Los Angeles County
Metropolitan Transportation Authority

West Santa Ana Branch Transit Corridor

Final Hazardous Materials Impact Analysis Report

Metro®

WEST SANTA ANA BRANCH TRANSIT CORRIDOR PROJECT

Final

Hazardous Materials Impact Analysis Report

Prepared for:

Metro

Los Angeles County

Metropolitan Transportation Authority

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ACRONYMS AND ABBREVIATIONS

Acronyms	Definition
AA	Alternatives Analysis
AB	Assembly Bill
ACM	asbestos-containing materials
ADL	aerially deposited lead
AST	aboveground storage tank
ASTM	American Society of Testing and Materials
ATSDR	Agency for Toxic Substances and Disease Registry
BMP	best management practice
Cal/ARP	California Accidental Release Prevention program
Cal-EPA	California Environmental Protection Agency
CalGEM	California Department of Conservation Geologic Energy Management Division
CalRecycle	California Department of Resources, Recycling, and Recovery
Caltrans	California Department of Transportation
CCR	California Code of Regulations
CDC	Centers for Disease Control and Prevention
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Recovery, Compensation, and Liability Act
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CFR	Code of Federal Regulations
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
DHSS	Delaware Health and Social Services
DIR	California Department of Industrial Relations
DOGGR	California Division of Oil, Gas, and Geothermal Resources, now known as California Geologic Energy Management Division (CalGEM)
DTSC	Department of Toxic Substances Control
E2C	E2C Remediation (company)
ECHO	Enforcement and Compliance History Online (database)

Acronyms	Definition
EDR	Environmental Data Resources
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EOO	Emergency Operations Organization
ESA	Environmental Site Assessment
GIS	Geographic Information System
HHMD	Health and Hazardous Materials Division
I-	Interstate
LA	Los Angeles
LADBS	Los Angeles Department of Building and Safety
LADPW	Los Angeles County Department of Public Works
LAFD	City of Los Angeles Fire Department
LARWQCB	Los Angeles Regional Water Quality Control Board
LBP	lead-based paint
LPA	Locally Preferred Alternative
LRT	light rail transit
LRV	light rail vehicle
Metro	Los Angeles County Metropolitan Transportation Authority
MSF	maintenance and storage facility
MWD	Metropolitan Water District
NEPA	National Environmental Policy Act
NOP	Notice of Preparation
NPL	National Priorities List
NPMS	National Pipeline Mapping System
O&M	Operations and Maintenance
OEHHA	California Office of Environmental Health Hazard Assessment
OSHA	U.S. Occupational Safety and Health Administration
PAH	polycyclic aromatic hydrocarbons
PCB	polychlorinated biphenyls
pCi/l	picocuries per liter
PEROW	Pacific Electric Right-of-Way

Acronyms	Definition
PRC	Public Resource Code
RCRA	Resource Conservation and Recovery Act
RMPP	Risk Management and Prevention Program
ROW	right-of-way
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
RWQCB	Regional Water Quality Control Board
SCAG	Southern California Association of Governments
SR	State Route
SWIS	Solid Waste Information System
SWRCB	State Water Resources Control Board
TPSS	traction power substation
TRS	Technical Refinement Study
UPRR	Union Pacific Railroad
US-101	United States Highway 101 (Santa Ana Freeway)
USACE	United States Army Corps of Engineers
USC	United States Code
USEPA	United States Environmental Protection Agency
UST	underground storage tank
VOC	volatile organic compounds
WSAB	West Santa Ana Branch

1 INTRODUCTION

1.1 Study Background

The West Santa Ana Branch (WSAB) Transit Corridor (Project) is a proposed light rail transit (LRT) line. In January 2022, the Los Angeles County Metropolitan Transportation Authority (Metro) Board of Directors identified the Locally Preferred Alternative (LPA), which will extend approximately 14.5 miles from the northern terminus in the City of Los Angeles/Florence-Firestone community of Los Angeles (LA) County to the southern terminus in the City of Artesia, traversing densely populated, low-income, and heavily transit-dependent communities. The Project will provide reliable, fixed-guideway transit service that will increase mobility and connectivity for historically underserved, transit-dependent, and environmental justice communities; reduce travel times on local and regional transportation networks; and accommodate substantial future employment and population growth.

1.2 Alternatives Evaluation, Screening, and Selection Process

A wide range of potential alternatives have been considered and screened through the alternatives analysis processes. In March 2010, the Southern California Association of Governments (SCAG) initiated the Pacific Electric Right-of-Way (PEROW)/WSAB Alternatives Analysis (AA) Study (SCAG 2013) in coordination with the relevant cities, the Orangeline Development Authority (renamed to Eco-Rapid Transit, which has since been dissolved), the Gateway Cities Council of Governments, Metro, the Orange County Transportation Authority, and the owners of the right-of-way (ROW)—Union Pacific Railroad (UPRR), BNSF Railway, and the Ports of Los Angeles and Long Beach. The AA Study evaluated a wide variety of transit connections and modes for a broader 34-mile corridor from Union Station in downtown Los Angeles to the City of Santa Ana in Orange County. In February 2013, SCAG completed the PEROW/WSAB Corridor Alternatives Analysis Report[1] and recommended two LRT alternatives for further study: West Bank 3 and the East Bank.

Following completion of the AA, Metro completed the *West Santa Ana Branch Transit Corridor Project Technical Refinement Study* (Metro 2015) in 2015 focusing on the design and feasibility of five key issue areas along the 19-mile portion of the WSAB Transit Corridor within LA County:

- Access to Union Station in downtown Los Angeles
- Northern Section options
- Huntington Park Alignment and Stations
- New C (Green) Line Station
- Southern Terminus at Pioneer Station in Artesia

In September 2016, Metro initiated the WSAB Transit Corridor Environmental Study (Environmental Study) with the goal of environmentally clearing the Project under the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA).

[1] Initial concepts evaluated in the SCAG report included transit connections and modes for the 34-mile corridor from Union Station in downtown Los Angeles to the City of Santa Ana. Modes included low-speed magnetic levitation (maglev) heavy rail, light rail, and bus rapid transit.

Metro issued a Notice of Preparation (NOP) on May 25, 2017, with a revised NOP issued on June 14, 2017, extending the comment period to 60 days. In June 2017, Metro held public scoping meetings in the Cities of Bellflower, Los Angeles, South Gate, and Huntington Park. Metro provided project updates and information to stakeholders with the intent to receive comments and questions through a comment period that ended in August 2017. A total of 1,122 comments were received during the public scoping period from May through August 2017. The comments focused on concerns regarding the Northern Alignment options, with specific concerns related to potential impacts to Alameda Street with an aerial alignment. Given potential visual and construction issues raised through public scoping, additional Northern Alignment concepts were evaluated.

In February 2018, the Metro Board of Directors approved further study of the alignment in the Northern Section due to community input during the 2017 scoping meetings. A second alternatives screening process was initiated to evaluate the original four Northern Alignment options and four new Northern Alignment concepts. The *Final Northern Alignment Alternatives and Concepts Updated Screening Report* was completed in May 2018 (Metro 2018). The alternatives were further refined and, based on the findings of the second screening analysis and the input gathered from the public outreach meetings, the Metro Board of Directors approved Alternatives E and G for further evaluation.

On July 11, 2018, Metro issued a revised and recirculated CEQA NOP, thereby initiating a scoping comment period. The purpose of the revised NOP was to inform the public of the Metro Board's decision to carry forward Alternatives E and G into the Draft Environmental Impact Statement/Environmental Impact Report (EIS/EIR). During the scoping period, one agency and three public scoping meetings were held in the Cities of Los Angeles, Cudahy, and Bellflower. The meetings provided project updates and information to stakeholders with the intent to receive comments and questions to support the environmental process. The comment period for scoping ended on August 24, 2018; more than 250 comments were received.

Following the July 2018 scoping period, a number of project refinements were made to address comments received, including additional grade separations, removing certain stations with low ridership, and removing the Bloomfield extension option. The Metro Board adopted these project refinements at its November 2018 meeting.

1.3 Draft Environmental Impact Statement/Environmental Impact Report

The Draft EIS/EIR and corresponding technical studies included evaluation of a No Build Alternative, four Build Alternatives, two station design options, and two site options for a maintenance and storage facility (MSF):

- Alternative 1: Los Angeles Union Station to Pioneer Station
  - Design Option 1: Los Angeles Union Station – Metropolitan Water District
  - Design Option 2: Addition of Little Tokyo Station
- Alternative 2: 7th St/Metro Center to Pioneer Station
- Alternative 3: Slauson/A Line (Blue) to Pioneer Station
- Alternative 4: I-105/C Line (Green) to Pioneer Station

- Paramount MSF site option
- Bellflower MSF site option

Figure 1-1 illustrates the Build Alternatives evaluated in the Draft EIS/EIR.

Figure 1-1. Draft EIS/EIR Build Alternatives

Source: Metro 2020

The Draft EIS/EIR was released for public review and comment in July 2021 for 45 days, which was then extended to a 60-day public review period through September 28, 2021, to provide additional time for the public to respond. Notices of the Draft EIS/EIR release were done in accordance with CEQA and NEPA regulations and included two rounds of notices to announce details of the release of the Draft EIS/EIR, as well as to provide information on the public hearings and comment methods. The Notice of Availability was distributed to 261 agencies via USB drives, which included an electronic copy of the Draft EIS/EIR.

During the 60-day public review period, Metro hosted four virtual public hearings, four virtual community information sessions, and over 19 pop-up booths for in-person engagement at locations throughout the project corridor. In addition, Metro held approximately 20 briefings to key stakeholders, elected officials, corridor cities, and other agencies. In total, approximately 450 submissions were received during the public review and comment period. In January 2022, the Metro Board of Directors identified Alternative 3 as the LPA. The LPA extends from a northern terminus at the Slauson/A Line Station located in the City of Los Angeles/Florence-Firestone unincorporated area of LA County to a southern terminus at the Pioneer Station located in Artesia for a total of 14.5 miles. With identification of the LPA, the Metro Board also identified the MSF site option located in the City of Bellflower as a component of the LPA.

1.4 Report Purpose and Structure

The purpose of this Hazardous Materials Impact Analysis Report is to describe wastes and hazardous materials, including, and in regard to, regulatory setting and existing conditions. This document also provides a description of the potential impact criteria and thresholds that may apply to the LPA.

This report has been prepared to provide a preliminary evaluation of the potential for environmental effects from hazardous materials and hazardous wastes for the LPA as a result of past or current activities in the Affected Area. The report is organized into nine categories, with appendices:

- Section 1 – Introduction
- Section 2 – Project Description
- Section 3 – Regulatory Framework
- Section 4 – Affected Environment / Existing Conditions
- Section 5 – Environmental Consequences/ Environmental Impacts
- Section 6 – CEQA Determination
- Section 7 –Construction Impacts
- Section 8 – Project Measures and Mitigation Measures
- Section 9 – References
- Appendices

Operational project measures and mitigation measures are included in Sections 8.1.1 and 8.2.1 , while the construction project measures and mitigation measures are included in Sections 8.1.2 and 8.2.2.

1.5 General Background

For this assessment, "hazardous materials" are defined as any materials that, if released, pose a substantial hazard to human health and safety or to the environment because of quantity, concentration, or physical and chemical characteristics, present or potential. Hazardous materials include but are not limited to hazardous substances, hazardous wastes, and any material that a handler or the administering regulatory agency has a reasonable basis for believing would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment (California Health and Safety Code, Section 25501[o]).

"Hazardous wastes" include residues, discards, byproducts, contaminated products, or similar substances that exceed regulatory thresholds for toxicity, ignitibility, corrosivity, or reactivity. Federal and state regulations identify specific wastes by name that the United States Environmental Protection Agency (USEPA) has determined are hazardous and has designated them as "listed wastes."

Hazardous subsurface gases include methane, which may be present near oil wells and landfills along the corridor. Methane is considered hazardous due to the explosive and/or asphyxiant chemical properties. Methane can seep into buildings and open excavations from surrounding soil and through fractures and faults in bedrock.

1.6 Impact Criteria and Thresholds

1.6.1 National Environmental Policy Act

Pursuant to NEPA regulations (40 Code of Federal Regulations [CFR] 1500–1508), project effects are evaluated based on the criteria of context and intensity. Context refers to the affected environment in which a proposed project occurs. Intensity refers to the severity of the effect, which is examined in terms of the type, quality, and sensitivity of the resource involved; the location and extent of the effect; and the duration of the effect (short- or long-term). The intensity of effects is described as negligible, moderate, or substantial. Beneficial effects are identified and described where applicable. When there is no measurable effect, an impact is found not to occur. Context and intensity, and implementation of measures to reduce harm are considered together when determining if an impact is significant under NEPA. The effectiveness of measures to avoid, minimize, and/or mitigate effects is considered in making significance determinations under NEPA. Thus, if a measure sufficiently mitigates an adverse effect, the effect is not significant and could be beneficial.

An example of a condition that could constitute a **substantial** effect includes: the increase of hazardous materials uses in an area where there are currently no hazardous materials uses (residential/K-12 school). A **moderate** effect could occur from the increased use of hazardous materials in an area where hazardous materials are currently used. An example of a **negligible** effect would be the continued (similar) use of hazardous materials at a project location where hazardous materials are already being used.

1.6.2 California Environmental Quality Act

The following thresholds are based on Appendix G of the 2019 State CEQA Guidelines. A significant impact related to hazards and hazardous materials would occur if the Project would do any of the following:

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, 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 or excessive noise for people residing or working in the project area
F. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan
G. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires

These significance criteria are qualitative and use terms such as “create a significant hazard” and “pose a health and safety hazard.” This methodology is combined with objective information (such as locations of hazardous materials sites and qualitative hazard assessments) to consider whether a significant impact could occur under CEQA.

For example:

- Vapor intrusion from methane soil gas as a result of oil wells, oil fields, or landfills during operation could expose the public to health hazards, thus creating a significant hazard and a health and safety hazard. This would be considered a **significant** risk.
- The known presence of hazardous materials in onsite soil vapor below an enclosed structure/station would pose a health and safety hazard to the structure’s occupants and is considered a **potentially significant** risk.
- The project would not emit/handle hazardous or acutely hazardous materials within one-quarter mile of an existing or proposed K-12 school, thus a significant hazard and health and safety hazard would not exist. This would be considered a **less than significant risk.**

1.7 Methodology

Assessment of impacts is based on environmental conditions in the Affected Area, as well as other applicable laws and regulations related to hazards and hazardous materials issues. The term “environmental condition” refers to potential or existing site conditions that may present environmental health and safety concerns during future operation of the LPA and use of the site. The Affected Area for the purposes of evaluating hazardous materials encompasses a 200-

foot radius surrounding the project footprint. The project footprint includes the alignment and appurtenant structures, including stations, the MSF, and parking facilities. This area is sufficiently representative of the existing hazards and hazardous materials conditions that have the potential to result in impacts/effects due to the LPA. Therefore, this area provides an accurate basis for the assessment of the potential for the introduction or mobilization of hazardous materials that have the potential to result from the LPA. The boundaries of the Affected Area for hazards and hazmat have been updated since the Draft EIS/EIR to encompass the footprint of the LPA, including the design option and MSF, inclusive of refinements.

The California Public Resources Code (PRC) § 21151.4 requires projects located within 0.25 mile of a school to discuss potential effects with the appropriate school district if the project could reasonably be anticipated to emit hazardous air emissions, or handle an extremely hazardous substance or a mixture containing extremely hazardous substances in a quantity equal to or greater than the state threshold quantity specified pursuant to subdivision (j) of Section 25532 of the Health and Safety Code. This analysis therefore identifies educational facilities within 0.25 mile of the project footprint that could be affected by its construction and/or operation. For the purposes of the analysis presented herein related to educational facilities, the Affected Area for hazards and hazmat is 0.25 mile from the project footprint. Similarly, due to the requirements of California Code of Regulations (CCR) Title 27, for the purpose of the analysis presented herein related to landfills, the Affected Area for hazards and hazmat is also 0.25 mile from the project footprint.

Hazardous Wastes and Substances (materials) are defined by the California Department of Industrial Relations as follows. A hazardous substance is:

"any substance designated or listed under A. through D. below, exposure to which results or may result in adverse effects on the health or safety of employees:

A. Any substance defined under Section 103(14) of CERCLA or under Sections 25316 and 25317 of the California Health and Safety Code;
B. Any biological agent and other disease-causing agent which after release into the environment and upon exposure, ingestion, inhalation, or assimilation into any person, either directly from the environment or indirectly by ingestion through food chains, will or may reasonably be anticipated to cause death, disease, behavioral abnormalities, cancer, genetic mutation, physiological malfunctions (including malfunctions in reproduction) or physical deformations in such persons or their offspring;
C. Any substance listed by the U.S. Department of Transportation and regulated as hazardous materials under 49 CFR 172.101 and appendices; and
D. Hazardous waste as herein defined" (DIR 2018).

A hazardous waste is a waste or combination of wastes as defined in:

- "40 CFR 261.3, or regulated as hazardous waste in California pursuant to Chapter 6.5, Division 20, California Health and Safety Code
- Those substances defined as hazardous wastes in 49 CFR 171.8." (DIR 2018)

The 2023 CEQA Statute and Guidelines references the following definitions for acutely hazardous materials and extremely hazardous materials:

- "Acutely hazardous material," is as defined in 22 CCR §66260.10 and refers to hazardous wastes that meet specific (provided) listing criteria provided in 40 CFR §261.11 (a)(2) and therefore are either listed in 40 CFR §261.31 with the assigned hazard code of (H) or are listed in §40 CFR 261.33(e).
- "Extremely hazardous substance," is as defined in subdivision (g)(2)(B) of Section 25532 of the California Health and Safety Code and listed in Section 2770.5, Table 3, of Title 19 of the CCR. and refers to regulated toxic and flammable substances listed under Section 112(r) of the federal Clean Air Act.

CCR Title 22 §66260.10 defines acutely hazardous materials, extremely hazardous materials, and extremely hazardous wastes as:

- Acutely hazardous waste and/or acute hazardous waste as any hazardous waste classified as an acutely hazardous waste in Article 4 of Chapter 11.
- Extremely hazardous materials as a "substance or combination of substances which, if human exposure should occur, may likely result in death, disabling personal injury or serious illness caused by the substance or combination of substances because of its quantity, concentration or chemical characteristics."
- Extremely hazardous waste as "any hazardous waste or mixture of hazardous wastes which, if human exposure should occur, may likely result in death, disabling personal injury or serious illness caused by the hazardous waste or mixture of hazardous wastes because of its quantity, concentration or chemical characteristics."

Often within urban environments, the more prevalent hazardous materials include petroleum products from gasoline stations and automotive service areas, cleaning solvents from dry cleaning operations, and various other hazardous materials at manufacturing and storage properties. Methane and hydrogen sulfide gas that may be naturally present in the soil are also considered hazardous materials.

The methodology for the assessment of existing environmental concern (or environmental conditions) sites follows portions of American Society of Testing and Materials (ASTM) 1528-14 Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (ASTM 2014) and California Department of Transportation's (Caltrans) Standard Environmental Reference, Chapter 10 of the *Hazardous Materials, Hazardous Waste, and Contamination, Initial Site Assessment* guidance document (Caltrans 2014).

Key steps to identifying potential or existing environmental concerns that may or could present environmental health and safety concerns for the LPA include the following (detailed in the subsections below):

- **Review regulatory databases –** Review federal, state, and local environmental database record search reports of known or potentially hazardous waste sites and sites currently under investigation for environmental violations in the Affected Area, including the Department of Toxic Substances Control (DTSC) EnviroStor website, State Water Resources Control Board (SWRCB) GeoTracker website, and an environmental database report prepared by Lightbox/Environmental Data Resources (EDR)

- **Review historical environmental records –** Review and interpret available historical aerial photographs and Sanborn Fire Insurance Maps for evidence of previous site activities and development that would suggest the potential presence of hazardous substances in the Affected Area
- **Site reconnaissance –** Perform a windshield site reconnaissance in the Affected Area from public rights-of-way to identify existing land uses that may have potentially hazardous waste issues and any visible indications of contamination
- **Apply ranking criteria –** For each environmental concern site located in the Affected Area, rank the site's potential to result in adverse effects

1.8 Environmental Concern Sites

Environmental concern sites were categorically ranked as Known Environmental Concerns, Potential Environmental Concerns, and/or Historical Environmental Concerns, in decreasing order of severity, as described below:

1.8.1 Known Environmental Concern Site – High Risk

Known Environmental Concern Sites are properties with known releases of hazardous materials to soil, groundwater, surface water, and/or soil vapor. These releases may be open or closed site release cases with local or regional agencies such as the Los Angeles County Department of Public Works (LADPW), the DTSC, and the Regional Water Quality Control Board (RWQCB). Both open and closed release sites may have residual impacts remaining in soil, groundwater, surface water, and/or soil vapor.

Known Environmental Concern Sites would be considered high risk sites that likely may require hazardous material management and special design features or long-term monitoring.

1.8.2 Potential Environmental Concerns – Medium Risk

Potential Environmental Concern Sites include properties with known storage, handling, and use of hazardous materials and no known history of releases or violations, such as properties currently occupied by gasoline service stations, dry cleaning facilities, large manufacturing/industrial sites, oil fields/wells, above ground storage tank sites, electrical substations, etc.

Potential Environmental Concern Sites are considered medium risk sites that will require some environmental testing prior to construction and possibly hazardous material management during construction; however, long-term monitoring is not expected.

1.8.3 Historical Environmental Concerns – Low Risk

Historical Environmental Concern Sites include properties that may have formerly stored, handled, and used hazardous materials and have no known history of releases or violations, such as properties formerly occupied by gasoline service stations, automobile repair services, dry cleaning facilities, large manufacturing/ industrial sites, oil fields/wells, etc. It also includes properties that may have residual impacts from past uses, such as railroad tracks/yards, orchards, or past industrial uses. Typically, there is limited information about these properties, such as one city directory listing or former presence onsite over 50 years ago.

Historical Environmental Concern Sites are considered low risk sites that may require environmental assessment or testing prior to construction and may require hazardous material management during construction.

Upon review of the regulatory database search results and historical documents, the environmental concern sites were split into several categories for further research, as described in Section 4. The sites were also categorized by geographic sections of the alignment: Northern Section and Southern Section.

Several of the environmental concern listings provided in the regulatory database and noted during the historical property use review were for the same parcel (e.g., parcel was previously a dry cleaning facility and is currently a gas station with a known release of fuel). In this case, the parcel was categorized according to the highest risk rating for that site.

1.9 Limitations

This methodology is not intended to provide a parcel-level due diligence assessment for the purpose of property acquisition or transfer. Although the methodology incorporates investigation methods of that type of assessment, it is not intended to represent or satisfy the requirements of a Phase I Environmental Site Assessment (ESA), as defined by ASTM Standard E 1527-13 13 (ASTM 2013). The methodology is not intended to satisfy the requirements of an All Appropriate Inquiry, as defined in Title 40 CFR Part 312, ASTM 1528-14 Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (ASTM 2014), or the Caltrans Standard Environmental Reference, Chapter 10, Hazardous Materials, Hazardous Waste, and Contamination, Initial Site Assessment guidance document (Caltrans 2014). This methodology did not include interviews with property owners, field sampling, analysis or investigation of individual buildings or structures. A detailed hazardous materials assessment of individual parcels potentially subject to property transfer or acquisition would occur after completion of the NEPA and CEQA environmental review process and during the final design and project implementation.

2 PROJECT DESCRIPTION

This section describes the No Build Alternative and the LPA studied in the WSAB Transit Corridor Final EIS/EIR, including station locations, and the MSF. The LPA was developed through a comprehensive alternatives analysis process and meets the purpose and need of the Project.

The No Build Alternative and LPA are generally defined as follows:

- **No Build Alternative:** Reflects the transportation network in the 2042 horizon year without the LPA. The No Build Alternative includes the existing transportation network along with planned transportation improvements that have been committed to and identified in the constrained *Metro 2009 Long Range Transportation Plan* (2009 LRTP) (Metro 2009) and SCAG's *2016-2040* RTP/SCS (SCAG 2016), as well as additional projects funded by Measure M that would be completed by 2042.
- **LPA:** The LPA consists of a 14.5-mile LRT line that will extend from the northern terminus in the City of Los Angeles/Florence-Firestone community of LA County to a southern terminus in the City of Artesia.

Figure 2-1 illustrates the LPA. The northern terminus of the LPA will be located just south of the intersection of Long Beach Avenue and Slauson Avenue, connecting to the current Slauson/A Line Station. South of Slauson Avenue, the LPA will follow the UPRR-owned La Habra Branch[2] ROW east along Randolph Street. At the Ports-owned San Pedro Subdivision ROW, the LPA will turn southeast to follow the San Pedro Subdivision ROW and then transition to the PEROW south of the I-105 freeway. The LPA will then follow the Metro-owned PEROW to the southern terminus at the Pioneer Station in Artesia. Figure 2-2 depicts the alignment sections that will require freight track relocation. The LPA will be grade separated where warranted, as indicated on Figure 2-1.

[2] The La Habra Branch may also be referred to as the La Habra Subdivision. La Habra Branch is used within this document.

Figure 2-1. Locally Preferred Alternative Alignment by Grade

Source: WSP and TAHA 2023

Figure 2-2. Existing Rail Right-of-Way Ownership

Source: WSP and TAHA 2023

2.1 No Build Alternative

For the NEPA evaluation, the No Build Alternative is evaluated in the context of the existing transportation facilities in the project corridor (the corridor extends approximately 2 miles from each side of the four alternatives evaluated in the Draft EIS/EIR) and other capital transportation improvements and/or transit and highway operational enhancements that are reasonably foreseeable. Because the No Build Alternative provides the background transportation network against which the LPA's impacts are identified and evaluated, the No Build Alternative does not include the Project.

The No Build Alternative reflects the transportation network in 2042 and includes the existing transportation network along with planned transportation improvements that have been committed to and identified in the constrained Metro 2009 LRTP and the SCAG 2016 RTP/SCS, as well as additional projects funded by Measure M, a sales tax initiative approved by voters in November 2016. The No Build Alternative includes Measure M projects that are scheduled to be completed by 2042.

The required environmental baseline socioeconomic growth projections, including the reasonably foreseeable transportation network in 2042, were established in July 2017 when the preparation of the Draft EIS/EIR began. The SCAG 2016-2040 RTP/SCS was the adopted current regional growth forecast at the time the Draft EIS/EIR baseline was established. Specifically, the baseline year 2017 and future year 2042 population, housing, and employment are derived from the Transportation Analysis Zone-level estimates from the SCAG 2016-2040 RTP/SCS.

Table 2.1 lists the existing transportation network and planned improvements included as part of the No Build Alternative based on the Metro 2009 LRTP and SCAG 2016 RTP/SCS.

Table 2.1. No Build Alternative – Existing Transportation Network and Planned Improvements

Project	To / From	Location Relative to Study Area
Rail (Existing)		
Metro Rail System (LRT and Heavy Rail Transit)	Various locations	Within Study Area
Metrolink (Southern California Regional Rail Authority) System	Various locations	Within Study Area
Rail (Under Construction/Planned)[1]		
Metro Westside D Line Extension	Wilshire/Western to Westwood/VA Hospital	Outside Study Area
Metro C Line Extension[2] to Torrance	96th Street Station to Torrance	Outside Study Area
Metro C Line Extension	Norwalk to Expo/Crenshaw	Outside Study Area
Metro East-West Line/Regional Connector/Eastside Phase 2	Santa Monica to Lambert Road Santa Monica to Peck Road	Within Study Area
Metro North-South Line/Regional Connector/Foothill Extension to Claremont Phase 2B	Long Beach to Claremont	Within Study Area
Metro Sepulveda Transit Corridor	Metro G Line to Metro E Line	Outside Study Area

Project	To / From	Location Relative to Study Area
Metro East San Fernando Valley Transit Corridor	Sylmar to Metro G Line	Outside Study Area
Los Angeles World Airport Automated People Mover	96th Street Station to LAX Terminals	Outside Study Area
Metrolink Capital Improvement Projects	Various projects	Within Study Area
California High-Speed Rail	Burbank to LA LA to Anaheim	Within Study Area
Link US[3]	LAUS	Within Study Area
Bus (Existing)		
Metro Bus System (including BRT, Express, and local)	Various locations	Within Study Area
Municipality Bus System[4]	Various locations	Within Study Area
Bus (Under Construction/Planned)		
Metro G Line (BRT)	Del Mar (Pasadena) to Chatsworth Del Mar (Pasadena) to Canoga Canoga to Chatsworth	Outside Study Area
Vermont Transit Corridor (BRT)	120th Street to Sunset Boulevard	Outside Study Area
North San Fernando Valley BRT	Chatsworth to North Hollywood	Outside Study Area
North Hollywood to Pasadena	North Hollywood to Pasadena	Outside Study Area
Highway (Existing)		
Highway System	Various locations	Within Study Area
Highway (Under Construction/Planned)		
High Desert Multi-Purpose Corridor	SR-14 to SR-18	Outside Study Area
I-5 North Capacity Enhancements	SR-14 to Lake Hughes Road	Outside Study Area
SR-71 Gap Closure	I-10 to Rio Rancho Road	Outside Study Area
Sepulveda Pass Express Lane	I-10 to US-101	Outside Study Area
SR-57/SR-60 Interchange Improvements	SR-57/SR-60	Outside Study Area
I-710 South Corridor Project (Phases 1 and 2)	Ports of Long Beach and LA to SR-60	Within Study Area
I-105 Express Lane	I-405 to I-605	Within Study Area
I-5 Corridor Improvements	I-605 to I-710	Outside Study Area

Source: Metro 2018, WSP 2019
Notes: [1] Where extensions are proposed for existing Metro rail lines, the origin/destination is defined for the operating scheme of the entire rail line following completion of the proposed extensions and not just the extension itself.
[2] The Metro C Line extension to Torrance includes new construction from Redondo Beach to Torrance; however, the line will operate from Torrance to 96th Street.
[3] Link US rail walk times included only.
[4] The municipality bus network system is based on service patterns for Bellflower Bus, Cerritos on Wheels, Cudahy Area Rapid Transit, Get Around Town Express, Huntington Park Express, La Campana, Long Beach Transit, Los Angeles Department of Transportation, Norwalk Transit System, and the Orange County Transportation Authority.
BRT = bus rapid transit; LA = Los Angeles; LAUS = Los Angeles Union Station; LAX = Los Angeles International Airport; LRT = light rail transit; SR = State Route; VA = Veterans Affairs

2.2 Locally Preferred Alternative

2.2.1 Refinements to the Locally Preferred Alternative

The LPA evaluated in this report is Alternative 3 from the Draft EIS/EIR with refinements to address stakeholder coordination and comments on the Draft EIS/EIR. Refinements to the LPA include the following:

- Shift the Slauson/A Line aerial station platform south and add a second set of vertical circulation and pedestrian circulation elements between the Slauson/A Line Station and the existing A Line Station. Additionally, a set of stairs was added between the A Line station and street level.
- Swap the location of the freight and LRT tracks within the La Habra Branch ROW compared to the Draft EIS/EIR design. Freight tracks will be located on the north side of the ROW and LRT tracks on the south side to accommodate potential freight connectivity to an existing industrial track on the north side of the ROW.
- Open or close at-grade crossings and implement left-turn restrictions over the LRT tracks in the City of Huntington Park:
  - Open crossings previously proposed for closure at Albany Street and Rugby Boulevard
  - Close crossings previously proposed to remain open at Malabar Street and Arbutus Avenue
  - Implement left-turn restrictions at Santa Fe Avenue, Pacific Boulevard, Miles Avenue, and State Street
- Modify roadway design at the southeast corner of Florence Avenue and California Avenue to avoid partial acquisition of infrastructure related to a water well.
- Redesign a freight spur track connection north of Rayo Avenue on the west side of the freight tracks to avoid impacts to a spur track.
- Close the private at-grade crossing at Miller Way. The private business will be displaced by the Project.
- Extend the LRT viaduct north of Imperial Highway to avoid impacts to a spur track and full acquisition of a property.
- Reconfigure the I-105/C Line Station parking facility by removing dedicated transit parking on the west side of the freight tracks and expanding the parking facility on the east side of the freight tracks to the north; also add a new driveway entrance to the parking facility at Century Boulevard.
- Eliminate demolition and reconstruction of the Arthur Avenue and Façade Avenue bridges; modify Façade Avenue to an emergency exit only from the I-105/C Line infill station (rather than a station entrance and exit).
- Modify the replacement freight bridge at I-105 to a four-span structure, consistent with the current bridge, rather than the previously proposed two-span structure.
- Replace the proposed pedestrian undercrossing with a pedestrian bridge at Paramount High School that will span the entire rail ROW.
- Realign the MSF site entrance on Somerset Boulevard to align with Bayou Avenue to allow for a signalized pedestrian crossing of Somerset Boulevard.
- Add protected left turn and a traffic signal on Clark Avenue at Los Angeles Street to accommodate dedicated turning movements to the community.

