3 AFFECTED ENVIRONMENT, ENVIRONMENTAL CONSEQUENCES, AND MITIGATION MEASURES

3.10 Hazardous Materials and Wastes

3.10.1 Introduction

PURPOSE

Hazardous Materials and Wastes

The presence or release of hazardous materials on construction sites can expose workers, residents, and other ecosystems to contaminants that may compromise their health. As a result, evaluation of the potential for rail projects to affect or be affected by hazardous material sites is required by regulation.

Section 3.10, Hazardous Materials and Wastes, of the Los Angeles to Anaheim Project Section (project section) Environmental Impact Report (EIR)/Environmental Impact Statement (EIS) analyzes the potential impacts of the No Project Alternative and the High-Speed Rail (HSR) Project Alternatives, otherwise called Shared Passenger Track Alternative A and Shared Passenger Track Alternative B, and discusses impact avoidance and minimization features (IAMF) that would avoid, minimize, or reduce these impacts. Mitigation measures are proposed to further reduce, compensate for, or offset impacts of the Shared Passenger Track Alternatives. Section 3.10 also defines the hazardous materials analyzed and describes the affected environment in the resource study areas (RSA).

Section 3.10.5, Affected Environment, describes the affected environment for hazardous materials for each alternative. Impact summaries and conclusions for the Shared Passenger Track Alternatives are presented below in Section 3.10.6, Environmental Consequences. The National Environmental Policy Act (NEPA) Effects Summary (Section 3.10.8) summarizes the impacts and compares them to the anticipated impacts of the No Project Alternative. The California Environmental Quality Act (CEQA) Significance Conclusions (Section 3.10.9) provides a summary of CEQA determination of significance for construction and operational impacts.

The following technical reports, available by request to the California High-Speed Rail Authority (Authority), serve as the basis for the information in this section:

- *Los Angeles to Anaheim Project Section Hazardous Materials and Wastes Technical Report* (Authority 2025a)
- *Los Angeles to Anaheim Project Section Supplement to the Hazardous Materials and Wastes Technical Report* (Authority 2025b)

Additional details on hazardous materials are provided in the following appendices in Volume 2 of this Draft EIR/EIS:

- Appendix 2-A, Impact Avoidance and Minimization Features
- Appendix 2-B, Applicable Design Standards
- Appendix 3.1-A, Regional and Local Policy Inventory and Consistency Analysis
- Appendix 3.10-A, Potential Environmental Concern Sites and Figures

This section includes detailed analysis of environmental resources, affected environment, environmental consequences, and mitigation measures based on the guidance provided in *Project Environmental Impact Report/Environmental Impact Statement Environmental Methodology Guidelines*, Versions 5.9 and 5.11 as amended (Authority 2017, 2022). Nine other resource sections in this Draft EIR/EIS provide additional information related to hazardous materials:

- **Section 3.3**, **Air Quality and Global Climate Change:** Construction and operational changes from the Shared Passenger Track Alternatives from hazardous air emissions.
- **Section 3.5, Electromagnetic Fields and Electromagnetic Interference:** Construction and operational changes from the Shared Passenger Track Alternatives related to the potential for electromagnetic fields and interference with or corrosion of underground pipelines and cables to the adjoining rail.

- **Section 3.6, Public Utilities and Energy:** Construction and operational changes related to construction and operations of the Shared Passenger Track Alternatives overlying existing underground pipelines and landfills.
- **Section 3.8, Hydrology and Water Resources:** Construction and operational changes from the Shared Passenger Track Alternatives related to contamination of surface water and groundwater, as well as natural phenomena, such as flooding.
- **Section 3.9, Geology, Soils, Seismicity, and Paleontological Resources:** Construction and operational changes from the Shared Passenger Track Alternatives to soil erosion and stability that could affect hazardous materials and waste sites, as well as effects from natural phenomena, such as earthquakes.
- **Section 3.11, Safety and Security:** Construction and operational changes from the Shared Passenger Track Alternatives to emergency response preparedness in the event of leaks, spills, or accidents involving hazardous materials.
- **Section 3.13, Station Planning, Land Use, and Development:** Construction and operational changes from the Shared Passenger Track Alternatives to land use patterns and development.
- **Section 3.17, Cultural Resources:** Construction and operational changes from the Shared Passenger Track Alternatives to resources with cultural or historical significance.
- **Section 3.19, Cumulative Impacts:** Construction and operational changes from the Shared Passenger Track Alternatives to other past, present, and reasonably foreseeable future projects.

3.10.1.1 Definition of Resources

The following are definitions for hazardous materials, wastes, and substances analyzed in this Draft EIR/EIS.

Hazardous materials: Hazardous materials are those that, because of quantity, concentration, or physical or chemical characteristics, pose a substantial present or potential hazard to human health and safety, or to the environment, if released. Hazardous materials include, but are not limited to, hazardous substances, hazardous wastes, and materials 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(n)(1)). Petroleum products (including crude oil and refined products such as fuels and lubricants) and natural gas are considered in this analysis because they might also pose a hazard to human health and safety if released into the environment. The term *hazardous materials* includes hazardous wastes, hazardous substances, and extremely hazardous substances as defined below.

- **Hazardous wastes:** In general, a solid waste is defined as a hazardous waste when it qualifies as a waste (i.e., is no longer of use and will be disposed of) and exhibits a hazardous waste characteristic (e.g., toxicity, ignitability, reactivity, or corrosivity) or when it has been specifically listed as hazardous in federal or state law or regulation. Hazardous waste is regulated by the U.S. Environmental Protection Agency (USEPA) under the Resource Conservation and Recovery Act (RCRA). Federal hazardous wastes are often referred to as RCRA wastes. California hazardous waste law and regulation is in some cases more stringent than the federal law and, as a result, wastes may be defined as California hazardous wastes, but not be RCRA wastes; as such, they may, but not necessarily, be identified as non-RCRA hazardous wastes. Hazardous wastes discussed in this document are classified as such based on the California definition.
- **Hazardous substances:** The term *hazardous substance* refers to any substance or mixture of substances that (1) is toxic; (2) is corrosive; (3) is an irritant; (4) is a strong sensitizer; (5) is flammable or combustible; or (6) generates pressure through decomposition, heat, or other

means. Hazardous substances may cause substantial personal injury or substantial illness during, or as a proximate result of, any customary or reasonably foreseeable handling or use, including reasonably foreseeable ingestion by children, as defined in the California Health and Safety Code (California Health and Safety Code, Section 108125). Hazardous substances include petroleum products, certain radioactive substances, and certain substances that present an electrical, mechanical, or thermal hazard. There is no single list of hazardous substances to reference.

