

2.12 Hazardous Waste/Materials

2.12.1 Regulatory Setting

Hazardous materials, including hazardous substances and wastes, are regulated by many state and federal laws. Statutes govern the generation, treatment, storage, and disposal of hazardous materials, substances, and waste, and also the investigation and mitigation of waste releases, air and water quality, human health, and land use.

The primary federal laws regulating hazardous wastes/materials are the Comprehensive Environmental Response, Compensation and Liability Act of 1980 and the Resource Conservation and Recovery Act of 1976. The purpose of Comprehensive Environmental Response, Compensation and Liability Act often referred to as “Superfund,” is to identify and clean up abandoned contaminated sites so that public health and welfare are not compromised. The Resource Conservation and Recovery Act provides for “cradle to grave” regulation of hazardous waste generated by operating entities. Other federal laws include:

- Community Environmental Response Facilitation Act of 1992
- Clean Water Act
- Clean Air Act
- Safe Drinking Water Act
- Occupational Safety and Health Act
- Atomic Energy Act
- Toxic Substances Control Act
- Federal Insecticide, Fungicide, and Rodenticide Act

In addition to the acts listed above, EO 12088, *Federal Compliance with Pollution Control Standards*, mandates that necessary actions be taken to prevent and control environmental pollution when federal activities or federal facilities are involved.

California regulates hazardous materials, waste, and substances under the authority of the California Health and Safety Code and is also authorized by the federal government to implement Resource Conservation and Recovery Act in the state. California law also addresses specific handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning of hazardous waste. The Porter-Cologne Water Quality Control Act also restricts disposal of wastes and requires cleanup of wastes that are below hazardous waste concentrations but could impact ground and surface water quality. California regulations that address waste management and prevention and cleanup of contamination include Title 22 Division 4.5 Environmental Health Standards for the Management of Hazardous Waste, Title 23 Waters, and Title 27 Environmental Protection.

Worker and public health and safety are key issues when addressing hazardous materials that may affect human health and the environment. Proper management and disposal of hazardous material is vital if it is found, disturbed, or generated during project construction.

2.12.2 Affected Environment

This section is based on the *Phase I Initial Site Assessment* (September 2014, updated 2018). The scope of work for this *Initial Site Assessment* did not include testing of electrical equipment for the presence of polychlorinated biphenyls or collection of other environmental samples such as air, water, building materials, or paint; assessment of natural hazards such as naturally occurring asbestos, radon gas, or methane gas; assessment of the potential presence of radionuclides; or assessment of non-chemical hazards such as the potential for damage from earthquakes or floods; or the presence of endangered species, wetlands, or wildlife habitats. This *Initial Site Assessment* also did not include an extensive assessment of the environmental compliance status of the project site or of the businesses operating in the surrounding area or a health-based risk assessment.

A detailed site reconnaissance was not conducted due to the size of the proposed project and that no new permanent easements or property acquisitions would be required. In addition, environmental liens were not researched since no new permanent easements or property acquisitions would be required. Similarly, User Questionnaires were also not completed as a part of this IS/EA. Caltrans was contacted to request any potential records regarding known spills or contamination within the project site.

2.12.2.1 Site Reconnaissance and Record Search Methodology

The following were conducted as part of the IS/EA:

- **Site Reconnaissance Visit:** On December 22, 2017, a reconnaissance-level assessment was conducted within the right-of-way and consisted of observation and documentation of existing conditions of the project site. Elevation differences, sound/property walls, and vegetation limited the observations for areas adjacent to the project site.
- **Environmental Database Review:** A records search of federal and State environmental databases for the area within approximately 0.25 mile of the project was conducted on October 23, 2017.
- **Agency Records Review:** The U.S. EPA, the California Department of Toxic Substances Control Hazardous Materials Division, the Santa Ana RWQCB, National Pipeline Mapping System, California Department of Public Health, and the Orange County Health Care Agency were contacted to obtain documentation for properties within and adjacent to the project right-of-way.
- **Historical Research:** Aerial photographs and historical topographic maps of the area along and in the vicinity of the project area were reviewed.