- Modify alignment of the LRT tracks and soundwall at the Bellflower Mobile Home Park to minimize parking loss and provide replacement parking elsewhere on the property to maintain the existing number of parking spaces.
- Redesign retaining walls on the southeast side of the 183rd Street/Gridley Road crossing from retained fill to columns.
- Incorporate the Artesia Historic District Recreation Trails as an existing, rather than future, condition in the Final EIS/EIR plan set.
- Add a design option that will close 186th Street but keep 187th Street open to traffic in the City of Artesia, and turn Corby Avenue into a cul-de-sac with an access driveway for the existing business.
- Modify the entrance to the Pioneer Station parking structure to align with Solana Place and shift structure north to provide alley egress resulting in an additional level on the Pioneer parking structure to maintain the number of parking spaces identified in the Draft EIS/EIR.
- Extend the median located north of the LRT tracks at the Pioneer Boulevard grade crossing to prohibit left turns from a shopping center driveway along the east side.
- Incorporate Mitigation Measures NOI-4 (Crossing Signal Bell Shrouds) and NOI-5 (Gate-Down-Bell-Stop Variance), recommended in the Draft EIS/EIR to further reduce noise at grade crossings, as Project Measure NOI PM-1 and NOI PM-2 in the Final EIS/EIR to be implemented as part of the LPA.
- Add Project Measure VA PM-8 (Residential Screening for Aerial Structures), which requires privacy screening along portions of the aerial structure adjacent to the rear of residential properties in the Cities of Paramount, Bellflower, and Cerritos if the soundwall in those locations will not be sufficiently tall to provide similar privacy screening.
- Add Project Measures BIO PM-1 (Invasive Plant Species Best Management Practices) and BIO PM-2 (Prohibition of Invasive Plant Species in Landscape Plans) to provide options to minimize the spread of invasive species during construction and prohibit the inclusion of invasive species in landscape plans; add Project Measure BIO PM-3 (LA Metro Tree Policy) to require adherence to LA Metro Tree Policy, adopted by Metro in October 2022.
- Add Project Measure CR PM-1 (Secretary of the Interior Standards Design Review), which requires review and approval of the design of the new LRT bridge and C Line station that will be constructed within the Century Freeway-Transitway Historic District and extension of the Union Pacific LA River Rail Bridge's existing concrete piers by a professional who meets the Secretary of the Interior's Professional Qualification Standards in architectural history, history, or architecture.

Refinements also included the following modifications to construction laydown/staging areas:

- Relocate the construction laydown area near State Street and Randolph Street to east of State Street in the railroad ROW.
- Relocate the laydown area at the southeast corner of Imperial Highway and Garfield Place to north of Imperial Highway within the San Pedro Subdivision ROW.
- Locate a construction laydown/staging area on the east side of the ROW between Rayo Avenue and Southern Avenue.

Additionally, refinements included changes to traction power substations (TPSS) site locations:

- Relocate TPSS Site 14 from the northwest corner of Randolph Street and State Street to the east within railroad ROW.
- Eliminate optional TPSS Sites 16E and 12E in the City of Huntington Park.
- Add Optional TPSS Site 7E within the reconfigured parking facility east of the tracks at the I-105/C Line Station parking facility.
- Relocate the proposed TPSS Site 2 from the northwest side of the intersection of 183rd Street/Gridley Road to the southeast side.

2.2.2 Alignment Configuration

This section summarizes the LPA alignment. The general characteristics of the LPA are summarized in Table 2.2. Figure 2-3 illustrates the freeway crossings along the alignment. Additionally, the LPA will require relocation of existing freight rail tracks within the ROW to maintain existing operations where freight tracks will be in a shared corridor with the LRT tracks. Figure 2-2 depicts the alignment sections that will require freight track relocation.

Table 2.2. Summary of LPA Components

Component	Quantity
Alignment length	14.5 miles
Length of at-grade and aerial	12.1 miles at-grade; 2.4 miles aerial[1]
Station configurations	9 along WSAB alignment, 1 at-grade infill station along C Line 3 aerial; 6 at-grade
Parking facilities	5 total: 4 surface lots and 1 parking structure (approximately 2,800 spaces)
At-grade crossings	30
Elevated street crossings	15
Freight crossings	6
Freeway crossings	4 (1 aerial/overcrossing at I-105; 3 freeway undercrossings[2] at I-710, I-605, SR 91)
Freight realignment	8.7 miles
River crossings	3 (Rio Hondo, LA River and San Gabriel)
TPSS facilities	17
Maintenance and Storage Facility site	1 (City of Bellflower)

Source: WSP 2023
Notes: [1] Alignment configuration measurements count retained fill embankments as at-grade.
[2] The light rail tracks crossing beneath freeway structures.
LA = Los Angeles; TPSS = traction power substation; WSAB = West Santa Ana Branch

Figure 2-3. Freeway Crossings

Source: WSP 2023

The total alignment length of the LPA will be approximately 14.5 miles, consisting of approximately 12.1 miles of at-grade and 2.4 miles of aerial alignment. The LPA will include nine new LRT stations along the WSAB alignment, of which six will be at-grade and three will be aerial. Additionally, the Project will add one new infill station along the C Line at I-105 to allow transfers between the WSAB alignment and the C Line. Five of the stations will include parking facilities, providing a total of approximately 2,800 dedicated transit parking spaces. Four of the parking facilities will be surface lots and the fifth will be a parking structure. The alignment will include 30 at-grade crossings, 4 freeway crossings (3 freeway undercrossings and 1 aerial freeway crossing), 3 river crossings, 15 aerial road crossings, and 6 freight crossings. The following further describes the LPA along the alignment.

Northern terminus (City of Los Angeles/Florence-Firestone community of LA County): The northern terminus of the LPA will begin at the Slauson/A Line Station, which will serve as a transfer point to the Metro A Line. Transfers between the Slauson/A Line Station and the existing Metro A Line will be accommodated via two pedestrian bridges between the two station platforms. The pedestrian bridges will be located at the southern and northern ends of the platforms and will be accessed by stairs, escalators, and/or elevators. Stairs, escalators, and/or elevators will also connect with the street level on the north side of the station, while stairs will connect with the street level on the south side of the station. An additional set of stairs will be added to the existing A Line Station providing access to street level. Tail tracks[3] accommodating layover storage for a three-car train will extend approximately 1,000 feet north from the station.

La Habra Branch ROW[4] (City of Huntington Park): South of the Slauson/A Line Station, the alignment will turn east along the existing UPRR owned La Habra Branch ROW in the median of Randolph Street. The alignment will be on the south side of the La Habra Branch ROW, and the freight tracks will be realigned but remain in the northern portion of the ROW. The alignment will transition to an at-grade configuration west of Alameda Street and will proceed east along the Randolph Street median. Wilmington Avenue, Regent Street, and Malabar Street will be closed to traffic crossing the ROW, altering the intersection design to a right-in, right-out configuration. The Pacific/Randolph Station will be located just east of Pacific Boulevard. From the Pacific/Randolph Station, the alignment will continue east at-grade. Arbutus Avenue and Rita Avenue will be closed to traffic crossing the ROW, altering the intersection design to a right-in, right-out configuration.

San Pedro Subdivision ROW (Cities of Huntington Park, Bell, Cudahy, South Gate, Downey, and Paramount): At the San Pedro Subdivision ROW, the alignment will transition to an aerial configuration and turn south to cross over Randolph Street and the freight tracks, returning to an at-grade configuration north of Gage Avenue. The alignment will be located on the east side of the existing San Pedro Subdivision ROW freight tracks, and the existing track(s) will be relocated to the west side of the ROW. The alignment will continue at-grade within the San Pedro Subdivision ROW to the at-grade Florence/Salt Lake Station south of Florence Avenue.

[3] Tail tracks are additional tracks that extend beyond the end of the mainline tracks and can be used for temporarily parking, storing, or reversing the direction of trains. While the tracks are designed to allow for layover if needed, trains will not sit at the end of the line.

[4] The La Habra Branch may also be referred to as the La Habra Subdivision. La Habra Branch is used within this document.

The alignment will continue southeast from the at-grade Florence/Salt Lake Station within the San Pedro Subdivision ROW, crossing Otis Avenue, Santa Ana Street, and Ardine Street at-grade. The alignment will be located on the east side of the existing San Pedro Subdivision freight tracks, and the existing tracks will be relocated to the west side of the ROW. South of Ardine Street, the alignment will transition to an aerial structure to cross over the existing UPRR tracks and Atlantic Avenue. The Firestone Station will be located on an aerial structure between Atlantic Avenue and Firestone Boulevard. The Firestone Station will include a dedicated transit parking facility providing approximately 600 parking spaces with a vehicle underpass under the freight tracks to access the parking facility.

The alignment will then cross over Firestone Boulevard and transition back to an at-grade configuration prior to crossing Rayo Avenue at-grade. The alignment will continue south along the San Pedro Subdivision ROW, crossing Southern Avenue at-grade and continuing at-grade until it transitions to an aerial configuration to cross over the LA River. The LRT bridge will be constructed next to the existing freight bridge. South of the LA River, the alignment will transition to an at-grade configuration, then passing under the I-710 freeway through a new box tunnel structure. The alignment will then return to an aerial structure to cross over the Rio Hondo Channel. South of the Rio Hondo Channel, the alignment will transition to an aerial structure to cross over a realigned spur track, Imperial Highway and Garfield Avenue. South of Garfield Avenue, the alignment will transition to an at-grade configuration and serve the Gardendale Station north of Gardendale Street.

From the Gardendale Station, the alignment will continue south in an at-grade configuration, crossing Gardendale Street and Main Street to serve the I-105/C Line Station, which will be located at-grade north of Century Boulevard. The I-105/C Line Station will include a dedicated transit parking facility providing approximately 340 to 360 parking spaces, depending on the location of the TPSS. The alignment will continue at-grade, crossing Century Boulevard, then will cross over the I-105 freeway in an aerial configuration within the existing San Pedro Subdivision ROW bridge footprint. A new Metro C Line Station will be constructed in the median of the I-105 freeway. The I-105/C Line Station will be connected to the new infill C Line Station in the middle of the freeway via a pedestrian walkway on the new LRT bridge. Vertical pedestrian access will be provided from the LRT bridge to the new C Line Station platform via stairs, escalators, and/or elevators. Emergency egress from the C Line Station will also be provided at Façade Avenue via stairs and elevators. To accommodate construction of the new station platform, the existing Metro C Line tracks will be widened and, as part of the I-105 Express Lanes Project, the I-105 lanes will be reconfigured.

PEROW (Cities of Paramount, Bellflower, Cerritos, and Artesia): South of the I-105 freeway, the alignment will continue at-grade within the San Pedro Subdivision ROW. In order to maintain freight operations and allow for freight train crossings, the alignment will transition to an aerial configuration as it turns southeast and enter the PEROW. The existing freight track will cross beneath the aerial alignment and align on the north side of the PEROW east of the San Pedro Subdivision ROW. The Paramount/Rosecrans Station will be located in an aerial configuration west of Paramount Boulevard and north of Rosecrans Avenue. The existing freight track will be relocated to the northeast side of the alignment adjacent to the viaduct structure. The Paramount/Rosecrans Station will include a dedicated transit parking facility providing approximately 490 parking spaces located south of the alignment between Los Angeles Department of Water and Power property and Rosecrans Avenue.

The alignment will continue southeast in an aerial configuration over the Paramount Boulevard/Rosecrans Avenue intersection and descend to an at-grade configuration. The alignment will return to an aerial configuration to cross over Downey Avenue descending back to an at-grade configuration north of Somerset Boulevard. The existing Paramount High School pedestrian bridge will be reconstructed over the LPA and freight tracks to maintain the connection between Paramount High School and the athletics fields. One of the adjacent freight storage tracks at the World Energy facility will be relocated to accommodate the new LRT tracks and maintain storage capacity. There are no active freight tracks south of the World Energy facility (Somerset Boulevard).

The alignment will cross Somerset Boulevard at-grade. South of Somerset Boulevard, the at-grade alignment will parallel the existing Bellflower Bike Trail that is currently aligned on the south side of the PEROW. The alignment will continue at-grade crossing Lakewood Boulevard, Clark Avenue, and Alondra Boulevard. The at-grade Bellflower Station will be located west of Bellflower Boulevard. The Bellflower Station will include a dedicated transit parking facility providing approximately 260 parking spaces.

East of Bellflower Boulevard, the Bellflower Bike Trail will be realigned to the south side of the PEROW to accommodate an existing historic building located near the southeast corner of Bellflower Boulevard and the PEROW. The realigned bike trail will then match the existing bike trail east of the historic building near Bellflower Boulevard. The LRT alignment will continue southeast within the PEROW and transition to an aerial configuration near Cornuta Avenue, crossing over Flower Street and Woodruff Avenue. The alignment will return to an at-grade configuration south of Woodruff Avenue. South of Woodruff Avenue, the Bellflower Bike Trail will be realigned along the north side of the PEROW. Continuing southeast, the LRT alignment will cross under the SR-91 freeway in an existing undercrossing. The alignment will cross over the San Gabriel River on a new bridge, replacing the existing abandoned freight bridge. South of the San Gabriel River, the alignment will transition back to an at-grade configuration before crossing Artesia Boulevard at-grade.

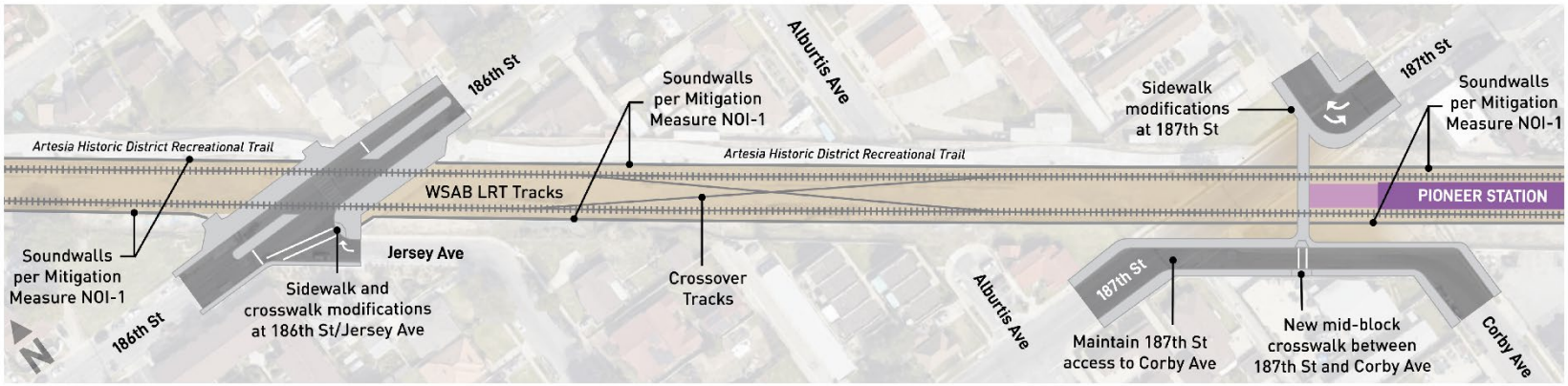
East of Artesia Boulevard, the alignment will cross beneath the I-605 freeway in an existing underpass. Southeast of the underpass, the alignment will continue at-grade, crossing Studebaker Road. North of Gridley Road, the alignment will transition to an aerial configuration to cross over 183rd Street and Gridley Road. The alignment will return to an at-grade configuration and cross 186th Street and 187th Street at-grade. The alignment will then pass through the Pioneer Station on the north side of Pioneer Boulevard at-grade. The Pioneer Station will include a dedicated transit parking facility providing approximately 1,100 parking spaces. Tail tracks accommodating layover storage for a three-car train will extend approximately 1,000 feet south from the station, crossing Pioneer Boulevard and terminating north of South Street.

2.2.3 Design Option – Close 186th Street

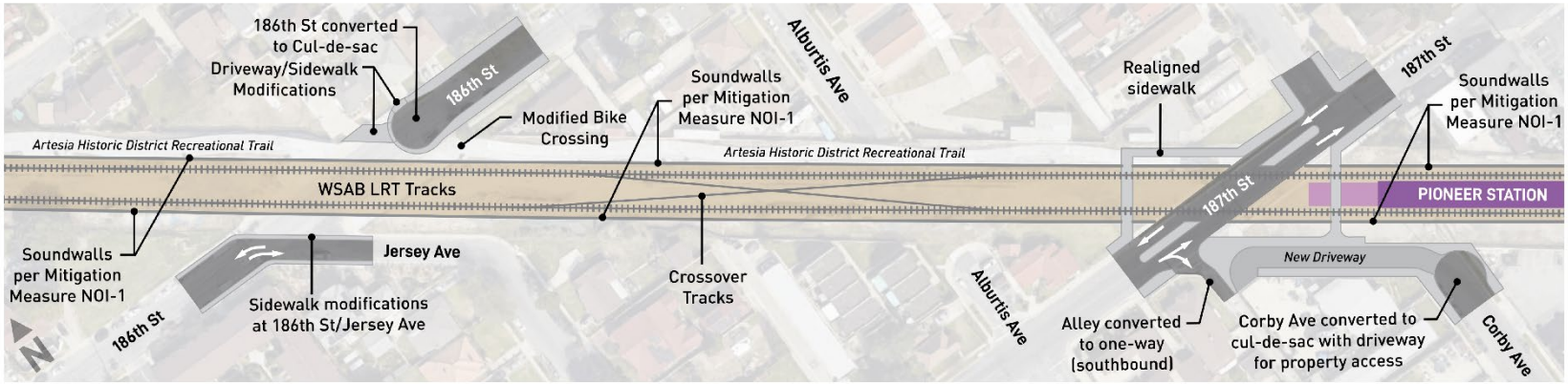
The LPA includes one design option:

- **Design Option:** Close 186th Street – The design option would close 186th Street but keep 187th Street open to traffic in the City of Artesia. Corby Avenue would become a cul-de-sac with an access driveway for the existing business (Figure 2-4).

Figure 2-4. Locally Preferred Alternative and Design Option: Close 186th Street



Locally Preferred Alternative



Design Option 1: Close 186th Street

Source: Cityworks Design and WSP 2023

2.2.4 Maintenance and Storage Facility

Generally, each LRT project requires an MSF facility to provide daily servicing and cleaning, inspection and repairs, and storage of light rail vehicles (LRVs). Activities may take place in the MSF throughout the day and night depending upon train schedules, workload, and the maintenance requirements.

In January 2022, the Metro Board identified the Bellflower MSF as the WSAB Project's MSF site. The MSF site is located in the City of Bellflower and is bounded by a mobile home community and industrial facilities to the west, Somerset Boulevard and apartment complexes to the north, residential homes to the east, and the PEROW and Bellflower Bike Trail to the south. Access to the site will be via a signalized driveway at Somerset Boulevard and Bayou Avenue (Figure 2-5). In total, the MSF site is approximately 21 acres and could accommodate up to 80 LRVs to serve the Project's operations plan.

The MSF will have storage tracks, each with sufficient length to store three-car train sets and a maintenance-of-way vehicle storage. The facility will include a main shop building with administrative offices, a cleaning platform, a TPSS, employee parking, a vehicle wash facility, a paint and body shop, and other facilities as needed. The east and west yard leads (i.e., the tracks leading from the mainline to the facility) will have sufficient length for a three-car train set.

Figure 2-5. Maintenance and Storage Facility Site

Source: WSP and TAHA 2023

3 REGULATORY FRAMEWORK

This section identifies the federal, state, and local laws, regulations, and orders that pertain to hazardous materials and wastes in the Affected Area.

Federal

- Procedures for Considering Environmental Impacts document (64 Federal Register 28545-28556)
- Resource Conservation and Recovery Act (42 United States Code [USC] Section 6901 et seq.)
- Comprehensive Environmental Response, Compensation, and Liability Act (42 USC Section 9601 et seq.)
- Superfund Amendments and Reauthorization Act
- Clean Air Act (42 USC Section 7401 et seq.)
- Clean Water Act—National Pollutant Discharge Elimination System (Section 402[p]) (33 USC Section 1342[p])
- Safe Drinking Water Act (42 USC Section 300[f] et seq.)
- Toxic Substances Control Act (15 USC Section 2601 et seq.)
- Federal Insecticide, Fungicide, and Rodenticide Act
- Hazardous Materials Transportation Act (49 USC Section 5101 et seq. 49 CFR Parts 101, 106, 107, and 171-180
- Hazardous Materials Transportation Uniform Safety Act of 1990 (Public Law 101–615)
- Federal Compliance with Pollution Control (U.S. Presidential Executive Order 12088)
- Occupational Safety and Health Act of 1970

State

- Waters Bill of 1985 (Business Emergency Plan/Hazardous Materials Business Plan)
- La Follette Bill (Assembly Bill [AB] 3777)
- Hazardous Materials Release Response Plans and Inventory Law (California Health and Safety Code [Cal. Health and Safety Code] Section 25500 et seq.)
- Well Safety Devices for Critical Wells (CCR, Title 14, Section 1724.3)
- PRC, Section 3208.1
- Gas Monitoring and Control at Active and Closed Disposal Sites (CCR, Title 27, Subchapter 3, Section 20917 et seq.)
- Closure and Post-Closure Maintenance of Landfills (CCR, Title 27, Subchapter 5)
- California PRC Section 21151.4
- Porter-Cologne Water Quality Control Act (Cal. Water Code, Section 13000 et seq.)
- Hazardous Waste Control Act (Cal. Health and Safety Code, Section 25100 et seq.)
- Safe Drinking Water and Toxic Enforcement Act (Proposition 65, Cal. Health and Safety Code, Section 25249.5 et seq.)
- Cortese List Statute (California Government Code, Section 65962.5)
- California Occupational Safety and Health Act

Regional/Local

- Los Angeles County Department of Public Works
- City of Los Angeles Department of Transportation

- City of Los Angeles Fire Department
- Los Angeles County Department of Public Health
- City of Los Angeles Methane Ordinance
- City of Vernon Health and Environmental Control Department
- County of Los Angeles Operation Area Emergency Response Plan
- City of Los Angeles Emergency Management Department (EMD)
- County and City General Plans

3.1 Federal

Federal laws, regulations, and orders relating to hazardous materials that may be present in the project area are identified in the following sections.

3.1.1 Procedures for Considering Environmental Impacts

The Procedures for Considering Environmental Impacts (64 Federal Register 28545-28556) establishes procedures for the assessment of environmental impacts of actions and legislation proposed by the Federal Railroad Administration and for the preparation and processing of documents based on such assessments.

3.1.2 Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) (42 USC Section 6901 et seq.) regulates the identification, generation, transportation, storage, treatment, and disposal of solid and hazardous materials and hazardous wastes through comprehensive "cradle to grave" tracking requirements.

3.1.3 Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) (42 USC Section 9601 et seq.) provides broad federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. This act established the National Priorities List of contaminated sites and the Superfund cleanup program. CERCLA established requirements for abandoned hazardous waste sites and provided for liability of persons responsible for releases of hazardous waste at these sites.

3.1.4 Superfund Amendments and Reauthorization Act

The Superfund Amendments and Reauthorization Act amends CERCLA, increases state involvement, and requires Superfund actions to consider state environmental laws and regulations. The act also established a regulatory program for underground storage tanks (UST) and the Emergency Planning and Community Right-to-Know Act.

3.1.5 Clean Air Act

The Clean Air Act (42 USC Section 7401 et seq.) protects the public from exposure to airborne contaminants that are known to be hazardous to human health. Under the Clean Air Act, the USEPA established National Emissions Standards for Hazardous Air Pollutants, which are emissions standards for air pollutants, including asbestos.

3.1.6 Clean Water Act—National Pollutant Discharge Elimination System

The Clean Water Act (CWA) (Section 402[p]) (33 USC Section 1342[p]) regulates discharges and spills of pollutants, including hazardous materials, to surface waters and groundwater.

3.1.7 Safe Drinking Water Act

The Safe Drinking Water Act (42 USC Section 300[f] et seq.) regulates discharges of pollutants to underground aquifers and establishes standards for drinking water quality.

3.1.8 Toxic Substances Control Act

The Toxic Substances Control Act (15 USC Section 2601 et seq.) regulates manufacturing, inventory, and disposition of industrial chemicals, including hazardous materials. It addresses the production, importation, use, and disposal of specific chemicals, including polychlorinated biphenyls (PCB), asbestos-containing materials (ACM), and lead-based paint (LBP).

3.1.9 Federal Insecticide, Fungicide, and Rodenticide Act

The Insecticide, Fungicide, and Rodenticide Act (7 USC Section 136 and 40 CFR Parts 152.1 to 171) regulates the manufacturing, distribution, sale, and use of pesticides.

3.1.10 Hazardous Materials Transportation Act

The Hazardous Materials Transportation Act (49 USC Section 5101 et seq. 49 CFR Parts 101, 106, 107, and 171-180) regulates the transport of hazardous materials by motor vehicles, rail, marine vessels, and aircraft.

3.1.11 Hazardous Materials Transportation Uniform Safety Act of 1990

The Hazardous Materials Transportation Uniform Safety Act (Public Law 101–615) regulates the safe transport of hazardous material in intrastate, interstate, and foreign commerce. The statute includes provisions to encourage uniformity between different state and local highway routing regulations, to develop criteria for the issuance of federal permits to motor carriers of hazardous materials, and to regulate the transport of radioactive materials.

3.1.12 Emergency Planning and Community Right to Know Act

The Emergency Planning and Community Right to Know Act (42 USC Section 11001 et seq. and 40 CFR Part 350.1 et seq.) regulates facilities that use hazardous materials in quantities that mandate reporting to emergency response officials.

3.1.13 Federal Compliance with Pollution Control

U.S. Presidential Executive Order 12088, issued in 1978, requires federal agencies to take necessary actions to prevent, control, and abate environmental pollution from federal facilities and activities under control by federal agencies.

3.1.14 Occupational Safety and Health Act of 1970

This act requires training handlers of hazardous materials, notifying employees who work in the vicinity of hazardous materials, acquiring Safety Data Sheets that describe the proper use of hazardous materials, and training employees to remediate any accidental releases of hazardous material. It also regulates lead and asbestos as it relates to employee safety to reduce potential exposure. Additionally, it requires contractors conducting LBP and ACM surveys and removal to be certified by the Occupational Safety and Health Administration.

3.2 State

At the state level, California has developed hazardous waste regulations that are similar to the federal laws, but that are more stringent in their application. The basic law established in California, similar to RCRA, is the Hazardous Waste Control Law. More detailed information concerning the implementation of these requirements is given in Title 22 CCR, Chapter 30. The Hazardous Waste Control Law empowers the DTSC, a division of the California Environmental Protection Agency (Cal-EPA) (formerly part of the Department of Health Services), to administer the state's hazardous waste program and implement the federal program in California. This law includes UST regulations.

The DTSC has the primary responsibility for enforcement and implementation of hazardous waste control laws in the state. However, this responsibility is shared with other state and local government agencies, including the SWRCB, and at the local level, the Los Angeles Regional Water Quality Control Board (LARWQCB), and county and city governments. Other relevant state laws are described in the following sections.

3.2.1 Waters Bill of 1985

The Waters Bill of 1985 (Business Emergency Plan/Hazardous Materials Business Plan), otherwise referred to as the California Hazardous Materials Release Response Plans and Inventory Law, requires facilities that meet minimum hazardous materials use/storage thresholds to prepare hazardous materials business plans (HMBP) or Business Emergency Plans. A Business Emergency Plan/Hazardous Materials Business Plan should include disclosures and inventories of hazardous materials, facility floor plans showing where hazardous materials are stored, an emergency response plan, and provisions for employee safety and emergency response training (California Health and Safety Code, Division 20, Chapter 6.95, Article 1).

3.2.2 La Follette Bill

The La Follette Bill (AB 3777) established guidelines for hazardous materials management as outlined in the Health and Safety Code, Division 20, Chapter 6.95, Article 2, §§25531-25540. Risk Management and Prevention Programs (RMPP) include all administrative and operational programs which are designed to prevent acutely hazardous materials accident risks. The programs are required to anticipate the circumstances that could result in accidental releases and required the taking of necessary precautionary and preemptive actions, consistent with the nature of the hazardous materials handled by the facility and the surrounding environment. It requires owners or operators of each business in the state which, at any time, handles any acutely hazardous material in quantities equal to or greater than 500 pounds, 55 gallons, or 200 cubic feet under standard temperature and pressure for compressed gas, to register with an administering agency. If required by the agency, the facility would develop an RMPP. Requirements pertaining to the contents of RMPPs, as well as for reporting, records management, and inspections, are outlined in the Health and Safety Code. Article 2 has subsequently been amended several times since the adoption of AB 3777.

The California Accidental Release Prevention (CalARP) program replaced the RMPP in 1997. The CalARP program requires businesses that handle more than a threshold quantity of a regulated substance to develop a Risk Management Plan. The program is implemented at the local government level by the Unified Program Agencies.

3.2.3 Hazardous Materials Release Response Plans and Inventory Law

Section 25500 et seq. of the Cal. Health and Safety Code requires facilities using hazardous materials to prepare hazardous materials business plans and outlines information required to be included in the plans. The section also requires the establishment of a statewide environmental reporting system for hazardous materials business plans.

3.2.4 Well Safety Devices for Critical Wells

CCR, Title 14, Section 1724.3 governs safety devices required on "critical wells" located within 100 feet of an operating railway. A "Critical well" is defined as:

- A well within 300 feet of any building intended for human occupancy that is not necessary to the operation of the well
- A well within 300 feet of any airport runway
- A well within 100 feet of any dedicated public street, highway, or nearest rail of an operating railway that is in general use
- A well within 100 feet of any navigable body of water or watercourse perennially covered by water
- A well within 100 feet of any public recreational facility such as a golf course, amusement park, picnic ground, campground
- A well within 100 feet of any other area of periodic high-density population
- A well within 100 feet of any officially recognized wildlife preserve

3.2.5 Public Resources Code, Section 3208.1

The California Department of Conservation's Geologic Energy Management Division (CalGEM, formerly Division of Oil, Gas, and Geothermal Resources or DOGGR) is charged with implementing PRC Section 3208.1. In response, CalGEM "developed the Construction Site Well Review Program to assist local permitting agencies in identifying and reviewing the status of oil or gas wells located near or beneath proposed structures."

3.2.6 Gas Monitoring and Control at Active and Closed Disposal Sites

The requirements set forth in Article 6 of the Gas Monitoring and Control at Active and Closed Disposal Sites (CCR, Title 27, Subchapter 3, Section 20917 et seq.) determine the performance standards and the minimum substantive requirements for landfill gas monitoring and control as they relate to active solid waste disposal sites and to proper closure, post-closure maintenance, and ultimate reuse of solid waste disposal sites. These ensure that public health, safety, and the environment are protected from pollution due to the disposal of solid waste.

3.2.7 Closure and Post-Closure Maintenance of Landfills

The Closure and Post-Closure Maintenance of Landfills (CCR, Title 27, Subchapter 5) regulation provides post-closure maintenance guidelines, including requirements for an emergency response plan and site security at closed landfills. It regulates post-closure land use, requiring protection of public health and safety and the built environment, as well as the prevention of gas explosions. Construction on such a site must maintain the integrity of the final cover, drainage, and erosion control systems, and of the gas monitoring and control systems. All post-closure land use within 1,000 feet of a landfill site must be approved by the local enforcement agency.

3.2.8 California Public Resources Code, Section 21151.4

This code requires the lead agency to consult with any school district with jurisdiction over a school within 0.25 mile of the Project about potential impacts on the school if the Project might reasonably be anticipated to emit hazardous air emissions, or to handle an extremely hazardous substance or a mixture containing an extremely hazardous substance.

3.2.9 Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Cal. Water Code, Section 13000 et seq.) regulates water quality through the SWRCB and RWQCB, including oversight of water monitoring and contamination cleanup and abatement.

3.2.10 Hazardous Waste Control Act

The Hazardous Waste Control Act (Cal. Health and Safety Code, Section 25100 et seq.) act is similar to the federal RCRA in that it regulates the identification, generation, transportation, storage, and disposal of materials deemed hazardous by the State of California.

3.2.11 Safe Drinking Water and Toxic Enforcement Act

The Safe Drinking Water and Toxic Enforcement Act (Proposition 65, Cal. Health and Safety Code, Section 25249.5 et seq.) is similar to the federal Safe Drinking Water Act and the CWA in that it regulates the discharge of contaminants to groundwater.

3.2.12 Cortese List Statute

The Cortese List Statute (California Government Code, Section 65962.5) requires the DTSC to compile and maintain lists of potentially contaminated sites located throughout the state and includes the Hazardous Waste and Substances Sites List. The overall list is called the "Cortese list."

3.2.13 California Occupational Safety and Health Act

This act regulates worker safety in a manner similar to that used by federal administration. It also requires preparation of an Injury and Illness Prevention Program, which is an employee safety program that includes inspections, procedures to correct unsafe conditions, employee training, and occupational safety communication. In addition, the regulations associated with this act indirectly protect the public by requiring construction managers to post warnings signs, limit public access to construction areas, and obtain permits for work considered to present a significant risk of injury, such as excavations five feet deep or greater. This act also requires monitoring devices to detect hazardous gas and trigger automatic shutdown of tunnel boring machines to protect workers during construction.

3.3 Regional/Local

The Affected Area is located within the limits of Los Angeles County and extends through portions of the following cities: Los Angeles, Vernon, Huntington Park, Bell, Cudahy, South Gate, Downey, Paramount, Bellflower, Cerritos, Artesia, and the unincorporated community of Florence-Firestone.

3.3.1 Los Angeles County Department of Public Works

The LADPW is a Certified Unified Program Agency (CUPA) and a participating agency to the Los Angeles County CUPA, which is managed by the Los Angeles County Fire Department, Health Hazardous Materials Division (HHMD).