- **Extremely hazardous substances:** Extremely hazardous substances are subject to additional regulation if they exceed thresholds specified in the regulations. The extremely hazardous substances analyzed in this document are listed in Section 302 of the U.S. Emergency Planning and Community Right-to-Know Act (42 U.S. Code [U.S.C.] Section 11002). The list is provided as an appendix to 40 Code of Federal Regulations (CFR) Part 355 or in the California Code of Regulations, Title 8, Appendix A to Section 5189.

3.10.2 Laws, Regulations, and Orders

This section describes the federal, state, and local laws, regulations, orders, and plans that are relevant to hazardous materials, including hazardous wastes. General NEPA and CEQA requirements for assessment and disclosure of environmental impacts are described in Section 3.1, Introduction, and are therefore not restated in this resource section. NEPA and CEQA requirements specific to the evaluation of hazardous materials are, however, described in this section.

In California, hazardous materials are subject to federal and state requirements by statute and regulation. Federal and state requirements for hazardous materials overlap considerably, but California requirements are typically more stringent. Below is a summary of the applicable federal and state hazardous materials laws and regulations. For activities involving handling hazardous materials, applicable occupational safety and health requirements must be followed.

3.10.2.1 Federal

There are numerous federal laws and regulations relating to the identification, generation, transport, storage, handling, treatment, and disposal of hazardous materials. Hazardous materials used, stored, and managed, and hazardous wastes generated, stored, and disposed of during project construction and operation may be subject to one or more of the following laws and implementing regulations. The following list of laws is considered in this evaluation as likely applicable to the project.

NEPA (42 U.S.C. 4321 et seq.)

NEPA requires the consideration of potential environmental effects in the evaluation of a proposed federal agency action. NEPA also obligates federal agencies to consider the environmental consequences in their projects and programs as part of the planning process.

Federal Railroad Administration, Procedures for Considering Environmental Impacts (64 *Federal Register* 28545)

On May 26, 1999, the Federal Railroad Administration (FRA) released Procedures for Considering Environmental Impacts (FRA 1999). These FRA procedures describe the FRA's process for assessing the environmental impacts of actions and legislation proposed by the agency and for the preparation of associated documents (42 U.S.C. 4321 et seq.). The FRA Procedures for Considering Environmental Impacts states that "the EIS should identify any significant changes likely to occur in the natural environment and in the developed environment. The EIS should also discuss the consideration given to design quality, art, and architecture in project planning and development as required by U.S. Department of Transportation Order 5610.4." These FRA procedures state that an EIS should consider possible impacts on public safety, including impacts caused by hazardous materials.

Resource Conservation and Recovery Act (42 U.S.C. 6901 et seq.)

The RCRA regulates the identification, generation, transportation, storage, treatment, and disposal of solid and hazardous wastes and cleanup of sites contaminated with hazardous wastes. This law's regulations are contained in 40 CFR Parts 239–282.

Comprehensive Environmental Response, Compensation, and Liability Act (42 U.S.C. 9601 et seq.)

The Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) regulates former and newly discovered uncontrolled waste disposal and spill sites. The act established the National Priorities List of contaminated sites and the "Superfund" cleanup program. This law's regulations are contained in 40 CFR Parts 300–374.[1]

Clean Air Act (42 U.S.C. 7401 et seq.)

The Clean Air Act is a law that regulates air emission sources for the purposes of improving air quality and protecting the ozone layer (40 CFR Parts 50–99). This law regulates numerous sources of air emissions, including construction equipment, operation of stationary and mobile sources, and asbestos. Stationary sources include emergency generators, boilers, fume exhaust hoods, and other industrial equipment, which may be subject to control technologies as detailed in facility-specific operating permits. Mobile sources of emissions include cars, trucks, aircraft, marine vessels, and off-road engines and vehicles (e.g., forklifts, excavators) and most requirements for mobile sources must be met by equipment manufacturers and fuel refineries. Asbestos is identified as a hazardous pollutant under the air toxics provisions of the Clean Air Act (40 CFR Part 61, Subpart M). These regulations specify work practices and disposal methods for asbestos during demolitions and renovations of all facilities including, but not limited to, structures, installations, and buildings (excluding residential buildings with four or fewer dwelling units). The regulations require a thorough inspection where the demolition or renovation operation will occur.

Clean Water Act, National Pollution Discharge Elimination System (33 U.S.C. 1342)

The Clean Water Act regulates discharges and spills of pollutants, including hazardous materials, to surface waters and groundwater. Relevant regulations include 40 CFR Parts 110, 112, 116, 117, and 122 to 131.

Safe Drinking Water Act (42 U.S.C. 300(f) et seq.)

The Safe Drinking Water Act regulates discharges of pollutants to underground aquifers and establishes standards for drinking water quality. This law's regulations are contained in 40 CFR Parts 141–147.

Toxic Substances Control Act (15 U.S.C. 2601 et seq.)

The Toxic Substances Control Act regulates manufacturing, inventory, and disposition of industrial chemicals including hazardous materials as well as cleanup and disposal of media contaminated with polychlorinated biphenyls (PCB). This law's regulations are contained in 40 CFR Parts 700–799.

[1] While this EIR/EIS was being prepared, perfluorooctanoic acid (i.e., PFOA), perfluorooctanesulfonic acid (i.e., PFOS), and their salt and structural isomers were designated as hazardous substances under the Comprehensive Environmental Response, Compensation, and Liability Act (effective July 8, 2024). This addition is in the revised Table 302.4 in 40 CFR Part 302 and these substances have a statutory reportable quantity of 1 pound within a 24-hour period. The rulemaking listed five broad categories of entities potentially affected by this designation, including manufacturers, processors, downstream users, products, waste management facilities, and wastewater treatment facilities. All citations to Comprehensive Environmental Response, Compensation, and Liability Act regulations in this environmental document refer to the pre-2024 version of 40 CFR Part 302.

Federal Insecticide, Fungicide and Rodenticide Act (7 U.S.C. 136 et seq.)

The Federal Insecticide, Fungicide and Rodenticide Act regulates the manufacturing, distribution, sale, and use of pesticides. This law's regulations are contained in 40 CFR Parts 150–180.

Hazardous Materials Transportation Act (49 U.S.C. 5101 et seq. and 49 CFR Parts 101, 106, 107, and 171-180)

The Hazardous Materials Transportation Act regulates the transport of hazardous materials by motor vehicles, marine vessels, and aircraft. It establishes procedures and policies on the proper handling of hazardous materials, requires material designations and labeling during transport, establishes packaging requirements, and establishes operational rules that govern the transportation process from pick-up to delivery.

Hazardous Materials Transportation Uniform Safety Act of 1990 (Public Law 101-615)

The Hazardous Materials Transportation Uniform Safety Act regulates the safe transport of hazardous material in intrastate, interstate, and foreign commerce. The statute includes provisions to encourage uniformity among 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. This law's regulations are contained in 49 CFR Parts 100–185.