2.12.2.2 Results of the Initial Site Assessment

Based on the site reconnaissance visit and records searches, a few potential hazardous materials sites and pipelines were located within the existing SR 55 right-of-way and adjacent to the project site. These locations and types of hazardous materials are described below.

Proposed Acquisition Parcels

Based on the site reconnaissance and database search discussed above in Section 2.12.2.1, proposed TCEs are not located on properties identified as having hazardous waste concerns.

Non-Acquisition Parcels

Based on the site reconnaissance and database search discussed above in Section 2.12.2.1, the following three properties are located in the vicinity of the maximum disturbance limits of the Build Alternative and were identified as potential recognized environmental condition sites:

- **The La Veta Former Refuse Disposal Station, northeast corner of La Veta Avenue and Tustin Street, Orange, CA 92860.** This property adjoins the project site and is located east and west of SR 55, approximately 1,200 feet north of the proposed improvements between I- 5 and SR 22, and is adjacent to Santiago Creek between La Veta Avenue and East Chapman Avenue in the City of Orange. Current land uses include YMCA; Yorba Park, Santiago Creekside Estates Mobile Home Park; Arroyo Casa Apartment Complex; and single-family residential. The facility was formerly used as a burn dump; and the soil is impacted with heavy metals, dioxins, and furans.
- **Chevron Station, 1940 East Katella Avenue, Orange, CA 92667.** This site has had historical releases to the on-site soil. Based on EnviroStor documents (DTSC 2019), groundwater has never been detected at this site up to 108 feet below ground surface. This site adjoins the proposed ramp improvements at Katella Avenue; however, contaminated area is on the other side of the property. There is a low potential for total petroleum hydrocarbons and volatile organic compounds to have extended off site into this area.
- **The former dry cleaning site, northeast corner of 17th Street and Tustin Avenue, Santa Ana, CA 92705.** This site is an active voluntary cleanup site. This site is located south of 17th Street approximately 650 feet west of physical improvements for the project. There is potential for tetrachloroethylene (PERC) and trichloroethylene to have extended off site, toward the project site. Groundwater flow direction is depicted to the south and southwest, which is consistent with the surface topography in the surrounding area (OCWD 2015) and is at least 120 feet bgs based on EnviroStor documents.

Pipelines

Based on the database search discussed above in Section 2.12.2.1, the following two hazardous material pipelines transect the project site:

- An active (unfilled) non-highly volatile liquids (HVL) product pipeline transects the project site at 17th Street. The operator of this pipeline is documented as Department of Defense's Defense Energy Support Center. According to the as-builts, this line is approximately 8 to 10 feet below the existing freeway and is protected in place.
- An active (filled) multi-products pipeline transects the project site north of Katella Avenue and south of Taft Avenue in the City of Orange. The operator of this pipeline is documented as SFPP, LP.

On January 12, 2018, the owners/operators of these pipelines were contacted to obtain additional information on pipeline size, location, and determine if any reported releases have occurred. On January 18, 2018, the facility manager with Department of Defense's Defense Energy Support Center responded via phone. He verified the active pipeline that transects the project site at 17th Street and said he was not aware of any reported releases from the pipeline. He asked to be informed in the event construction activities would take place within 10 feet of the pipeline and that all activities be conducted in accordance with the Department of Defense's Final Pipeline Construction and Repair Requirements Manual. On February 9, 2018, the director with Kinder Morgan responded via email stating Kinder Morgan does not have any records of past or current environmental contamination at or adjacent to the pipeline locations north of Katella Avenue.

Oil and Gas Fields

Based on the database search discussed above in Section 2.12.2.1, the following three oil and gas wells are located in the vicinity of the project site. Evidence of oil or gas wells or oilfield-related facilities was not identified within the project site during the site reconnaissance visit.