The HHMD administers the following programs within Los Angeles County:

- Hazardous Waste Generator Program
- Hazardous Materials Release Response Plans and Inventory Program
- California Accidental Release Prevention Program (Cal/ARP)
- Aboveground Storage Tank Program
- Underground Storage Tank Program

The LADPW Environmental Programs Division permits and inspects USTs in the unincorporated areas of Los Angeles County and 77 cities, including Huntington Park, Bell, Cudahy, South Gate, Downey, Paramount, Bellflower, Cerritos, and Artesia.

The City of Vernon Health and Environmental Control Department (Section 3.3.8) and the City of Los Angeles Fire Department (LAFD) (Section 3.3.3) manage their own CUPAs for USTs in their jurisdiction.

3.3.2 City of Los Angeles Department of Transportation

The Los Angeles Department of Transportation leads transportation planning, design, construction, maintenance and operations in Los Angeles. They work together and partner with other agencies to provide safe, accessible transportation services and infrastructure in the city and region. The department is responsible for developing various construction projects in the department through planning, environmental, and design as well as supporting sister agencies such as Metro on major public works projects in the city.

3.3.3 City of Los Angeles Fire Department

LAFD administers hazardous materials environmental compliance programs within the city jurisdiction. These programs include a hazardous materials disclosure and business plan, UST program, above-ground storage tank (AST) spill prevention control and countermeasure, hazardous waste generator program (administered by Los Angeles County Fire Department), and the Cal/ARP.

LAFD also provides a robust multi-tier emergency services response to hazardous materials incidents, including mass and emergency decontamination, rapid extraction (rescue in a hazardous environment), weapons of mass destruction procedures and emergency medical services protocols (containment and treatment, for example, of infectious diseases).

3.3.4 Los Angeles County Department of Public Health

The Los Angeles County Department of Public Health provides soil boring and groundwater monitoring well permitting services to the County of Los Angeles, with the exception of the City of Vernon.

3.3.5 City of Vernon

The City of Vernon issues permits for wells drilled within their jurisdictional boundaries.

3.3.6 City of Los Angeles Methane Ordinance

In 2004, the City of Los Angeles adopted the City of Los Angeles Methane Ordinance (No. 175790), which requires compliance with the Methane Mitigation Standards outlined in the Methane Seepage Regulations (Division 71, Section 91-7101 to 91-7109), and as directed and approved by the Los Angeles Department of Building and Safety (LADBS) and LAFD. The ordinance outlines the general methane requirements for mitigation; testing, maintenance, and service of gas detection and mechanical ventilation systems; emergency procedures; application of methane seepage regulations to locations or areas outside the methane zone and methane buffer zone boundaries; and additional remedial measures (General, Abandoned Oil Wells).

Additionally, LADPW's Bureau of Engineering has mapped potential Methane Zones and Methane Buffer Zones where additional assessment is required. Specifically, the City of Los Angeles Municipal Code requires projects located within a Methane Zone or Methane Buffer Zone to comply with the city's Methane Mitigation Standards as amended by Ordinance 175790 (LADBS 2004).

3.3.7 City of Los Angeles Department of Building and Safety

The Methane Mitigation Standards require that an initial assessment for methane and hydrogen sulfide be completed in accordance with LADBS guidelines where the Affected Area passes through oil fields, methane zones, and/or methane buffer zones. The initial assessment shall be conducted in accordance with LADBS Site Testing Standards for Methane (LADBS 2014).

3.3.8 City of Vernon Health and Environmental Control Department

The City of Vernon, Health and Environmental Control Department provides soil boring and groundwater monitoring well permitting services within its jurisdictional boundaries.

3.3.9 County of Los Angeles Operation Area Emergency Response Plan

The 2012 County of Los Angeles Operation Area Emergency Response Plan addresses a coordinated response to emergency situations associated with natural, man-made, and technological situations.

3.3.10 City of Los Angeles Emergency Management Department

The City of Los Angeles EMD works with city departments, municipalities, and community-based organizations to ensure that the city and its residents have the resources and information they need to prepare, respond, and recover from emergencies, disasters, and significant events.

The Emergency Operations Organization (EOO) is the operational department responsible for the city's emergency preparations (planning, training, and mitigation), response, and recovery operations. The EOO centralizes command and information coordination to enable its unified chain-of-command to operate efficiently and effectively in managing the city's resources.

The Emergency Operation Center is the focal point for coordination of the city's emergency planning, training, response, and recovery efforts. Emergency Operation Center processes follow the National All-Hazards approach to major disasters such as fires, floods, earthquakes, acts of terrorism and large-scale events in the city that require involvement by multiple city departments.

3.3.11 City of Los Angeles Industrial Waste Permit

Industrial facilities and certain commercial facilities that discharge industrial wastewater to the city's sewage collection and treatment system are required to get an industrial wastewater discharge permit.

3.3.12 Local General Plans

City and county general plans were identified for several municipalities located along the Affected Area. Table 3.1 provides a summary of hazardous material policies in those plans. All plans indicate that emergency response plans and/or procedures should be followed if evacuation plans will be impacted during road closures during construction.

Table 3.1. Applicable Policies from Local General Plans

Plan Title	Summary
City of Los Angeles General Plan	**Safety Element** Hazard Mitigation Goal 1 – A city where potential injury, loss of life, property damage and disruption of the social and economic life of the City due to fire, water related hazard, seismic event, geologic conditions or release of hazardous materials disasters is minimized. Objective 1.1 – Implement comprehensive hazard mitigation plans and programs that are integrated with each other and with the City's comprehensive emergency response and recovery plans and programs. ▪ Policy 1.1.1: Coordination. Coordinate information gathering, program formulation and program implementation between City agencies, other jurisdictions and appropriate public and private entities to achieve the maximum mutual benefit with the greatest efficiency of funds and staff. [All EOO hazard mitigation programs involving cooperative efforts between entities implement this policy.] ▪ Policy 1.1.4: Health/environmental protection. Protect the public and workers from the release of hazardous materials and protect City water supplies and resources from contamination resulting from accidental release or intrusion resulting from a disaster event, including protection of the environment and public from potential health and safety hazards associated with program implementation. [All EOO hazardous materials hazard and water pollution mitigation programs implement this policy.]

Plan Title	Summary
County of Los Angeles General Plan 2035	**Safety Element** The Fire Department operates multiple divisions including Air and Wildland, Fire Prevention, and Forestry. In addition, the Health Hazardous Materials Division's mission is to "protect the public health and the environment…from accidental releases and improper handling, storage, transportation, and disposal of hazardous materials and wastes through coordinated efforts of inspections, emergency response, enforcement, and site mitigation oversight." Goal S 4 – Effective County emergency response management capabilities. ▪ Policy S 4.1: Ensure that residents are protected from the public health consequences of natural or man-made disasters through increased readiness and response capabilities, risk communication, and the dissemination of public information. ▪ Policy S 4.3: Coordinate with other County and public agencies, such as transportation agencies, and health care providers on emergency planning and response activities, and evacuation planning. ▪ Policy S 4.4: Encourage the improvement of hazard prediction and early warning capabilities. Policy S 4.5: Ensure that there are adequate resources, such as sheriff and fire services, for emergency response.
City of Vernon General Plan	**Circulation and Infrastructure Element, Goal CI-4** Maintain the sewer system to assure the health and safety of all residents and businesses. ▪ Policy CI-4.1: Periodically evaluate the sewage disposal system to determine its adequacy to meet changes in demand and changes in types of waste. ▪ Policy CI-4.2: Ensure that all new developments bear the cost of expanding the sewage disposal system to handle any increase in load that they generate. ▪ Policy CI-4.3: Investigate and implement means of financing maintenance and improvements to the sewer system. **Circulation and Infrastructure Element, Goal CI-5** Maintain the storm drainage system to assure the protection of lives and property in Vernon. ▪ Policy CI-5.1: Periodically evaluate the size and condition of the storm drainage system to determine its ability to handle expected storm runoff. ▪ Policy CI-5.2: Evaluate the impact of all new developments and expansion of existing facilities on storm runoff and require that the cost of upgrading existing drainage facilities to handle the additional runoff is paid for by the development which generates the need to improve a facility. ▪ Policy CI-5.3: Monitor the use and storage of hazardous materials to prevent accidental discharge into the storm drainage system. ▪ Policy CI-5.4: Allow new development projects to creatively implement NPDES standards and requirements. **Safety Element, Goal S-2** Provide a high degree of protection for all residents and workers from hazardous materials and the hazards associated with transport of such materials. ▪ Policy S-2.1: Continue to support and encourage State efforts to identify existing or previously existing hazardous waste generators or disposal sites in the City of Vernon.

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	▪ Policy S-2.2: Continue to require every business to maintain a list of the chemicals and other hazardous materials used or stored on site in accordance with appropriate material safety data sheets and otherwise in accordance with law, and to provide that list to the Fire Department and Environmental Health Department. Require that the Fire Department and Environmental Health Department to maintain a list of such materials and the location where they are stored or used to permit emergency personnel to respond appropriately, if required. Policy S-2.3: Permit new residential uses only within the Housing Overlay District. Strategically identify sites for new housing in areas determined to be most compatible for housing with limited hazard impacts.
City of Huntington Park General Plan 1992	**Safety Element** Goal 4.0: Minimize risks to life and property associated with handling, transporting, treating, generating, and storage of hazardous materials. ▪ Policy 4.1: Locate new and relocated existing land uses involved in production, storage, transportation, handling, and/or disposal of hazardous materials a safe distance from other land uses that may be adversely affected by such activities. ▪ Policy 4.5: Cooperate with the County in local implementation of applicable portions of the *Los Angeles Hazardous Waste Management Plan*. Goal 5.0: Minimize risks to life and property from underground hazards. ▪ Policy 5.2: Ensure that the Fire Department and other disaster response agencies have access to route, depth, and shut-off information about each line. ▪ Policy 5.3: Ensure that the Disaster Response Plan includes procedures to deal with a pipeline accident. Policy 5.5: Work with LADPW to continue the underground storage tank abatement program.
City of Bell 2010 General Plan	▪ Hazardous waste facilities as described and defined in Section 25100 et. seq. of the Health and Safety Code may be permitted under the current City code on CM- and M-zoned lots, though these uses are subject to Conditional Use Permit approval and provided that such a facility will not adversely affect the residents of the City, nor interfere with the uses permitted on surrounding and adjacent land uses. ▪ All businesses that handle hazardous materials are required by various Federal, State, and local agencies to submit a business plan to their local administering agency (the reportable quantities are 50 or more gallons of a liquid, 500 pounds or more or a solid, or 200 cubic feet or more of a gas at standard temperature and pressure; quantities for acutely hazardous materials vary according to the substance). ▪ Every hazardous material handler is required to submit a business plan and an inventory of hazardous substances and acutely hazardous materials to the Bell Police Department and the County Fire Department on a yearly basis. If the hazardous materials inventory of a business should change, a revised business plan must be submitted. ▪ Hazardous material users and generators in the City include gasoline stations, auto repairs shops, printers and photo labs, clinics; dry cleaners, schools, fire stations, and a variety of other commercial and industrial land uses. 141 establishments in Bell are listed in the California Facility Inventory Database of

Plan Title	Summary
	the California Environmental Protection Agency Hazardous Materials Data Management Program. ▪ The Uniform Fire Code includes criteria designed to minimize the risk of an accident. These guidelines are to be followed when storing, using, or transporting hazardous materials, and include secondary containment of substances, segregation of chemicals to reduce reactivity during a release, sprinkler and alarm systems, monitoring, venting and auto shutoff equipment, and treatment requirements for toxic gas releases. ▪ The City has no jurisdiction or control over the transport of hazardous materials on freeways and railroads. **Safety Element** ▪ Hazardous Materials Program – The City has adopted truck routes which prohibit the transport of hazardous materials through residential neighborhoods. The State Department of Health Services maintains records on the location and type of hazardous wastes stored within each City. ▪ Hazardous Materials Records Program – The City will continue to collect and maintain up-to-date records through the City Safety Departments of the type, location, owners, and responsible persons for properties which involve the handling of hazardous materials and waste. Community Hazardous Waste Education Program – The City will implement an education program for households and small businesses regarding identification and disposal of potentially hazardous wastes, including machine oils, pesticides, etc.
City of Cudahy General Plan 2040	**Safety Element, Hazardous Materials and Waste** ▪ Some streets and railroad tracks that pass through or nearby Cudahy are used to transport hazardous and toxic substances, including the designated truck routes of Florence Avenue, Atlantic Avenue, and Salt Lake Avenue. Train derailment is a risk posed by the Union Pacific and the Southern Pacific railroad tracks, utilized daily. ▪ Five oil and natural gas pipelines are in and near Cudahy. Chevron has three lines in the eastern section of Cudahy and Arco has two lines along Salt Lake Avenue. All pose potential environmental and public safety hazards associated with rupture. ▪ Due to past and current industrial practices, Cudahy has several potentially hazardous sites, hazardous waste handlers, cleanup sites, and other hazards that require local, state, or federal assessment, inventory, and/or oversight. **Safety Element Goal 1SE-5** An environment that is reasonably safe from hazards. ▪ Policy SE 5.1 – Implement mitigation measures included in Cudahy's *2015 (Natural) Hazard Mitigation Plan* and subsequent updates. ▪ Policy SE 5.2 – Ensure pipeline owners protect and maintain underground high-pressure gas pipelines to ensure maximum safety. ▪ Policy SE 5.3 – Uphold environmental cleanup standards for hazardous sites in Cudahy.

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Existing Conditions Report Cudahy 2040	**Hazards – Regulatory Framework, Hazardous Materials and Wastes** **California Code of Regulations (Title 22)**: Title 22 contains all applicable state and federal laws governing hazardous wastes in the State. Title 22 is more stringent and broader in its coverage of wastes than Federal law. Title 26 deals with toxic-related regulations. The generation, transport, and disposal of asbestos and asbestos-containing materials are regulated under Title 22 of the California Code of Regulations. **Hazardous Materials Transportation Act**: United States Code part 49, Section 5101 et al. sets the basic statutory requirements for federal hazardous materials transportation law. The law provides the federal government with the authority to designate hazardous materials. Designation may occur for explosive, radioactive, infectious, flammable, combustible, toxic, oxidizing, and corrosive materials as well as compressed gases. The law covers various aspects of hazardous materials transportation, as follows: ▪ Hazardous materials classification ▪ Hazard communication ▪ Packaging requirements ▪ Operational rules ▪ Training and security ▪ Registration **Hazardous Materials Disclosure Program** State and federal law require all businesses handling more than a specified amount of hazardous or extremely hazardous materials to submit a Hazardous Materials Business Plan to the local CUPA. The CUPA for the City of Cudahy is the Los Angeles County Fire Department. The HHMD requires a business plan to be prepared, submitted, and implemented by any business handling hazardous materials or a mixture containing a hazardous material. These businesses include, but are not limited to: ▪ All hazardous waste generators, regardless of quantity generated. ▪ Any business that uses, generates, processes, produces, treats, stores, emits, or discharges a hazardous material in quantities at or exceeding: ▪ 55 gallons or more of a liquid; ▪ 500 pounds or more of a solid; or ▪ 200 cubic feet (compressed) of gas at any one time in the course of a year. ▪ Any business that handles, stores, or uses Category (I) or (II) pesticides, as defined by the Federal Insecticide, Fungicide and Rodenticide Act, regardless of amount. ▪ Any business that handles Department of Transportation Hazard Class 1 explosives. In addition, businesses are required to submit an amendment to their business plan within 30 days of any of the following events: ▪ A 100 percent or more increase in the quantity of a previously disclosed hazardous material. ▪ Any handling of a previously undisclosed hazardous material subject to inventory requirements: – Change of business address;

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	– Change of ownership; or – Change of business name These required business plans are used by responding agencies in the event of a release to allow for a quick and accurate evaluation of each situation. Businesses handling hazardous materials are required to verbally report any release or threatened release if there is a reasonable belief that the release poses a significant present or potential hazard to human health and safety, property, or the environment. In addition, if a release involves a hazardous substance listed in Title 40 of the Code of Federal Regulation in an amount equal to or exceeding the reportable quantity, a notice must be filed with the California Office of Emergency Services within 15 days. The HHMD is responsible for conducting compliance inspections of regulated facilities in Los Angeles County. ▪ Hazardous Waste Control Law: This State statute sets regulations for the handling, transport, and disposal of hazardous waste. California law exceeds federal RCRA regulations by requiring source reduction planning and includes more extensive coverage of activities and wastes. ▪ Los Angeles County Fire Department Health Hazardous Materials Division: The HHMD is a division of the Fire Department's Prevention Services Bureau and includes the following sections and units: inspection sections, emergency operations sections, special operations section, and the administration/planning section. In 1997, HHMD became a CUPA to administer the following programs within Los Angeles County: The Hazardous Waste Generator Program, the Hazardous Materials Release Response Plans and Inventory Program, the Cal/ARP, the Aboveground Storage Tank Program and the Underground Storage Tank Program.
City of South Gate General Plan 2035	**Key Healthy Community Concepts** Sources of pollution should be sufficiently buffered from sensitive uses, which include schools, residences, hospitals and health care facilities, and childcare or eldercare facilities. The main sources of pollution that should be buffered from sensitive uses are freeways, truck routes, dirty industrial uses, and concentrations of hazardous or toxic materials. Objective HC 8.2: Establish and maintain an effective emergency response program to respond to disasters and maintain continuity of life-support functions during an emergency. ▪ Policy 1: The City will follow the policies in the most recently adopted City of South Gate Natural Hazard Mitigation Plan. This plan will be periodically updated by the City. ▪ Policy 5: The City will pursue funding resources to assist in implementing hazard mitigation activities. Objective HC 9.1: Minimize South Gate residents' and employees' exposure to hazardous materials and waste. ▪ Policy 1: The City will regularly update Hazardous Waste Management procedures and actively implement appropriate Hazardous Waste Management policies recommended by the Los Angeles County Emergency Survival Program. ▪ Policy 2: The City will enforce state and local codes that regulate the use, storage and transportation of hazardous materials in order to prevent, contain and effectively respond to accidental releases.

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	▪ Policy 3: The City should monitor the use and release of hazardous materials in the City. ▪ Policy 4: The City should, to the extent possible, ensure on a case by case basis that new development near known locations of hazardous waste or materials is suitable for human habitation and does not pose higher than average health risks from exposure to hazardous material. Objective PF 4.1: Reduce the volume of solid waste generated in South Gate through recycling and resource conservation. ▪ Policy 1: The City will meet or exceed the State's goal of diverting 50 percent of all solid waste from landfills by 2010 and adjust the percentage of diversion as mandated by the State. ▪ Policy 5: The City should expand its special waste collection and recycling services including bulk trash items, electronic waste, household hazardous waste, food scraps, green waste and other programs as necessary. ▪ Policy 6: The City will proactively advertise it bulk item trash collection service to discourage illegal dumping and improve the visual appearance of the City. ▪ Policy 7: Disposal, salvage and reuse of construction and demolition materials and debris are required for all construction projects in the City. **Safety Element, Adopted 2018** Goal 1: Enhanced protection of life and property from hazard impacts. Objective 1.5: Minimize community exposure to human-caused hazards. ▪ Policy 1.5.2: Minimize exposure to hazardous materials and waste along truck routes and railroad corridors in the city. ▪ Policy 1.5.3: Prepare for hazardous materials incidents. ▪ Policy 1.5.4: Protect soils, surface water, and groundwater from contamination. ▪ Policy 1.5.5: Promote the siting and design of new industrial and hazardous waste-related facilities to appropriate areas in a manner that is compatible with surrounding uses. ▪ Policy 1.5.6: Regulate the operations of new industrial and nonresidential uses to avoid exposure of the community to hazardous materials and pollutants. ▪ Policy 1.5.7: Consult with the County and regional partners to prepare and respond to hazardous materials events. ▪ Policy 1.5.8: Limit the transport of hazardous materials and heavy-duty vehicles to identified truck routes that avoid sensitive receptors. Goal 2: Municipal and emergency operations are fully prepared for disasters. Objective 2.1: Maintain and improve disaster preparedness and response capabilities. ▪ Policy 2.1.4: Establish and maintain clear evacuation routes for potential hazardous events or emergencies. ▪ Policy 2.1.5: Update and maintain a local emergency operations plan for the continuity and reliability of City operations and critical functions. ▪ Policy 2.1.6: Conduct annual reviews of hazard mitigation, disaster preparedness, evacuation plans, and emergency response plans, conducting regular updates, as necessary.

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	▪ Policy 2.1.7: Maintain FEMA certification of the Local Hazard Mitigation Plan (following certification of the draft LHMP). ▪ Policy 2.1.8: Maximize the City's eligibility for emergency preparedness and response grants. ▪ Policy 2.1.9: Consult with Los Angeles County and utility providers to improve necessary emergency communication and notification systems.
City of Paramount General Plan	▪ Economic Development Element Policy 8: The City of Paramount will strive to retain sufficient effective rail access to adequately serve those businesses that require such rail access. ▪ Public Facilities Element Policy 1: The City of Paramount will work to maintain good water quality. ▪ Public Facilities Element Policy 3: The City of Paramount will continue to identify sources of industrial pollution and require any pertinent remediation to be undertaken in a timely manner. ▪ Public Facilities Element Policy 4: The City of Paramount will protect, conserve, and enhance water resources through implementation of the Water Master Plan. ▪ Public Facilities Element Policy 5: The City of Paramount will maintain economical and responsive solid waste collection and disposal services for its residents. ▪ Public Facilities Element Policy 8: The City of Paramount will provide adequate sewage service to ensure that waste disposal practices are in accordance with policies and procedures of the Sanitation Districts of Los Angeles County. ▪ Public Facilities Element Policy 9: The City of Paramount will work to eliminate problems of ponding on local streets. **Public Facilities Plan** Sewer facilities in the city are City-owned. There are no major problems currently identified with Paramount's existing sewer system (2007). Flood control and storm drains in the City are the responsibility of the Los Angeles County Flood Control District. The Los Angeles County Sanitation District operates and maintains the City's sewage collection system. Many sites in the City are paved or otherwise covered with impervious surfaces that could lead to debris, leaves, soil, oil/grease, and other pollutants within the hardscape areas. Future development will be required to implement storm water pollution control measures and to obtain storm water runoff permits pursuant to the National Pollution Discharge Elimination System (NPDES). Pursuant to current storm water runoff requirements, all storm water onsite must be impounded on site. Treatment of storm flows will be required during demolition and construction phases to reduce or eliminate particulate matter being washed into the storm drain system. The City of Paramount contracts with Cal-Met for trash collection services. Cal-Met hauls waste to the Puente Hills Landfill. **Implementation Element - Environmental Review** The City will continue to evaluate the environmental impacts of new development and provide mitigation measures prior to development approval, as required by CEQA. The environmental review will be provided for major projects and those that will have a potential to adversely impact the environment. Among those issues that may be addressed in the environmental analysis are land use and development, traffic, parking, circulation, air quality, water and hydrology, plant life, animal life, natural resources, energy aesthetics, recreation, and cultural resources. In

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	compliance with CEQA, the City will also assign responsibilities for the verification of the implementation of mitigation measures. The City's environmental review procedures are currently in place (2007). **Resource Management Programs - Stormwater Pollution Prevention** This program is designed to prevent contaminants from entering the storm drain system. A key element of this program is the NPDES requirements, which are administered through a Countywide permit. These requirements call for measures to be imposed during construction, handouts for residential uses, and best management practices (BMPs) for non-residential uses. The City will also continue to implement projects to maintain storm water quality, such as street sweeping, catch basin grill signs, etc. **Health and Safety Programs - Hazardous Materials Control** The City will continue to cooperate with County, State, and Federal agencies involved in the regulation of hazardous materials storage, use, and disposal. The City will work with the fire department in requiring hazardous materials users and generators to identify safety procedures for responding to accidental spills and emergencies. The fire department will also work with local law enforcement officials in regulating the transport of hazardous materials through the City. The City will continue to promote the safe disposal of "hazardous and toxic substances" used in private households through the support of "Hazardous Materials Collections" conducted as specific locations and times within the City.
City of Downey Vision 2025 General Plan	**Chapter 5. Safety** Goal 5.2 – Protect the health, safety, and welfare of residents, workers, and visitors from the improper use, storage, handling, and disposal of hazardous materials. ▪ Policy 5.2.1: Monitor the generation, storage, and disposal of hazardous materials. ▪ Program 5.2.1.1: Monitor inactive, active, or potential hazardous material- contaminated properties, including the closed landfill at Rio San Gabriel Park for odor and toxic gases. ▪ Program 5.2.1.2: Monitor the location, type of facility, and amount of hazardous materials kept at properties. ▪ Program 5.2.1.4: Ensure proper disclosure of amounts of hazardous materials by existing uses and proposed uses, during the business review process. ▪ Policy 5.2.2: Prevent contamination from hazardous materials. ▪ Program 5.2.2.1: Ensure that properties involving hazardous materials dispose of waste properly. ▪ Program 5.2.2.4: Monitor continually the natural gas pipelines for leaks. ▪ Program 5.2.2.5: Ensure the safe transport of hazardous materials through City review of routing plans.
City of Paramount General Plan	▪ Economic Development Element Policy 8: The City of Paramount will strive to retain sufficient effective rail access to adequately serve those businesses that require such rail access. ▪ Public Facilities Element Policy 1: The City of Paramount will work to maintain good water quality. ▪ Public Facilities Element Policy 3: The City of Paramount will continue to identify sources of industrial pollution and require any pertinent remediation to be undertaken in a timely manner.

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	▪ Public Facilities Element Policy 4: The City of Paramount will protect, conserve, and enhance water resources through implementation of the Water Master Plan. ▪ Public Facilities Element Policy 5: The City of Paramount will maintain economical and responsive solid waste collection and disposal services for its residents. ▪ Public Facilities Element Policy 8: The City of Paramount will provide adequate sewage service to ensure that waste disposal practices are in accordance with policies and procedures of the Sanitation Districts of Los Angeles County. ▪ Public Facilities Element Policy 9: The City of Paramount will work to eliminate problems of ponding on local streets. **Public Facilities Plan** Sewer facilities in the city are City-owned. There are no major problems currently identified with Paramount's existing sewer system (2007). Flood control and storm drains in the City are the responsibility of the Los Angeles County Flood Control District. The Los Angeles County Sanitation District operates and maintains the City's sewage collection system. Many sites in the City are paved or otherwise covered with impervious surfaces that could lead to debris, leaves, soil, oil/grease, and other pollutants within the hardscape areas. Future development will be required to implement storm water pollution control measures and to obtain storm water runoff permits pursuant to the National Pollution Discharge Elimination System (NPDES). Pursuant to current storm water runoff requirements, all storm water onsite must be impounded on site. Treatment of storm flows will be required during demolition and construction phases to reduce or eliminate particulate matter being washed into the storm drain system. The City of Paramount contracts with Cal-Met for trash collection services. Cal-Met hauls waste to the Puente Hills Landfill. **Implementation Element - Environmental Review** The City will continue to evaluate the environmental impacts of new development and provide mitigation measures prior to development approval, as required by CEQA. The environmental review will be provided for major projects and those that will have a potential to adversely impact the environment. Among those issues that may be addressed in the environmental analysis are land use and development, traffic, parking, circulation, air quality, water and hydrology, plant life, animal life, natural resources, energy aesthetics, recreation, and cultural resources. In compliance with CEQA, the City will also assign responsibilities for the verification of the implementation of mitigation measures. The City's environmental review procedures are currently in place (2007). **Resource Management Programs - Stormwater Pollution Prevention** This program is designed to prevent contaminants from entering the storm drain system. A key element of this program is the NPDES requirements, which are administered through a Countywide permit. These requirements call for measures to be imposed during construction, handouts for residential uses, and BMPs for non-residential uses. The City will also continue to implement projects to maintain storm water quality, such as street sweeping, catch basin grill signs, etc. **Health and Safety Programs - Hazardous Materials Control** The City will continue to cooperate with County, State, and Federal agencies involved in the regulation of hazardous materials storage, use, and disposal. The City will work with the fire department in requiring hazardous materials users and generators to identify safety procedures for responding to accidental spills and

Plan Title	Summary
	emergencies. The fire department will also work with local law enforcement officials in regulating the transport of hazardous materials through the City. The City will continue to promote the safe disposal of "hazardous and toxic substances" used in private households through the support of "Hazardous Materials Collections" conducted as specific locations and times within the City.
City of Bellflower General Plan 1995-2010	**Safety Element, Background Technical Report, 1.6.3 Petroleum Pipeline Hazards** Pipes used to transport oil, gasoline, and crude oil also present risks for explosion and fire. Their locations should also be identified, and the evacuation plan should also reflect any potentially hazardous areas.
City of Artesia General Plan 2030	**Community Planning Principles SAF 4** Hazardous materials pose a threat to the health and safety of community members. Materials are used, stored and manufactured by various businesses and residences throughout the City. These materials are also transported in and across the City on the streets and freeway. **Community Goal SAF 4** The threat to public health and safety and to the environment associated with the transport, use, storage and disposal of toxic and/ or hazardous materials is minimized. ▪ Community Policy SAF 4.1: Reduce risks associated with hazardous waste through community education and enforcement of laws and regulations. ▪ Policy Action SAF 4.1.1: Continue to publicize and conduct household hazardous waste roundups in conjunction with the County of Los Angeles. ▪ Policy Action SAF 4.1.2: Enforce Federal, State and local laws and regulations relating to the use, storage, transport and cleanup of hazardous materials to prevent unauthorized discharges. ▪ Policy Action SAF 4.1.3: Educate residents and businesses about the dangers of hazardous materials by urging minimum use and proper storage, management and disposal of hazardous materials.
City of Cerritos General Plan	**Compatible Land Uses Goal LU-4** – Adjacent land uses shall be compatible with one another. ▪ Policy LU-4.2: Ensure that any land use that handles, generates, and/or transports hazardous substances, as defined by state and federal regulations, will not negatively impact existing sensitive receptors/land uses. **Toxic and Hazardous Materials Goal SAF-3** – Minimize the threat of life and property associated with the transport, use, storage, and disposal of toxic and/or hazardous materials. ▪ Policy SAF-3.2: Monitor facilities or businesses that utilize, store, or handle hazardous materials to ensure practices and procedures will reduce the threat of damage to life and property. ▪ Policy SAF-3.3: Enforce Federal, State, and local laws and regulations relating to the use, storage, transport, and cleanup of toxic, explosive, and other hazardous materials to prevent unauthorized discharges. ▪ Policy SAF-3.4: Identify specific routes, both street and railroad systems, for the safe transport of hazardous materials in and through the City. **Hazardous Waste Goal SAF-4**: Eliminate or significantly reduce the impacts associated with the creation, handling, storage, transport, and disposal of hazardous materials.

Plan Title	Summary
	▪ Policy SAF-4.2: Provide educational and outreach materials to Cerritos residents and businesses that address hazardous materials. ▪ Policy SAF-4.3: Continuously monitor facilities that utilize, handle, or store hazardous materials. ▪ Policy SAF-4.5: Enforce federal, State, and local laws and regulations relating to the use, storage, and transportation of toxic, explosive, and other hazardous materials to prevent unauthorized discharges. **Pipelines Goal SAF-5**: Reduce the potential for injury and property damage associated with the failure, damage, or rupture of underground pipelines. ▪ Policy SAF-5.1: Ensure that disaster response agencies, such as the Los Angeles County Fire Protection District, have access to data related to pipeline routing, locations, depth, and shut-off information. ▪ Policy SAF-5.2: Ensure the accuracy of existing as-built plans indicating pipeline locations. ▪ Policy SAF-5.3: Utilize GIS as a tool to accurately record the location of all potential underground pipeline hazards. ▪ Policy SAF-5.4: Coordinate with agencies operating underground lines to determine potential threats of rupture. ▪ Policy SAF-5.5: Require all underground pipeline and related structures be designed, constructed and maintained to resist stress caused by lateral forces during periods of seismic activity. ▪ Policy SAF-5.6: Coordinate the abandonment and/or removal of outdated and unused pipelines with required regulations.

Source: City of Los Angeles, Safety Element: An Element of the General Plan, August 1996; City of Huntington Park, City of Huntington Park General Plan, 1991; City of Bell, City of Bell 2030 General Plan, May 2018; City of Cudahy, Cudahy 2040 General Plan, March 2018; City of Cudahy, Existing Conditions Report Cudahy 2040, February 2016; City of South Gate, City of South Gate General Plan 2035, December 2009; City of Downey, Downey Vision 2025, January 25, 2005; City of Paramount, Paramount General Plan, August 2007; City of Bellflower, City of Bellflower General Plan: 1995-2010, December 1994; City of Cerritos, City of Cerritos General Plan, January 2004; City of Artesia, City of Artesia General Plan 2030, 2010

4 AFFECTED ENVIRONMENT/EXISTING CONDITIONS

The Affected Area for the Hazardous Materials Impact Analysis Report includes the project footprint plus up to 200 feet around the alignment and appurtenant structures, including, but not limited to, stations, the MSF, and parking facilities.

In addition to the current railroad corridor ROW, land uses in the Affected Area include industrial, commercial, retail, and residential land uses. The following corridor-wide General Hazardous Material Conditions are likely to be encountered in one or more locations in the Affected Area.

4.1 Lead-Based Paint

LBP is recognized as a potential health risk because of the known toxic effects of lead exposure on the central nervous system, kidneys, and blood stream. Lead exposure occurs primarily through the ingestion of LBP, a substance that was banned for residential and consumer use in 1978, and lead solder used in plumbing, which was banned in 1988. The use of LBP is still allowed for industrial purposes. Therefore, LBP may be present on or in buildings and structures in the Affected Area. The risk of lead toxicity in LBP varies according to the condition of the paint and the year of its application. Structures built before 1978 are likely to contain elevated concentrations of LBP. The types of structures of concern in the Affected Area include residences painted prior to 1977, barns, sheds, commercial buildings, warehouses, industrial structures, equipment utility sheds, and painted bridge surfaces, residue from yellow thermoplastic or yellow painted traffic stripes and pavement markings, and any other painted surfaces.

