

2.2.5 Hazardous Waste/Materials

2.2.5.1 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 *Environmental Response, Compensation and Liability Act (CERCLA)* of 1980, and the *Resource Conservation and Recovery Act (RCRA)* of 1976. The purpose of CERCLA, often referred to as “Superfund,” is to identify and cleanup abandoned contaminated sites so that public health and welfare are not compromised. The RCRA provides for “cradle to grave” regulation of hazardous waste generated by operating entities. Other federal laws include:

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

In addition to the acts listed above, Executive Order (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 CA Health and Safety Code and is also authorized by the federal government to implement RCRA 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.

2.2.5.2 Affected Environment

This section is based on the I-605/Katella Avenue Interchange Phase I Initial Site Assessment (Phase I ISA) (February 2015) and the I-605/Katella Avenue Interchange, EA 0K8700 - Phase I Initial Site Assessment Memorandum (January 12, 2017).

2.2.5.2.1 Field Survey and Record Search Methodology

Records Review: An EDR records search of Federal and State environmental databases for sites within the project site and within an approximate one-mile radius of the project site boundaries was received on January 8, 2014.

Agency File Review: A Solid Waste Information System (SWIS) database search of the project site vicinity and a GeoTracker database search of a property adjoining the project site at 3191 Katella Avenue as well as the adjacent property 3311 Katella Avenue was conducted on January 22, 2014.

Historical Research: Aerial photographs, Sanborn Fire Insurance Maps, and historical topographic maps of the area along and in the vicinity of the project site were reviewed as well as property tax files, zoning/land use records, and California Department of Oil, Gas, and Geothermal Resources (DOGGR) records.

Site Reconnaissance: On January 28, 2014, a site reconnaissance visit was conducted and consisted of a visual observation of readily accessible areas of the project site and immediately adjoining properties. The project site was viewed from all public thoroughfares. If roads or paths with no apparent outlet were observed on the project site, the use of the road or path was identified to determine whether it was likely to have been used as an avenue for disposal of hazardous substances or petroleum products. Limiting conditions were not encountered during the site reconnaissance visit, other than the project site was viewed from public accessible areas.

Interviews: The Phase I ISA identified the key site manager as the Project Engineer. The Project Engineer, local government officials, including staff from the City of Los Alamitos Public Works Department and County of Los Angeles Department of Public Health, and a staff member from Plains All American GP, LLC were interviewed.

2.2.5.2.2 Results of the Phase I ISA

The project site consists of transportation uses and associated roadway right-of-way (ROW). The existing I-605/Katella Avenue interchange consists of a modified clover (Type L-10) interchange with associated eastbound and westbound on- and off-ramps. Coyote Channel traverses the western portion of the project site in a north/south direction. Areas of proposed ROW acquisition consist of vacant landscaped land associated with off-site office-commercial uses.

The lists that were reviewed as part of the Phase I ISA did not report any regulatory properties within the boundaries of the project site. During preparation of the Phase I ISA, no known corrective action, restoration, or remediation had been planned, was taking place, or had been completed on the project site. The project site had not been under investigation for violation of any environmental laws, regulations, or standards, as identified in the databases reported by EDR.

Asbestos-Containing Materials

Asbestos is a strong, incombustible, and corrosion resistant material, which was used in many commercial products since prior to the 1940s and up until the early 1970s. If inhaled, asbestos fibers can result in serious health problems. Asbestos containing-materials (ACMs) are building materials containing more than one percent asbestos (some state and regional regulators

impose a one-tenth of one percent threshold). As ACMs are commonly known to be used in building materials for bridge structures, ACMs may be present in the three on-site bridge structures (constructed in 1966 or earlier). According to the Phase I ISA, during the site reconnaissance visit, the on-site bridge structures appeared to be in fair condition and no visible evidence suggested the release of ACMs into the environment. Although no buildings are located on-site, three bridge structures associated with the Katella Avenue Undercrossing (55-0405, 55-0405K, and 55-0405S) beneath I-605 are located within the project site. The Phase I ISA determined that the on-site bridge structures have not resulted in a Recognized Environmental Condition (REC) on the project site as a result of ACMs.

Lead-Based Paints (On-Site Bridge Structures)

Until 1978, when the U.S. Consumer Product Safety Commission (CPSC) phased out the sale and distribution of residential paint containing lead, many homes were treated with paint containing some amount of lead. It is estimated that over 80 percent of all housing built prior to 1978 contains some lead-based paint (LBP). The mere presence of lead in paint may not constitute a material to be considered hazardous. In fact, if in good condition (no flaking or peeling), most intact LBP is not considered to be a hazardous material. In poor condition LBPs can create a potential health hazard for building occupants, especially children. As LBPs are commonly known to be used in building materials for bridge structures, LBPs may be present in the on-site bridge structures, which were constructed in 1966 or earlier. According to the Phase I ISA, during the site reconnaissance visit, the on-site bridge structures appeared to be in fair condition and no visible evidence suggested the release of LBPs into the environment. Therefore, the Phase I ISA determined that the on-site bridge structures have not resulted in a REC on the project site as a result of LBPs.