- Operated by Chevron U.S.A. Inc. and leased by "Tustin Community," a plugged oil and gas well is located approximately 150 feet east of SR 55, just west of North Sacramento Street between Katella Avenue to the north and East Collins Avenue to the south. According to the information reviewed on the Division of Oil, Gas, and Geothermal Resources website (2017), the well was drilled as a prospect well and was not producing; therefore, the well was plugged and abandoned with the oversight of Division of Oil, Gas, and Geothermal Resources.
- Operated by McKee Oil Company and leased by Kokx Community, a plugged and abandoned oil and gas well is located approximately 375 feet east of SR 55, just north of East Villa Vista Way. No additional information was obtained from the Division of Oil, Gas, and Geothermal Resources website (2017).
- Operated by Long Beach Consolidated Oil Company, an idle oil and gas well is located approximately 200 feet east of the SR 55/SR 91 interchange. According to the information reviewed on the Division of Oil, Gas, and Geothermal Resources website (2017), no log or history has been submitted for this well.

Polychlorinated Biphenyls

Multiple pad- and pole-mounted transformers were observed adjacent to the project site. Staining was not observed beneath the transformers, and all the transformers appear to be working properly and in good condition. In addition, the updated database review did not report polychlorinated biphenyl releases along the project site.

The observed transformers are reportedly owned and operated by SCE; and, as such, SCE accepts responsibility for cleanup from leakage, repair, or replacement activities, provided the cause is not customer misuse.

Staining, Discolored Soils, and/or Corrosion

Evidence of staining was observed on the project site along the shoulders of SR-55 and at the parking lot for the Park and Ride located on the east-side of North Tustin Street between Lincoln

Avenue and the SR 55 southbound on-ramp. Stains were typical of vehicle leaks and were generally no more than 1.5 feet in diameter and represent de minimus impacts.

Aerially Deposited Lead

The project site is SR 55 and has been heavily traveled. The potential for ADL impacted soils exists along the project limits.

Lead Chromate

Yellow pavement traffic markings (thermoplastic and paint) on SR 55 and the arterials crossing SR 55 potentially contain hazardous levels of lead chromate.

Lead-Based Paint

A lead-based paint (LBP) survey was not performed as part of this investigation. LBP may be present in some of the bridge structures associated with the project site. Yellow striping paint frequently used on highways may contain lead and/or chromium.

Asbestos-Containing Materials

A survey for asbestos-containing materials (ACM) was not performed as part of this investigation; however, ACM may be present in some of the bridge structures within the project site.

On-Site Wells

The updated EDR Data Map Corridor Study Report (Appendix B of the Initial Site Assessment [September 2014, updated 2018]) did not identify any spills that would require clean-up or monitoring within the project site. Any available information was requested from Caltrans District 12 regarding locations that were or are undergoing clean-up or monitoring within the project site. Caltrans District 12 Environmental Planning and Maintenance groups indicated that they did not have any records of spills. Evidence of groundwater monitoring wells was not observed on the project site. Evidence of oil or gas production wells was not observed on the project site.

Waste Disposal and Dumping

Waste is not currently generated at the project site. Typical roadside litter was observed throughout the corridor. Regular litter removal activities on the project site are conducted by Caltrans. The project is covered with various forms of litter discarded from passing vehicles or blown onto the property by the wind. Regular litter removal activities are conducted by Caltrans. No illegal dump sites were observed on the project site.

Storage Tanks, Hazardous Substances, Drums, and Other Chemical Containers

Evidence of underground storage tanks (such as vent lines, fill, or overflow ports) was not observed on the project site. Hazardous substances, drums, or other chemical containers were not observed within the visible areas of the project site.

Other Observations

Stormwater drains were identified along the shoulders and median of SR 55. Evidence of pits, ponds, lagoons, septic systems, sumps, wastewater, and cisterns was not observed at the project site. No unusual odors were detected on the project site. Stressed vegetation was not observed on the project site. Pesticides were not observed on the project site. A former railroad right-of-way (Southern Pacific Railroad) transects the project site north of Katella Avenue and south of Taft Avenue in the City of Orange.

2.12.3 Environmental Consequences

2.12.3.1 Temporary Impacts

Build Alternative

Three properties are located in the vicinity of the maximum disturbance limits of the Build Alternative and were identified as potential recognized environmental condition sites; however, no improvements or excavation are anticipated on or adjacent to these three sites. The Build Alternative would not result in adverse impacts to these three sites identified as potential recognized environmental condition sites during construction.