Emergency Planning and Community Right-to-Know Act (42 U.S.C. 11001 et seq.)

The Emergency Planning and Community Right-to-Know Act regulates facilities that use hazardous materials in quantities that require reporting to emergency response officials. This law's regulations are contained in 40 CFR Parts 355–372.

Federal Compliance with Pollution Control (Executive Order 12088)

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

3.10.2.2 State

There are numerous state laws and regulations relating to the identification, generation, transport, storage, handling, treatment, and disposal of hazardous materials, including hazardous wastes. The following list of laws and regulations is considered in this evaluation as likely to be applicable to the project.

Environmental Health Standards for the Management of Hazardous Waste (California Code of Regulations, Title 22, Division 4.5)

This regulation includes California waste identification and classification requirements. California Code of Regulations, Title 22, Chapter 11, "Soluble Threshold Limits Concentrations/Total Threshold Limits Concentration Regulatory Limits," identifies the concentrations at which soil is determined to be a California hazardous waste.

Well Safety Devices for Critical Wells (California Code of Regulations, Title 14, Section 1724.3)

This regulation governs safety devices required on "critical wells" within 100 feet of an operating railway.

Gas Monitoring and Control at Active and Closed Disposal Sites (California Code of Regulations, Title 27, Section 20917 et seq.)

The regulations in Article 6 set forth the performance standards and the minimum substantive requirements for landfill gas monitoring and control as it relates to active solid waste disposal sites and proper closure, post-closure maintenance, and ultimate reuse of solid waste disposal sites to ensure that public health and safety and the environment are protected from pollution caused by the disposal of solid waste.

Closure and Post Closure Maintenance of Landfills (California Code of Regulations, Title 27, Subchapter 5)

This regulation provides post-closure maintenance guidelines, including requirements for an emergency response plan and site security. 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 the site must maintain the integrity of the final cover, drainage and erosion control systems, and gas monitoring and control systems. Post-closure land use within 1,000 feet of a landfill site must be approved by the local enforcement agency.

Construction Safety Orders (California Code of Regulations, Title 8, Division 1, Chapter 4, Subchapter 4)

The California Division of Occupational Safety and Health, better known as Cal-OSHA, protects and improves the health and safety of working men and women in California and the safety of passengers riding on elevators, amusement rides, and tramways through the following activities: setting and enforcing standards; providing outreach, education, and assistance; and issuing permits, license, certifications, registrations, and approvals. California Health and Safety Code Section 39658(b)(1) establishes the Asbestos National Emissions Standards for Hazardous Air Pollutants as an airborne toxic control measure (California Health and Safety Code 1975). The Asbestos National Emissions Standards for Hazardous Air Pollutants protect the public and environment by minimizing the release of asbestos fibers during renovation and demolition activities.

California Assembly Bill 148 of 2021 (California Public Resources Code Section 21151.4)

This code requires the lead state agency for the environmental review process to consult with any school district with jurisdiction over a school within 0.25 mile of a proposed project. The consultation should address impacts on the school if the project might reasonably be anticipated to emit hazardous air pollutants or handle an extremely hazardous substance or a mixture containing an extremely hazardous substance.

Porter-Cologne Water Quality Control Act (California Water Code Section 13000 et seq.)

The Porter-Cologne Water Quality Control Act (Water Code Section 13000 et seq.) (SWRCB 2025) regulates water quality through the State Water Resources Control Board (SWRCB) and Regional Water Quality Control Boards, including oversight of water monitoring and contamination cleanup and abatement.

Hazardous Materials Release Response Plans and Inventory Law (California Health and Safety Code Section 25500 et seq.)

This section of the California Health and Safety Code requires facilities using hazardous materials to prepare Hazardous Materials Business Plans.

Hazardous Substance Account Act (California Health and Safety Code Section 25300 et seq.)

The Hazardous Substance Account Act is California's equivalent to CERCLA. It addresses hazardous waste sites and apportions liability for them. This law also provides that owners are responsible for the cleanup of such sites and the removal of toxic substances, where possible.

Hazardous Waste Control Law (California Health and Safety Code, Section 25100 et seq.)

The Hazardous Waste Control Law, similar to the federal RCRA, regulates the identification, generation, transportation, storage, and disposal of materials deemed hazardous by the State of California.

Safe Drinking Water and Toxic Enforcement Act (Proposition 65, California Health and Safety Code, Section 25249.5 et seq.)

The Safe Drinking Water and Toxic Enforcement Act, similar to the Safe Drinking Water Act and Clean Water Act on the federal level, regulates the discharge of contaminants to groundwater.

Hazardous Waste and Substances Sites (Cortese) List (California Government Code, Section 65962.5)

This law requires the California Department of Toxic Substances Control (DTSC) to compile and maintain lists of potentially contaminated sites throughout the state (including the Hazardous Waste and Substances Sites List). This list is commonly referred to as the Cortese List, after the legislator who authored the original legislation.

Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (California Health and Safety Code, Division 20. Chapter 6.11. Section 25404 et seq.)

Senate Bill 1082, passed in 1993, created the Unified Hazardous Waste and Hazardous Materials Management Regulatory Program. The Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (California Environmental Protection Agency 2012) consolidates, coordinates, and makes consistent the administrative requirements, permits, inspections, and enforcement activities of six environmental and emergency response programs. The California Environmental Protection Agency and other state agencies set the standards for their programs, and local governments implement the standards. These local implementing agencies, called Certified Unified Program Agencies (CUPA), regulate facilities in their jurisdiction that treat or generate hazardous waste, operate underground storage tanks, or store hazardous materials. For each county, the CUPA regulates/oversees the following:

- Hazardous materials business plans
- California accidental release prevention plans or federal risk management plans
- The operation of underground storage tanks and aboveground storage tanks
- Universal waste and hazardous waste generators/handlers
- On-site hazardous waste treatment
- Inspections, permitting, and enforcement
- Proposition 65 reporting
- Emergency response

The CUPAs and CUPA Participating Agencies in Los Angeles County that would have jurisdiction over environmental matters associated with the Shared Passenger Track Alternatives consist of the following:

- Los Angeles County Fire Department – Health Hazardous Materials Division, which is the lead CUPA for the county
- Los Angeles County Department of Public Works
- City of Los Angeles Fire Department
- City of Santa Fe Springs Fire Department
- City of Vernon Health Department

The CUPAs and CUPA Participating Agencies in Orange County that would have jurisdiction over environmental matters associated with the Shared Passenger Track Alternatives consist of the following:

- Orange County Health Care Agency – Environmental Health Division, which is the lead CUPA for the county
- City of Anaheim Fire Department
- City of Fullerton Fire Department

A business that handles a hazardous material or hazardous waste of quantities at any one time during a year equal to or greater than a total volume of 55 gallons, a total weight of 500 pounds, or a total volume of 200 cubic feet of compressed gas is a hazardous materials handler and must report Owner/Operator, Business Activities, Inventory, Site Map, and Emergency Response and Contingency Plan and Employee Training Plan information in the California Environmental

Reporting System. Beyond the statewide regulations, CUPAs administer policies and regulations found in a number of local and regional plans (including general plans and municipal codes) that address hazardous materials, including hazardous wastes. Policies and regulations are intended as guides for the appropriate use of potentially hazardous materials, the cleanup of contaminated sites, and the preparation of emergency response plans.