Traffic Striping Materials

LBPs were commonly used in traffic striping materials before the discontinued use of lead chromate pigment in traffic striping/marketing materials and hot-melt thermoplastic stripe materials (discontinued in 1996 and 2004, respectively). According to the Phase I ISA, traffic striping was observed within the boundaries of the project site during the January 28, 2014 site visit. Thus, the Phase I ISA determined that the potential for LBPs to be present on-site as a result of traffic striping is likely. However, the Phase I ISA stated that the on-site striping materials appeared to be contained, and reported no visible evidence to suggest the release of LBPs into the environment. As such, the Phase I ISA determined that the on-site striping materials have not resulted in an REC on the project site as a result of LBPs within traffic striping materials.

Petroleum Pipeline

The Phase I ISA reported signage indicating the presence of a petroleum pipeline during the January 28, 2014 site visit. The signage was located within the vicinity of Coyote Creek, within the western portion of the project site. Based on interviews conducted with Mr. John Waldeck, Manager Asset Integrity Reporting with Plains All American GP LLC, this active petroleum pipeline is L508 (Cerritos to Alamos); a 12-inch crude line that trends along Coyote Creek and then extends west along East Spring Street (to the north of the project site). This line was acquired by Plains All American GP LLC from Pacific Energy on November 15, 2006. To the best of their knowledge, there have been no reported releases within the project vicinity prior to, or since the acquisition. Based on interviews conducted, the Phase I ISA determined that the presence of the petroleum pipeline had not resulted in an REC at the time of the ISA.

Transformers

The Phase I ISA noted on-site pole- and pad-mounted transformers during the January 28, 2014 site visit. No evidence of dielectric fluid or staining was noted on-site. The Phase I ISA determined that the on-site transformers had not resulted in an REC on the project site.

Aerially Deposited Lead

Until the mid-1980s, gasoline and other fuels contained lead, a toxic metal. As each car or truck traveled highways and roads, tiny particles of lead were released in the exhaust and settled on the soils next to the road. Most of the time, lead tends not to move very far or fast in the environment.

The California Department of Transportation (Caltrans) has sampled sediment adjacent to traffic lanes in major metropolitan areas and determined that lead from leaded gasoline emissions is present. Elevated lead levels have been found to be highest within 10 feet of the edge of the pavement and within the top six inches of the soil and decreases with distance from the road and soil depth. Sampling and laboratory testing has shown that some of the soil contains concentrations of lead in excess of State regulatory thresholds, and thus any generated waste from disturbance of the soil would be regulated as hazardous waste. Such soil contains a Total Threshold Limit Concentration (TTLC) of 1000 milligrams per kilogram (mg/kg) or more lead and/or it meets or exceeds the Soluble Threshold Limit Concentration (STLC) for lead of 5 milligrams per liter (mg/l). A Human Health Risk Assessment prepared in support of Caltrans and Department of Toxic Substances Control (DTSC), Soil Management Agreement for Aerially Deposited Lead Contaminated Soils, effective July 1, 2016, concluded that soil contaminated with elevated concentrations of lead can be managed in a way that presents no significant risk to human health.

Based on the Phase I ISA interviews with the Project Engineer, I-605 was constructed in 1966. The Phase I ISA determined that I-605, in the vicinity of the project site, has been utilized by a high volume of traffic since then and the potential for lead contamination to exist within exposed soils on-site due to aerially deposited lead is likely. The Phase I ISA concluded that there is a REC on the project site as a result of aerially deposited lead.

2.2.5.3 Environmental Consequences

2.2.5.3.1 Temporary Impacts

Alternative 1 (No-Build Alternative)

No improvements to the existing I-605/Katella Avenue interchange would occur under the No-Build Alternative and, therefore, it would not result in temporary impacts related to hazardous waste and materials.

Alternatives 2 and 3 (Build Alternatives)

Both Alternatives 2 and 3 would modify interchange ramps and lane configurations without altering the existing bridge structures; the existing I-605 mainline would not be modified, with the exception of restriping the northbound No. 4 lane at the northbound exit ramp under Alternatives 2 and 3. In addition, Katella Avenue would be widened and lane geometries would be modified to provide standard lanes and shoulders through the interchange and to tie in with proposed

ramp improvements under Alternatives 2 and 3. Portions of the existing interchange ramps would be widened or reconstructed under Alternatives 2 and 3.

Asbestos-Containing Materials

Both Alternatives 2 and 3 would modify interchange ramps and lane configurations without altering the existing bridge structures associated with the I-605 overcrossing over Katella Avenue. As demolition/modification of the bridge structures would not occur, the project would not disturb potential ACMs. Thus, no impacts related to ACMs would result.

Lead-Based Paints (On-Site Bridge Structures)

As stated above, neither Alternatives 2 nor 3 would alter the bridge structures associated with the I-605 overcrossing over Katella Avenue. No impacts would result in this regard. Potential impacts regarding LBPs associated with traffic striping materials are described below.