Temporary impacts related to hazardous materials/wastes during project construction could occur within the maximum disturbance limits for the Build Alternative. All staging would occur within Caltrans' right-of-way, and no permanent property acquisition would be required. The project would require two TCEs. One TCE will be required from the Village Apartments and would impact a residential carport, which houses fifteen parking spaces and storage cabinets. The carport will be removed by the project contractor and the owner will be reimbursed for the cost of a carport replacement. An additional TCE will be required from a small, vacant parcel owned by A-H properties. This TCE is situated along the SR55 right of way between the Village Apartments parcel to the south and the medical office building to the north. No additional easements or property acquisitions would be required. The Build Alternative would not result in adverse impacts associated with the TCEs during construction.

Three oil and gas wells are located in the vicinity of the project site. Two of the wells (operated by Chevron U.S.A. Inc and leased by Tustin Community and operated by McKee Oil Company and leased by Kokx Community) are listed as plugged and abandoned. One well operated by Long Beach Consolidated Oil Company is an idle well. All three wells have a low potential to adversely affect the project site. The Build Alternative would not result in adverse impacts to these three wells during construction.

ADL from the historical use of leaded gasoline exists along roadways throughout California. There is the likely presence of soils with elevated concentrations of lead as a result of ADL on the state highway system right-of-way within the limits of the project alternative. Soil determined to contain lead concentrations exceeding stipulated thresholds must be managed under the July 1, 2016, ADL Agreement between Caltrans and the California Department of Toxic Substances Control. This ADL Agreement allows such soils to be safely reused within the project limits as long as all requirements of the ADL Agreement are met.

Although the potential for lead contamination to exist within exposed soils along SR 55 due to ADL is unlikely to remain, the implementation of Project Feature PF-HAZ-1 should occur in order to confirm no ADL is present through verification sampling.

PF-HAZ-1 An ADL survey consisting of the collection of shallow subsurface soil samples should be conducted within the project limits, adjacent to the current right-of-way, by a certified specialist during the PS&E phase. The survey is required to determine if special handling is required pursuant to Soil Management Agreement for Aerially Deposited Lead-Contaminated Soils effective July 1, 2016 (DTSC 2016), or as otherwise updated. ADL sampling should be completed for incorporation into the construction bid documents.

With implementation of Project Feature PF-HAZ-2, the Build Alternative would not directly result in adverse impacts with soils containing lead concentrations during construction.

Yellow striping paint potentially containing chromium and or lead was observed within the current rights-of-way located within the project site. Removal of these materials during construction could affect construction workers and the surrounding environment. Project Feature PF-HAZ-2 would include testing and removal requirements associated with the striping paint.

PF-HAZ-2 Testing and removal requirements for yellow striping should be conducted in accordance with Caltrans Construction Manual Chapter 7-107E (Caltrans 2017b) and by a certified specialist during the next phase of the project (PS&E).

With implementation of Project Feature PF-HAZ-3, the Build Alternative would not result in direct adverse impacts associated with removing yellow striping paint during construction.

ACMs and LBP may be present in some of the bridges and structures associated with the project; however, no demolition or modification of bridges is anticipated. Project Feature PF-HAZ-3 would be implemented should demolition or modification of a bridge be required.

PF-HAZ-3 If demolition or modification of any structure is required, a comprehensive LBP survey be completed prior to demolition of any structures. The surveys should be conducted by a certified specialist during the next phase of the project (PS&E). If ACMs are identified during an ACM survey, ACMs should be abated in accordance with State and federal laws prior to demolition.

With implementation of Project Feature PF-HAZ-4, the Build Alternative would not directly result in adverse impacts related to ACMs and LBP during construction.

Multiple pad- and pole-mounted transformers were observed adjacent to the project site. Given the utility ownership under SCE and observed conditions, the electrical transformers are not considered to represent a likely past, present, or material threat of release nor do they represent a recognized environmental condition site to the project site at this time. The Build Alternative would not result in adverse impacts related to polychlorinated biphenyls during construction.