LBP may be encountered during demolition of industrial, commercial, and residential structures in the Affected Area. Prior to demolition, testing to determine the presence of LBP is required where structures will be demolished. Additionally, weathering and routine maintenance of paint on buildings may have contaminated nearby soils with lead.

During site reconnaissance, field staff observed traffic-striping and pavement-marking paint in the Affected Area that ranged from good condition (i.e., no peeling, flaking, or cracking) to poor and deteriorating condition. Paint that is poor and deteriorating may have caused lead contamination in nearby soils.

4.2 Aerial-Deposited Lead

Lead particles historically emitted to the atmosphere from vehicle exhaust have settled along roadways and accumulated in shallow soil over time. Elevated concentrations of aerial-deposited lead (ADL) may be present along existing roadways (Caltrans 2016), including those throughout the Affected Area. Considering the results of other unrelated projects assessed for lead in soil along highway corridors, soil in the Affected Area may contain concentrations of lead exceeding state regulatory thresholds, and any waste generated from the disturbance of soil in these locations may be regulated as a hazardous waste. If ADL is ingested into the body, it can cause damage to the nervous system and/or blood cells.

Soil and grade crossings in the immediate vicinity of the Affected Area are likely to be contaminated with ADL due to the proximity of several highways. These include, but are not limited to, the following:

- Long Beach Freeway (I-710)
- Glenn Anderson Freeway (I-105)
- San Gabriel River Freeway (I-605)
- Artesia Freeway (SR-91)

In addition, multiple county and city roads have existed for decades in areas adjacent to the LPA in the Affected Area, including, but not limited to:

- Alameda Street
- Long Beach Avenue
- Pacific Boulevard
- Randolph Street
- Salt Lake Avenue

Prior to grading or soil disturbance in potential ADL areas, soil sampling and analysis to determine the presence of lead in soil is recommended.

4.3 Asbestos-containing Materials

In December 1977, the United States Consumer Product Safety Commission restricted the use of asbestos-containing patching compounds and artificial fireplace ash products. In 1989, the USEPA restricted a number of other contaminated products, but this ruling was overturned in 1991. USEPA restrictions currently affect the ongoing use of asbestos in flooring felt, wallboard, certain types of papers, and any new uses of asbestos. Specifically, products can be made with asbestos if asbestos accounts for less than one percent of the product. Some of the asbestos-containing products that continue to be sold in the United States include brake pads, automobile clutches, roofing materials, vinyl tile, cement piping, corrugated sheeting, home insulation, and some potting soils. Therefore, although the use of asbestos in the manufacture of most building materials has not been fully prohibited by federal law, the use of asbestos in building materials has for the most part been discontinued since the late 1970s.

Inhalation of asbestos fibers can cause the asbestos fibers to get trapped in the lungs and irritate lung tissues. The inhalation of asbestos can lead to various cancer and non-cancer diseases, such as asbestosis, pleural disease, lung cancer, mesothelioma, and various other cancers (larynx, ovary, pharynx, stomach, and colorectum) (Agency for Toxic Substances and Disease Registry [ATSDR] 2020a).

Depending on the date of construction, many of the structures in the Affected Area, including concrete bridge abutments, may have been built with structural and building materials that contain asbestos.

An ACM survey was not conducted as part of the baseline assessment; however, historical aerial photographs show that many structures in the Affected Area were constructed prior to 1989. Therefore, ACMs are likely present in a majority of those structures. Although structures were not assessed as part of the site reconnaissance, the following ACM may be present:

- Interior building materials could contain ACM in floor tiles and mastic; including wallboard and joint compound; wall, ceiling, and pipe insulation; and acoustic ceiling panels.
- Exterior asbestos-containing building materials could include stucco, Transite siding, roofing materials, window sealants, patching material, concrete bridge construction materials, and Transite pipe.

Multiple roadway and railroad overcrossing structures built prior to the 1980s exist in the Affected Area. These structures may also contain ACMs.

Prior to demolition, testing to determine the presence of asbestos is required in areas where structures with potential ACM will be demolished.

4.4 Common Railroad Corridor Contaminants

Various chemicals were historically used to preserve railroad ties and for weed abatement along railroad tracks. In addition, leaks, spills, and drips of various hazardous substances and petroleum products (including freight, fuels, and lubricants) may have occurred along the railroad tracks. Contaminants common in railway corridors include petroleum hydrocarbons, pesticides/ herbicides, polycyclic aromatic hydrocarbons (PAHs), and heavy metals, including arsenic and lead. Unused/abandoned railroad ties may also remain onsite and will require special handling and disposal.

Various health effects are associated with these common railroad contaminants:

- Ingestion, inhalation, and dermal exposure to petroleum hydrocarbons could result various cancers, birth defects, and/or other reproductive harm (California Office of Environmental Health Hazard Assessment [OEHHA] 2020).
- Ingestion, inhalation, and/or dermal exposure to naphthalene could result in the development of cataracts or retinal hemorrhage, reproductive and developmental effects, and is considered a possible human carcinogen (USEPA 2000).
- Inhalation and/or ingestion of organochlorine pesticides could cause thyroid, bladder, liver, kidney, and/or central nervous system damage, and possibly cancer (Delaware Health and Soil Services [DHSS] 2020).
- Herbicides affect human health through dermal exposure, ingestion, or inhalation, which may result in dermal skin irritations or allergic reactions, various cancers, and nervous system disorders (Healthfully 2020).
- Ingestion, inhalation, and/or dermal exposure to PAHs could cause various health effects including various cancers (ATSDR 2020b).
- Inhalation, ingestion, and dermal exposure to arsenic may result in skin disorders, an increased risk for diabetes, high blood pressure, and various cancers (Centers for Disease Control and Prevention [CDC] 2020a).

Inhalation, ingestion, and dermal exposure to lead may result in kidney, blood, and nervous system damage (CDC 2020b). Railways are located in and along the Affected Area as follows:

- Wilmington Branch ROW from south of Washington Boulevard to Slauson Avenue
- La Habra Branch ROW located along Randolph Street from Slauson Avenue to Salt Lake Avenue
- San Pedro Subdivision from Randolph Street to Rosecrans Avenue
- PEROW from Rosecrans Avenue to South Street

Historical and current railroad spurs to various facilities in the Affected Area may also be affected by common railroad corridor contaminants, several of these historical spur areas were added to the list of environmental concerns as sites of Historical Environmental Concern.

Prior to grading or soil disturbance in current or former railroad corridors, soil sampling and analysis to determine the presence of common railroad contaminants in soil is recommended.

4.5 Hazardous Material Pipeline Utility Corridor Contaminants

The Affected Area includes urban areas and associated utilities, such as crude oil, natural gas, and hydrocarbon product pipelines. Ingestion, inhalation, and dermal exposure to petroleum hydrocarbons could result in various cancers, birth defects, and/or other reproductive harm (OEHHA 2020). Soil and groundwater contaminants that may be present in the vicinity of the crude oil and hydrocarbon product pipelines include petroleum hydrocarbons, volatile organic compounds (VOC), and metals.

The following data have been adjusted since the Draft EIS/EIR based on comments from stakeholders to include natural gas pipelines and updates to the Affected Area for hazards and hazmat that were made to encompass the LPA inclusive of refinements. The National Pipeline Mapping System (NPMS 2023) online map viewer was used to generally locate natural gas pipelines and hazardous liquid pipelines in the vicinity of the LPA. Appendix F includes copies of three maps that outline the general locations of these pipelines. The map viewer indicates the following pipelines are present in the Affected Area (as listed with details below):

- 32 liquid hazardous material pipelines are located within the Affected Area.
- 4 high-pressure natural gas transmission pipelines are located within the Affected Area.

Five of the liquid hazardous material pipelines listed above are also located within the Affected Area in the vicinity of the MSF.

Table 4.1 lists the pipelines present in the Affected Area and provides a description of each.

Table 4.1. Hazardous Material Pipelines Within the LPA

Project	To / From
Athens Vernon Product, Line 6768	Active (unfilled) liquid oil pipeline within Slauson Avenue
Athens Vernon Product, Line 11150	Active (unfilled) liquid oil pipeline within Slauson Avenue
Athens Vernon Product, Line 11147	Active (unfilled) liquid oil pipeline within Slauson Avenue
Athens Vernon Product, Line 973	Active (unfilled) liquid oil pipeline within Slauson Avenue
Abandoned, Pipeline ID 027A Wash-Vinvale	Active (unfilled) liquid pipeline that crosses project corridor at Randolph, runs along South Boyle Avenue/State Street
Southern California Gas (SCG) Pipeline ID 459	Active (filled) natural gas pipeline that crosses the project corridor at Bissell Street, runs along Malburg Way, Alcoa Avenue (parallel to Randolph), and Bissell Street
	Active (filled) natural gas pipeline that is west of the project corridor at Florence Avenue and California Street, run southeast along Florence Avenue and turns south at California Street
	Active (filled) natural gas pipeline that crosses the project corridor at Atlantic Avenue, runs along Atlantic Avenue
SCG Pipeline ID 6961	Active (filled) natural gas pipeline that crosses the project corridor at Santa Ana Street, runs along Santa Ana Street
Crimson Pipeline, Line 46	Crude oil pipeline that crosses the project corridor between Firestone Boulevard and Atlantic Avenue, runs southwest to northeast
Abandoned, Line 028	Empty liquid pipeline that crosses the project corridor at Rayo Avenue, runs southwest to northeast
Chevron Pipeline Co, Line CAL0326	Active (unfilled) natural gas pipeline that crosses the project corridor at the Los Angeles River, runs along the west side of the river
Chevron Pipeline Co, Line CAL0319	Gasoline, diesel, or jet fuel pipeline that trends along the west side of the Los Angeles River
Plains Pipeline, Line 63	Crude oil pipeline that trends along the corridor briefly at the Rio Hondo Wash
Abandoned, Line 10453	Active (unfilled) liquid pipeline that crosses the project corridor at Imperial Highway
Tesoro Socal Pipeline Co, Line 80	Active liquid pipeline that trends along the corridor briefly at the Rio Hondo Wash and trends along Garfield Avenue in Paramount
Chevron Pipeline, Line CAL0320	Gasoline/diesel/jet fuel pipeline that trends along the corridor within the Bellflower Bike Trail/Flora Vista Street, within Rosecrans Avenue, and also Somerset Boulevard (MSF)
Chevron Pipeline Co, Line CAL0325A	Active (unfilled) natural gas pipeline that runs northwest to southeast along the project corridor from Rosecrans Avenue to Downey Avenue

Project	To / From
Crimson Pipeline, Line 41B	Crude oil pipeline that trends along the corridor within the Bellflower Bike Trail/Flora Vista Street and also along Rosecrans Avenue
Crimson Pipeline, Line CAL0329B	Crude oil pipeline that trends along Somerset Boulevard (MSF)
Chevron Pipeline, Line CAL0339	Crude oil pipeline that trends along the corridor within the Bellflower Bike Trail/Flora Vista Street and also along Rosecrans Avenue
Chevron Pipeline, Line CAL0328	Crude oil pipeline that trends along the corridor within the Bellflower Bike Trail/Flora Vista Street and also along Rosecrans Avenue
Crimson Pipeline, Line 47	Crude oil pipeline within Downey Avenue
Chevron Pipeline Co, Line CAL0336	Gasoline, diesel, or jet fuel pipeline within Downey Avenue
Paramount Petroleum Corporation, Line 534	Crude oil pipeline within Downey Avenue
Paramount Petroleum Corp, Line 0244	Crude oil pipeline that crosses the project corridor at Downey Avenue
Pending New Owner, Line 56	Crude oil pipeline that crosses the project corridor between Downey Avenue and Somerset Avenue, runs southwest to northeast
Crimson Pipeline, Line 35	Crude oil pipeline within Somerset Boulevard (MSF)
Marathon Pipeline LLC, Line 34E	Active pipeline that crosses the project corridor at Lakewood Boulevard and runs along Somerset Boulevard (MSF) and Cerritos Avenue
Crimson Pipeline, Line 41	Crude oil pipeline that trends along the corridor within the Bellflower Bike Trail/Flora Vista Street and Somerset Boulevard (MSF)
Paramount Petroleum Pipeline, Line 121	Crude oil pipeline that crosses the project corridor at Lakewood Boulevard
SFPP, Line LS-120/1Watson-Colton	Active pipeline that trends along the corridor from Alondra Boulevard to Artesia Boulevard
Crimson Pipeline, Line 923	Crude oil pipeline that crosses the project corridor at Woodruff Avenue
Crimson Pipeline, Line 217	Crude oil pipeline that crosses the project corridor at Woodruff Avenue
Crimson Pipeline, Line 447	Crude oil pipeline that crosses the project corridor at Walnut/Flora Vista Street
SFPP, Line LS-105/108 Watson-Colton	Active pipeline that crosses the project corridor at Walnut Street/Flora Vista Street
SFPP, Line LS-10/125/126 Wats	Active pipeline that crosses the project corridor at I-605/Palo Verde Avenue
Department of Defense Energy Support, Line 65	Active pipeline that crosses the project corridor at Artesia Boulevard

Source: National Pipeline Mapping System
Note: MSF = maintenance and storage facility

If reported or unreported releases of hazardous materials from these liquid pipelines have occurred, impacted soil, soil vapor, and/or groundwater could be present in the Affected Area. Natural gas transmission pipelines present an explosion risk, with limited soil, soil vapor, and groundwater contamination risks.

4.6 Oil and Gas Wells

The Affected Area does not pass through any oil and gas fields. However, as shown on Figure 4-1, one oil and gas well has been identified immediately west of the Affected Area for hazards and hazmat. Oil and gas wells have not been identified in the Affected Area for hazards and hazmat in the vicinity of the design option and MSF. The locations of oil and gas wells in the Affected Areas were obtained from the CalGEM database (DOGGR 2017a).

Common issues associated with oil field and methane zone properties include the presence of operating wells and/or pipelines; the presence of abandoned pipelines; release of methane and/or hydrogen sulfide gas; oil seepage; the presence of contaminated soils and groundwater; leaking oil and gas wells; and abandoned wells that are not plugged and abandoned to current standards.

Although the known oil and gas well is reportedly abandoned, it may not be abandoned to current California Code of Regulations standards, therefore, accidental releases of subsurface gases could occur, as the vibration from train operation could cause damage to the abandoned well.

Oil wells typically have a larger diameter steel “surface” casing that extends from just below the ground surface to a depth of 100 feet or more, with one or more smaller diameter steel casings located inside that surface casing. Ground surface plugs were not installed in some of the older wells that were abandoned during the early 1900s, although the deeper plugs were normally provided.

Figure 4-1. Oil and Gas Wells in the Affected Area

Source: Department of Conservation, 2018

Table 4.2. Oil and Gas Well Located Within the Affected Area

Well Name/ Operator	Number/ Status	Location	Distance
'Elks' 1/ Occidental Petroleum Corp.	#03720120/ Plugged and Abandoned	Intersection of Benedict Way and Bissell Place, Huntington Park	250 feet west of LPA

Source: CalGEM (DOGGR) 2023

4.7 Radon Gas

Radon gas is produced by the decay of uranium, which may be naturally present at varying levels in soil and rock. Once present, the gas moves through the ground and may enter structures through utility corridors, openings or cracks in foundations, and construction joints. Since radon gas is very dense, it may accumulate in basements or crawl spaces. Radon exposure has been linked to lung cancer. The USEPA action level for radon is above 4.0 pico Curies per liter of air (pCi/l). USEPA has mapped Los Angeles County as a Zone 2 radon area, which is defined as an area with a general indoor radon potential of between 2.0 and 4.0 pCi/l (USEPA 2019), thus, radon is not anticipated to be present at harmful concentrations in the Affected Area.

4.8 Pesticides/Agricultural Uses

Pesticides may be encountered in agricultural areas or agricultural chemical storage areas. Historical aerial photographs indicate that the majority of the parcels adjacent to the Affected Area have been developed since at least 1948, but any former agricultural lands or landscapes adjacent to or in the Affected Area pre-dating 1948 may have been subject to regular applications of fertilizers, pesticides, or other chemicals for maintenance.

Inhalation and/or ingestion of organochlorine pesticides could cause thyroid, bladder, liver, kidney, and/or central nervous system damage, and possibly cancer (DHSS 2020). Herbicides affect human health through dermal exposure, ingestion, or inhalation, which may result in dermal skin irritations or allergic reactions, various cancers, and nervous system disorders (Healthfully 2020).

Although there are limited agricultural properties in the Affected Area, it is possible that agricultural chemicals were formerly used, stored and/or mixed in or adjacent to the Affected Area, and that chemical residues from such historical agricultural activities may be present in environmental media.

4.9 Polychlorinated Biphenyls

PCBs may be encountered in transformers, elevators, electrical substations, vehicle service lifts, and other areas where hydraulic equipment was used historically. During the site reconnaissance, pad-mounted transformers, pole-mounted transformers, stationary hydraulic equipment, and mobile hydraulic equipment were observed at multiple locations in the Affected Area. The age of the equipment was not determined, and the presence of PCBs is uncertain.

Inhalation, ingestion, and dermal exposure to PCBs may cause health effects such as acne-like skin conditions in adults and neurobehavioral and immunological changes in children (ATSDR 2020c).

Properties in the Affected Area with buildings that might have fluorescent lighting were not accessed during the site reconnaissance and no information was available to assess whether the lighting ballasts in these buildings had been changed recently. No information about the disposal of ballasts was available but given the dates of construction of the older buildings, some or many of the ballasts could still contain PCBs.

4.10 Landfills

An assessment was done to identify solid waste landfill sites within 0.25 mile of the project footprint, consistent with Title 27 CCR, as these sites require analysis for their potential to release methane gas that may present an explosion risk.[5] The online California Department of Resources, Recycling, and Recovery's (CalRecycle) Detailed Facility Search was used to determine if waste disposal facilities were present within the Affected Area for hazards and hazmat (landfills) (CalRecycle 2017). As shown in Table 4.3, four solid waste landfills were identified within 0.25 mile of the LPA. All four landfills are described in the following section.

Table 4.3. Solid Waste Landfills Located Within 0.25 mile of LPA Project Footprint

Landfill Name	Address	Distance
Wilmington Ave. Dump (Solid Waste Information System [SWIS] No. 19-AA-5265)	6000 Alameda St. Huntington Park, CA 90255	200 feet north of LPA
Huntington Park City Dump (SWIS No. 19-AA-5369)	3401 Florence Ave/ 7001 Bissel Ave., Huntington Park, CA 92705	500 feet west of LPA
Caltrans South Gate (SWIS No. 19-AA-5067)	Long Beach Freeway and Firestone Blvd., South Gate, CA 90280	1,200 feet northeast of LPA
South Gate Rod and Gun Club (60001375)	10120 Miller Way, South Gate, CA 90280	100 feet south of LPA

Source: CalRecycle 2018, EDR database report (Appendix C, 2017a)
Note: LPA = Locally Preferred Alternative; SWIS = Solid Waste Information System

4.10.1 Wilmington Avenue Dump – 6000 South Alameda Street, Huntington Park (SWIS No. 19-AA-5265)

Although information regarding the history of this facility has not been obtained, a 2009 inspection document indicates that the Wilmington Avenue Dump or United ROCK PIT #2 Facility located at the northeast corner of Alameda Street and Randolph Street in Huntington Park was assessed for compliance, surface gas monitor readings were conducted, and methane gas was not detected above the reporting limit (CalRecycle 2019).

The 2017 inspection indicates the site remains as a truck storage area with limited access and is reportedly maintained in satisfactory compliance with no violation or areas of concern per Los Angeles County Local Enforcement Agency (CalRecycle 2019a).

4.10.2 Huntington Park City Dump – 3401 Florence Avenue/7001 Bissel Avenue, Huntington Park (SWIS No. 19-AA-5369)

This site is listed on the CalRecycle SWIS online database. According to a 2010 Closed Disposal Site Inspection Report, this site is closed, is currently used as a municipal park, and has on-site a building and multiple recreational structures. The report indicates that methane was not detected above the reporting limit in surface gas monitor readings taken throughout the site (CalRecycle, 2010 SV5).

[5] For the purposes of the analysis of potential effects/impacts to landfills, the Affected Area is 0.25 mile.

4.10.3 Caltrans South Gate – Long Beach Freeway and Firestone Boulevard, South Gate, CA 90280 (SWIS No. 19-AA-5067)

According to the State of California Integrated Waste Management Board (now CalRecycle) Solid Waste Information System (SWIS) facility database, this site operated as a Solid Waste Disposal site until February 14, 1972 (CalRecycle, 2018 CS10) and is inspected annually by the County of Los Angeles Department of Public Health.

A 2007 California Integrated Waste Management Board Closed Disposal Site Inspection Report available on the SWIS database indicates that the facility was used from 1955 to 1971 as a landfill for street and highway sweepings (CalRecycle 2007 CS11). The report states that the facility was unpaved dirt land used as a nursery and composting site at the time of inspection and "no problems with differential settlement were observed." A 2009 Closed Disposal Site Inspection Report (CalRecycle 2009 CS12) states that 31,000 cubic yards of material were deposited in the landfill while it was operational, including cardboard, wood, and paper in addition to highway and street sweepings. The 2009 report describes the site as vacant, undeveloped, and fenced at the time of inspection, and that "no landfill gases were detected above the reporting limit during the inspection" (CalRecycle 2009 CS12).

4.10.4 South Gate Rod and Gun Club - 10120 Miller Way, South Gate (60001375)

From as early as 1958 until after the landfill was closed, the site was used for trap and skeet shooting with shotguns. Historical site uses include a firing range and landfill construction. The potential contaminates of concern are metals, organochlorine pesticides, petroleum, semi-volatile organics, and toluene. The potential media of concern is contaminated soil. The surface soil in the area was formerly scraped into a large hazardous waste pile.

4.10.5 Landfill Gas - Methane

Methane gas was not detected above the reporting limit at three of the four landfills listed below and described Section 4.10:

- Wilmington Avenue Dump – 6000 South Alameda Street, Huntington Park (SWIS No. 19-AA-5265)
- Huntington Park City Dump – 3401 Florence Avenue/7001 Bissel Avenue, Huntington Park (SWIS No. 19-AA-5369)
- Caltrans South Gate – Long Beach Freeway and Firestone Boulevard., South Gate, CA 90280 (SWIS No. 19-AA-5067)

However, based on the document review, it is not clear if soil vapor testing for methane or other constituents has been completed at the South Gate Rod and Gun Club – 10120 Miller Way, South Gate (60001375). Soil contamination from metals, organochlorine pesticides, petroleum hydrocarbons, semi-volatile organics, and toluene is a concern at the South Gate Rod and Gun Club site, located 100 feet south of the Southern Section.

4.11 Wildlands

Based on the State of California, Los Angeles County Fire Hazard Severity Zone Map, CalFire Local Responsibility Area Map, no portion of the Affected Area, including the MSF, are subject to impacts from wildland fire.

4.12 Airports

No airports are within the Study Area (approximately 2.0 miles of the alignment centerlines), stations, or MSF. Table 4.4 lists the location of the airports and air strips nearest the LPA.

Table 4.4. Airport Facilities Located Near the LPA

Airport Name	Address	Distance (Miles)
Compton Woodley Airport (CPM)	901 W. Alondra Blvd. Compton, CA 90220	4.3 miles west of the LPA
Long Beach Airport (LGB)	4100 Donald Douglas Dr. Long Beach, CA 90808	4.1 miles southwest of the LPA
Joint Forces Training Base Los Alamitos	11206 Lexington Drive, Los Alamitos, CA 90720	4.5 miles south of the LPA
Fullerton Municipal Airport	4011 W Commonwealth Avenue, Fullerton, CA 92833	5.5 miles east of the LPA

Source: Caltrans 2023
Note: LPA = Locally Preferred Alternative

4.13 Educational Facilities in Proximity to Hazardous Materials

Individuals who may be particularly sensitive to hazardous materials exposure, such as toddlers, children, teens, and young adults, are the primary users of educational facilities (defined as colleges, high schools, elementary schools, preschools, or nursery schools). Therefore, additional protective regulations apply to projects that could use or disturb potentially hazardous products near or at schools. PRC regulations require projects within 0.25 mile of a school that might reasonably be expected to emit or handle hazardous materials to discuss potential effects with the school district. Therefore, for the purposes of the analysis of potential effects/impacts to educational facilities, the Affected Area for hazards and hazmat (educational facilities) is the project footprint plus 0.25 mile.

Figure 4-2 and Figure 4-3 show the approximate locations of the identified educational facilities. Table 4.5 identifies 45 educational facilities within the Affected Area for hazards and hazmat (educational facilities).

The MSF is located within 0.25 mile of 2 educational facilities. These educational facilities are also located within the Affected Area for hazards and hazmat (educational facilities) at the LPA.

Figure 4-2. Educational Facilities in the Affected Area (Los Angeles to Paramount)

Source: California Department of Education 2021; CalEOS Private School Universe Survey 2021; California School Campus Database 2023

Figure 4-3. Educational Facilities in the Affected Area (Paramount to Artesia)

Source: California Department of Education 2021; CalEOS Private School Universe Survey 2021; California School Campus Database 2023

Table 4.5. Education Facilities Within 0.25 Mile of the LPA Project Footprint

Facility Name	Address	Distance to LPA
Holmes Avenue Elementary School	5108 Holmes Ave, Los Angeles	695 feet from alignment (east)
Holmes Avenue Children's Center/Early Education Center	1810 E 52nd St, Los Angeles	695 feet from alignment (east)
PACE Head Start - Early Explorer	1594 E 54th St, Los Angeles	350 feet from alignment (west)
Alliance Kory Hunter Middle School	5886 Compton Ave, Los Angeles	1,260 feet from alignment (west-southwest) 1,300 feet from Slauson/A Line Station (southwest)
Lillian Street Elementary School	5909 Lillian St, Los Angeles	Less than 100 feet from alignment (south) 950 feet from Slauson/A Line Station (southeast)
Linda Esperanza Marquez High School	6361 Cottage St, Huntington Park	Less than 100 feet from alignment (south)
Aspire Charter School	2540 E 58th St, Huntington Park	1,300 feet from alignment (north)
Pacific Boulevard	2660 E. 57th St, Huntington Park	1,160 feet from alignment (north)
Middleton Street Elementary	6537 Malabar St, Huntington Park	800 feet from alignment (southwest)
United Education Institute (UEI) - Huntington Park Campus	6055 Pacific Blvd, Huntington Park	Less than 100 feet from alignment (north) 165 feet from Pacific/Randolph Station (west)
ICDC College	6330 Pacific Blvd #200, Huntington Park	950 feet from alignment (south)
Prepa Tec Middle School (6th and 7th Grade)	2665 Clarendon Ave, Huntington Park	340 feet from alignment (south) 365 feet from Pacific/Randolph Station (south)
Prepa Tec Middle School (8th Grade)	6005 Stafford Ave, Huntington Park	530 feet from alignment (north) 645 feet from Pacific/Randolph Station (northeast)
KIPP Comienza Community Prep	7300 Roseberry Ave, Huntington Park	1,365 feet from alignment (south) 1,365 feet from Pacific/Randolph Station (south)
Huntington Park Senior High School/ Belgrave Community Day School	6020 Miles Ave, Huntington Park/2861 Randolph St, Huntington Park	Less than 100 feet from alignment (north)

Facility Name	Address	Distance to LPA
Huntington Park-Bell Community Adult School	2945 Belgrave Ave, Huntington Park	1,000 feet from alignment (north)
Henry T. Gage Middle School	2880 Gage Ave, Huntington Park	1,230 feet from alignment (south)
San Antonio Elementary School	6222 State St, Huntington Park	Less than 100 feet from alignment (south)
Renuevo Leadership Academy	3154 E Gage Ave, Huntington Park	1,305 feet from alignment (south)
Southeast-Rio Vista Family YMCA Preschool	3355 E Gage Ave, Huntington Park	290 feet from alignment (west)
Magnolia Science Academy 8-Bell/Orchard Academies 2C	6411 Orchard Ave, Bell	820 feet from alignment (east)
Martha Escutia Primary Center	6401 Bear Ave, Bell	1,100 feet from alignment (east)
Lucille Roybal-Allard Elementary School	3232 Saturn Ave, Huntington Park	1,475 feet from alignment (west)
Teresa Hughes Elementary School	4242 Clara St, Cudahy	500 feet from alignment (northeast)
Tweedy Elementary	9724 Pinehurt Ave, South Gate	1,790 feet from alignment (west)
Legacy High School Complex	5225 Tweedy Blvd, South Gate	230 feet from alignment (west)
St. Pius X - St. Matthias Academy	7851 Gardendale St, Downey	995 feet from alignment (east)
Kid Town USA Preschool and Kindergarten	13500 Paramount Blvd, South Gate	1,500 feet from alignment (east)
Roosevelt Elementary School	13451 Merkel Ave, Paramount	1,880 feet from alignment (east)
Paramount Unified Community Day School/Adult School	14507 Paramount Blvd, Paramount	570 feet from alignment (southwest) 800 feet from Paramount/Rosecrans Station (southeast)
Paramount Park Middle School	14608 Paramount Blvd, Paramount	140 feet from alignment (southwest) 1,125 feet from Paramount/Rosecrans Station (southeast)
Paramount High School	14429 Downey Ave, Paramount	Less than 100 feet from alignment (north)
Harry Wirtz Elementary School	8535 Contreras St, Paramount	650 feet from alignment (northeast)
Jefferson Elementary School	8600 Jefferson St, Paramount	1,275 feet from alignment (southwest)

Facility Name	Address	Distance to LPA
Albert Baxter Elementary School	14929 Cerritos Ave, Bellflower	1,200 feet from alignment (northeast) 400 feet from MSF (north)
Adventist Union School	15548 Santa Ana Ave, Bellflower	Less than 100 feet from alignment (north) 600 feet from MSF (southeast)
Ramona Elementary School	9351 Laurel St., Bellflower	1,040 feet from traffic signal at Clark Avenue and Los Angeles Street in Bellflower (south)
Somerset Continuation High School	9242 Laurel Street, Bellflower, CA 90706	1,570 feet from traffic signal at Clark Avenue and Los Angeles Street in Bellflower (south-southeast)
Southland Christian Academy	16400 Woodruff Ave, Bellflower	870 feet from alignment (northeast)
Valley Christian Elementary School	17408 Grand Ave, Bellflower	690 feet from alignment (southwest)
Valley Christian High School/Middle School	17700/18100 Dumont Ave, Cerritos	Less than 100 feet from alignment (south)
PCI College	17215 Studebaker Rd, Cerritos	415 feet from alignment (northeast)
Gahr High School	11111 Artesia Blvd, Cerritos	596 feet from alignment (northeast)
Montessori House of Children	18523 Arline Ave, Artesia	860 feet from alignment (northeast) 860 feet from Pioneer Station (northeast)
Our Lady of Fatima School	18626 Clarkdale Ave, Artesia	775 feet from alignment (northeast) 890 feet from Pioneer Station (northeast)

Source: Google Maps 2018; CDE 2018; Google Earth 2017, 2018, 2023

4.14 Environmental Concern Research

4.14.1 Windshield Survey

The windshield (reconnaissance) survey of the Affected Area was conducted to observe properties that may currently or may have historically used hazardous materials. The windshield surveys of the Affected Area were conducted as follows:

- LPA – May 23, 24, and 25, 2017, September 26, 2019, and November 5, 2019
- MSF – July 20, 2018
- Parking Additions/Construction Laydown Yards – March 23, 2020
- Extension at Gage – March 23, 2020

The windshield survey identified sites that were also listed in the EDR environmental database report and/or historical Sanborn Fire Insurance Maps and have been added to the list of environmental concern sites.

4.14.2 Aerial Photographs

4.14.2.1 Locally Preferred Alternative

Based on review of aerial photographs (EDR 2017d) included as Appendix D, the Affected Area passes through areas of historically industrial, commercial/retail, and residential land use, as follows:

2002, 1994, and 1986 Aerial Photographs

From State Street to Salt Lake Avenue, the Affected Area is bordered to the north by industrial land use and to the south by residential land use. From the Florence/Salt Lake Station in Huntington Park to the Firestone Station, the alignment passes through high-density (generally) residential neighborhoods with scattered commercial/retail land uses. From Firestone Station in South Gate to I-710 freeway, the alignment passes through industrial and residential land uses. Between Gage and Bell avenues, properties on the east side of the alignment are occupied by residential land use and properties on the west side are commercial/industrial uses. An industrial facility with ASTs is located along Salt Lake Avenue (approximately 700 feet south of Gage Avenue), in Huntington Park.

From I-710 freeway south to the Gardendale Station, the alignment is generally bordered by industrial-type facilities (between Center Avenue and Industrial Street). From Gardendale Street to Interstate 105 the alignment is bounded by a mixture of commercial and industrial facilities. The areas located north and south of the I-105 extension, are mainly occupied by single family and multi-family residences. From approximately Paramount Boulevard and Paramount/Rosecrans Station to Lakewood Boulevard in Bellflower, the alignment is occupied by a former rail corridor with segments of abandoned railroad tracks. A bulk petroleum facility (Paramount Petroleum Corporation) with multiple large ASTs is located along the north side of the alignment from Lakewood Boulevard north to Downey Avenue in Bellflower. The tracks extend northwest from Lakewood Boulevard and railroad tender cars are visible in the 2002 aerial photograph on the south side of the fueling facility. From Paramount Boulevard, south to Downey Avenue in Bellflower, the alignment is bordered by park facilities on both sides (with athletic tracks and playing fields).

