSM) Alternative

The TSM Alternative is not anticipated to create construction-period impacts, with the possible exception of enhanced bus stops. The concern is the potential to encounter hazardous materials during shallow soil earth work activities. There is also the potential that road-striping paint may contain elevated metals at a concentration that may require special handling and disposal.

Hazardous materials have the potential to result in significant impact to the public and the environment. Potentially adverse impacts resulting from construction would be mitigated by appropriate investigation of areas undergoing earthwork activities and paint striping disturbance, and the removal and disposal of impacted materials according to federal and state requirements.

Build Alternative

The concern is the potential to encounter hazardous materials during grading and excavation. Soils classified as hazardous wastes because of detected concentrations of metals, including arsenic and lead, are present in the surface soil at various locations along the railroad right-of-way. Petroleum hydrocarbon concentrations vary throughout the railroad right-of-way, with potentially significant levels constrained primarily within three feet of the ground surface. Handling and disposal options for each location would depend on the concentration present, the presence of other materials of concern, and the construction activity to be undertaken. In addition, evidence of surface soil staining was observed within the railroad right-of-way.

Hazardous materials sites and areas of ongoing remediation classified as having Moderate or High potential to adversely affect the project were identified along the railroad right-of-way and in proposed parking sites (see Section 3.9.2).

Known areas of contaminated soil were detected within the upper three feet of soil. Construction would occur primarily within the upper five feet of soil, which limits the volume of potentially contaminated soil

that would be unearthed during the project. Unidentified contaminated soil or groundwater could be encountered in the areas of the proposed bridges and the Lone Hill flyover where deeper earthwork (up to 60 feet below grade) could be required; however, based on preliminary engineering designs, groundwater is not expected to be encountered.

Numerous schools and day care facilities are located within 0.25-mile of the Build Alternative, and the Cable and Brackett Field Airports are located within 0.75-mile. However, the potential for exposure to contaminated materials would be limited to the confines of the railroad right-of-way. With the implementation of the mitigation measures that provide for the proper handling and disposal of contaminated substances, the safety of people at nearby schools and the airport would not be affected.

Hazardous materials have the potential to result in significant impact to the public and the environment. Potentially adverse impacts resulting from construction will be mitigated by appropriate investigation of suspected hazardous materials or petroleum contamination, and removal or other remediation as discussed in Section 3.9.4. The Department of Toxic Substances Control (DTSC) will be an oversight agency for any remediation of contaminated soils, with local Fire Department or Department of Public Works providing oversight if any UST removal is necessary, and the Regional Water Quality Control Board (RWCB) providing oversight if any groundwater contamination is encountered above regulatory limits.

3.9.3.4 Long-Term Impacts

No Build Alternative

There are no elements of the No Build Alternative project anticipated to have long-term hazardous materials impacts.

Transportation Systems Management (TSM) Alternative

There are no elements of the TSM Alternative anticipated to have long-term hazardous materials impacts.

Build Alternative

There are no elements of the Build Alternative related to operations that would increase the potential for exposure to hazardous materials. Freight operations would continue on an independent track. While railroad accidents related to hazardous materials spills are rare, railroad accidents are a possibility, however freight operations would continue in accordance with the applicable federal and state laws and regulations intended to prevent or manage such hazards.

3.9.3.5 Cumulative Impacts

Short-Term Construction-Period Impacts

There is the potential to encounter hazardous materials during shallow soil earth work activities. There is also the potential that road-striping paint may contain elevated metals at a concentration that may require special handling and disposal. Hazardous materials have the potential to result in significant impact to the public and the environment. Potentially adverse impacts resulting from construction would be mitigated by appropriate investigation of areas undergoing earthwork activities and paint striping disturbance, and the removal and disposal of impacted materials according to federal and state requirements conducted as part of construction activities. There would be no cumulatively considerable short-term impacts because all impacts would be site-specific and would be fully mitigated.

Long-Term Operations Impacts

The Southern California Association of Governments' (SCAG) *2012 Regional Transportation Plan and Sustainable Communities Strategy* (RTP/SCS) Final EIR provides a regional cumulative impact assessment for transportation improvements (including the proposed project) through 2035. SCAG's 2035 RTP/SCS analysis concludes that the regional transportation system in 2035 would pose potential for hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment during transportation. The project is a light rail passenger transit that does not involve the transportation of hazardous materials. Implementation of the project would not contribute to this adverse cumulative impact.

3.9.4 Mitigation Measures

3.9.4.1 Short-Term Construction Mitigation Measures

- **HW-1**—A Soil Mitigation Plan shall be prepared once final construction plans are in place, showing the lateral and vertical extent of soil disturbance. The plan shall establish soil reuse criteria, establish a sampling plan for stockpiled materials, describe the disposition of materials that do not satisfy the reuse criteria, and specify criteria for imported materials.
- **HW-2**—During project final design, specific soil testing shall be conducted and necessary and appropriate specific means for remediation shall be selected and incorporated into construction or contract documents, such as excavation with offsite disposal or onsite reuse in low risk areas, vapor extraction, or in-situ remediation.
- **HW-3**—Risk-based cleanup levels shall be established in the Soil Mitigation Plan, which will be reviewed and approved by the oversight agency. Soil that contains soluble concentrations of metals in excess of the Soluble Threshold Limit Concentration (STLC) is considered a California hazardous waste and shall be removed from the site and disposed of in accordance with federal and state regulations.
- **HW-4**—Groundwater is not anticipated to be encountered, however, if ongoing engineering indicates groundwater may be encountered, testing shall be designed and performed to characterize groundwater where dewatering is required.
- **HW-5**—Hazardous materials, drums, trash, and debris shall be removed and disposed of in accordance with regulatory guidelines.
- **HW-6**—A health and safety plan shall be developed and implemented for construction personnel. When ground-disturbing activities begin, the Construction Authority shall identify potential contamination, such as, but not limited to, the presence of underground facilities, buried debris, waste drums, tanks, and stained or odorous soils. Should such materials be encountered, further investigation and analysis shall be conducted and may include the following actions:
 - Removal and disposal—Identify, remove, transport, and dispose of materials in a licensed Class I, II, or III disposal facility as established by waste profiling procedures.
 - Recycling—Treat and/or recycle materials at regulated recycling facilities.
 - Reuse uncontaminated or treated materials on project lands.
 - Segregate and stockpile the material on plastic sheeting.
 - Spray the stockpile with water or a South Coast Air Quality Management District-approved dust or vapor suppressant, and cover the stockpile with plastic sheeting to prevent exposure to soil.

- Provide qualified and trained personnel with personal protective equipment for activities that include, but are not limited to, excavation, segregation, stockpiling, loading, and transporting hazardous substances.

3.9.4.2 Long-Term Mitigation Measures

There are no elements of the Build Alternative project related to long-term operations that would increase the potential for exposure to hazardous materials; therefore, long-term mitigation measures are not recommended.

3.9.5 Level of Impact after Mitigation

Although elements of the Build Alternative project could create construction-period impacts, all activities would be conducted in accordance with federal and state requirements which would reduce the potential impacts to a *less than significant* level. Transportation projects in the area have been successfully completed in circumstances with hazardous materials issues similar to those identified for the Study Area.

The Build Alternative would not conflict with emergency response actions and could improve response time and evacuation efforts should it be necessary provide a way to efficiently move people in emergency situations.

The Build Alternative is located within a fully developed area. There are no wildlands nearby that could increase exposure to fires.

There are no elements of the Build Alternative related to long-term operations that would increase the potential for exposure to hazardous materials; therefore, long-term mitigation measures are not required.