3.10.2.3 Regional and Local

This section discusses relevant regional and local programs, policies, regulations, and permitting requirements. The project section would primarily be within Los Angeles and Orange Counties and the cities of Los Angeles, Vernon, Commerce, Bell, Montebello, Pico Rivera, Santa Fe Springs, Norwalk, La Mirada, Buena Park, Fullerton, and Anaheim. Local codes, plans, and policies that were identified and considered for analysis are listed in Table 3.10-1.

Table 3.10-1 Regional and Local Codes, Plans, and Policies

Policy Title	Summary
Los Angeles County	
Los Angeles County 2035 General Plan, Public Services and Facilities Element, Safety Element (2025)	The Public Services and Facilities Element contains the following policies: ▪ Policy PS/F 5.1: Maintain an efficient, safe and responsive waste management system that reduces waste while protecting the health and safety of the public. ▪ Policy PS/F 5.2: Ensure adequate disposal capacity by providing for environmentally sound and technically feasible development of solid waste management facilities, such as landfills and transfer/processing facilities. The Safety Element contains the following policies: ▪ Policy S 6.1: Assess public health and safety risks associated with existing oil and gas facilities in the unincorporated Los Angeles County. ▪ Policy S 7.8: Adopt by reference the County of Los Angeles All-Hazards Mitigation Plan, as amended.
Los Angeles County Operational Area Emergency Operations Plan (2023)	The Operational Area Emergency Operations Plan addresses the coordinated response to emergency situations associated with natural, human-made, and technological incidents in the operational area. The intent of the plan is to define responsibilities and to provide guidance to agencies/jurisdictions within the operational area on how to interface with the operational area coordinator during emergencies and disasters.
Los Angeles County All-Hazards Mitigation Plan (2020)	The All-Hazards Mitigation Plan sets strategies for coping with natural and human-made hazards faced by residents in the county including earthquake, flood, wildlife, and tsunami hazards as well as other nonsignificant hazards.
City of Los Angeles	
Los Angeles Municipal Code (2025)	▪ Section 57.105.6.17: Requires an operational permit to store, process, or use specific types of hazardous materials above ground. ▪ Section 57.105.7.1.1: Requires a Specific Action or Project Permit to erect, install or relocate any appliance, device, or system when such equipment is to be used in connection with hazardous materials, hazardous waste, or hazardous plastics. This applies to asbestos abatement.

Policy Title	Summary
City of Los Angeles General Plan, Safety Element (2024)	▪ 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 hazards is minimized. – 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 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.
City of Vernon	
The Code of the City of Vernon (2024)	Section 13.59: Establishes the responsibility for proper storage, handling, treatment, and disposal of hazardous materials.
City of Vernon General Plan, Safety Element (2023)	▪ GOAL S-1: Minimize the risk to public health, safety, and welfare associated with the presence of natural and human-caused hazards. ▪ 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-3.2: Require businesses handling, transporting, or producing materials considered acutely hazardous to prepare contingency plans for accidents involving these chemicals. ▪ Action S-8: Hazardous Waste. Continue to implement activities so that hazardous wastes generated by Vernon businesses are handled and disposed according to federal, state, and local regulations. Assist businesses and consultants in the preparation and oversight of site assessments and mitigation activities. To minimize present and future threats to human health and the environment, the program actively promotes waste reduction options for hazardous waste generators.
City of Vernon 2023 Local Hazard Mitigation Plan (2023)	The plan provides a set of action items to reduce risk from natural hazards through education and outreach programs and to foster the development of partnerships, and implementation of preventive activities such as land use programs that restrict and control development in areas subject to damage from natural hazards.
City of Commerce	
Commerce Municipal Code (2024)	Section 19.19.120: Sets forth the regulations and monitoring requirements for the use, storage, manufacture, and disposal of hazardous materials.
City of Commerce 2020 General Plan, Community Development Element, Health and Safety Element[1] (2008)	▪ Community Development Policy 1.8. The city of Commerce, in conjunction with the South Coast Air Quality Management District, the Environmental Protection Agency, the Los Angeles County Fire Department, and other public agencies, will work to reduce potential hazards and health risks associated with the use, storage, or manufacture of hazardous materials. ▪ Safety Policy 4.4. The city of Commerce will work with Federal, State, and County agencies, as well as the Industrial Council, to protect all city residents and workers from hazardous materials and the risks associated with the transportation of these materials. ▪ Safety Policy 4.7. The city of Commerce will establish an environmental review procedure that will assess the impact of new potentially hazardous industrial uses on adjacent residential neighborhoods. ▪ Safety Policy 4.9. The city of Commerce will encourage the proper disposal of hazardous waste materials produced, used, and stored within the city's limits.

Policy Title	Summary
City of Bell	
City of Bell Municipal Code (2024)	Section 13.08.110 (4, 6, and 9): Regulates the discharge of hazardous materials into the municipal storm drain system.
City of Bell 2030 General Plan, Health and Safety Element (2022)	▪ Health and Safety Element Policy 9: The City of Bell shall identify areas of high risk (high densities, older structures, fire hazards) so that disaster response may be prioritized. The City will also focus on potential sources of contamination, including lead and asbestos containing materials found in older buildings. These areas of risk must be identified in the City's Emergency Preparedness Plan. ▪ Health and Safety Policy 11: The City of Bell shall establish and enforce standards that are designed to reduce the level of risk. The City shall work with the Los Angeles County Fire Department and other public agencies to discuss both risk and emergency preparation. Finally, the City shall work with the Fire Department and the larger community to review, and if necessary, develop new standards.
City of Montebello	
Montebello Municipal Code (2024)	Sections 15.32.310 and 17.08.580: Regulate leaks and spills of combustible liquids and proper disposal of demolition debris
City of Montebello General Plan, Our Safe Community (2024)	▪ Policy 6.6: Minimize damage and maximize resilience from emergencies. – Action A6.6a: Consult and collaborate with federal, state, and regional agencies to identify and regulate the disposal and storage of hazardous materials and prevent the illegal transportation and disposal of hazardous waste. – Action A6.6b: Collaborate with appropriate agencies to identify and inventory all users and handlers of hazardous materials to proactively mitigate potential impacts. – Action A6.6c: Determine the presence of hazardous materials and/or waste contamination prior to approval of new uses and require that appropriate measures be taken to protect the health and safety of site users and the community. – Action A6.6e: Partner and collaborate with property owners, businesses, and community groups to develop strategies to protect and minimize risks from existing hazardous material sites to existing nearby sensitive uses.
City of Montebello Hazard Mitigation Plan (2017)	The plan provides a framework including identification of hazards, potential losses, mitigation needs, goals, and strategies for planning for natural hazards in the city.
City of Pico Rivera	
Pico Rivera Municipal Code (2025)	Section 10.60.030: Regulates the transport of hazardous materials