The Lincoln Station Shopping Center and other commercial/retail businesses are located adjacent to the south and southwest of the alignment between Artesia Boulevard and South Street. Through Artesia, the alignment is depicted as high-density, mixed commercial and residential land uses. From approximately Lakewood Boulevard in Bellflower, passing I-605 freeway interchanges, to Pioneer Station in Artesia, the alignment is occupied by a former rail corridor with segments of abandoned track.

1972, 1964, and 1963 Aerial Photographs

Bethlehem Steel Corporation, historically located at 3398 Maywood Avenue in Huntington Park, is indicated on the 1972 aerial photograph by rooftop lettering as being located along the northern side of the Affected Area, between South Boyle Avenue and the San Pedro Subdivision ROW. The facility is bounded by Randolph Street on the south, Slauson Avenue on the north, South Boyle on the west, and San Pedro Subdivision ROW on the east. Several railroad tracks and spurs enter the Bethlehem Steel property.

An AST is located on the southwest corner of the intersection of Bissell Street and Randolph Street in Huntington Park. Based on current aerial photographs, this appears to be a water storage AST.

1952 and 1948 Aerial Photographs

Similar to the 2002, 1994, 1986, 1972, 1964, and 1963 aerial photographs, the alignment generally travels through industrial, commercial, and residential land uses, including high-density (generally) residential neighborhoods with scattered commercial/retail land uses.

4.14.2.2 Maintenance and Storage Facility

According to historical aerial photographs and Google Earth, the MSF appears to have been used for agricultural purposes (row crops or dry farming) in 1952, a park or recreational open space from 1963 to 1994, and a BMX track and paintball park from 2003 to present day (Historicaerials.com 2018; Google Earth 2018). According to the current Google Earth aerial photograph, the site is occupied by Hollywood Sports Paintball and Airsoft Park and Bellflower BMX (Google Earth 2018, online aerial, Bellflower, California). No on-site or adjacent release cases are listed in the SWRCB GeoTracker or the DTSC EnviroStor online databases.

4.14.3 Sanborn Fire Insurance Maps

In addition to the environmental concern sites identified during the windshield survey and the historical aerial photograph review, sites of environmental concern in the Affected Area were identified on the historical fire insurance maps (Appendix E – EDR 2017e, 2017f, 2019a, 2020a) included as Appendix E. The historical maps reviewed show various commercial and industrial facilities of environmental concern, including but not limited to auto repair shops; gasoline service stations; and dry cleaners (Appendix E). When parcels were identified with historical site uses of concern, these parcels were added to the list of environmental concerns as sites of Historical Environmental Concern (Appendix B).

The maps also depict numerous railroad tracks and spurs along and joining the Affected Area, as far back as 1894. Parcels identified with historical railroad tracks or spurs were added to the list of environmental concerns as sites of Historical Environmental Concern (Appendix B).

4.14.4 Regulatory Database Review

Regulatory database searches were completed for the Affected Area and surrounding properties, specifically, within a 0.125-mile radius (660 feet) of the alignment centerline. The database searches indicated 1,032 environmental database listings (records) within 0.125 mile of the alignment centerline[6] (Appendix C – EDR 2017a, 2017b, 2017c, 2018a, 2018b, 2019, 2020b).

The regulatory database reports contain a comprehensive query of federal, state, and tribal databases for sites with documented use, storage, or release of hazardous materials or petroleum products. The reports identified historically contaminated properties; businesses that use, generate, or dispose of hazardous materials or petroleum products in their operations; and active contaminated release sites currently under assessment and/or

[6] 1,032 environmental database listings were identified for the LPA, MSF, and design option.

remediation. The Lightbox/EDR environmental database reports, provided as Appendix C, contain a complete list of queried databases and all sites identified within the 0.125-mile search radius.

The database listings were reviewed to determine if environmental concerns are present in the Affected Area. Site listings identified inside the search radius and "orphan" site[7] listings were further evaluated to determine if they are likely to have adverse effects. Criteria used to evaluate the potential for adverse effects were described in Section 1.6. Some of the Lightbox EDR listings provided are for non-release sites, including businesses that utilize small quantities of hazardous materials.

Many of the parcels/properties are listed in multiple databases and have more than one listing based on different facility names and/or addresses, in addition to listings in multiple databases.

4.14.4.1 Superfund Sites/Cortese Sites

Superfund sites are known release sites listed on the National Priorities List (NPL). The NPL is a subset of the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas.

Cortese sites are Hazardous Waste and Substances Sites identified by the SWRCB (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

The database report identified the following three Cortese/Superfund hazardous material sites present in the Affected Area, as described in the following sections:

- Jervis B Webb – 9301 Rayo Avenue/5030 Firestone Boulevard, South Gate (Jervis site)
- Cooper Drum Co. – 9316 Atlantic Avenue, South Gate (Cooper Drum site)
- Southern Avenue Industrial Area[8] – 5211 Southern Avenue, South Gate (Southern Avenue Industrial Area site)

The MSF and design option are not affected by these Cortese/Superfund hazardous material sites, although one TPSS location is present within the Jervis site.

Jervis Site – 9301 Rayo Avenue/5030 Firestone Boulevard, South Gate

The USEPA Superfund website (USEPA 2022a) indicates that:

> *"The Jervis B. Webb Co. site is located in a mixed industrial, commercial and residential area in South Gate, California. Volatile Organic Compounds (VOCs), including trichloroethene (TCE), have been confirmed in the soils and groundwater at the site. Industrial conveyor belt systems were manufactured from the 1950s to early 1996 on the southeast portion of the site. Aluminum and stainless steel aircraft rivets were produced on the northwest portion of the site, until about 1981. Site investigations and cleanup planning are ongoing.*

[7] Orphan sites are sites in which no specific addresses were provided.

[8] Also known as Seam Master Industries.

The Cooper Drum Cooperating Parties Group agreed to implement the cleanup at the Site, which USEPA is overseeing. They are currently operating a groundwater extraction system to clean up contaminated groundwater and a soil vapor extraction system to clean up contaminated soil.

The site's remedial investigation and feasibility study (RI/FS) are ongoing. The remedial investigation looks at the nature and extent of contamination. The feasibility study looks at how cleanup can be conducted safely, effectively and in compliance with state and federal laws. USEPA will use results from the RI/FS to develop a long-term cleanup plan.

The preferred remedy and remedial action objectives will be described in a Proposed Plan, which will be published in a fact sheet and distributed to the community. The Proposed Plan provides for a public comment period and community meeting. The selected remedy is then documented in a Record of Decision, which is implemented in the remedial design and remedial action at the site."

Based on review of the 2019 Remedial Investigation Report, Jervis B. Webb Company Superfund Site, South Gate, California (Jervis site RI report) (Gilbane 2019), the Jervis site is located within the Affected Area. Additionally, based on review of Geographic Information System (GIS) data proposed by USEPA following circulation of the Draft EIS/EIR, it appears that 10 groundwater wells, associated with the Jervis site are present within the Affected Area. One of these wells is approximately 25 feet east of the proposed TPSS facility near Firestone Boulevard. None of the wells are located within the project footprint.

Cooper Drum Site – 9316 Atlantic Avenue, South Gate

The USEPA Superfund website (USEPA 2022b) indicates that:

"The Cooper Drum Co. site is a 3.8-acre facility located at 9316 South Atlantic Avenue in South Gate, California. Rayo Avenue borders the site to the east and the former Tweedy Elementary School property is located directly to the south. From 1941 until 1992, Cooper Drum Co. reconditioned closed-topped steel drums that previously held industrial chemicals. The reconditioning process consisted of flushing out and stripping the drums for painting and resale. Heavy-duty cleaning called "hard washing" took place on the northeast part of the Site (the former hard wash area, or HWA), when necessary. Beginning in 1976, reconditioning activities took place at the present-day drum processing area (DPA), located on what is now the central part of the site. Fluids generated by reconditioning and hard washing activities were collected in open concrete pits and trenches. This led to the contamination of soil and groundwater beneath the site. The site's long-term cleanup is ongoing.

The Cooper Drum Cooperating Parties Group agreed to implement the cleanup at the Site, which USEPA is overseeing. They are currently operating a groundwater extraction system to clean up contaminated groundwater and a soil vapor extraction system to clean up contaminated soil.

USEPA approved work plans for soil and groundwater cleanup. The soil vapor extraction (SVE) treatment system began operating in February 2011. Construction of the groundwater treatment system finished in September 2011. The dual-phase extraction (DPE) wells began operating in April 2012, after a wastewater discharge permit was obtained from the Los Angeles County Sanitation District. The DPE wells extract

contaminated water from the perched aquifer and allow the SVE system to remove and treat the contaminated soil vapor from this perched zone. The extraction and treatment of contaminated groundwater from the aquifer beneath the site began in August 2012 from an on-site groundwater extraction well. Additional extraction wells and conveyance piping were installed in 2015 in order to begin treating the contaminated groundwater plume that extends to Southern Avenue. USEPA is currently overseeing all cleanup activities."

Based on the review of the 2021 First Five-Year Review Report for Cooper Drum Company Superfund Site (U.S. Army Corps of Engineers [USACE] 2021), a portion of the Cooper Drum site is located within the Affected Area. Additionally, based on review of GIS data proposed by USEPA following circulation of the Draft EIS/EIR, it appears that six groundwater wells, associated with the Cooper Drum site, are present within the Affected Area. It should be noted that these six wells are not located on the Cooper Drum site, but rather to the north-northeast and east of the Cooper Drum site. None of the wells are located within the project footprint.

Southern Avenue Industrial Area Site[9] – 5211 Southern Avenue, South Gate

The USEPA Superfund website (USEPA 2022c) indicates that:

"The Southern Avenue Industrial Area (SAIA) is located in South Gate, California. The site is currently vacant and occasionally used for truck parking. From 1972 to 2012 the site was occupied by a facility that manufactured hot-melt adhesive tape for laying carpets. Prior to 1972, Pacific Screw Products Corporation manufactured screw products at the property. These operations may have contaminated soil and groundwater with volatile organic compounds (VOCs). Remedial investigation activities are ongoing.

USEPA completed characterization of environmental media for the site in several efforts from 2012 to 2017 with the collection of soil, soil gas, groundwater, and air samples. The Remedial Investigation (RI) report describing this work will be completed in summer, 2019.

USEPA listed the site on the Superfund program's National Priorities List (NPL) in 2012. Adding the site to the NPL enables USEPA to study site conditions further, identify possible sources of contamination and develop a comprehensive strategy to address all locations and sources of VOC contamination.

The site's remedial investigation and feasibility study (RI/FS) are ongoing. The remedial investigation looks at the nature and extent of contamination. The feasibility study looks at how cleanup can be conducted safely, effectively and in compliance with state and federal laws. USEPA will use results from the RI/FS to develop a long-term cleanup plan.

The preferred remedy and remedial action objectives will be described in a Proposed Plan, which will be published in a fact sheet and distributed to the community. The Proposed Plan provides for a public comment period and community meeting. The selected remedy is then documented in a Record of Decision, which is implemented in the remedial design and remedial action at the site."

[9] Also known as Seam Master Industries.

Although a Remedial Investigation Report for the Southern Avenue Industrial Area site was planned for completion in 2019, a copy of the report was not available on USEPA's Superfund, DTSC's EnviroStor, or California's SWRCB GeoTracker websites. However, the Jervis site RI report (Gilbane 2019) provided groundwater well location information for the Southern Avenue Industrial Area site. Based on this information, it appears that four groundwater wells associated with the Southern Avenue Industrial Area site are present within the Affected Area. It should be noted that one of these wells is located outside (south) of the Southern Avenue Industrial Area site. None of the wells are located within the project footprint.

4.15 Summary of Environmental Concerns

A list of environmental concern sites was compiled based on the information obtained during the windshield survey, review of historical aerial photographs, review of historical Sanborn maps, and review of the regulatory database search. The environmental concern site list comprises parcels/properties with environmental concerns, ranked as known, potential, and/or historical, in the Affected Area, as described in Section 1.8. The identified environmental concern sites have been tabulated and are included in the Table of Environmental Concern Sites in Appendix B. A total of 310 environmental concern sites have been identified in the Affected Area, as shown in Table 4.6.

Table 4.6. Summary of Environmental Concerns Within the Affected Area

Environmental Concern Category	Locally Preferred Alternative	MSF	Design Option	Types of Regulatory Government Agency Listings
Known Environmental Concern	59	0	0	Known Release Sites (confirmed release sites)
Potential Environmental Concern	96	0	0	Potential Release Sites and Large Quantity Generators of Hazardous Materials and Storage Facilities
Historical Environmental Concern	152	3	1[1]	Sites with Historical Use of Hazardous Materials
Total Environmental Concerns	**307**	**3**	**1[1]**	**Known, Potential, and Historical**

Note: Many parcels have more than one listing and were tallied according to their highest risk level.
[1] Also located within the Affected Area of the LPA.
MSF = maintenance and storage facility

It should be noted that parcels/properties shown in Appendix A (figures), Appendix B, and listed in Table 4.6 may be included in more than one category: known, potential, and/or historical. For the purposes of this report, environmental concerns were mapped according to their highest risk level (i.e., mapped as known, although listed as known and potential). The sites located in the Affected Area are depicted on the Sites of Potential Concern Map (Sheet Index and Sheets 1 through 35) in Appendix A.

The environmental concern sites, including Cortese/Superfund sites, known release sites, potential environmental concerns, and historical environmental concerns have been identified in the Affected Area, as shown in Table 4.6. Descriptions of the known release sites are included as Appendix G.

Soil may be disturbed during construction at sites with existing or unexpected contamination as listed below:

- Cortese/Superfund hazardous material sites
- Other Known Release Sites, Potential Concern Sites, Historic Concern Sites
- Along current and historical railroad tracks and spurs
- Within former agricultural sites
- Along hazardous material utility corridors

Construction/soil disturbance at sites with existing or unexpected contamination, such as those listed above, could result in further generation of contaminated waste materials and exposure of construction site personal to hazardous materials.

5 ENVIRONMENTAL IMPACTS / ENVIRONMENTAL CONSEQUENCES

5.1 Operational Impacts

5.1.1 No Build Alternative

The No Build Alternative includes the existing transportation system plus any additional future transportation projects that have been previously funded within the LPA corridor that would be developed by a 2042 horizon year. Because the LPA would not be implemented, no direct effects associated with the development or operation of the LPA would occur. Thus, the subsequent adverse effects of the LPA would not occur under the No Build Alternative. However, if the No Build Alternative is selected, pre-existing contaminated areas that would be remediated under the LPA would also not occur. Therefore, any of the potential long-term benefits of remediating the pre-existing contaminated soils, etc. would not occur, and implementation of the No Build Alternative would not result in any of the potential long-term benefits of the LPA.

Under NEPA, this alternative would not result in adverse effects to pedestrian, motorist, and/or bicycle safety. Additionally, adverse effects to police and fire services would not occur. Aside from projects currently under construction or funded previously described, no direct or indirect effects related to public safety or security would occur, as no new transportation infrastructure would be built under this alternative.

5.1.2 Locally Preferred Alternative

The LPA was evaluated to determine whether operation will expose people or the environment to hazardous materials; results are summarized in the following subsections.

5.1.2.1 Environmental Concern Sites

There are 307 known, potential, and historical environmental concern sites within the Affected Area of the LPA, as follows:

- 59 Known Release Sites (21 with contaminated groundwater)
- 96 Potential Environmental Concern Sites
- 152 Historical Environmental Concern Sites

These sites are identified in the Table of Environmental Concern Sites (Appendix B) and Known Release Sites (Appendix G).

Minimal soil disturbance may occur during operation of the LPA associated with maintenance activities (such as trenching to repair underground signal lines or utilities that pass through the area). As discussed in Section 7, Project Measure HAZ PM-5 (Property Assessment-Phase I and II ESAs) requires that onsite soils be tested and remediated, if needed, prior to construction. Because pre-existing contaminants from environmental concern sites, if present, will be removed prior to operation and maintenance of the LPA, contaminants associated with environmental concern sites will not be encountered during operation and maintenance of the LPA. Operation and maintenance of the LPA will not result in adverse effects related to environmental concern sites.

5.1.2.2 Landfills

One former landfill (South Gate Rod and Gun Club) with potential soil vapor concerns is located approximately 200 feet south of the LPA. Assuming methane or other gases are present at the landfill and accumulate near the LPA, a health and explosion hazard may exist in the Affected Area for hazards and hazmat (landfills) during operation. Underground methane accumulation could affect operation of the LPA alignment at Miller Way in South Gate and would be considered an adverse effect.

Project measure HAZ PM-3 Contaminated Soil, Soil Vapor, and Groundwater (Operation), described under Section 8.1.1, will be implemented to minimize potential effects of the landfill gas accumulation concerns to the workers and general public in the vicinity. With implementation of this project measure, Metro will retain a qualified environmental consultant to prepare a Soil Vapor Management Plan (or Landfill Gas Accumulation Management Plan) to address the possibility of landfill gas accumulation concerns during project operation. This plan will provide information regarding proper management and disposition of contaminated soils and gases and will be prepared in consultation with appropriate regulatory agencies and in accordance with applicable federal and/or state guidance (USEPA, DTSC, RWQCB, and other local agencies).

With implementation of Project Measure HAZ PM-3 Contaminated Soil, Soil Vapor, and Groundwater (Operation), the LPA will not result in an adverse effect with regard to potential landfill gases because appropriate monitoring, venting, and/or alarm and system activation measures will be implemented prior to operation.

5.1.2.3 Groundwater Contamination

There are 21 sites with known groundwater contaminants within the Affected Area of the LPA. Therefore, long-term groundwater monitoring or dewatering may be necessary during operation. If a long-term groundwater monitoring or dewatering location also corresponds to a known groundwater release site, the dewatering activity would also need to include the handling of contaminated groundwater. In the event that long-term groundwater monitoring or dewatering is necessary at a location where groundwater has been contaminated by hazardous materials, contaminated groundwater dewatering would affect operation of the LPA. This would be characterized as an adverse effect during operation.

Where long-term contaminated groundwater dewatering is necessary, HAZ PM-2 Disposal of Groundwater (Operation) will be implemented; refer to Section 8.1.1 for a description of this project measure. This measure requires the LARWQCB consultation and permit compliance, which may include water disposal to the sanitary sewer or the proper onsite management of contaminated groundwater and disposal or recycling of contaminated groundwater offsite at appropriate waste management facilities. With implementation of this project measure, no adverse effects related to groundwater contamination will occur during operation.

5.1.2.4 General Hazardous Material Conditions

LBP, ADL, Asbestos/ACM, Railroad, Pipelines, Agriculture, PCBs

Operation of the LPA will not require disturbance of LBP, ACM, common railroad corridor contaminants, hazardous material pipeline utility corridor contaminants, pesticides from agricultural use, ADL, or PCBs. These contaminants are all associated with building and structure demolition or soil disturbance. Minimal soil disturbance may result from maintenance

activities (such as trenching to repair underground signal lines or utilities that pass through the area). As discussed in Section 7, Project Measure HAZ PM-5 (Property Assessment-Phase I and II ESAs) requires that onsite soils be tested and remediated, if needed, prior to construction. Because pre-existing soil contaminants (such as LBP, ACM, existing common railroad corridor contaminants, hazardous material pipeline utility corridor contaminants, ADL, or PCBs), if present above regulatory limits, will be removed prior to operation of the LPA, these contaminants will not be encountered during maintenance of the LPA.

However, a potential still exists for residual contamination or common railroad corridor contaminants (for example herbicides or cleaners) to be present in onsite soils. If future maintenance requires soil disturbance, such as trenching to repair underground signal lines or utilities that pass through the area, residual contamination could affect soil disturbance activities. Residual contamination could include ADL, common railroad contaminants, hazardous material pipeline contaminants, and/or pesticides and would be considered an adverse effect.

In the event that soil disturbance is necessary during operation, the following required project measures, described under Section 8.1.1, will be implemented to minimize potential effects associated with contaminated soil disturbance to the workers and general public in the vicinity:

- HAZ PM-1 Handling, Storage, and Transport of Hazardous Materials or Wastes (Operation)
- HAZ PM-3 Contaminated Soil, Soil Vapor, and Groundwater (Operation)

Implementation of these project measures will ensure that an industrial waste management plan and/or waste and hazardous materials management plan will be prepared prior to the start of revenue service, and that a Soil Management Plan will be prepared to address the possibility of encountering impacted soil during project operation. With implementation of these project measures, hazardous materials will be managed appropriately, and no adverse effects related to LBP, ADL, asbestos, railroad, pipelines, agriculture, and PCBs will occur during operation.

Operation of the LPA is not expected to require the use of large quantities of extremely hazardous materials above the threshold quantities specified pursuant to subdivision (j) of Section 25532 of the Health and Safety Code. However, maintenance of the LPA may require the handling, use, and transport of limited quantities of hazardous materials (such as herbicides or cleaners) associated with routine maintenance of rail facilities. The use of hazardous materials along the LPA will be limited during maintenance, and any use will occur in accordance with all federal and state regulatory requirements that are intended to manage hazards and prevent spills. Specifically, Project Measure HAZ PM-1 (Handling, Storage, and Transport of Hazardous Materials or Wastes [Operation]), described in Section 8.1.1, will be implemented to avoid and minimize the exposure of work crews and the general public from use, handling, and transport of hazardous materials. Therefore, maintenance of the LPA will not result in adverse effects related to common railroad corridor contaminants.

5.1.2.5 Educational Facilities

Effects to educational facilities could be adverse if operation of the LPA results in the following situations within 0.25 mile of a school, thereby resulting in the introduction of a health or safety hazard to students or employees:

- Project emits hazardous air emissions, or
- Project handles an extremely hazardous substances or mixtures containing extremely hazardous substances in a quantity equal to or greater than the state threshold quantity specified pursuant to subdivision (j) of Section 25532 of the Health and Safety Code.

There are 45 educational facilities located within 0.25 mile of the LPA. Hazardous materials in quantities equal to or greater than the state threshold quantity specified pursuant to subdivision (j) of Section 25532 of the Health and Safety Code will not be used during project operation; therefore, adverse effects related to educational facilities within 0.25 miles of the LPA will not occur.

5.1.2.6 Oil and Gas Wells

The LPA does not traverse an area with an abandoned oil field or methane zone. However, as shown in Figure 4-1, one abandoned oil well has been identified within the Affected Area; however, the well is not within the project footprint (proposed alignment and appurtenant structures). Additionally, unidentified abandoned oil wells may also be present in the Affected Area.

Oil and gas well abandonment (to current standards) of known and undocumented oil wells in the Affected Area will occur during construction; therefore, abandonment is discussed in Section 7. Following proper abandonment, the presence of abandoned oil and gas wells in the Affected Area is not considered an adverse effect for operation of the LPA.

5.1.3 Design Option: Close 186th Street

The LPA with the design option was evaluated to determine whether its operation would expose people or the environment to additional hazardous materials when compared to the LPA without the design option. The LPA with the design option evaluation is summarized below.

5.1.3.1 Environmental Concern Sites

There is one historic environmental concern site within the Affected Area in the vicinity of the design option. This site is also located within the Affected Area of the LPA and, therefore, would apply to operation of the LPA with and without the design option. The site is identified in the Table of Environmental Concern Sites (Appendix B). However, soil, soil vapor, and groundwater disturbance at potential concern sites is not expected during operation. Therefore, potential environmental concern site contaminants would not be encountered during operation of the design option and no adverse effects would occur.

5.1.3.2 Landfills

While the Affected Area for hazards and hazmat (landfills) associated with the LPA includes one former landfill with potential soil vapor concerns, no landfill-listed facilities are present within the Affected Area for hazards and hazmat (landfills) at the design option; therefore, no adverse effects would occur.

5.1.3.3 Groundwater Contamination

There are no additional sites with known groundwater contaminants present within the Affected Area for hazards and hazmat at the design option. Therefore, implementation of the LPA with the design option would not change the impact conclusions presented for the LPA without the design option.

5.1.3.4 General Hazardous Material Conditions

LBP, ADL, Asbestos/ACM, Railroad, Pipelines, Agriculture, PCBs

Operation of the LPA with the design option would not encounter LBP, ACM, common railroad corridor contaminants, pesticides from agricultural use, ADL, or PCBs. These contaminants are all associated with building and structure demolition or soil disturbance and would be removed prior to operation if present above regulatory limits. Therefore, these contaminants would not pose a concern during operation. However, residual contaminants or common railroad corridor contaminants may be encountered during future maintenance of the LPA with the design option that involves soil disturbance.

There are no hazardous material pipelines located within the 0.25 mile of the design option.

Maintenance of the LPA with the design option may require the handling, use, and transport of limited quantities of hazardous materials (such as herbicides or cleaners) associated with routine maintenance of rail facilities.

The evaluation for the LPA without the design option (summarized in Section 5.1.2.4) related to LBP, ADL, asbestos, railroad, pipelines, agriculture, and PCBs; and Project Measures HAZ PM-1 Handling, Storage, and Transport of Hazardous Materials or Wastes (Operation) and HAZ PM-3 Contaminated Soil, Soil Vapor, and Groundwater (Operation) (summarized in Section 8.1.1), are also applicable to the LPA with the design option. With implementation of these project measures, no adverse effects related to LBP, ADL, asbestos, railroad, pipelines, agriculture, and PCBs would occur.

5.1.3.5 Educational Facilities

There is one educational facility located within 0.25 mile of the design option. This educational facility is also present within 0.25 mile of the alignment under the LPA without the design option.

Similar to the LPA without the design option (Section 5.1.2.5), hazardous materials in quantities equal to or greater than the state threshold quantity specified pursuant to subdivision (j) of Section 25532 of the Health and Safety Code will not be used during project operation; therefore, adverse effects related to educational facilities within 0.25 miles of the LPA with the design option would not occur.

5.1.4 Maintenance and Storage Facility

The MSF was evaluated to determine whether operation would expose people or the environment to hazardous materials. The MSF operational evaluation is summarized below.

5.1.4.1 Environmental Concern Sites

There are three historical environmental concern sites within the Affected Area of the MSF. This represents an increase of three historical environmental concern sites compared to the LPA. These sites are identified in the Table of Environmental Concern Sites (Appendix B) and Known Release Sites (Appendix G). However, soil, soil vapor, and groundwater disturbance at known and potential concern sites is not expected during operation. Therefore, known and potential environmental concern site contaminants will not be encountered during operation of the MSF and no adverse effects would occur.

5.1.4.2 Landfills

No landfill-listed facilities are present within the Affected Area for hazards and hazmat (landfills) at the MSF; therefore, no adverse effects will occur.

5.1.4.3 Groundwater Contamination

There are no known groundwater contaminants present within the Affected Area for hazards and hazmat at the MSF; therefore, no adverse effects will occur.

5.1.4.4 General Hazardous Material Conditions

LBP, ADL, Asbestos/ACM, Railroad, Pipelines, Agriculture, PCBs

Operation of the MSF will not require ground disturbance; therefore, disturbance of LBP, ACM, common railroad corridor contaminants, pesticides from agricultural use, ADL, or PCBs are not a concern. Although five hazardous materials pipelines are located within the Affected Area of the MSF, (similar to the LPA), the pipelines are underground and will not be affected by the aboveground operation of the MSF.

Operation of the MSF is not expected to include the use of large quantities of extremely hazardous materials. However, limited quantities of hazardous materials may be temporarily stored or handled at the MSF. Cleaners and degreasers that could contain small amounts of hazardous or extremely hazardous materials, substances, or wastes may be used during operation of the MSF. However, off-the-shelf products will be used in small quantities and exposure outside the facility will be unlikely. The potential for effects resulting from operation of the MSF is generally consistent with those that will result from operation of the LPA. With implementation of Project Measure HAZ PM-1 (Handling, Storage, and Transport of Hazardous Materials or Wastes [Operation], detailed in Section 8.1.1, the MSF will not result in adverse effects related to hazardous materials, LBP, ADL, Asbestos/ACM, Railroad, Agriculture, PCBs, and educational facilities.

5.1.4.5 Educational Facilities

Two educational facilities are located within the Affected Area for hazards and hazmat [educational facilities] at the MSF. Both of these educational facilities are also present within the Affected Area for hazards and hazmat [educational facilities] at the LPA.

Metro has indicated that operation of the maintenance facilities will not emit hazardous air emissions; however, operation at the MSF may involve use of mixtures containing extremely hazardous substances. Metro has indicated that the mixtures containing extremely hazardous substances would not be used in quantities equal to or greater than the state threshold quantity specified pursuant to subdivision (j) of Section 25532 of the Health and Safety Code.

Since operation of the MSF will involve handling limited quantities of mixtures containing extremely hazardous substances within one-quarter mile of an existing or proposed school, adverse effects could occur.

Therefore, where educational facilities are identified within 0.25 mile of the MSF, required Project Measure HAZ PM-1 Handling, Storage, and Transport of Hazardous Materials or Wastes (Operation) will be implemented to manage hazardous materials appropriately during operation; refer to Section 8.1.1 for a further description of this project measure. With implementation of this project measure, no adverse effects related to hazardous materials use within 0.25 mile of educational facilities will occur during operation.

5.1.4.6 Oil and Gas Wells

The MSF is not within an area characterized by known abandoned oil and gas wells. However, unidentified abandoned oil wells may be present in the Affected Area for hazards and hazmat associated with the MSF. The abandonment of known and undocumented oil/gas wells to current standards, if such wells are present, will occur during construction, as outlined by Mitigation Measure HAZ-1 (Unidentified Oil and Gas Wells) and Project Measure HAZ PM-8 (Oil Well Abandonment) (refer to Section 7.4.2.4 for additional discussion regarding the discovery and abandonment of wells during construction and a description of these project and mitigation measures). Following detection and proper abandonment, the presence of abandoned oil/gas wells during operation and maintenance will not represent a hazard. Therefore, operation of the MSF will not result in adverse effects related to oil/gas wells. Under NEPA, operation of the MSF will result in no adverse effects related to oil/gas wells.

5.1.5 U.S. Army Corps of Engineers Facilities

Operation of the LPA over the USACE facilities is substantially similar to operation of the LPA along other locations of the alignment. No ground-disturbing activities are proposed within USACE facilities during operation or maintenance of the LPA. Operation and maintenance of the LPA is not expected to require the use of hazardous materials over USACE facilities. However, maintenance of the LPA may require the handling, use, and transport of limited quantities of hazardous materials (such as herbicides or cleaners) associated with routine maintenance of rail facilities. The use of hazardous materials along the LPA will be limited during maintenance, and any use will occur in accordance with all federal and state regulatory requirements that are intended to manage hazards and prevent spills. Specifically, Project Measure HAZ PM-1 (Handling, Storage, and Transport of Hazardous Materials or Wastes [Operation]), detailed in Section 8.1.1, will be implemented to avoid and minimize the exposure of work crews and the general public from use, handling, and transport of hazardous materials. Therefore, there will be no adverse effects regarding hazardous materials or wastes over USACE facilities resulting from operation of the LPA.

5.1.6 California Department of Transportation Facilities

No ground-disturbing activities are proposed at Caltrans facilities during the operation phase of the LPA. Therefore, there would be no adverse effects regarding hazardous materials within Caltrans facilities resulting from operation of the LPA.

6 CALIFORNIA ENVIRONMENTAL QUALITY ACT DETERMINATION

The hazards and hazardous materials CEQA determinations presented in the following sections are based on the existing conditions presented in Section 4.0 of this report, the project measures presented in Section 8.1.1, the environmental impacts analysis presented in Section 5, and the mitigation measures presented in Section 8.2.1.

6.1 Threshold HAZ-1: Would the Project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

6.1.1 No Project Alternative

Under the No Project Alternative, the WSAB Project would not be implemented. Therefore, no direct effects from operation of the WSAB Project would occur. However, the benefits of remediating previously existing site conditions as a result of project implementation (which is a residual benefit) would also not occur. Therefore, the No Project Alternative would not provide any of the potential long-term site remediation benefits of the LPA.

6.1.1.1 Mitigation Measures

No mitigation measures are required.

6.1.1.2 Impacts Remaining After Mitigation

Less than significant impact.

6.1.2 Locally Preferred Alternative

Operation of the LPA is not expected to include the use of large quantities of extremely hazardous materials. However, maintenance of the LPA may require use, handling, and transport of limited quantities of hazardous materials along the alignment. However, the routine transport, use, or disposal of hazardous materials or wastes will not exceed state threshold quantities specified pursuant to subdivision (j) of Section 25532 of the Health and Safety Code. Additionally, Project Measure HAZ PM-1 (Handling, Storage, and Transport of Hazardous Materials or Wastes [Operation]) will be implemented so that hazardous materials are managed appropriately during operation and maintenance. Refer to Section 8.1.1 for a further description of this project measure. With implementation of this project measure, impacts related to the routine transport, use, or disposal of hazardous materials during operation of the LPA will be less than significant and mitigation will not be required.

6.1.2.1 Mitigation Measures

No mitigation measures are required.

6.1.2.2 Impacts Remaining After Mitigation

Less than significant impact.