Traffic Striping Materials

The I-605 northbound No. 4 lane at the northbound exit ramp would be restriped under Alternatives 2 and 3. In addition, Katella Avenue would be widened and lane geometries would be modified to provide standard lanes and shoulders through the interchange and to tie in with proposed ramp improvements under Alternatives 2 and 3. Portions of the existing interchange ramps would be widened or reconstructed under Alternatives 2 and 3. Alternative 3 would include removal of the existing southbound loop on-ramp. Thus, disturbance of traffic striping materials would occur with implementation of Alternatives 2 or 3. The project includes the preparation and submittal of a special provision (Measure HAZ-1) for the removal, containment, storage, and disposal of the traffic striping material. As such, effects related to LBPs in traffic striping materials would not be adverse.

Petroleum Pipeline

A petroleum pipeline trends along Coyote Creek and then extends west along East Spring Street (to the north of the project site). The potential exists to encounter the petroleum pipeline during site disturbance activities in the vicinity of Coyote Creek in the western portion of the project site. Prior to the start of construction, the contractor will contact Dig Alert (Underground Service Alert [USA] of Southern California) to confirm the location of the existing petroleum pipeline and coordination with the owner of the existing petroleum pipeline to ensure that a rupture during disturbance activities does not occur (Measure HAZ-2). Thus, effects related to the existing petroleum pipeline would not be adverse.

Transformers

The Phase I ISA noted on-site pole- and pad-mounted transformers during the January 28, 2014 site visit. Construction activities associated with both Build Alternatives could involve the relocation/removal of on-site transformers. As such, construction/demolition of on-site transformers would need to be conducted under the purview of the local purveyor to identify property-handling procedures regarding PCBs (Measure HAZ-3). As such, effects related to PCBs would not be adverse.

Aerially Deposited Lead

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 ROW within the limits of the project alternatives. Soil determined to contain lead concentrations exceeding stipulated thresholds must be managed under the July 1, 2016, ADL Agreement between Caltrans and the DTSC. 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.

Because the I-605 was constructed in 1966 and has been utilized by a high volume of traffic, the potential for lead contamination to exist within exposed soils on-site due to ADL is likely. The project includes the preparation and submittal of a special provision (Measure HAZ-4) for the removal, containment, storage, and disposal of the ADL containing material. As such, effects related to ADL would not be adverse.

Unknown Waste

As part of the project, if unknown wastes or suspect materials are discovered during site disturbance activities that may involve hazardous waste/materials, the contractor will immediately stop work in the vicinity of the suspected contaminant, secure the area with barriers or fences, and evacuate the vicinity; prohibit construction personnel from any exploratory or investigative work; notify the Project Engineer of the implementing agency; and notify the implementing agency's Hazardous Waste/Materials Coordinator (Measure HAZ-4). In accordance with Title 29, Part 1910.120, Hazardous Waste Operations and Emergency Response, of the Code of Federal Regulations, the project would require that no one enter the designated exclusion zones until a complete and effective "hazardous waste worker protection program" is established or until the consultant has determined no exposure danger exists. As such, impacts related to unknown hazardous waste and suspect materials would not be adverse.

2.2.5.3.2 Permanent Impacts

Alternative 1 (No-Build Alternative)

The No-Build Alternative would not change the existing physical environment and, therefore, there would be no permanent impacts related to hazardous waste under this alternative. Routine maintenance activities would continue to occur under this alternative, including compliance with applicable regulations with respect to the use, storage, handling, transport, and disposal of potentially hazardous materials.

Alternatives 2 and 3 (Build Alternatives)

Routine maintenance activities during operation of the Build Alternatives 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 Alternatives would not result in adverse impacts related to hazardous waste or materials.

2.2.5.4 Avoidance, Minimization, and/or Mitigation Measures

- HAZ-1** A special provision prepared and submitted as part of the project will ensure proper removal, handling, and disposal of the generated traffic striping waste at a permitted disposal facility.
- HAZ-2** Prior to the start of construction, the contractor will contact Dig Alert to confirm the location of the existing petroleum pipeline and coordination with the owner of the existing petroleum pipeline to ensure that a rupture during disturbance activities does not occur.
- HAZ-3** Any transformer to be relocated/removed during site construction/demolition will be conducted under the purview of the local purveyor to identify proper handling procedures regarding polychlorinated biphenyls (PCBs).
- HAZ-4** A special provision prepared and submitted as part of the project will ensure proper removal, handling, and disposal of the ADL containing material at a permitted disposal facility.
- HAZ-5** If unknown wastes or suspect materials are discovered during site disturbance activities that may involve hazardous waste/materials, the contractor will immediately stop work in the vicinity of the suspected contaminant, secure the area with barriers or fences, and evacuate the vicinity; prohibit construction personnel from any exploratory or investigative work; notify the Project Engineer of the implementing agency; and notify the implementing agency's Hazardous Waste/Materials Coordinator. In accordance with Title 29, Part 1910.120, Hazardous Waste Operations and Emergency Response, of the Code of Federal Regulations, the project would require that no one enter the designated exclusion zones until a complete and effective "hazardous waste worker protection program" is established or until the consultant has determined no exposure danger exists.

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