Policy Title	Summary
City of Pico Rivera General Plan, Community Facilities Element, Safety Element (2014)	The Community Facilities Element includes the following goal: ▪ Goal 6.7: Reduced solid waste generation and disposal, and increased recycling opportunities. The Safety Element includes the following goals and policies: ▪ Goal 9.3: Safe production, use, storage, and transports of hazardous materials. – Policy 9.3-1 Hazardous Materials Regulation. Coordinate with County, State and other applicable agencies to enforce pertinent laws, disclosures and siting requirements that regulate the production, use, storage, disposal, and transport of hazardous materials. – Policy 9.3-2 Hazardous Materials Uses. Ensure that land uses involved in the production, storage, transportation, handling, or disposal of hazardous materials are located and operated in a manner that minimizes risk to other land uses. – Policy 9.3-4 Site identification. Participate in efforts to identify sites previously used for hazardous materials handling, storage and disposal. – Policy 9.3-5 Known Areas of Contamination. Require new development in areas of known contamination to perform comprehensive soil and groundwater contamination assessments prior to development approvals. If contamination exceeds regulatory levels, require remediation procedures consistent with applicable regulations for the proposed use prior to any site disturbance. – Policy 9.3-6 Best Practices. Encourage industries, businesses and residents to utilize best practices and technologies that reduce the use of hazardous materials and generation of hazardous wastes.
City of Pico Rivera Hazard Mitigation Plan (2025)	The plan describes the process for reducing risk from hazards in the city by identifying resources, information, and strategies for risk reduction, and guides coordination of mitigation activities throughout the city.
City of Santa Fe Springs	
Code of Santa Fe Springs (2025)	Section 52.15 (4, 10): Regulates nonstormwater discharges to the storm drain system
Re-Imagine Santa Fe Springs 2040 General Plan, Safety Element (2022)	▪ Goal S-3: Minimize exposure of residents, businesses, and habitats to hazardous materials and their deleterious effects. – Policy S-3.2: Hazardous Materials Locations. Monitor and evaluate commercial and industrial uses that generate, store, and transport hazardous materials to determine the need for buffer zones or setbacks to minimize risks to residential neighborhoods, schools, parks, and community facilities. – Policy S-3.5: Contamination Protection. Protect natural resources— including groundwater—from hazardous waste and materials contamination. – Policy S-3.7: Contamination Remediation. Consult with the U.S. Environmental Protection Agency and responsible State agencies on the ongoing remediation and cleanup of contaminated properties and groundwater, with aim to recondition sites for productive land uses. – Policy S-3.10: Proper Hazardous Materials Management. Promote the proper collection, handling, recycling, reuse, treatment, and long-term disposal of hazardous waste from households, businesses, and government operations. – Policy S-7.7: Fire Prevention Services. Provide effective fire prevention services through the review of proposed development projects, evaluation of industrial operations and facilities, examination of the transport of hazardous materials, and identification of oil and gas pipeline networks.

Policy Title	Summary
City of Santa Fe Springs Natural Hazards Mitigation Plan (2004)	The plan describes the potential effects of earthquakes and floods and includes an assessment of these natural hazards, a plan to mitigate them, and methods of monitoring, evaluating, and updating the plan.
City of Norwalk	
Norwalk Municipal Code (2024)	Sections 17.02.120 and 18.04.170 (4, 10): Requires that land use decisions be consistent with the County of Los Angeles hazardous waste program, and regulates nonstormwater discharges to the storm drain system
Vision Norwalk – The City of Norwalk General Plan, Safety Element[1] (2023)	Safety Element Objective, Safety from Natural and Man-Made Hazards Objective: To avoid unnecessary exposure to hazards and continue operation of critical facilities after an emergency
City of La Mirada	
La Mirada Code of Ordinances (2024)	Sections 13.12.070 (4, 10) and 21.70.030 (b, c): Regulates nonstormwater discharges to the storm drain system, and accidental or intentional release or use of hazardous materials.
City of La Mirada General Plan, Safety and Community Services Element, Open Space and Conservation Element (2003)	▪ Policy 3.1 Cooperate with federal, State, and County agencies to reduce risks associated with the use and transport of hazardous materials ▪ Policy 3.2 Continue to inventory and identify the source of all hazardous materials stored, used, or transported in the City. ▪ Policy 4.3 Encourage and support the proper disposal of household hazardous waste and hazardous wastes from businesses in La Mirada.
City of La Mirada Natural Hazards Mitigation Plan (2004)	Includes resources and information for planning for natural hazards; mitigation for reducing risk and preventing loss; and action items for multi-hazard issues including earthquakes, flooding, landslides, and wildfires to guide the city toward building a disaster resistant community.
Orange County	
Codified Ordinances of the County of Orange (2024)	Section 3-13-4 (9): Regulates the disposal of hazardous materials

Policy Title	Summary
County of Orange General Plan, Safety Element (2025)	▪ Hazardous Materials Policy 1: To provide consultation, assistance, and education to the public, industries, and other agencies regarding the applicable laws and regulations of hazardous materials (including underground storage tanks), hazardous waste, medical waste, and nuclear materials. ▪ Hazardous Materials Policy 2: To respond to all emergency incidents to oversee and ensure that these incidents involving hazardous waste, and medical waste are properly mitigated. ▪ Hazardous Materials Policy 6: To implement and administer all mandated laws, regulations, and ordinances relating to hazardous materials, hazardous waste, and medical waste. ▪ Hazardous Materials Policy 8: To provide training to designated personnel to keep them up-to-date, regarding new equipment and technology, on the reduction of risks of hazardous materials (including those stored in underground storage tanks) hazardous waste, and medical waste. ▪ Public Safety Goal 2: Minimize the effects of public safety hazards through implementation of appropriate regulations and standards which maximize protection of life and property.
Orange County Local Hazard Mitigation Plan (2021)	Includes resources and information to assist interested parties in planning for natural hazards. The plan provides a list of activities aimed at reducing risk and preventing loss, and mitigation action items covering multi-hazard issues and specific activities for flood/storm, wildland fire, earthquakes, dam failure, epidemic, urban fire, vector control, mud/landslide, tornado, and tsunami to guide the county toward building a safer more sustainable community.
City of Buena Park	
Buena Park Municipal Code (2025)	Section 8.32.070: Outlines the requirements for handling of hazardous materials
Buena Park 2035 General Plan, Safety Element (2022)	▪ Goal SAF-4: Minimized threat to the public health and safety and to the environment posed by a release of hazardous materials. – Policy SAF-4.1: Strictly enforce Federal, State, and local laws and regulations relating to the use, storage, and transportation of toxic, explosive, and other hazardous and extremely hazardous materials to prevent unauthorized discharges.
City of Buena Park Hazard Mitigation Plan (2022)	Documents the city's mitigation planning process and identifies hazards, potential losses, mitigation needs, goals and strategies to reduce risk from hazards.
City of Fullerton	
Fullerton Municipal Code (2025)	Section 5.25.010: Outlines the city's process for hazardous materials cleanup
The Fullerton Plan, Integrated Waste Management Chapter (2025)	▪ P23.1.1 Regional Hazardous Waste Control. Support regional and subregional efforts to control and limit the amount of hazardous waste that is released into regional air basins and watersheds as well as limiting the transport of hazardous materials along certain corridors only. ▪ P23.2 Hazardous Waste Support projects, programs, policies and regulations to promote safe handling and disposal by households, businesses and City operations of solid waste which has specific disposal requirements. ▪ P23.3 Waste Reduction and Diversion Support projects, programs, policies and regulations to promote practices to reduce the amount of waste disposed in landfills.