6.1.3 Design Option: Close 186th Street

Consistent with operation of the LPA without the design option, operation of the LPA with the design option is not expected to include the use of large quantities of extremely hazardous materials. However, maintenance of the design option may require use, handling, and transport of limited quantities of hazardous materials along the alignment. Project Measure HAZ PM-1 (Handling, Storage, and Transport of Hazardous Materials or Wastes [Operation]), described in Section 8.1.1, will be implemented so that hazardous materials are managed appropriately during operation and maintenance. Therefore, potential hazards to the public or the environment through the routine transport, use, or disposal of hazardous materials during operation of the design option would be less than significant.

6.1.3.1 Mitigation Measures

No mitigation measures are required.

6.1.3.2 Impacts Remaining After Mitigation

Less than significant impact.

6.1.4 Maintenance and Storage Facility

Operation of the MSF is not expected to include the use of large quantities of extremely hazardous materials. However, operation of the facility may involve the use and storage of hazardous materials and wastes for maintenance and repair. The location of the MSF site is currently occupied by a paintball and airsoft park, which does not generate large quantities of hazardous materials or wastes. Therefore, the public and environment will not be exposed to an increase in the use, storage, transport, and/or handling of hazardous materials due to operation of the MSF.

Compliance with existing regulations pertaining to hazardous material handling, transport, and disposal, required by Project Measure HAZ PM-1 Handling, Storage, and Transport of Hazardous Materials or Wastes (Operation), will require appropriate management of hazardous materials during operation; refer to Section 8.1.1 for a description of the project measure. With implementation of this project measure, potential hazards to the public or the environment through the routine transport, use, or disposal of hazardous materials during operation of the MSF will be less than significant.

6.1.4.1 Mitigation Measures

No mitigation measures are required.

6.1.4.2 Impacts Remaining After Mitigation

Less than significant impact.

6.2 Threshold HAZ-2: Would the Project 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?

6.2.1 No Project Alternative

Similar to the impacts and benefits associated with the NEPA No Build Alternative, under the No Project Alternative, the LPA would not be implemented. Therefore, no direct effects would occur. However, the benefit of remediating previously existing site conditions as a result of project implementation (which is a residual benefit) would also not occur. Therefore, the No Project Alternative would not provide any of the potential long-term site remediation benefits of the LPA.

Overall, the operational No Project Alternative would not impact conditions involving the release of hazardous materials into the environment because no new operational activities are proposed that would impact existing conditions.

6.2.1.1 Mitigation Measures

No mitigation measures are required.

6.2.1.2 Impacts Remaining After Mitigation

Less than significant impact.

6.2.2 Locally Preferred Alternative

Operation of the LPA will not result in impacts from reasonably foreseeable upset and accident conditions. Operation of the LPA is not expected to include the use of large quantities of extremely hazardous materials. However, maintenance of the LPA may require the use of limited quantities of hazardous materials (such as herbicides or cleaners) associated with routine maintenance of rail facilities. The use of hazardous materials along the LPA will be limited during maintenance, and any use will occur in accordance with all federal and state regulatory requirements that are intended to manage hazards and prevent spills. With implementation of Project Measure HAZ PM-1 (Handling, Storage, and Transport of Hazardous Materials or Wastes [Operation]), described in Section 8.1.1, the risk of upset or accident of hazardous materials during operation will be less than significant and mitigation will not be required.

Soil disturbance for maintenance is not anticipated to encounter LBP, ACM, hazardous material pipeline utility corridor contaminants, pesticides from agricultural use, ADL, or PCBs. As discussed in Section 7, Project Measure HAZ PM-5 (Property Assessment-Phase I and II ESAs) requires that onsite soils be tested and remediated, if needed, prior to construction. Because pre-existing soil contaminants, if present above regulatory limits, will be removed prior to operation of the LPA, these contaminants will not be encountered during maintenance of the LPA.

The potential exists for residual contamination or common railroad corridor contaminants to be present in onsite soils. If future maintenance involving soil disturbance, such as trenching to repair underground signal lines or utilities that pass through the area, are necessary during operation of the LPA, residual contamination or common railroad corridor

contaminants present in onsite soils may create a hazard to the public or environment due to reasonably foreseeable upset and accident conditions involving the release of hazardous materials. In the event that soil disturbance is necessary during operation, the following required project measures, described under Section 8.1.1, will be implemented to identify and reduce potential contaminated soil disturbance impacts:

- HAZ PM-1 Handling, Storage, and Transport of Hazardous Materials or Wastes (Operation)
- HAZ PM-3 Contaminated Soil, Soil Vapor, and Groundwater (Operation)

With implementation of these project measures, hazardous materials will be managed appropriately, and the operator will be prepared to encounter known or undocumented hazardous materials. Therefore, the potential environmental concern effects identified above will be less than significant, and mitigation will not be required.

Twenty-one sites with known groundwater contamination are present within the Affected Area for hazards and hazmat and an adverse effect could occur. In locations where groundwater has been contaminated, long-term groundwater monitoring or dewatering may be necessary during operation in order to manage and treat the contaminated groundwater. If long-term groundwater dewatering or monitoring is required, risk of upset or accident of hazardous materials may occur during handling and disposal of contaminated groundwater. As described in Section 8.1.1, appropriate management of hazardous materials and affected groundwater will occur in compliance with the following measures:

- HAZ PM-2 Disposal of Groundwater (Operation)
- HAZ PM-3 Contaminated Soil, Soil Vapor, and Groundwater (Operation)

With implementation of these project measures, risk of upset and accident during groundwater dewatering during operation of the LPA will be less than significant and mitigation will not be required.

6.2.2.1 Mitigation Measures

No mitigation measures are required.

6.2.2.2 Impacts Remaining After Mitigation

Less than significant impact.

6.2.3 Design Option: Close 186th Street

Operation of the LPA with the design option would result in impacts similar to those described above for the LPA without the design option. The evaluation and project measures identified for the LPA without the design option related to reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment are also applicable to the LPA with the design option. With implementation of Project Measures HAZ PM-1 (Handling, Storage, and Transport of Hazardous Materials or Wastes [Operation]), HAZ PM-2 (Disposal of Groundwater [Operation]), and HAZ PM-3 (Contaminated Soil, Soil Vapor, and Groundwater [Operation]), described in Section 8.1.1, hazards related to reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment would be less than significant during operation of the LPA with the design option, and mitigation would not be required.

6.2.3.1 Mitigation Measures

No mitigation measures are required.

6.2.3.2 Impacts Remaining After Mitigation

Less than significant impact.

6.2.4 Maintenance and Storage Facility

Operation of the MSF will not require ground disturbance; therefore, disturbance of contaminated soil or groundwater is not a concern. Although operation of the MSF is not expected to include the use of extremely hazardous materials, operation of the MSF may involve storage of hazardous materials and wastes for maintaining and repairing rail equipment. Hazardous materials and wastes and storage equipment may include wash racks and storage tanks for fuel, lubricants, used oils, paints, coatings, and various solvents, which would likely be classified as hazardous substances or materials and wastes. Misuse of the hazardous materials or unintended releases of the hazardous materials may result in personnel or public exposure to hazardous materials. Therefore, the use of hazardous materials onsite may create a hazard to the public or the environment due to reasonably foreseeable upset and accident conditions involving the release of hazardous materials. However, the storage, handling, and transportation of hazardous materials at the MSF will be subject to existing federal regulations pertaining to hazardous material handling, transport, and disposal, as required by Project Measure HAZ PM-1 (Handling, Storage, and Transport of Hazardous Materials or Wastes [Operation]); refer to Section 8.1.1 for a further description of this project measure. Implementation of this project measure will minimize the risk of exposure to the public or environment during operation of the MSF. Hazards related to reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment will be less than significant.

6.2.4.1 Mitigation Measures

No mitigation measures are required.

6.2.4.2 Impacts Remaining After Mitigation

Less than significant impact.

6.3 Threshold HAZ-3: Would the Project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

6.3.1 No Project Alternative

Similar to the impacts and benefits associated with the NEPA No Build Alternative, under the No Project Alternative, the WSAB Project would not be implemented. Therefore, no direct effects associated with hazardous emissions or the handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school would occur. However, the benefit of remediating sites with pre-existing hazardous conditions as a result of project implementation would also not occur. Therefore, the No Project Alternative would not provide any of the potential long-term site remediation benefits of the LPA.

6.3.1.1 Mitigation Measures

No mitigation measures are required.

6.3.1.2 Impacts Remaining After Mitigation

Less than significant impact.

6.3.2 Locally Preferred Alternative

There are 45 educational facilities located within the Affected Area for hazards and hazmat (educational facilities). Operation of the LPA will not result in hazardous emissions or require handling of acutely hazardous materials, substances, or waste within the Affected Area for hazards and hazmat (educational facilities) during operation. However, maintenance of the LPA may require the use of small quantities of hazardous materials (such as herbicides or cleaners) associated with routine maintenance of rail facilities. The use of hazardous materials along the LPA will be limited during maintenance, and any use will occur in accordance with all federal and state regulatory requirements that are intended to manage hazards and prevent spills. With implementation of Project Measure HAZ PM-1 (Handling, Storage, and Transport of Hazardous Materials or Wastes [Operation]), described in Section 8.1.1, the risk of hazardous waste emissions within 0.25 mile of a school during operation will be less than significant and mitigation will not be required.

6.3.2.1 Mitigation Measures

No mitigation measures are required.

6.3.2.2 Impacts Remaining After Mitigation

Less than significant impact.

6.3.3 Design Option: Close 186th Street

One educational facility is located within the Affected Area for hazards and hazmat (educational facilities) at the design option. This educational facility is also present within the Affected Area for hazards and hazmat (educational facilities) along the LPA. Operation of the LPA with the design option would not result in hazardous emissions or require the handling of acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school during operation (similar to the LPA without the design option). However, similar to the LPA without the design option, small quantities of hazardous materials would be used in accordance with federal and state regulatory requirements and Project Measure HAZ PM-1 (Handling, Storage, and Transport of Hazardous Materials or Wastes [Operation]). Refer to Section 8.1.1 for a further description of this project measure. The risk of hazardous waste emissions within 0.25 mile of a school during operation of the design option would be less than significant and mitigation would not be required.

6.3.3.1 Mitigation Measures

No mitigation measures are required.

6.3.3.2 Impacts Remaining After Mitigation

Less than significant impact.

6.3.4 Maintenance and Storage Facility

Two educational facilities are located within 0.25 mile of the MSF, both of which are also located within 0.25 mile of the LPA. Operation of the MSF is not expected to include the use of large quantities of acutely hazardous materials. Metro has indicated operation of the MSF may include the use cleaners and degreasers that could contain small amounts of hazardous or acutely hazardous materials, substances, or wastes, but these materials will be off-the-shelf products, and exposure outside the facility will be unlikely.

Operation of the MSF will involve handling limited quantities of mixtures containing small amounts of hazardous or acutely hazardous materials, substances, or wastes during operation within 0.25 mile of an existing or proposed school. Therefore, required Project Measure PM-1 Handling, Storage, and Transport of Hazardous Materials or Wastes (Operation) will be implemented to manage hazardous materials appropriately during operation; refer to Section 8.1.1 for a further description of this project measure. With implementation of this project measure, impacts will be less than significant, and mitigation will not be required.

6.3.4.1 Mitigation Measures

No mitigation measures are required.

6.3.4.2 Impacts Remaining After Mitigation

Less than significant impact.

6.4 Threshold HAZ-4: Would the Project 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?

6.4.1 No Project Alternative

Similar to the impacts and benefits associated with the NEPA No Build Alternative, under the No Project Alternative, the WSAB Project would not be implemented. Therefore, no direct effects would occur. However, the benefit of remediating previously existing site conditions as a result of project implementation (which is a residual benefit) would also not occur. Therefore, the No Project Alternative would not provide any of the potential long-term site remediation benefits of the LPA.

6.4.1.1 Mitigation Measures

No mitigation measures are required.

6.4.1.2 Impacts Remaining After Mitigation

Less than significant impact.

6.4.2 Locally Preferred Alternative

Three hazardous materials sites compiled pursuant to Government Code Section 65962.5 (Cortese sites) are located in or partially in the Affected Area of the LPA, and one TPSS location would operate within a Cortese site (Jervis site). However, operation of the LPA would occur on other regulatory-listed sites, including a landfill, and three Superfund

(Cortese) sites with hazardous material impacts in the soil, soil vapor, and/or groundwater. Affected soil, soil vapor, and groundwater associated with these release sites may be present beneath the LPA. Minimal soil disturbance may be required for maintenance activities (such as trenching to repair underground signal lines or utilities that pass through the area). As discussed in Section 7, Project Measure HAZ PM-5 (Property Assessment-Phase I and II ESAs) requires that onsite soils be tested and remediated, if needed, prior to construction. Because pre-existing contaminants from hazardous materials sites, if present, will be removed prior to operation of the LPA, contaminants associated with hazardous materials sites will not be encountered during the operation and maintenance of the LPA. As a result, impacts will be less than significant, and mitigation will not be required.

6.4.2.1 Mitigation Measures

No mitigation measures are required.

6.4.2.2 Impacts Remaining After Mitigation

Less than significant impact.

6.4.3 Design Option: Close 186th Street

The design option would not be constructed directly within a Cortese site, although the design option footprint extends onto a historic environmental concern site, a reported former fueling facility at 18713 Corby Avenue, Artesia (Appendix A and B, site no. 811). As discussed in Section 7, remediation (if needed) would occur prior to operation. Thus, soil disturbance for maintenance would not encounter contamination from a hazardous materials site. Impacts would be less than significant, and mitigation would not be required.

6.4.3.1 Mitigation Measures

No mitigation measures are required.

6.4.3.2 Impacts Remaining After Mitigation

Less than significant impact.

6.4.4 Maintenance and Storage Facility

The MSF will not be constructed directly within a Cortese site. However, operation of the MSF will occur on historical concern sites with potential hazardous material impacts in the soil, soil vapor, and/or groundwater. Although affected soil, soil vapor, and groundwater associated with these release sites may be present beneath the LPA, operation of the LPA will not disturb the soil, soil vapor, or groundwater; thus, impacts will be less than significant and mitigation will not be required.

6.4.4.1 Mitigation Measures

No mitigation measures are required.

6.4.4.2 Impacts Remaining After Mitigation

Less than significant impact.

6.5 Threshold HAZ-5: 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 or excessive noise for people residing or working in the Project area?

There are no airports located within two miles of the LPA, design option, or MSF; therefore, no impacts related to safety hazards at airports will occur from operation of the LPA.

6.6 Threshold HAZ-6: Would the Project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The CEQA determinations for this potential impact are discussed in Section 6.1 of *the West Santa Ana Branch Transit Corridor Project Final Safety and Security Impact Analysis Report* (Metro 2024a).

6.7 Threshold HAZ-7: Would the Project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

No wildland fire hazards would occur under the No Project Alternative. No wildlands are located in the vicinity of the LPA, the design option, or the MSF; therefore, no impact would occur from operation of the LPA.

7 CONSTRUCTION IMPACTS

7.1 Construction Activities

Construction activities are described in the *West Santa Ana Branch Transit Corridor Project Construction Methods Report* (Metro 2024c).

7.2 Construction Methodology

Construction analysis methodology (NEPA and CEQA analysis methodology) is consistent with the methodology described in Section 1.7 and Section 1.8 of this report. Construction of the LPA will include demolition of structures; rail, bridge, and road construction; soil/soil vapor disturbance; and potential groundwater disturbance.

7.2.1 National Environmental Policy Act

Pursuant to NEPA regulations (40 CFR 1500–1508), project construction effects are evaluated based on the criteria of context and intensity. Context refers to the affected environment in which a proposed project occurs. Intensity refers to the severity of the effect, which is examined in terms of the type, quality, and sensitivity of the resource involved; the location and extent of the effect; and the duration of the effect (short- or long-term). The intensity of effects is described as negligible, moderate, or substantial. Beneficial effects are identified and described where applicable. When there is no measurable effect, an effect is found not to occur. Context and intensity, and implementation of measures to reduce harm are considered together when determining if an effect is significant under NEPA. The effectiveness of measures to avoid, minimize, and/or mitigate effects is considered in making significance determinations under NEPA. Thus, if a measure sufficiently mitigates an adverse effect, the effect is not significant and could be beneficial.

An example of a construction condition that could constitute a **substantial** effect includes: the temporary increase of hazardous material uses in an area where there are currently no hazardous materials uses (temporary construction vehicle maintenance in a residential area). A **moderate** effect could be the increased use of hazardous materials in an area where hazardous materials are currently utilized (temporary construction vehicle maintenance adjacent to several light industrial facilities). An example of a **negligible** effect would be the continued (similar) use of hazardous materials at a project location where hazardous materials are already being utilized (temporary construction vehicle maintenance in an industrial area).

7.2.2 California Environmental Quality Act (CEQA)

The following thresholds are based on Appendix G of the 2019 State CEQA Guidelines. A significant impact related to hazards and hazardous materials would occur if the LPA would do any of the following:

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 or excessive noise for people residing or working in the project area
F. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan
G. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires

These significance criteria are qualitative and use terms such as "create a significant hazard" and "pose a health and safety hazard." This methodology is combined with objective information (such as locations of hazardous materials sites and qualitative hazard assessments) to consider whether a significant impact could occur under CEQA.

For example:

- Ground disturbance during project construction could release existing soil contaminants and expose construction personnel and the public to health hazards, thus creating a significant hazard and a health and safety hazard. This would be considered a **significant** risk.
- The known presence of residual (below agency screening levels) hazardous materials in onsite soils, within the Project's construction footprint (area to be disturbed), would pose a health and safety hazard and is considered a **potentially significant** risk.
- The Project would not emit/handle hazardous or acutely hazardous materials within one-quarter mile of an existing or proposed K-12 school, thus a significant hazard and health and safety hazard would not exist. This would be considered a **less than significant risk.**

7.3 Construction Impacts

7.3.1 No Build Alternative

Under the No Build Alternative, no new infrastructure would be constructed within the LPA corridor or the Affected Area (which would be the areas temporarily disturbed during construction activities), aside from projects currently under construction or projects funded for construction, environmentally cleared, planned to be in operation by 2042, and identified in the constrained Metro 2009 *Long Range Transportation Plan* (Metro 2009) and the SCAG *2016-2040 Regional Transportation Plan/Sustainable Communities Strategy* (SCAG 2016), as well as additional projects funded by Measure M. Therefore, the No Build Alternative would not result in any additional risk of short-term hazardous material exposure to sensitive receptors in the Affected Area for hazards and hazmat at the LPA. Other projects along the corridor would handle their own environmental review process and their hazards and hazardous waste effects would be appropriately managed.

Because the No Build Alternative includes no new construction activities, aside from the existing transportation infrastructure and the future planned projects' construction activities described above and previously analyzed, it would not result in any effects related to hazardous or hazardous materials. Effects related to airport hazards would not occur because the No Build Alternative does not include construction within 4 miles of an airport. Because the No Build Alternative would not include new construction activities that could expose construction persons to hazards from airport operations, no effects would occur.

7.3.2 Locally Preferred Alternative

7.3.2.1 Environmental Concern Sites

The data presented in the following sections has been adjusted since the Draft EIS/EIR based on updates to the Affected Area for hazards and hazmat made as a result of refinements to the LPA. Therefore, the total number of each type of environmental concern site in the Affected Area for hazards and hazmat as represented below may differ slightly from the totals presented in the Draft EIS/EIR.

Numerous environmental concern sites (including groundwater contamination) are present within the Affected Area for hazards and hazmat of the LPA, which contains 307 known, potential, or historical environmental concern sites, 21 of which have contaminated groundwater. These sites are identified in Table 4.6 and the Table of Environmental Concern Sites (Appendix B). In particular, a groundwater well associated with the Jervis site, which is a Cortese/Superfund hazardous materials site, is located immediately east of the location proposed for TPSS #10 near Firestone Boulevard.

Disturbances of soil, soil vapor, or groundwater during construction at environmental concern sites have the potential to result in adverse effects due to potential health risks to work crews, nearby residents, or the public during construction. Disturbance of these concern sites could create a health risk to construction workers and nearby residents or the public during construction. Typical hazardous material impacts that could be encountered at the environmental concern sites include the following:

- Residual gasoline or fuel-related chemical constituents in the soil or groundwater at a former or current gasoline station
- Residual pesticides in soil from former agricultural properties
- Soil, soil vapor, or groundwater VOC impacts from known or unknown dry cleaning facility releases
- Metals and various common railroad contaminants in soil from current and past railroad operations
- Soil and groundwater affected by petroleum hydrocarbons from hazardous material pipeline releases or petroleum refinery operations

The following required project measures, described Section 8.1.2, will be implemented to reduce and/or minimize known, potential, or historical concern site impacts during construction:

- HAZ PM-4 Handling, Storage, and Transport of Hazardous Materials or Wastes
- HAZ PM-5 Property Assessment – Phase I and II ESAs
- HAZ PM-7 Disposal of Groundwater
- HAZ PM-9 Contaminated Soil, Soil Vapor, and Groundwater

Implementation of Project Measure HAZ PM-4 will ensure that an industrial waste management plan and/or a waste and hazardous materials management plan will be prepared prior to construction.

Implementation of Project Measure HAZ PM-5 will ensure that Phase I ESAs are prepared in accordance with standard ASTM methodologies to assess the land use history of each parcel that will be acquired/utilized for the LPA, including the railroad corridor properties. As necessary, a Phase II ESA will be conducted to determine whether the suspect contamination had resulted in soil, groundwater, or soil vapor contamination exceeding regulatory action levels. If the Phase II ESA concludes that the site is contaminated, remediation or corrective action will be conducted prior to or during construction under DTSC, LARWQCB, or local agency oversight.

Implementation of Project Measure HAZ PM-7 will ensure that if disposal of contaminated groundwater is necessary, the LARWQCB will be consulted, and the LPA will comply with permits as required by the LARWQCB or other local agencies.

Implementation of Project Measure HAZ PM-9 will ensure that a Soil Management Plan, Soil Reuse Management Plan, Groundwater Management Plan, Landfill Gas Accumulation Management Plan, and/or Soil, Soil Vapor, and Groundwater Management Plan will be prepared prior to construction.

With implementation of these project measures, the potential effects associated with environmental concern sites will be negligible during construction because hazardous materials and contaminated groundwater will be managed appropriately, property assessments (Phase I and II ESAs) and remediation will be completed prior to/during construction, and the contractor will be prepared for encountering known or undocumented hazardous materials.

7.3.2.2 Landfills

The Affected Area for hazards and hazmat specifically for the purpose of the analysis related to landfills (Affected Area for hazards and hazmat [landfills]) is 0.25 mile from the LPA. One landfill (South Gate Rod and Gun Club) with potential soil vapor concerns is located approximately 200 feet south of the alignment, within the Affected Area (construction laydown yard) for hazards and hazmat (landfills) of the LPA. If methane is present and accumulating near the LPA, an explosion hazard may exist and would be considered an adverse effect.

Assuming methane or other gases are present and accumulating near the LPA, a health and explosion hazard may exist in the Affected Area for hazards and hazmat (landfills) during construction. Underground methane accumulation could affect the LPA or the adjacent construction laydown area at Miller Way in South Gate and would be considered an adverse effect.

It should be noted that temporary construction trailers (raised enclosed structures) may be used in this area of the LPA. The use of long-term enclosed, surface-mounted structures in an area of methane accumulation would be considered an adverse effect.

The following required project measures, described Section 8.1.2, will be implemented to reduce and/or minimize landfill gas site impacts during construction:

- HAZ PM-4 Handling, Storage, and Transport of Hazardous Materials or Wastes
- HAZ PM-5 Property Assessment – Phase I and II ESAs
- HAZ PM-9 Contaminated Soil, Soil Vapor, and Groundwater

If the Phase II ESA concludes that landfill gases are present and/or accumulating beneath the LPA, remediation or corrective action (e.g., venting, monitoring, alarm and system activation measures) will be implemented prior to or during construction under the oversight of federal, state, and/or local agencies (e.g., USEPA, DTSC, RWQCB, Los Angeles County) and in full compliance with current and applicable federal and state laws and regulations. Additionally, Voluntary Cleanup Agreements may be used for parcels where remediation or long-term monitoring is necessary.

With implementation of these project measures, the potential effects associated with the landfill will be negligible during construction and no adverse effects related to landfills will occur during construction because hazardous materials will be managed appropriately, property assessments (Phase I and II ESAs) will be completed prior to construction, corrective action (e.g., venting, monitoring, and alarm and system activation measures) will be implemented, and the contractor will be prepared for encountering known or undocumented landfill gases.

7.3.2.3 Groundwater Contamination

The Affected Area for hazards and hazmat of the LPA contains 21 sites with known contaminated groundwater. Construction dewatering may be required at various station locations and undercrossing sites to temporarily lower the groundwater level below the excavation depth or to an impermeable layer. Dewatering facilitates installation of shoring systems, improves soil stability, and allows excavation in dry conditions. To dewater an area, groundwater would be pumped from wells installed around the perimeter of the excavation, limiting potential effects to surrounding structures, ground, and utilities adjacent to the excavation.

Contaminated groundwater is present along some areas of the alignment and could be disturbed during construction if dewatering activities occurred in close proximity to the groundwater release. If bridge and structure footings, and undercrossing activities that include dewatering, encounter groundwater that has been affected by previous or current site uses, an adverse effect could occur. Groundwater in the Affected Area could be contaminated with gasoline and petroleum hydrocarbons, dry cleaning chemicals or other VOCs, metals, etc. from previous site use or releases. Therefore, depending on the final design of the LPA, it may be necessary to use groundwater monitoring or dewatering during construction.

Once a Final EIR is completed for the LPA, known dewatering or groundwater monitoring sites will require analysis of the groundwater to determine if hazardous materials are present and need to be handled properly. This analysis would occur in the design and preconstruction phase of the Project.

If necessary, Project Measure HAZ PM-7 Disposal of Groundwater will be implemented as required by local, regional, or state agencies. With implementation of this project measure, described in Section 8.1.2, no adverse effects related to groundwater contamination will occur during construction because contaminated groundwater will be managed appropriately. Therefore, the construction-related effects will not be adverse.

7.3.2.4 General Hazardous Materials Conditions

LBP, ADL, Asbestos/ACM, PCBs

LBP, asbestos/ACM, and PCBs would likely be encountered during demolition of industrial, commercial, and residential structures present in the Affected Area for hazards and hazmat of the LPA. Additionally, soils surrounding structures containing LBP, ACM, and PCBs may be contaminated. During construction of the LPA, soil containing ADL will be excavated or otherwise disturbed, which could create a health risk to construction workers and nearby residents or the public.

Railroads

Soil and/or groundwater in the Affected Area may also be affected by common railroad corridor contaminants and chemically treated railroad ties. The Affected Area within historical railroad areas may contain hazardous materials such as petroleum hydrocarbons, pesticides and herbicides, PAHs, and heavy metals, including lead and arsenic.

Pipelines

Numerous liquid hazardous material pipelines containing petroleum hydrocarbons and high-pressure natural gas transmission pipelines are present within the Affected Area for hazards and hazmat of the LPA, as listed in Table 4.1. Relocation or disturbance of these liquid hazardous material pipelines during construction could create a health risk to construction workers and nearby residents or the public through the disturbance of contaminated soil, soil vapor, and/or groundwater. The high-pressure natural gas transmission pipelines present an explosion risk during construction.

Agriculture

The disturbance of historical agricultural locations may result in effects related to pesticides, arsenic, and lead. Encountering such hazardous materials during construction could result in an adverse effect.

Impact/Measures Discussion

The following required project measures, described in Section 8.1.2, will be implemented to identify and reduce potential effects associated with General Hazardous Materials Conditions:

- HAZ PM-4 Handling, Storage, and Transport of Hazardous Materials or Wastes
- HAZ PM-5 Property Assessment – Phase I and II ESAs
- HAZ PM-6 Demolition Plans
- HAZ PM-9 Contaminated Soil, Soil Vapor, and Groundwater

With implementation of these project measures, the potential environmental concern effects identified above will be negligible because hazardous materials will be managed appropriately; property assessments (Phase I and II ESAs) will be completed prior to

construction; and the contractor will be prepared to encounter hazardous building materials and known or undocumented hazardous materials.

7.3.2.5 Educational Facilities

The Affected Area for hazards and hazmat specifically for the purposes of the analysis related to educational facilities is 0.25 mile from the LPA (Affected Area for hazards and hazmat [educational facilities]). Potential effects to educational facilities associated with the LPA could be adverse if construction of the LPA includes certain situations within 0.25 mile of a school such that a health or safety hazard to students or employees would be introduced:

- Project emits hazardous air emissions, or
- Project handles an extremely hazardous substances or mixtures containing extremely hazardous substances in a quantity equal to or greater than the state threshold quantity specified pursuant to subdivision (j) of Section 25532 of the Health and Safety Code.

There are 45 educational facilities within 0.25 mile of the LPA. If the situations above are anticipated, they may pose a health and safety hazard to persons who would attend or would be employed at the school.

For construction, Metro has indicated it does not anticipate the use of extremely hazardous materials in quantities equal to or greater than the state threshold quantity specified pursuant to subdivision (j) of Section 25532 of the Health and Safety Code during construction and no adverse effect would occur.

Since there are no anticipated emissions or use of extremely hazardous substances or mixtures within 0.25 mile of educational facilities, no adverse effects related to hazardous air emissions, or extremely hazardous substances or mixtures within 0.25 mile of educational facilities will occur during construction.

7.3.2.6 Oil and Gas Wells

There is one known abandoned oil and gas well in the Affected Area for hazards and hazmat. Although this well is not within the project footprint (proposed alignment and appurtenant structures, including stations, MSF, and parking facilities), the potential presence of an existing oil well within 100 feet of the project footprint is considered a hazard for construction of the LPA and is adverse because train vibrations could damage the well abandonment structure and subsurface gases could be released.

Oil wells typically have a larger diameter steel surface casing that extends from just below the ground surface to a depth of 100 feet or more, with one or more smaller diameter steel casings located inside that surface casing. When the wells are abandoned, CalGEM requires that the casings be filled with a series of cement plugs along their lengths. The upper cement plug that is provided at the ground surface must be at least 25 feet in length but typically extends to depths of 100 to 200 feet. Ground surface plugs were not installed in some older wells that were abandoned during the early 1900s, although the deeper plugs were normally provided.

Although the known oil and gas well is reportedly abandoned, it may not be abandoned to current California Code of Regulations standards; therefore, accidental releases of subsurface gases could occur. This will result in adverse effects during construction of the LPA.

The following required project measures, described under Section 8.1.2, will be implemented to identify and reduce potential effects to the construction teams and the public:

- HAZ PM-4 Handling, Storage, and Transport of Hazardous Materials or Wastes
- HAZ PM-7 Disposal of Groundwater
- HAZ PM-8 Oil Well Abandonment

For the known abandoned well , Project Measure HAZ PM-8, as described in Section 8.1.2, will be implemented to notify CalGEM and determine if the well is critical (located within 100 feet of the alignment). If it is determined that the well is critical, CalGEM would determine if any specific preconstruction requirements would be necessary for the well. With completion of the preconstruction requirements, no adverse effect would remain related to the known oil and gas well.

In addition to the one known well, unidentified abandoned oil and gas wells may be present in other areas along the alignment. Implementation of Mitigation Measure HAZ-1 (Unidentified Oil and Gas Wells) will reduce this risk. This measure, detailed in Section 8.2.2, includes notification to CalGEM and proper abandonment if unknown oil wells are encountered during construction of the LPA.

With implementation of these required project measures and Mitigation Measure HAZ-1 (Unidentified Oil and Gas Wells) during construction, hazardous materials will be managed appropriately; property assessments (Phase I and II ESAs) will be completed prior to construction; contaminated groundwater will be managed appropriately; and CalGEM will be notified about the wells; and oil or gas wells will be abandoned appropriately. Therefore, effects will not be considered adverse.

7.3.3 Design Option: Close 186th Street

7.3.3.1 Environmental Concern Sites

There is one historic environmental concern site within the Affected Area for hazards and hazmat associated with the design option. Although the project footprint associated with the design option extends onto this historic environmental concern site, a reported former fueling facility at 18713 Corby Avenue, Artesia (Appendix A and B, site no. 811), this site is also within the Affected Area for hazards and hazmat associated with the LPA without the design option in close proximity of the footprint of the LPA. Soil, soil vapor, and groundwater disturbance at historic environmental concern sites could occur during construction of the design option, both with and without the LPA, and would result in adverse effects.

Construction of the design option may disturb soil, soil vapor, and/or groundwater at one potential environmental concern site; therefore, adverse effects could occur. Specifically, potential onsite effects at this design option may include contaminated soil from former railroad spurs onsite and unknown hazardous material soil from previous uses. The presence and extent of contamination are unknown, such that adverse effects could be present.

The evaluation for the LPA (summarized in 7.3.2.1) related to Environmental Concern Sites and the following project measures (summarized in Section 8.1.2) are also applicable to the design option:

- HAZ PM-4 Handling, Storage, and Transport of Hazardous Materials or Wastes
- HAZ PM-5 Property Assessment – Phase I and II ESAs

- HAZ PM-7 Disposal of Groundwater
- HAZ PM-9 Contaminated Soil, Soil Vapor, and Groundwater

With implementation of these project measures, no adverse effects related to environmental concern sites would occur during construction.

7.3.3.2 Landfills

No landfill-listed facilities are present within the Affected Area for hazards and hazmat (landfills) at the design option; therefore, no adverse effects would occur.

7.3.3.3 Groundwater Contamination

There are no known groundwater release sites present within the Affected Area for hazards and hazmat at the design option; therefore, no adverse effects would occur.