Groundwater levels are approximately 40 to 100 bgs and may be contaminated within the project site. As noted in Section 2.9, Water Quality and Stormwater Runoff, groundwater is not expected to adversely affect construction of the proposed project and dewatering activities are not

anticipated. However, fluctuations of the groundwater level, localized zones of perched water, and an increase in soil moisture should be anticipated during and following the rainy seasons in the area (October 1 through May 1) or periods of locally intense rainfall or stormwater runoff. Further investigation during the PS&E phase will determine groundwater levels and whether dewatering is required. In addition, permits and BMPs associated with water quality and stormwater runoff as described in Section 2.9 will be required. The Build Alternative would not result in adverse impacts related to contaminated soil and/or groundwater during construction.

In general, observations should be made during construction activities for areas of possible contamination including, but not limited to, the presence of underground facilities, buried debris, waste drums, tanks, stained soil, or odorous soils. Project Feature PF-HAZ-4 will provide the appropriate avoidance, minimization, or mitigation for unknown hazards.

PF-HAZ-4 Should such materials be encountered during construction, construction activities would be stopped; and further investigation would be completed in accordance with Caltrans Construction Manual for discovery of unknown contamination.

With implementation of Project Feature PF-HAZ-4, the Build Alternative would not result in direct adverse impacts related to unknown hazards.

Two active pipelines transect the project site. The HVL product pipeline is approximately 8 to 10 feet below the existing freeway along 17th Street and is protected in place. Therefore, direct and indirect impacts to this pipeline are not anticipated. The multi-products pipeline is located north of Katella Avenue and south of Taft Avenue in the City of Orange, however, no improvements or excavation is anticipated at this location. Project Feature PF-HAZ-1 would include coordination with the owner of the HVL product pipeline and additional assessment if disturbance of the pipelines is required.

PF-HAZ-5 If it is determined that disturbance of or within the vicinity of the hazardous materials pipelines is required, additional assessment may be warranted. During the PS&E phase, the owner of the HVL product pipeline will be contacted to evaluate potential design impacts at that time. All activities will be conducted in accordance with the Department of Defense's Final Pipeline Construction and Repair Requirements Manual.

With implementation of measure PF-HAZ-5, the Build Alternative would not result in direct adverse impacts to these two active pipelines during construction.

The former Southern Pacific Railroad right-of-way transects the project site north of Katella Avenue and south of Taft Avenue in the City of Orange. Soils may be impacted by total petroleum hydrocarbons, polycyclic aromatic hydrocarbons, and/or metals; however, no improvements are proposed within the Southern Pacific Railroad right-of-way. Project Feature PF-HAZ-6 would include additional assessment if improvements are proposed within the railroad right-of-way.

PF-HAZ-6 If it is determined that ground disturbance within the Southern Pacific Railroad right-of-way is required, additional assessment may be warranted to identify contaminants and potential hazards.

The Build Alternative would not result in direct adverse impacts related to the railroad right-of-way during construction.

No Build Alternative

The No Build Alternative would not result in the disturbance or removal of any soils, groundwater, or structures and, therefore, would not result in temporary direct or indirect impacts related to hazardous waste and materials.

2.12.3.2 Permanent Impacts

Build Alternative

Routine maintenance activities during operation of the Build Alternative would be required to follow applicable regulations with respect to the use, storage, handling, transport, and disposal of potentially hazardous materials. Therefore, the operation of the Build Alternative would not result in adverse impacts related to hazardous waste or materials. Indirect or secondary impacts on hazardous waste and materials are not anticipated to occur.

No Build Alternative

The No Build Alternative would not change the existing physical environment; and, therefore, no direct permanent impacts related to hazardous waste would occur under this alternative. No indirect or secondary impacts on hazardous waste and materials would result under the No Build Alternative. Similar to the Build Alternative, routine maintenance activities would continue under the No Build Alternative, including compliance with applicable regulations regarding the handling and disposal of potentially hazardous materials.

2.12.4 Avoidance, Minimization, and/or Mitigation Measures

The project will incorporate the project features, PF-HAZ-1 through PF-HAZ-6, outlined above in Section 2.12.3, Environmental Consequences, to help avoid and/or minimize potential impacts. No additional avoidance, minimization, and/or mitigation measures other than the Standard Project Features are required.

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