Policy Title	Summary
Fullerton Local Hazard Mitigation Plan (2020)	The purpose of the plan is to reduce or eliminate long-term risk to people and property from hazards.
City of Anaheim	
Anaheim Municipal Code (2025)	Sections 6.11.080.030 and 6.11.100 (0.10,.0101,.0102,.0103,.070): Regulates the storing, handling, transporting, or release of hazardous materials
City of Anaheim General Plan, Safety Element (2025)	▪ Goal 4.1: A community better protected from the release and exposure to hazard materials and wastes. ▪ Goal 7.1: A city that can effectively respond and evacuate during hazard events. – Policy 3: Encourage businesses to utilize practices and technologies that will reduce the generation of hazardous wastes at the source. – Policy 4: Implement Federal, State and local regulations for the disposal, handling, and storage of hazardous materials. – Policy 5: Promote the recovery and recycling of hazardous materials.
Anaheim Local Hazard Mitigation Plan (2022)	Documents the city's mitigation planning process and identifies hazards, potential losses, mitigation needs, goals and strategies to reduce risk from hazards.

Sources: City of Anaheim 2022, 2025a, 2025b; City of Bell 2022, 2024; City of Buena Park 2022a, 2022b, 2025; City of Commerce 2008, 2024; City of Fullerton 2020, 2025a, 2025b; City of La Mirada 2003, 2004, 2024; City of Los Angeles 2024, 2025; City of Montebello 2017, 2024a, 2024b; City of Norwalk 2023, 2024; City of Pico Rivera 2014, 2025a, 2025b; City of Santa Fe Springs 2004, 2022, 2025; City of Vernon 2023a, 2023b, 2024; County of Los Angeles 2020, 2023, 2025; County of Orange 2024, 2025; County of Orange and Orange County Fire Authority 2021
[1] This plan is currently undergoing an update as of January 2025.

Regulatory Programs and Agencies

Regional and local agencies establish and implement regulatory programs to regulate, coordinate, and enforce the handling of hazardous materials and spill response. They are described below. Refer to Section 3.3.1 of the *Los Angeles to Anaheim Project Section Hazardous Materials and Wastes Technical Report* (Authority 2025a) for information on regional and local agencies in the project section that implement hazardous materials policies and enforce hazardous materials regulations.

3.10.3 Consistency with Plans and Laws

Section 3.1.5.3, Consistency with Plans and Laws, describes inconsistencies or conflicts between the HSR project and adopted regional or local plans or laws.

Several federal and state laws, listed in Section 3.10.2.1, Federal, and Section 3.10.2.2, State, pertain to hazardous materials. The Authority, as the lead state agency proposing to build and operate the HSR system, is required to comply with federal and state laws and regulations and to secure applicable federal and state permits prior to initiating construction of the project. Pursuant to U.S.C. Title 23 Section 327, under the NEPA Memorandum of Understanding between the FRA and the State of California, effective July 22, 2024, the Authority is the federal lead agency for environmental reviews and approvals for all Authority Phase 1 and Phase 2 California HSR System projects.

The Authority is a state agency and is therefore not required to comply with local land use and zoning regulations; however, it has endeavored to design and build the HSR project so that it is consistent with land use and zoning regulations. The Shared Passenger Track Alternatives would be consistent with all regional and local plans and policies reviewed.

3.10.4 Methods for Evaluating Impacts

The following sections summarize the RSAs and methods used to analyze impacts from hazardous materials. As summarized in Section 3.10.1, Introduction, nine other sections also provide information related to hazardous materials.

3.10.4.1 Definition of Resource Study Area

As defined in Section 3.1.5.4, Methods for Evaluating Impacts, RSAs are the geographic boundaries in which the Authority has conducted environmental investigations specific to each resource topic.