7.3.3.4 General Hazardous Material Conditions

LBP, ADL, Asbestos/ACM, PCBs

LBP, asbestos/ACM, and PCBs would likely be encountered during demolition of structures present in the Affected Area for hazards and hazmat at the design option. Additionally, soils surrounding structures containing LBP, ACM, and PCBs may be contaminated.

Aerially Deposited Lead

During construction of the design option, ADL is not expected to be encountered because the nearest highway is located more than 0.6-mile west of the Affected Area for hazards and hazmat at the design option.

Railroad

Soil and/or groundwater in the Affected Area for hazards and hazmat at the design option may be affected by common railroad corridor contaminants and chemically treated railroad ties. The Affected Area is located within historical railroad areas, which may contain hazardous materials such as petroleum hydrocarbons, pesticides and herbicides, PAHs, and heavy metals, including lead and arsenic.

Pipelines

No hazardous material pipelines containing petroleum hydrocarbons are present within the Affected Area for hazards and hazmat at the design option, as listed in Table 4.1.

Agriculture

The disturbance of historical agricultural locations may also result in effects related to pesticides, arsenic, and lead. Encountering such hazardous materials during construction could result in an adverse effect.

Impact/Measures Discussion

The following required project measures, described in Section 8.1.2, would be implemented to identify and reduce the potential effects associated with the General Hazardous Material Conditions stated above:

- HAZ PM-4 Handling, Storage, and Transport of Hazardous Materials or Wastes
- HAZ PM-5 Property Assessment – Phase I and II ESAs
- HAZ PM-6 Demolition Plans
- HAZ PM-9 Contaminated Soil, Soil Vapor, and Groundwater

With implementation of these project measures, hazardous materials would be managed appropriately; property assessments (Phase I and II ESAs) would be completed prior to construction; the contractor would be prepared for encountering hazardous building materials and known or undocumented hazardous materials. Therefore, the potential environmental concern effects identified above would be negligible.

7.3.3.5 Educational Facilities

One educational facility is located between 0.2- and 0.25-mile of the design option; this educational facility is also located within 0.25-mile of the LPA.

Metro has indicated that it will not emit hazardous air emissions during construction and does not anticipate the use of extremely hazardous materials in quantities equal to or greater than the state threshold quantity specified pursuant to subdivision (j) of Section 25532 of the Health and Safety Code; therefore, adverse effects would not occur.

7.3.3.6 Oil and Gas Wells

There are no known oil or gas wells located within 200 feet of the design option; however, unidentified abandoned oil and gas wells may be present. Undocumented oil and gas wells may not be abandoned to current California Code of Regulations standards; therefore, accidental releases of subsurface gases could occur. This would result in adverse effects during construction of the design option.

The evaluation for the LPA (summarized in Section 7.3.2.6) related to the presence of known and undocumented oil and gas wells that are not plugged and abandoned to current standards and the following mitigation measure, as described in Section8.2.2 is applicable to the design option: Mitigation Measure HAZ-1 (Unidentified Oil and Gas Wells).

With implementation of this mitigation measure, no adverse effects related to the presence of known and undocumented oil and gas wells that are not plugged and abandoned to current standards would occur during construction.

7.3.4 Maintenance and Storage Facility

7.3.4.1 Environmental Concern Sites

Three historical environmental concern sites are located within the Affected Area for hazards and hazmat at the MSF. Soil, soil vapor, and groundwater disturbance at historical concern sites could occur during construction and adverse effects will occur. These sites are identified in Appendix A and the Table of Environmental Concern Sites (Appendix B).

Construction of the MSF may disturb soil, soil vapor, and/or groundwater at three historical environmental concern sites; therefore, adverse effects could occur. Specifically, potential onsite effects at this MSF may include contaminated soil from former railroad spurs onsite and unknown hazardous material soil and/or contaminated groundwater from previous uses. The presence and extent of contamination are unknown, such that adverse effects could be present.

The evaluation for the LPA (summarized in 7.3.2.1) related to Environmental Concern Sites and the following project measures (summarized in Section 8.1.2) are also applicable to the MSF:

- HAZ PM-4 Handling, Storage, and Transport of Hazardous Materials or Wastes
- HAZ PM-5 Property Assessment – Phase I and II ESAs
- HAZ PM-7 Disposal of Groundwater
- HAZ PM-9 Contaminated Soil, Soil Vapor, and Groundwater

With implementation of these project measures, no adverse effects related to environmental concern sites will occur during construction.

7.3.4.2 Landfills

No landfill-listed facilities are present within the Affected Area for hazards and hazmat (landfills) at the MSF; therefore, no adverse effects will occur.

7.3.4.3 Groundwater Contamination

There are no known groundwater release sites present within the Affected Area for hazards and hazmat at the MSF; therefore, no adverse effects will occur.

7.3.4.4 General Hazardous Material Conditions

LBP, ADL, Asbestos/ACM, PCBs

LBP, asbestos/ACM, and PCBs would likely be encountered during demolition of industrial and commercial structures present in the Affected Area for hazards and hazmat at the MSF. Additionally, soils surrounding structures containing LBP, ACM, and PCBs may be contaminated.

Aerially Deposited Lead

During construction of the MSF, ADL is not expected to be encountered because the nearest highway is located more than 1 mile north of the Affected Area for hazards and hazmat at the MSF.

Railroad

Soil and/or groundwater in the southern portion of the Affected Area for hazards and hazmat at the MSF may be affected by common railroad corridor contaminants and chemically treated railroad ties. The Affected Area within historical railroad areas may contain hazardous materials such as petroleum hydrocarbons, pesticides and herbicides, PAHs, and heavy metals, including lead and arsenic.

Pipelines

Five hazardous material pipelines containing petroleum hydrocarbons are present within the Affected Area for hazards and hazmat at the MSF, as listed in Table 4.1. The relocation or disturbance of these pipelines could create a health risk to construction workers and nearby residents or the public through the disturbance of contaminated soil and/or groundwater.

Agriculture

The disturbance of historical agricultural locations may also result in effects related to pesticides, arsenic, and lead. Encountering such hazardous materials during construction could result in an adverse effect.

Impact/Measures Discussion

The following required project measures, described in Section 8.1.2, will be implemented to identify and reduce the potential effects associated with General Hazardous Material Conditions stated above:

- HAZ PM-4 Handling, Storage, and Transport of Hazardous Materials or Wastes
- HAZ PM-5 Property Assessment – Phase I and II ESAs
- HAZ PM-6 Demolition Plans
- HAZ PM-9 Contaminated Soil, Soil Vapor, and Groundwater

With implementation of these project measures, hazardous materials will be managed appropriately; property assessments (Phase I and II ESAs) will be completed prior to construction; and the contractor will be prepared to encounter hazardous building materials and known or undocumented hazardous materials. Therefore, the potential environmental concern effects identified above will be negligible.

7.3.4.5 Educational Facilities

Two educational facilities are located between 200 feet and 0.25-mile of the MSF (both facilities are also located within 0.25-mile of the LPA).

For the MSF, Metro has indicated it will not emit hazardous air emissions during construction and does not anticipate the use of extremely hazardous materials in quantities equal to or greater than the state threshold quantity specified pursuant to subdivision (j) of Section 25532 of the Health and Safety Code; therefore, adverse effects will not occur.

7.3.4.6 Oil and Gas Wells

No known oil or gas wells are located within 200 feet of the MSF; however, unidentified abandoned oil and gas wells may be present. Undocumented oil and gas wells may not be abandoned to current California Code of Regulations standards; therefore, accidental releases of subsurface gases could occur. This will result in adverse effects during construction of the MSF.

The evaluation for the LPA (summarized in Section 7.3.2.6) related to the presence of known and undocumented oil and gas wells that are not plugged and abandoned to current standards and the following mitigation measure, as described in Section 8.2.2, is applicable to the MSF.

- Mitigation Measure HAZ-1 (Unidentified Oil and Gas Wells)

With implementation of this mitigation measure, no adverse effects related to the presence of known and undocumented oil and gas wells that are not plugged and abandoned to current standards will occur during construction.

7.3.5 U.S. Army Corps of Engineers Facilities

Ground-disturbing activities will occur at the three USACE river crossings located along the LPA: the Los Angeles River, Rio Hondo, and San Gabriel River. Soil and groundwater along both sides of the river and within the riverbed itself will be affected.

7.3.5.1 Environmental Concern Sites

There is one known release environmental concern site in the vicinity of the Los Angeles River and two known release environmental concern sites in the vicinity of the Rio Hondo. Environmental concern sites were not identified in the vicinity of the San Gabriel River.

Similar to the LPA, construction at two of the USACE facilities may disturb soil and/or groundwater at known release environmental concern sites; therefore, adverse effects could occur. The presence and extent of contamination are unknown, such that adverse effects could be present.

The evaluation for the LPA (summarized in 7.3.2.1) related to Environmental Concern Sites and the following project measures (summarized in Section 8.1.2) are also applicable to the USACE facilities:

- HAZ PM-4 Handling, Storage, and Transport of Hazardous Materials or Wastes
- HAZ PM-5 Property Assessment – Phase I and II ESAs
- HAZ PM-7 Disposal of Groundwater
- HAZ PM-9 Contaminated Soil, Soil Vapor, and Groundwater

With implementation of these project measures, no adverse effects related to environmental concern sites will occur during construction.

7.3.5.2 Landfills

Two landfill-listed facilities are present within the Affected Area for hazards and hazmat (landfills) at the Rio Hondo facility.

Similar to the LPA, if methane is present and accumulating near the USACE facility, an explosion hazard may exist and would be considered an adverse effect. Assuming methane or other gases are present and accumulating near the USACE facility, a health and explosion hazard may exist in the Affected Area for hazards and hazmat (landfills) during construction. Underground methane accumulation could affect the LPA or the adjacent construction laydown area at Miller Way in South Gate and would be considered an adverse effect. Therefore, the following required project measures, described Section 8.1.2, will be implemented to reduce and/or minimize landfill gas site impacts during construction:

- HAZ PM-4 Handling, Storage, and Transport of Hazardous Materials or Wastes
- HAZ PM-5 Property Assessment – Phase I and II ESAs
- HAZ PM-9 Contaminated Soil, Soil Vapor, and Groundwater

With implementation of these project measures, the potential effects associated with the landfill will be negligible during construction and no adverse effects related to landfills will

occur during construction because hazardous materials will be managed appropriately, property assessments (Phase I and II ESAs) will be completed prior to construction, corrective action (e.g., venting, monitoring, and alarm and system activation measures) will be implemented, and the contractor will be prepared to encounter known or undocumented landfill gases.

7.3.5.3 Groundwater Contamination

Two known groundwater release sites are present in the vicinity of the Los Angeles River: a Cortese site groundwater plume (SAIA) and Bell Foundry.

Similar to the LPA, construction dewatering may be required at this USACE facility. Therefore, depending on the final design of the LPA, it may be necessary to use groundwater monitoring during construction. Once a Final EIR is completed for the LPA, known dewatering or groundwater monitoring sites will require analysis of the groundwater to determine if hazardous materials are present and need to be handled properly. This analysis would occur in the design and preconstruction phase of the LPA.

If necessary, Project Measure HAZ PM-7 Disposal of Groundwater will be implemented as required by the local, regional, or state agencies. With implementation of this project measure, described under Section 8.1.2, no adverse effects related to groundwater contamination will occur during construction because contaminated groundwater will be managed appropriately. Therefore, the construction-related effects will be negligible.

7.3.5.4 General Hazardous Material Conditions

LBP, ADL, Asbestos/ACM, PCBs

Similar to the LPA, LBP, asbestos/ACM, and PCBs would likely be encountered during demolition of industrial and commercial structures present in the Affected Area for hazards and hazmat at the USACE facilities. Additionally, soil surrounding structures containing LBP, ACM, and PCBs may be contaminated.

Aerially Deposited Lead

Similar to the LPA, ADL would likely be encountered during demolition of industrial and commercial structures present in the Affected Area for hazards and hazmat at the USACE facilities.

Railroad

Similar to the LPA, soil and/or groundwater at the USACE facilities may be affected by common railroad corridor contaminants and chemically treated railroad ties. The Affected Area for hazards and hazmat at the USACE facilities within historical railroad areas may contain hazardous materials such as petroleum hydrocarbons, pesticides and herbicides, PAHs, and heavy metals, including lead and arsenic.

Pipelines

Similar to the LPA, hazardous material pipelines containing petroleum hydrocarbons are present within the Affected Area for hazards and hazmat at the USACE facilities, as listed in Table 4.1. The relocation or disturbance of these pipelines could create a health risk to construction workers and nearby residents or the public through the disturbance of contaminated soil and/or groundwater.

Agriculture

Similar to the LPA, the disturbance of historical agricultural locations may also result in effects related to pesticides, arsenic, and lead. Encountering such hazardous materials during construction could result in an adverse effect.

Impact/Measures Discussion

Similar to the LPA, the following required project measures, described in Section 8.1.2, will be implemented to identify and reduce the potential effects associated with General Hazardous Material Conditions stated above:

- HAZ PM-4 Handling, Storage, and Transport of Hazardous Materials or Wastes
- HAZ PM-5 Property Assessment – Phase I and II ESAs
- HAZ PM-6 Demolition Plans
- HAZ PM-9 Contaminated Soil, Soil Vapor, and Groundwater

With implementation of these project measures, hazardous materials will be managed appropriately; property assessments (Phase I and II ESAs) will be completed prior to construction; and the contractor will be prepared to encounter hazardous building materials and known or undocumented hazardous materials. Therefore, the potential environmental concern effects identified above will be negligible.

7.3.5.5 Educational Facilities

Three educational facilities are located within the Affected Area for hazards and hazmat (educational facilities) at the USACE facilities—two at the Los Angeles River and one at the San Gabriel River (both facilities are also located within the Affected Area for hazards and hazmat [educational facilities] at the LPA).

Similar to the LPA, Metro has indicated that it does not anticipate the use of extremely hazardous materials in quantities equal to or greater than the state threshold quantity specified pursuant to subdivision (j) of Section 25532 of the Health and Safety Code during construction and no adverse effect will occur.

Since there are no anticipated emissions or use of extremely hazardous substances or mixtures within 0.25 mile of educational facilities, no adverse effects related to hazardous air emissions, or extremely hazardous substances or mixtures within 0.25 mile of educational facilities will occur during construction.

7.3.5.6 Oil and Gas Wells

No known oil or gas wells are located within 200 feet of the USACE facilities. In the unlikely event that an unidentified abandoned oil and gas well is identified within the Affected Area for hazards and hazmat at the USACE facility, HAZ PM-8 (Oil Well Abandonment) will be implemented. With implementation of this project measure, no adverse effects related to the presence of undocumented oil and gas wells that are not plugged and abandoned to current standards will occur during construction.

7.3.6 California Department of Transportation Facilities

Ground-disturbing activities will occur at all four Caltrans highway crossings located along the LPA: I-710, I-105, SR-91, and I-605. Soil and groundwater along both sides of the river and within the riverbed itself will be affected.

7.3.6.1 Environmental Concern Sites

Two known release environmental concern sites are located in the vicinity of I-710 and one potential environmental concern site is located in the vicinity of I-605. Environmental concern sites were not identified in the vicinity of I-105 or SR-91.

Similar to the LPA, construction at two Caltrans facilities may disturb soil and/or groundwater at known release and potential environmental concern sites; therefore, adverse effects could occur. The presence and extent of contamination are unknown, such that adverse effects could be present.

The evaluation for the LPA (summarized in 7.3.2.1) related to Environmental Concern Sites and the following project measures (summarized in Section 8.1.2) are also applicable to the Caltrans facilities:

- HAZ PM-4 Handling, Storage, and Transport of Hazardous Materials or Wastes
- HAZ PM-5 Property Assessment – Phase I and II ESAs
- HAZ PM-7 Disposal of Groundwater
- HAZ PM-9 Contaminated Soil, Soil Vapor, and Groundwater

With implementation of these project measures, no adverse effects related to environmental concern sites will occur during construction.

7.3.6.2 Landfills

Two landfill-listed facilities are present within the Affected Area for hazards and hazmat (landfills) at the I-710 Caltrans facility.

Similar to the LPA, if methane is present and accumulating near the Caltrans facility, an explosion hazard may exist and would be considered an adverse effect. Assuming methane or other gases are present and accumulating near the Caltrans facility, a health and explosion hazard may exist in the Affected Area for hazards and hazmat (landfills) during construction. Underground methane accumulation could affect the LPA or the adjacent construction laydown area at Miller Way in South Gate and would be considered an adverse effect. Therefore, the following required project measures, described Section 8.1.2, will be implemented to reduce and/or minimize landfill gas site impacts during construction:

- HAZ PM-4 Handling, Storage, and Transport of Hazardous Materials or Wastes
- HAZ PM-5 Property Assessment – Phase I and II ESAs
- HAZ PM-9 Contaminated Soil, Soil Vapor, and Groundwater

With implementation of these project measures, the potential effects associated with the landfills will be negligible during construction, and no adverse effects related to landfills will occur during construction because hazardous materials will be managed appropriately, property assessments (Phase I and II ESAs) will be completed prior to construction, corrective action (e.g., venting, monitoring, and alarm and system activation measures) will be implemented, and the contractor will be prepared to encounter known or undocumented landfill gases.

7.3.6.3 Groundwater Contamination

No known groundwater release sites are present in the vicinity of the Caltrans facilities; therefore, no adverse effects related to contaminated groundwater at Caltrans facilities will occur during construction.

7.3.6.4 General Hazardous Material Conditions

LBP, ADL, Asbestos/ACM, PCBs

Similar to the LPA, LBP, asbestos/ACM, and PCBs would likely be encountered during demolition of industrial and commercial structures present in the Affected Area for hazards and hazmat at the Caltrans facilities. Additionally, soil surrounding structures containing LBP, ACM, and PCBs may be contaminated.

Aerially Deposited Lead

Similar to the LPA, ADL would likely be encountered during demolition of industrial and commercial structures present in the Affected Area for hazards and hazmat at the Caltrans facilities.

Railroad

Similar to the LPA, soil and/or groundwater at the Caltrans facilities may be affected by common railroad corridor contaminants and chemically treated railroad ties. The Affected Area for hazards and hazmat within historical railroad areas may contain hazardous materials such as petroleum hydrocarbons, pesticides and herbicides, PAHs, and heavy metals, including lead and arsenic.

Pipelines

Similar to the LPA, hazardous material pipelines containing petroleum hydrocarbons are present within the Affected Area for hazards and hazmat at the Caltrans facilities, as listed in Table 4.1. The relocation or disturbance of these pipelines could create a health risk to construction workers and nearby residents or the public through the disturbance of contaminated soil and/or groundwater.

Agriculture

Similar to the LPA, the disturbance of historical agricultural locations may also result in effects related to pesticides, arsenic, and lead. Encountering such hazardous materials during construction could result in an adverse effect.

Impact/Measures Discussion

Similar to the LPA, the following required project measures, described in Section 8.1.2, will be implemented to identify and reduce the potential effects associated with General Hazardous Material Conditions stated above:

- HAZ PM-4 Handling, Storage, and Transport of Hazardous Materials or Wastes
- HAZ PM-5 Property Assessment – Phase I and II ESAs
- HAZ PM-6 Demolition Plans
- HAZ PM-9 Contaminated Soil, Soil Vapor, and Groundwater

With implementation of these project measures, hazardous materials will be managed appropriately; property assessments (Phase I and II ESAs) will be completed prior to construction; and the contractor will be prepared to encounter hazardous building materials and known or undocumented hazardous materials. Therefore, the potential environmental concern effects identified above will be negligible.

7.3.6.5 Educational Facilities

Seven educational facilities are located within 0.25 mile of Caltrans facilities—one at I-710, two at I-105, one at SR-91, and three at I-605. All seven facilities are also located within 0.25 mile of the LPA.

Similar to the LPA, Metro has indicated that it does not anticipate the use of extremely hazardous materials in quantities equal to or greater than the state threshold quantity specified pursuant to subdivision (j) of Section 25532 of the Health and Safety Code during construction and no adverse effect would occur.

Since there are no anticipated emissions or use of extremely hazardous substances or mixtures within 0.25 mile of educational facilities, no adverse effects related to hazardous air emissions or extremely hazardous substances or mixtures within 0.25 mile of educational facilities will occur during construction.

7.3.6.6 Oil and Gas Wells

No known oil or gas wells are located within 200 feet of the Caltrans facilities; however, unidentified abandoned oil and gas wells may be present. Undocumented oil and gas wells may not be abandoned to current California Code of Regulations standards; therefore, accidental releases of subsurface gases could occur. This will result in adverse effects during construction at the Caltrans facilities.

The evaluation for the LPA (summarized in Section 7.3.2.6) related to the presence of known and undocumented oil and gas wells that are not plugged and abandoned to current standards and Mitigation Measure HAZ-1 (Unidentified Oil and Gas Wells), as described in Section 8.2.2, is applicable to the Caltrans facilities.

With implementation of this mitigation measure, no adverse effects related to the presence of known and undocumented oil and gas wells that are not plugged and abandoned to current standards will occur during construction.

7.4 CEQA Determination

The hazards and hazardous materials CEQA determinations presented in the following sections are based on the existing conditions presented in Section 4 of this report, the project measures presented in Section 8.1.2, the environmental impacts analysis presented in Section 5, and the mitigation measures presented in Section 8.2.2.

7.4.1 Threshold HAZ-CON-1: Would the Project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

7.4.1.1 No Project Alternative

Under the No Project Alternative, the LPA would not be implemented, no changes would occur in the Affected Area, and no direct impacts associated with project-related construction would occur. No impacts associated with routine transport, use, or disposal of hazardous materials would occur under the No Project Alternative.

Mitigation Measures

No mitigation measures are required.

Impacts Remaining After Mitigation

Less than significant impact.

7.4.1.2 Locally Preferred Alternative

Construction contractors may use hazardous materials such as fuels, paints and coatings, solvents, and welding materials during construction. Upset and accident involving hazardous materials could expose workers and the nearby public to health risks and could contaminate the environment. However, construction contractors will be required to implement the federal and state handling and disposal regulations that will reduce the risk of exposure to the public and the environment. Additionally, Project Measure HAZ PM-4 (Handling, Storage, and Transport of Hazardous Materials or Wastes), described in Section 8.1.2, will be implemented during construction, which will minimize the risk of exposure to the public and the environment. With implementation of this project measure, hazardous materials will be transported, used, and disposed of appropriately during construction so that hazards to the public or environment will be less than significant. Refer to Section 7.4.2 for a discussion of hazardous and hazmat impacts associated with reasonably foreseeable upset and accident conditions involving the release of hazardous materials.[10]

Mitigation Measures

No mitigation measures are required.

Impacts Remaining After Mitigation

Less than significant impact.

7.4.1.3 Design Option: Close 186th Street

Construction contractors may use hazardous materials such as fuels, paints and coatings, solvents, and welding materials during construction of the LPA with the design option. Upset and accident involving hazardous materials could expose workers and the nearby public to health risks and could contaminate the environment. However, construction contractors

[10] The impact discussion for Threshold HAZ-CON-1 in the Draft EIS/EIR included information regarding reasonably foreseeable upset and accident conditions involving the release of hazmat into the environment, which was also included in the impact discussion for Threshold HAZ-CON-2. For this Final EIS/EIR, the impact discussion for Threshold HAZ-CON-1 has been revised to focus on whether the LPA would cause significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, consistent with the threshold of significance. The impacts associated with reasonably foreseeable upsets and accidental releases of hazardous material are discussed under Threshold HAZ-CON-2.

would be required to implement the federal and state handling and disposal regulations that would reduce the risk of exposure to the public and the environment. Additionally, Project Measure HAZ PM-4 (Handling, Storage, and Transport of Hazardous Materials or Wastes), described in Section 8.1.2, would be implemented during construction, which would minimize the risk of exposure to the public and the environment. With implementation of this project measure, hazardous materials would be transported, used, and disposed of appropriately during construction so that hazards to the public or environment would be less than significant.

Mitigation Measures

No mitigation measures are required.

Impacts Remaining After Mitigation

Less than significant impact.

7.4.1.4 Maintenance and Storage Facility

Construction contractors may use hazardous materials such as fuels, paints and coatings, solvents, and welding materials during construction of the MSF. Upset and accident involving hazardous materials could expose workers and the nearby public to health risks and could contaminate the environment. However, construction contractors will be required to implement the federal and state handling and disposal regulations that will reduce the risk of exposure to the public and the environment. Additionally, Project Measure HAZ PM-4 (Handling, Storage, and Transport of Hazardous Materials or Wastes), described in Section 8.1.2, will be implemented during construction, which will minimize the risk of exposure to the public and the environment. With implementation of this project measure, hazardous materials will be transported, used, and disposed of appropriately during construction so that hazards to the public or environment will be less than significant.

Mitigation Measures

No mitigation measures are required.

Impacts Remaining After Mitigation

Less than significant impact.

7.4.2 Threshold HAZ-CON-2: Would the Project 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?

7.4.2.1 No Project Alternative

Under the No Project Alternative, the LPA would not be implemented, no changes would occur within the Affected Area for hazards and hazmat, and no direct impacts associated with project-related construction would occur. Significant impacts would not occur under the No Project Alternative, although remediation of existing contaminated sites that could take place in conjunction with project construction would also not occur. Therefore, the No Project Alternative would not result in any of the potential long-term benefits of the LPA.

Mitigation Measures

No mitigation measures are required.

Impacts Remaining After Mitigation

Less than significant impact.

7.4.2.2 Locally Preferred Alternative

General Hazardous Materials Conditions

During demolition, grading, or construction of the LPA, the following hazardous materials could be disturbed, excavated, removed, and/or transported on public roads and highways:

- Known, potential, and historical concern sites (impacted soil and/or groundwater)
- Landfills
- Lead-based paint and yellow paint striping
- Asbestos-containing materials
- Polychlorinated biphenyls
- Common railroad corridor contaminants
- Aerially deposited lead in soil
- Pesticides from agricultural uses
- Hazardous material (liquid) and natural gas pipeline utility corridor contaminants
- Oil and gas wells

Impacts related to the General Hazardous Materials Conditions impacts listed above are discussed below.

Known, Potential, and Historical Concern Sites (impacted soil and/or groundwater): Soils and/or groundwater in the Affected Area may also be affected by known, potential, and/or historical concern sites. The known, potential, and historical concern sites located within the Affected Area are listed and mapped in Appendices A and B. The soils and groundwater within the Affected Area of the LPA may contain hazardous materials such as VOCs, petroleum hydrocarbons, pesticides and herbicides, PAHs, and heavy metals, including lead and arsenic. During construction the materials described above will be disturbed and handled onsite or loaded into trucks for offsite disposal or recycling, which could result in a potential health risk to construction workers and nearby residents and/or the public, as discussed in Section 7.3.2.1.

Landfills: One landfill with unknown soil vapor and methane impacts is located within the Affected Area for hazards and hazmat (landfills) of the LPA. The landfill is located at 10200 Miller Way in South Gate as shown in Appendix A, Sheets 25 and 26. Assuming methane is present, this would result in soil vapor contaminants in the vicinity, which could be affected during construction of the LPA.

Underground methane accumulation near a landfill could affect the LPA or the adjacent construction laydown area at Miller Way in South Gate. It should be noted that temporary construction trailers (raised enclosed structures) may be used in this area of the LPA. The use of long-term enclosed, surface-mounted structures in an area of methane accumulation could create a hazard. Encountering hazardous gases or materials during excavation or grading could create a health risk to construction workers and nearby residents or the public through the disturbance of impacted soil or landfill gases. Methane and other gases could create a health risk to construction workers and nearby residents and/or the public, as discussed in Section 7.3.2.2.

LBP, ACM, and PCBs: LBP and yellow paint striping, ACM, and PCBs would likely be encountered during demolition of industrial, commercial, and residential structures present in the Affected Area of the LPA, as shown in the ROW plans included as Appendix B. Additionally, soils surrounding structures containing LBP, ACM, and PCBs may be contaminated. During construction, the materials described above will be disturbed and handled onsite or loaded into trucks for offsite disposal or recycling, which could create a health risk to construction workers and nearby residents and/or the public, as discussed in Section 7.3.2.4, subheading LBP, ADL, Asbestos,/ACM, PCBs.

Railroads: Soil and/or groundwater in the Affected Area may also be affected by common railroad corridor contaminants and chemically treated railroad ties. The majority of the Affected Area of the LPA is located within historical railroad corridors that may contain hazardous materials such as petroleum hydrocarbons, pesticides and herbicides, PAHs, and heavy metals, including lead and arsenic. During construction, the materials described above will be disturbed and handled onsite or loaded into trucks for offsite disposal or recycling, which could create a health risk to construction workers and nearby residents and/or the public, as discussed in Section 7.3.2.4, subheading Railroads.

Pipelines: Numerous liquid hazardous material pipelines containing petroleum hydrocarbons and natural gas are present within the Affected Area of the LPA, as listed in Table 4.1. The relocation or disturbance of these liquid pipelines could create a health risk to construction workers and nearby residents or the public through the disturbance of impacted soil, soil vapor, and/or groundwater. The high-pressure natural gas transmission pipelines present an explosion risk during construction. As required by California law, Government Code 4216, Underground Service Alert (a utility marking service) will be notified prior to the commencement of any subsurface excavation. Therefore, these pipeline risks will be reduced.

During construction impacted soil and/or groundwater will be disturbed and handled onsite or loaded into trucks for offsite disposal or recycling, which could create a health risk to construction workers and nearby residents and/or the public, as discussed in Section 7.3.2.4, subheading Pipelines.

Agriculture: The disturbance of historical agricultural locations may result in effects related to pesticides, arsenic, and lead. The presence of historical agricultural areas within the Affected Areas of the LPA were identified in various areas along the corridor through historical aerial photograph review. During construction, the materials described above will be disturbed and handled onsite or loaded into trucks for offsite disposal or recycling, which could create a health risk to construction workers and nearby residents and/or the public, as discussed in Section 7.3.2.4, subheading Agriculture.

Oil and Gas Wells

One abandoned oil well is located within the Affected Area of the LPA. The location of the oil well is shown in Figure 4-1. Assuming that this well requires re-abandonment per CalGEM, as discussed in Section 7.3.2.6, encountering such hazardous materials during construction could create a health risk to construction workers and nearby residents or the public through the disturbance of impacted soils. Additionally, unidentified wells may be present. Impacts related to the potential presence of unknown wells are potentially significant, and Mitigation Measure HAZ-1 (Unidentified Oil and Gas Wells) is required to reduce impacts to a less than significant level.

Impact/Measures Discussion

The following required project measures and mitigation measure will minimize the risk of exposure of the public and the environment to hazardous materials used during construction of the LPA; refer to Sections 8.1.2 and 8.2.2, for a description of each project measure and mitigation measure.

- HAZ PM-4 Handling, Storage, and Transport of Hazardous Materials or Wastes
- HAZ PM-5 Property Assessment – Phase I and II ESAs
- HAZ PM-6 Demolition Plans
- HAZ PM-7 Disposal of Groundwater
- HAZ PM-8 Oil Well Abandonment
- HAZ PM-9 Contaminated Soil, Soil Vapor, and Groundwater
- Mitigation Measure HAZ-1 Unidentified Oil and Gas Wells

With implementation of these project measures and mitigation measure, impacts of construction of the LPA related to reasonably foreseeable upset and accident of hazardous materials will be less than significant because hazardous materials will be managed appropriately; property assessments (Phase I and II ESAs) will be completed prior to construction; the contractor will be prepared to encounter hazardous building materials and known or undocumented hazardous materials; impacted groundwater will be managed appropriately; CalGEM will be notified about the wells, and oil and gas wells will be abandoned appropriately.

With implementation of these project measure and mitigation measure, impacts during construction of the LPA will be less than significant.

Mitigation Measures

Mitigation Measure HAZ-1 (Unidentified Oil and Gas Wells)

Impacts Remaining After Mitigation

Less than significant impact.

7.4.2.3 Design Option: Close 186th Street

The impacts associated with the LPA with the design option are similar to those described above for the LPA without the design option.

General Hazardous Materials Conditions

During demolition, grading, or construction of the design option, the following hazardous materials could be disturbed, excavated, removed, and/or transported on public roads and highways:

- Known, potential, and historical concern sites (impacted soil)
- Lead-based paint and yellow paint striping
- Asbestos-containing materials
- Polychlorinated biphenyls
- Common railroad corridor contaminants
- Pesticides from agricultural uses

The General Hazardous Materials Conditions impacts listed above are discussed below.

Known, Potential, and Historical Concern Sites (impacted soil): Soils in the Affected Area of the design option may be affected by potential environmental concern sites. One historic environmental concern site is located within the design option Affected Area. The design option project footprint extends onto this historic environmental concern site, a reported former fueling facility at 18713 Corby Avenue, Artesia (Appendices A and B, site no. 811). Soils within the Affected Area of the design option may contain hazardous materials such as VOCs, petroleum hydrocarbons, pesticides and herbicides, PAHs, and heavy metals, including lead and arsenic. During construction, the materials described above will be disturbed and handled onsite or loaded into trucks for offsite disposal or recycling, which could result in a potential health risk to construction workers and nearby residents and/or the public, as discussed in Section 7.3.2.1.

LBP, ACM, and PCBs: LBP and yellow paint striping, ACM, and PCBs will likely be encountered during demolition of structures present in the Affected Area of the design option, as shown in the ROW plans. Additionally, soil surrounding structures containing LBP, ACM, and PCBs may be contaminated. During construction the materials described above will be disturbed and handled onsite or loaded into trucks for offsite disposal or recycling, which could result in a potential health risk to construction workers and nearby residents and/or the public, as discussed in Section 7.3.2.4, subheading LBP, ADL, asbestos/ACM, PCBs.

Railroads: Soil and/or groundwater in the Affected Area of the design option may also be affected by common railroad corridor contaminants and chemically treated railroad ties. The Affected Area of the design option is located adjacent to current and historical railroad corridors that may contain hazardous materials such as petroleum hydrocarbons, pesticides and herbicides, PAHs, and heavy metals, including lead and arsenic. During construction, the materials described above will be disturbed and handled onsite or loaded into trucks for offsite disposal or recycling, which could result in a potential health risk to construction workers and nearby residents and/or the public, as discussed in Section 7.3.2.4, subheading Railroads.

Pipelines: Hazardous material pipelines containing petroleum hydrocarbons are not present within the Affected Area of the design option.

Agriculture: The disturbance of historical agricultural locations may result in effects related to pesticides, arsenic, and lead. The presence of historical agricultural areas within the Affected Area of the design option were not identified through historical aerial photograph review; however, the records reviewed only date back to 1963. During construction, the materials described above will be disturbed and handled onsite or loaded into trucks for offsite disposal or recycling, which could result in a potential health risk to construction workers and nearby residents and/or the public, as discussed in Section 7.3.2.4, subheading Agriculture.

Impact/Measures Discussion

The following required project measures and mitigation measure will minimize the risk of exposure of the public and the environment to hazardous materials used during construction of the design option; refer to Sections 8.1.2 and 8.2.2 for a description of each project measure and mitigation measure.

- HAZ PM-4 Handling, Storage, and Transport of Hazardous Materials or Wastes
- HAZ PM-5 Property Assessment – Phase I and II ESAs

- HAZ PM-6 Demolition Plans
- HAZ PM-7 Disposal of Groundwater
- HAZ PM-8 Oil Well Abandonment
- HAZ PM-9 Contaminated Soil, Soil Vapor, and Groundwater
- Mitigation Measure HAZ-1 Unidentified Oil and Gas Wells

With implementation of these project measures and mitigation measure, impacts of construction of the design option related to the accidental upset or accident of hazardous materials would be less than significant because hazardous materials would be managed appropriately; property assessments (Phase I and II ESAs) would be completed prior to construction; the contractor would be prepared to encounter hazardous building materials and known or undocumented hazardous materials; and impacted groundwater would be managed appropriately.

Mitigation Measures

Mitigation Measure HAZ-1 Unidentified Oil and Gas Wells

Impacts Remaining After Mitigation

Less than significant impact.

7.4.2.4 Maintenance and Storage Facility

The impacts associated with the MSF are similar to those described above for the LPA.

General Hazardous Materials Conditions

During demolition, grading, or construction of the MSF, the following hazardous materials could be disturbed, excavated, removed, and/or transported on public roads and highways:

- Known, potential, and historical concern sites (impacted soil)
- Lead-based paint and yellow paint striping
- Asbestos-containing materials
- Polychlorinated biphenyls
- Common railroad corridor contaminants
- Pesticides from agricultural uses
- Hazardous material (liquid) pipeline utility corridor contaminants

The General Hazardous Materials Conditions impacts listed above are discussed below.

Known, Potential, and Historical Concern Sites (impacted soil): Soils in the Affected Area of the MSF may also be affected by known, potential, and/or historical concern sites. Three historical concern sites located within the Affected Area of the MSF are listed and mapped in Appendices A and B. Soils within the Affected Area of the MSF may contain hazardous materials such as VOCs, petroleum hydrocarbons, pesticides and herbicides, PAHs, and heavy metals, including lead and arsenic. During construction, the materials described above will be disturbed and handled onsite or loaded into trucks for offsite disposal or recycling, which could result in a potential health risk to construction workers and nearby residents and/or the public, as discussed in Section 7.3.2.1.

LBP, ACM, and PCBs: LBP and yellow paint striping, ACM, and PCBs will likely be encountered during demolition of industrial, commercial, and residential structures in the Affected Area of the MSF, as shown in the ROW plans. Additionally, soil surrounding structures containing LBP, ACM, and PCBs may be contaminated. During construction, the materials described above will be disturbed and handled onsite or loaded into trucks for offsite disposal or recycling, which could create a health risk to construction workers and nearby residents and/or the public, as discussed in Section 7.3.2.4, subheading LBP, ADL, asbestos/ACM, PCBs.

Railroads: Soil and/or groundwater in the Affected Area of the MSF may also be affected by common railroad corridor contaminants and chemically treated railroad ties. The Affected Area of the MSF is located adjacent to current and historical railroad corridors that may contain hazardous materials such as petroleum hydrocarbons, pesticides and herbicides, PAHs, and heavy metals, including lead and arsenic. During construction, the materials described above will be disturbed and handled onsite or loaded into trucks for offsite disposal or recycling, which could result in a potential health risk to construction workers and nearby residents and/or the public, as discussed in Section 7.3.2.4, subheading Railroads.

Pipelines: Five liquid hazardous material pipelines containing petroleum hydrocarbons are present within the Affected Area of the MSF, as listed in Table 4.1. The relocation or disturbance of these pipelines could create a health risk to construction workers and nearby residents or the public through the disturbance of impacted soil, soil vapor, and/or groundwater. As required by California law, Government Code 4216, Underground Service Alert (a utility marking service) will be notified prior to the commencement of any subsurface excavation. Therefore, these pipeline risks will be reduced.

During construction, impacted soil and/or groundwater will be disturbed and handled onsite or loaded into trucks for offsite disposal or recycling, which could result in a potential health risk to construction workers and nearby residents and/or the public, as discussed in Section 7.3.2.4, subheading Pipelines.

Agriculture: The disturbance of historical agricultural locations may also result in effects related to pesticides, arsenic, and lead. The presence of historical agricultural areas within the Affected Area of the MSF were identified through historical aerial photograph review. The excavation or grading of soils containing pesticides and metals could create a health risk to construction workers and nearby residents or the public through the disturbance of impacted soil and/or groundwater. During construction the materials described above will be disturbed and handled onsite or loaded into trucks for offsite disposal or recycling, which could result in a potential health risk to construction workers and nearby residents and/or the public, as discussed in Section 7.3.2.4, subheading Agriculture.

Impact/Measures Discussion

The following required project measures and mitigation measure will minimize the risk of exposure of the public and the environment to hazardous materials used during construction of the MSF; refer to Section 8.1.2, for a description of each project measure and mitigation measure.

- HAZ PM-4 Handling, Storage, and Transport of Hazardous Materials or Wastes
- HAZ PM-5 Property Assessment – Phase I and II ESAs
- HAZ PM-6 Demolition Plans

- HAZ PM-7 Disposal of Groundwater
- HAZ PM-8 Oil Well Abandonment
- HAZ PM-9 Contaminated Soil, Soil Vapor, and Groundwater
- Mitigation Measure HAZ-1 Unidentified Oil and Gas Wells

With implementation of these project measures and mitigation measure, impacts of construction of the MSF related to the upset or accident of hazardous materials will be less than significant because hazardous materials will be managed appropriately; property assessments (Phase I and II ESAs) will be completed prior to construction; the contractor will be prepared to encounter hazardous building materials and known or undocumented hazardous materials; and impacted groundwater will be managed appropriately.

Mitigation Measures

Mitigation Measure HAZ-1 Unidentified Oil and Gas Wells

Impacts Remaining After Mitigation

Less than significant impact.

7.4.3 Threshold HAZ-CON-3: Would the Project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

7.4.3.1 No Project Alternative

Under the No Project Alternative, the LPA would not be implemented, no changes would occur within the Affected Area, and no direct effects associated with construction of the LPA would occur. Significant effects would not occur under the No Project Alternative, although remediation of existing contamination that could take place in conjunction with construction of the LPA would not occur either. Therefore, the No Project Alternative would not result in any of the potential long-term benefits of the LPA.

Mitigation Measures

No mitigation measures are required.

Impacts Remaining After Mitigation

Less than significant impact.

7.4.3.2 Locally Preferred Alternative

There are 45 educational facilities located within 0.25 mile of the Affected Area for hazards and hazmat [educational facilities] for the LPA. Construction of the LPA will not emit hazardous materials or require handling of hazardous or acutely hazardous materials, substances, or wastes within 0.25 mile of an existing or proposed school during construction. Therefore, impacts will be less than significant.

Mitigation Measures

No mitigation measures are required.

Impacts Remaining After Mitigation

Less than significant impact.

7.4.3.3 Design Option: Close 186th Street

One educational facility is located within the Affected Area for hazards and hazmat (educational facilities) in the vicinity of the design option; this educational facility is also in the Affected Area for hazards and hazmat associated with the LPA in this location. Consistent with construction of the LPA without the design option, construction of the LPA with the design option would not emit acutely hazardous emissions or require handling of acutely hazardous materials, substances, or wastes within 0.25 mile of an existing or proposed school during construction. Therefore, impacts would be less than significant.

Mitigation Measures

No mitigation measures are required.

Impacts Remaining After Mitigation

Less than significant impact.

7.4.3.4 Maintenance and Storage Facility

Two educational facilities are located within 0.25 mile of the MSF; these two schools are also located within 0.25 mile of the LPA. Construction of the MSF will not emit acutely hazardous materials or require handling of acutely hazardous materials, substances, or wastes within 0.25 mile of an existing or proposed school during construction. Therefore, impacts will be less than significant.

Mitigation Measures

No mitigation measures are required.

Impacts Remaining After Mitigation

Less than significant impact.

7.4.4 Threshold HAZ-CON-4: Would the Project 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?

7.4.4.1 No Project Alternative

Under the No Project Alternative, the LPA would not be implemented, no changes would occur within the Affected Area, and no direct effects associated with construction of the LPA would occur. Significant effects would not occur under the No Project Alternative, although remediation of existing contamination that could take place in conjunction with project construction would not occur either. Therefore, the No Project Alternative would not result in any of the potential long-term benefits of the LPA.

Mitigation Measures

No mitigation measures are required.

Impacts Remaining After Mitigation

Less than significant impact.

7.4.4.2 Locally Preferred Alternative

The LPA is located near three Government Code Section 65962.5 (Cortese) hazardous material sites: (the Jervis site, the Cooper Drum site, and the Southern Avenue Industrial Area site). However, there is only one location where any portion of the LPA's footprint will be located on a Cortese site: TPSS Site #10 will be located on the Jervis site, and one groundwater well at the Jervis site is located immediately east of TPSS Site #10 near Firestone Boulevard. Additionally, the LPA, is located near known, potential, and/or historical environmental concern sites that are similar to Cortese sites in that hazardous materials are or may be present onsite.

Construction of the LPA may occur at other possible release or concern locations as described in this analysis. Identified environmental concern sites that may contain or be affected by hazardous materials are included in the Table of Environmental Concern Sites in Appendix B of this report.

A total of 307 environmental concern sites have been identified in the Affected Area for hazards and hazmat associated with the LPA, as follows:

- 59 known release sites
- 96 potential concern sites
- 152 historical concern sites

The properties with known releases of hazardous materials to soil, groundwater, surface water, and/or soil vapor, which may require hazardous material management and/or special design features or long-term monitoring, are listed in Appendix B and described in Appendix G of this report.

Impact/Measures Discussion

Potential impacts from construction of the LPA with regard to Cortese and environmental concern sites include the potential exposure of construction workers or members of the public to chemical compounds in soils, soil gases, and groundwater, and exposure of workers, the public, and the environment to airborne chemical compounds migrating from the demolition, grading, or construction areas. Soil disturbance such as trenching, digging, and/or grading in contaminated areas could create situations where exposure could occur.

Construction activities could also encounter contaminants or interfere with the ongoing remediation efforts at some facilities. For example, a groundwater monitoring well may need to be relocated prior to construction, which will interfere with ongoing remediation efforts at a Cortese and environmental concern site. Unless construction activities are properly coordinated with those site remediation activities, there could be a temporary increased risk of damage to or interference with ongoing site remediation activities such as soil containment areas, or potential negative influences on the control of impacted groundwater due to construction dewatering activities.

Further, construction activities could result in the discovery of unanticipated contamination at known release sites, potential environmental concern sites, or historical environmental concern sites (as identified in Section 4.15).

Project-related effects of hazardous waste containing chemical compounds would generally be limited to areas where the materials would be excavated, handled, and stored because

potential exposure would most likely occur in these areas. The size of these impacted areas would depend upon the volume and nature of the release materials and the general condition of the release site (e.g., paved, unpaved, sloped, flat, bermed). The individuals most at risk will be construction workers, operations personnel, or others in the immediate vicinity during excavation, transportation, or storage of the hazardous wastes, or during demolition and construction. The exposure pathways through which these individuals could be exposed include inhalation, ingestion, dermal contact, or injection.

However, construction contractors will be required to implement federal and state handling and disposal regulations, which will reduce the risk of exposure of the public and the environment to hazardous materials during transport and disposal of hazardous contaminants encountered during construction. Compliance with existing federal regulations pertaining to hazardous material handling, transport, and disposal, as discussed in Section 2 and required by the following project measures, will reduce the risk of exposure of the public and the environment to hazardous materials used during construction; refer to Section 8.1.2, for a description of each project measure.

- HAZ PM-4 Handling, Storage, and Transport of Hazardous Materials or Wastes
- HAZ PM-5 Property Assessment – Phase I and II ESAs
- HAZ PM-7 Disposal of Groundwater
- HAZ PM-9 Contaminated Soil, Soil Vapor, and Groundwater

With implementation of these measures, the risk of exposure of the public or the environment to hazardous materials encountered during construction of the LPA will be less than significant because hazardous materials will be managed appropriately; property assessments (Phase I and II ESAs) will be completed prior to construction; impacted groundwater will be managed appropriately; and the contractor will be prepared to encounter known or undocumented hazardous materials.

Mitigation Measures

No mitigation measures are required.

Impacts Remaining After Mitigation

Less than significant impact.

7.4.4.3 Design Option: Close 186th Street

No Cortese hazardous materials sites compiled pursuant to Government Code Section 65962.5 are located in proximity to the design option. No impacts would occur related to significant hazard to the public or the environment from hazardous materials sites compiled pursuant to Government Code Section 65962.5. However, construction activities could result in the discovery of unanticipated contamination at historical environmental concern sites (as identified in Section 4.15). Therefore, as described above, construction contractors would be required to implement federal and state handling and disposal regulations in addition to the following project measures.

- HAZ PM-4 Handling, Storage, and Transport of Hazardous Materials or Wastes
- HAZ PM-5 Property Assessment – Phase I and II ESAs
- HAZ PM-7 Disposal of Groundwater
- HAZ PM-9 Contaminated Soil, Soil Vapor, and Groundwater

With implementation of these measures, the risk of exposure to the public or the environment to hazardous materials encountered during construction of the LPA would be less than significant.

Mitigation Measures

No mitigation measures are required.

Impacts Remaining After Mitigation

Less than significant impact.

7.4.4.4 Maintenance and Storage Facility

No Cortese hazardous materials sites compiled pursuant to Government Code Section 65962.5 are located in the MSF site. No impacts would occur related to significant hazard to the public or the environment from hazardous materials sites compiled pursuant to Government Code Section 65962.5. However, construction activities could result in the discovery of unanticipated contamination at historical environmental concern sites (as identified in Section 4.15). Therefore, as described above, construction contractors will be required to implement federal and state handling and disposal regulations in addition to the following project measures.

- HAZ PM-4 Handling, Storage, and Transport of Hazardous Materials or Wastes
- HAZ PM-5 Property Assessment – Phase I and II ESAs
- HAZ PM-7 Disposal of Groundwater
- HAZ PM-9 Contaminated Soil, Soil Vapor, and Groundwater

With implementation of these measures, the risk of exposure to the public or the environment to hazardous materials encountered during construction of the LPA will be less than significant.

Mitigation Measures

No mitigation measures are required.

Impacts Remaining After Mitigation

Less than significant impact.

7.4.5 Threshold HAZ-CON-5: 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 or excessive noise for people residing or working in the Project area?

No airports are located within 2 miles of the LPA, design option, or MSF site; therefore, no impacts related to safety hazards at airports will occur from construction of the LPA.

7.4.6 Threshold HAZ-CON-6: Would the Project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The CEQA determinations for this potential impact are discussed in Section 7.4 of the *West Santa Ana Branch Transit Corridor Project Final Safety and Security Impact Analysis Report* (Metro 2024a).

7.4.7 Threshold HAZ-CON-7: Would the Project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

The No Project Alternative would not result in hazards related to wildland fires. No wildlands are located in the vicinity of the LPA, design option, or MSF site; therefore, no impact will occur from construction of the LPA.

8 PROJECT MEASURES AND MITIGATION MEASURES

The project measures included or referenced in this report have been updated since the Draft EIS/EIR. The Draft EIS/EIR indicated that Mitigation Measure GEO-1 (Hazardous Gas [Operations]) and Mitigation Measure GEO-5 (Gas Monitoring [Construction]) would be implemented during operation and construction, respectively, to reduce potential landfill/soil vapor impacts. However, these two measures were removed from the Final EIS/EIR as they are not relevant to the LPA. However, what were included in the Draft EIS/EIR as Project Measure HAZ PM-3 (Contaminated Soil, Soil Vapor, and Groundwater [Operation]) and Project Measure HAZ PM-9 (Contaminated Soil, Soil Vapor, and Groundwater), have been updated to reduce potential landfill/soil vapor impacts associated with operation and construction of the LPA, respectively.

The Draft EIS/EIR also identified two mitigation measures to reduce impacts associated with the use of hazardous materials on educational facilities, Mitigation Measure HAZ-1 (Hazardous Materials and Nearby Educational Facilities [Operation]) and Mitigation Measure HAZ-2 (Hazardous Materials and Nearby Educational Facilities [Construction]). However, it has since been determined that the use of extremely hazardous materials in quantities equal to or greater than the state threshold quantity specified in subdivision (j) of Section 25532 of the Health and Safety Code will not be used during operation or construction of the LPA. Therefore, these mitigation measures have been eliminated from the Final EIS/EIR. One mitigation measure applicable to the LPA has been developed since the Draft EIS/EIR. Mitigation Measure HAZ-1 (Unidentified Oil and Gas Wells) was developed based on Metro's experience with other projects that had the potential for unidentified oil and gas wells. This measure will be implemented during construction of the LPA to reduce potential impacts if unidentified oil and gas wells are identified. The likelihood of encountering unidentified oil or gas wells during construction of the LPA has not changed since circulation of the Draft EIS/EIR.

8.1 Project Measures

This analysis evaluates the LPA's potential effects related to or resulting from hazardous materials and wastes under NEPA and CEQA. This analysis also considers potential effects of the LPA's transport and use of hazardous materials and generation of hazardous wastes on the surrounding environment. These operational project measures are based on federal, state, and/or local regulations currently in place and are considered to be part of the LPA. Metro will ensure that the project measures are implemented as regulated and will reduce hazardous material effects during operation of the LPA.

8.1.1 Operation

The following project measures are recommended for the LPA to reduce potential adverse operational effects to no adverse effects:

HAZ PM-1 Handling, Storage, and Transport of Hazardous Materials or Wastes (Operation)

During operation of the LPA, hazardous materials may be temporarily stored, handled, or transported along the alignment, including at the MSF.

As required by Metro, the operator will provide an industrial waste management plan and/or waste and hazardous materials management plan, such as a plan defined in Title 19 California Code of Regulations or a Spill Prevention, Control, and Countermeasure Plan prior to the start of revenue service. This plan will identify the responsible parties and outline procedures for hazardous waste and hazardous materials handling, storage, and transport during operation of the LPA. The plan will be prepared to Metro's contractor specifications, submitted to Metro prior to operation, and will be implemented during operation. The plan will:

- Comply with prescribed BMPs to prevent hazardous material releases and cleanup of any hazardous material releases that occur
- Comply with the SWRCB Construction CWA Section 402 General Permit conditions and requirements for transport, labeling, containment, cover, and other BMPs for storage of hazardous materials (SWRCB 2017)

Ground-disturbing activities could occur along the LPA if trenches or other soil-disturbing activities are needed to maintain or replace the rails or underground rail features or utilities. If ground-disturbing activities occur during operation and undocumented hazardous materials are identified, the operator will comply with the plan identified above for known contaminant sources and applicable federal and state regulations, such as RCRA, CERCLA, the Hazardous Materials Release Response Plans and Inventory Law, and the Hazardous Waste Control Act.

HAZ PM-2 Disposal of Groundwater (Operation)

If disposal of contaminated groundwater is required during operation of the LPA, (decontamination water, purge water, dewatering, etc.), the LARWQCB will be consulted and Metro will comply with permits as required by the LARWQCB. LARWQCB may require that an individual National Pollutant Discharge Elimination System (NPDES) permit and/or waste discharge requirements (WDR) be obtained for dewatering and discharge activities. Additionally, the following agencies will be contacted as needed:

- City of Los Angeles Sanitation will be notified if contaminated groundwater will be discharged to the sewer system.
- City of Vernon Health and Environmental Control Department (VHECD) will be contacted if contaminated groundwater will be discharged to the stormwater system.
- County of Los Angeles Department of Public Health (DPH) will be contacted if contaminated groundwater is encountered during dewatering within the boundaries of the following cities: Huntington Park, Bell, Cudahy, South Gate, Downey, Paramount, Bellflower, Cerritos, Artesia, and the unincorporated community of Florence-Firestone.

The groundwater discharge and disposal requirements vary by agency, location, concentration, and contaminant of concern and are therefore developed in consultation with the agency and the project proponent.

HAZ PM-3 Contaminated Soil, Soil Vapor, and Groundwater (Operation)

Prior to the start of operation of the LPA, the operator will retain a qualified environmental consultant to prepare a Soil Management Plan, Soil Vapor Management Plan (and/or Landfill Gas Accumulation Management Plan), Soil Reuse Management Plan, and

Groundwater Management Plan or a combined Soil, Soil Vapor, Soil Reuse, and Groundwater Management Plan to address the possibility of encountering soil, soil vapor, and groundwater during operation. These plans will be completed to Metro's contractor specifications and submitted to Metro prior to operation and any ground-disturbing activities for the LPA.

Depending on the overall design of the LPA, contaminated soil, soil vapor, and/or groundwater may be encountered during normal operation of the LPA (dewatering or soil vapor venting) or during repairs and maintenance along the alignment that involve disturbance of soil, soil vapor, or groundwater (trenching, potholing, utility repairs).

The Soil and Soil Vapor Management Plans (and/or Landfill Gas Accumulation Management Plan) must establish provisions per Metro's contractor specifications for the disturbance of contaminated materials (known and undocumented). Proper management and disposition of contaminated soils and gases will be determined in consultation with appropriate regulatory agencies and in accordance with applicable federal and/or state guidance (USEPA, DTSC, RWQCB, and other local agencies).

The Soil Reuse Management Plan must establish provisions per Metro's contractor specifications for the reuse of contaminated known or undocumented soils. Proper management and disposition of contaminated soils will be determined in consultation with appropriate regulatory agencies and in accordance with applicable federal and/or state guidance (USEPA, DTSC, RWQCB, and other local agencies).

The Groundwater Management Plan must establish provisions per Metro's contractor specifications for encountering and managing contaminated groundwater (known and undocumented). Proper disposal of contaminated groundwater will be determined in consultation with appropriate regulatory agencies and in accordance with applicable federal and/or state guidance (USEPA, DTSC, RWQCB, and other local agencies).

Where open or closed regulatory release cases are already managed by a regulatory agency (e.g., USEPA, DTSC, RWQCB) and Metro's operation involves plans to alter the use of the site and/or disturb contaminated soil and/or groundwater onsite, Metro will notify the regulatory agency of the planned land use changes prior to ground-disturbing activities at the location of the open or closed regulatory release site. The regulatory agency will determine the level of investigation and/or remediation (performance standards) necessary on a case-by-case basis. A closure or no further action determination letter from the regulatory agency will be obtained when investigation and/or remediation is complete.

8.1.2 Construction

The following project measures are recommended for all sections of the Affected Area for hazards and hazmat to reduce potential adverse construction effects to no adverse effects:

HAZ PM-4 Handling, Storage, and Transport of Hazardous Materials or Wastes

Prior to the start of construction, the contractor will provide Metro with an industrial waste management plan and/or a waste and hazardous materials management plan, such as a plan defined in Title 19 California Code of Regulations or a Spill Prevention, Control, and Countermeasure Plan. These plans will be completed to Metro's contractor specifications and will identify the responsible parties and outline procedures for hazardous waste and

hazardous materials handling, storage, and transport during construction. The plan will specify how the contractor will handle and manage wastes onsite, including:

- Prescribe BMPs to follow to prevent hazardous material releases and cleanup of any hazardous material releases that may occur
- Comply with the SWRCB Construction CWA Section 402 General Permit conditions and requirements for transport, labeling, containment, cover, and other BMPs for storage of hazardous materials during construction (SWRCB 2017)

During construction, the contractor will comply with applicable federal and state regulations that consider hazardous material handling and storage practices, such as RCRA, CERCLA, the Hazardous Materials Release Response Plans and Inventory Law, and the Hazardous Waste Control Act.

HAZ PM-5 Property Assessment – Phase I and II ESAs

Consistent with Metro's standard practice, prior to the start of construction, the contractor must provide Phase I ESAs in accordance with standard ASTM methodologies to assess the land use history of each parcel that will be acquired/utilized for the LPA, including the railroad corridor properties. The determination of parcels that require a Phase II ESA (i.e., soil, groundwater, soil vapor subsurface investigations) will be evaluated after the Phase I ESAs have been completed and will be based on the results of the Phase I ESAs. Specifically, if the Phase I ESAs identify suspected contamination in the soil, soil vapor, or groundwater, a Phase II ESA will be conducted to determine whether the suspect contamination had resulted in soil, groundwater, or soil vapor contamination exceeding regulatory action levels.

If the Phase II ESA concludes that the site is contaminated, remediation or corrective action (e.g., removal of contamination, in-situ treatment, capping, venting, monitoring, alarm and system activation measures) will be conducted prior to or during construction under the oversight of federal, state, and/or local agencies (e.g., USEPA, DTSC, RWQCB, Los Angeles County) and in full compliance with current and applicable federal and state laws and regulations. Additionally, Voluntary Cleanup Agreements may be used for parcels where remediation or long-term monitoring is necessary.

HAZ PM-6 Demolition Plans

The contractor will prepare demolition plans for the safe dismantling and removal of building components and debris prior to construction. The demolition plans will be completed to Metro's contractor specifications and will include the following:

- LBP testing and abatement procedures
- Proper procedures for handling and disposal of lead and chromium in roadway paint striping
- ACM testing and abatement procedures
- PCB testing and abatement procedures

The demolition plans will be submitted to Metro for verification that appropriate demolition practices will be followed, consistent with federal and state handling and disposal regulations regarding ACM, lead, LBP, and PCBs.

HAZ PM-7 Disposal of Groundwater

If disposal of contaminated groundwater (decontamination water, purge water, dewatering, or underground structures [groundwater leakage into the final structure]) is generated during construction , the LARWQCB will be consulted and the Project will comply with permits as required by the LARWQCB. LARWQCB may require that an individual NPDES permit and/or waste discharge requirements be obtained for dewatering activities. Additionally, the following agencies will be contacted as needed:

- City of Los Angeles Sanitation will be notified if contaminated groundwater will be discharged to the sewer system.
- City of Vernon Health and Environmental Control Department (VHECD) will be contacted if contaminated groundwater will be discharged to the stormwater system.
- County of Los Angeles Department of Public Health (DPH) will be contacted if contaminated groundwater is encountered during dewatering within the boundaries of the following cities: Huntington Park, Bell, Cudahy, South Gate, Downey, Paramount, Bellflower, Cerritos, Artesia, and the unincorporated community of Florence-Firestone.

The groundwater discharge and disposal requirements vary by agency, location, concentration, and contaminant of concern and are therefore developed in consultation with the appropriate agency and the project proponent.

HAZ PM-8 Oil Well Abandonment

The Well Safety Devices for Critical Wells CCR, Title 14, Section 1724.3 regulation governs safety devices required on "critical wells" located within 100 feet of an operating railway. Therefore, prior to demolition, grading, or construction within 400 feet of operating or abandoned oil wells the contractor must perform the following steps in the Affected Area (within 200 feet of the LPA footprint) to reduce risk:

- Notify CalGEM about planned subsurface work within 200 feet of the LPA footprint and utilize their Construction Site Review Plan Program to locate wells (CalGEM 2023).
- "Critical" oil wells within 100 feet of the alignment will be evaluated by CalGEM to determine if they require additional safety features. The definition of a critical oil well is set forth in California Code of Regulations, Title 14, section 1720(a).
- The Department of Conservation's Geologic Energy Management Division (CalGEM, formerly DOGGR) Construction Site Well Review Program will be utilized per Section 3208.1 of the PRC (CalGEM 2023) and the local permitting agencies will also be consulted to evaluate whether any specific preconstruction requirements will apply to oil wells located within 100 feet of the construction footprint.
- Oil well abandonment must proceed in accordance with California Laws for Conservation of Petroleum and Gas (1997), Division 3. Oil and Gas, Chapter 1. Oil and Gas Conservation, Article 4, Sections 3228, 3229, 3230, and 3232 of the Public Resources Code. These requirements include written notification to CalGEM, protection of adjacent property, and before commencing any work to abandon any well, obtaining approval by CalGEM.
- Abandonment work, including sealing off oil and gas bearing units, pressure grouting, etc., must be performed by a state-licensed contractor under the regulatory oversight and approval of CalGEM.

Proper abandonment of oil wells must be conducted by the contractor prior to conducting subsurface activities that disturb soil, and documentation of the work completed will be provided to Metro. Documented wells in the Affected Area for hazards and hazmat and undocumented oil and gas wells encountered during construction will also be subject to this project measure. See Mitigation Measure HAZ-1 (Unidentified Oil and Gas Wells) for undocumented well procedures (Section 8.2.2).

HAZ PM-9 Contaminated Soil, Soil Vapor, and Groundwater

Prior to the start of construction, the contractor must retain a qualified environmental consultant to prepare a Soil Management Plan, Soil Reuse Management Plan, Groundwater Management Plan, Landfill Gas Accumulation Management Plan, and/or Soil, Soil Vapor, and Groundwater Management Plan. These plans must be completed to Metro's contractor specifications and submitted to Metro prior to any ground-disturbing activities for the LPA. Alternatively, soil, soil vapor, and/or groundwater plans may be prepared separately or together as a Soil, Soil Vapor, and Groundwater Management Plan.

The Soil and Soil Vapor Plans (and/or Landfill Gas Accumulation Management Plan) must establish provisions per Metro's contractor specifications for the disturbance of contaminated materials (known and undocumented). Proper management and disposition of contaminated soils gases will be determined in consultation with appropriate regulatory agencies and in accordance with applicable federal and/or state guidance (USEPA, DTSC, RWQCB, and other local agencies).

The Soil Reuse Management Plan must establish provisions per Metro's contractor specifications for the reuse of contaminated known or undocumented soils. Proper management and disposition of contaminated soils will be determined in consultation with appropriate regulatory agencies and in accordance with applicable federal and/or state guidance (USEPA, DTSC, RWQCB, and other local agencies).

The Groundwater Management Plan, which must be prepared prior to construction activities, will establish provisions per Metro's contractor specifications for encountering and managing contaminated groundwater (known and undocumented). Proper disposal of contaminated groundwater will be determined in consultation with appropriate regulatory agencies and in accordance with applicable federal and/or state guidance (USEPA, DTSC, RWQCB, and other local agencies).

Where open or closed regulatory release cases are already managed by a regulatory agency (USEPA, DTSC, RWQCB, etc.) and Metro plans to alter the use of the site and/or disturb contaminated soil and/or groundwater onsite, Metro will notify the regulatory agency of the planned land use changes prior to ground-disturbing activities at the location of the open or closed regulatory release site. The regulatory agency will determine the level of investigation and/or remediation (performance standards) necessary on a case-by-case basis. A closure or no further action determination letter from the regulatory agency will be obtained when investigation and/or remediation is complete.

8.2 Mitigation Measures

8.2.1 Operation

There are no hazardous material operational mitigation measures for the Affected Area.

8.2.2 Construction

Mitigation Measure HAZ-1 (Unidentified Oil and Gas Wells) is recommended for all sections of the Affected Area for hazards and hazmat to reduce potential adverse construction effects to no adverse effects:

HAZ-1 Unidentified Oil and Gas Wells

If an unknown oil and gas well is encountered during construction, the contractor will notify Metro, California Division of Occupational Safety and Health, and the California Department of Conservation Geologic Energy Management Division (CalGEM) and proceed in accordance with state requirements. The requirements include written notification to CalGEM, protection of adjacent property, and before commencing any work to abandon any well, obtaining approval by CalGEM. Abandonment work, including sealing off oil and gas bearing units, pressure grouting, etc., must be performed by a state-licensed contractor under the regulatory oversight and approval of CalGEM.

Where the Locally Preferred Alternative cannot be adjusted to avoid unidentified abandoned wells, the California Department of Conservation (Department of Oil, Gas, and Geothermal Resources) and a re-abandonment specialty contractor will be contacted to determine the appropriate method of re-abandoning the well. Oil well abandonment must proceed in accordance with California Laws for Conservation of Petroleum and Gas (1997), Division 3. Oil and Gas, Chapter 1. Oil and Gas Conservation, Article 4, Sections 3228, 3229, 3230, and 3232.

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