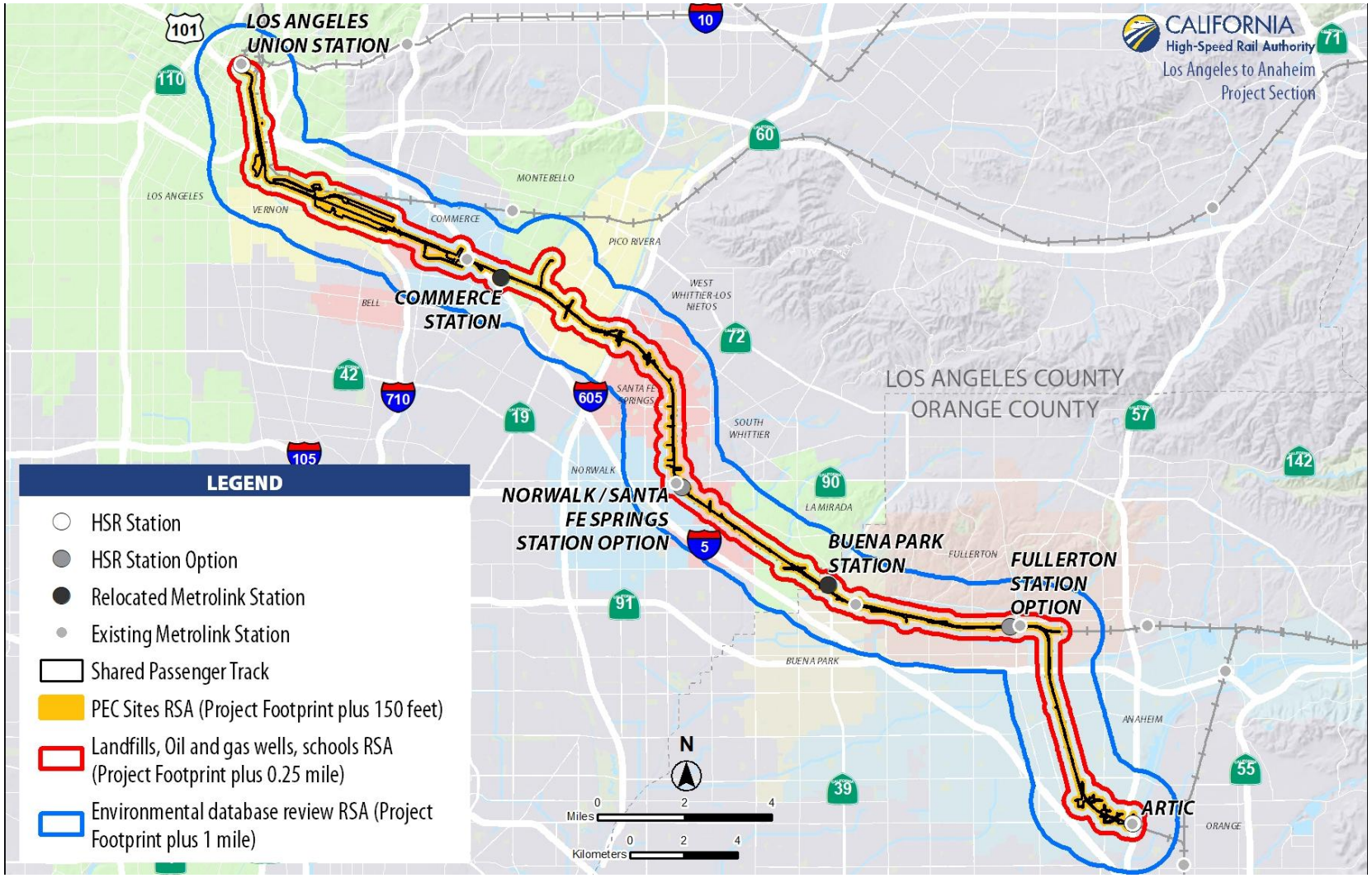
Table 3.10-2 provides general definitions and boundary descriptions for the RSAs for hazardous materials in the project section. The RSA boundaries are presented on Figure 3.10-1.

The environmental database review RSA extends up to 1 mile from the project footprint, consistent with ASTM International–specified minimum search distances for limited environmental due diligence (as noted in standard ASTM International Standards 1527-13 and 1528-14). Based on this review, sites of potential environmental concern (PEC) within the project footprint and a 150-foot buffer (i.e., the PEC sites RSA) were identified and evaluated to account for potential impacts from hazardous material on adjacent properties. For assessing impacts related to landfills, oil and gas wells, and schools, an RSA of the project footprint plus a 0.25-mile buffer is used. A description of each RSA buffer is included in the table below and the methodology is provided in more detail in Chapter 4 of the *Los Angeles to Anaheim Project Section Hazardous Materials and Wastes Technical Report* (Authority 2025a).

Table 3.10-2 Definition of Hazardous Materials Resource Study Areas

Name of the Resource Study Area	Resource Study Area Boundary (as applicable per ASTM Standard)
Environmental database review	Project footprint plus up to a 1-mile buffer to cover areas in the ASTM-specified minimum search distances for "limited environmental due diligence" (defined in ASTM Standard 1528-14), which is analogous to "all appropriate inquiries" per ASTM Standard 1527-13 and 40 CFR Part 312. Limited environmental due diligence is a process that evaluates possible or existing environmental contamination of a property.
PEC sites	Project footprint plus a 150-foot buffer from the project footprint to account for hazardous material (including hazardous wastes) issues on adjacent properties[1] in addition to the margin of error of plotted points in online regulatory databases. Properties include general hazardous materials sites and sites from the *Burbank to Los Angeles Project Section Hazardous Materials and Wastes Technical Report*.[2] PEC sites also include a subset of sites on the Cortese List (California Government Code, Section 65962.5).
Landfills	Project footprint plus a 0.25-mile buffer to cover areas in the ASTM-specified minimum search distances for "limited environmental due diligence" (defined in ASTM Standard 1528-14), and to account for the CEQA significance threshold for schools' proximity to hazardous air pollutants and extremely hazardous materials.
Oil and gas wells	
Schools	

[1] The project footprint includes all areas required to build, operate, and maintain all permanent high-speed rail facilities, including permanent right-of-way, permanent utility and access easements, and temporary construction easements.
[2] The previous Los Angeles to Anaheim Project Section alignment extended farther north, including Los Angeles Union Station. As such, a number of sites that were discussed/identified in the *Burbank to Los Angeles Project Section Hazardous Materials and Wastes Technical Report* were also discussed/identified in the draft *Los Angeles to Anaheim Project Section Hazardous Materials and Wastes Technical Report*. The current alignment for the Los Angeles to Anaheim Project Section does not include Los Angeles Union Station, because that was encompassed by the final *Burbank to Los Angeles Project Section Hazardous Materials and Wastes Technical Report*.
ASTM = ASTM International; CFR = Code of Federal Regulations; CEQA = California Environmental Quality Act; PEC = potential environmental concern



Source: ESRI 2025

Figure 3.10-1 Hazardous Materials and Wastes Resource Study Areas

3.10.4.2 Impact Avoidance and Minimization Features

The Shared Passenger Track Alternatives incorporate standardized HSR features that are considered to be part of the project to avoid and minimize impacts. These features are referred to as IAMFs. The Authority will incorporate IAMFs during project design and construction; therefore, the analysis of impacts of the Shared Passenger Track Alternatives in this section factors in applicable IAMFs. Appendix 2-A provides a detailed description of IAMFs that are included as part of project design. IAMFs applicable to hazardous materials include:

- **HMW-IAMF#1, Property Acquisition Phase I and Phase II Environmental Site Assessments, Additional Preconstruction Investigations, and Associated Actions to Control Site Contamination:** During the right-of-way acquisition phase, Phase I environmental site assessments (ESA) will be conducted in accordance with standard ASTM International methodologies, ASTM E 1527-21, or most recent applicable requirements, to characterize each parcel, including parcels at PEC sites. Parcels that require a Phase II ESA (e.g., soil, groundwater, soil vapor subsurface investigations) will be identified using information and data obtained in the Phase I ESAs. Phase II and subsequent investigation may require coordination with federal, state, and local agency officials, as well as other stakeholders. Depending on the arrangement negotiated during property acquisition, PEC sites with known or suspected contamination may be remediated prior to construction on the site. For sites that are not remediated prior to acquisition, data obtained during the Phase I ESA will be used to evaluate the need for and the extent of additional investigation. The Phase II ESA and any additional characterization data collected will be used to inform aspects of detailed project design and actions required during construction and operation of the project to protect human health and the environment from contaminants present on the parcels (e.g., targeted removal of contamination, in situ treatment, or soil capping). Project design details for construction at sites subject to cleanup or land use controls will be reviewed and approved by appropriate environmental oversight agencies. Design and other corrective actions required to protect human health and the environment will be coordinated with appropriate federal, state, and local agency officials and stakeholders (as necessary) and conducted in full compliance with recorded land use restrictions, applicable state and federal laws and regulations, and local ordinances. Controls necessary to protect workers, the public, and the environment from contamination discovered during the ESAs and preconstruction site investigations will be identified and are required to be implemented during construction in accordance with **HMW-IAMF#4**.
- **HMW-IAMF#2, Landfill:** The Authority is committed to ensuring that methane protection measures will be implemented. Prior to construction (any ground-disturbing activities), the Authority-designated contractor will verify to the Authority through preparation of a technical memorandum that methane protection measures will be implemented for all work (including the development of new structures) within 1,000 feet of a landfill, including gas detection systems and personnel training. This will be undertaken pursuant to State of California Title 27, Environmental Protection – Division 2, Solid Waste, and the hazardous materials best management practice (BMP) plan.
- **HMW-IAMF#3, Work and Vapor Barriers:** Prior to construction (any ground-disturbing activities), the Authority-designated contractor will verify to the Authority through preparation of a technical memorandum the use of work barriers. Nominal design variances, such as the addition of a plastic barrier beneath the ballast material to limit the potential release of volatile subsurface contaminants, may be implemented in conjunction with site investigation and remediation. Vapor barriers and associated venting systems determined to be necessary to prevent intrusion of hazardous concentrations of volatile compounds into occupied project structures (e.g., stations, tunnels) will be designed in accordance with standard engineering practices and reviewed and accepted by relevant stakeholders and regulatory agencies. Existing vapor barriers for controlling vapor intrusion at PEC sites will be protected during construction, and, if damaged, will be repaired or replaced in accordance with discussions and coordination with relevant stakeholders and regulatory agencies.

- **HMW-IAMF#4, Known, Suspected, and Unanticipated Environmental Contamination:** The Authority, or its Authority-designated design contractor, prior to completion of 30 percent design, will develop a soil management plan that incorporates information and data regarding known and suspected contamination obtained per **HMW-IAMF#1**. The plan will include requirements for protection of human health and the environment to be implemented by the Authority-designated construction contractor during construction on sites at which contamination is or may be present. The soil management plan will be reviewed and approved by appropriate agencies with oversight responsibilities for sites subject to cleanup or land use controls, and will be provided to the Authority-designated construction contractor, who shall be contractually obligated to meet the plan requirements.

  Prior to construction, the Authority-designated construction contractor, in accordance with the soil management plan, will prepare a Construction Management Plan (CMP) addressing provisions for the disturbance and handling of known, suspected, and unanticipated contamination; and protection of existing remedial systems and contamination controls (e.g., vapor barriers) where construction may affect or damage such systems and controls. The plan requires that an environmental professional provide oversight of activities that may result in encountering known or suspected contamination. The CMP requires the Authority-designated contractor to develop and implement site-specific health and safety protocols that address site hazards in compliance with California Division of Occupational Safety and Health regulations for handling contaminated media, including training of construction workers in hazard recognition and monitoring for hazardous contaminants to which workers may be exposed in areas where contamination is known or suspected based on data obtained under **HMW-IAMF#1**. Use of field screening equipment will be specified as appropriate based on data obtained under **HMW-IAMF#1** (e.g., for volatile organic vapors). The CMP will include specifications for controlling releases of contaminants or contaminated media during construction, including dust control, control of soil erosion and contaminated water runoff, vapor control, and testing and proper storage and disposal of excavated material. The CMP will include an effective monitoring and cleanup program for spills and leaks of any hazardous materials or contaminated media. Requirements for sampling and analysis of media suspected to be contaminated will be included in the CMP.

  For work at sites subject to contaminant cleanup, the CMP will be submitted, as required, to regulatory agencies with oversight authority for the cleanup and to stakeholders. The CMP will include requirements for notification by the Authority-designated contractor to the Authority, which will notify appropriate stakeholders and agencies of newly discovered contamination. The Authority will work closely with the stakeholders and regulatory agencies to resolve any such encounters and address necessary cleanup or disposal. Recordkeeping requirements will be specified in the CMP. For operations in areas with known and suspected contamination, the Authority will prepare and implement emergency response procedures that address the unlikely potential of a major hazardous materials release close to or in the vicinity of the project as required by federal, state, and local regulations. The CMP will be submitted to the Authority for review and approval.

  Copies of all documentation generated in accordance with the CMP, including monitoring and analytical results, will be provided to the Authority within 30 days of receipt of analytical results or encountering of apparent contaminated media (soil, groundwater, or vapor).

- **HMW-IAMF#5, Demolition Plans:** Prior to construction that involves demolition, the Authority-designated contractor will prepare demolition plans for the safe dismantling and removal of building components and debris. The demolition plans will include a plan for PCB, lead, and asbestos abatement. The plans will be submitted to the project construction manager on behalf of the Authority for verification that appropriate demolition practices have been followed consistent with federal and state regulations regarding asbestos and lead paint abatement.

- **HMW-IAMF#6, Spill Prevention:** Prior to construction (any ground-disturbing activities), the Authority-designated contractor will prepare a CMP addressing spill prevention. A Spill

Prevention, Control, and Countermeasure (SPCC) plan (or spill prevention and response plan if the total aboveground oil storage capacity is less than 1,320 gallons in storage containers greater than or equal to 55 gallons) will prescribe BMPs to follow to prevent hazardous material releases that may occur. Example BMPs would be: all containers are to remain tightly covered unless removing contents/adding to them; drums and other containers are not to be stacked; all containers with liquids are to have secondary containment; and a spill response/containment kit is to be available in the area where hazardous materials are stored. The plans will be prepared and submitted to the project construction manager on behalf of the Authority and will be implemented during construction.

- **HMW-IAMF#7, Storage and Transport of Materials:** During construction and operations, the Authority-designated contractor will comply with applicable state and federal regulations, such as the RCRA, CERCLA, the Hazardous Materials Release Response Plans and Inventory Law, the Hazardous Materials Transportation Act, and the Hazardous Waste Control Law. Prior to construction and operations, the Authority-designated contractor will provide the Authority with a hazardous materials and waste plan describing responsible parties and procedures for hazardous materials transport.
- **HMW-IAMF#8, Permit Conditions:** During construction and operation, the Authority-designated contractor will comply with the SWRCB Construction Clean Water Act Section 402 General Permit conditions and requirements for transport, labeling, containment, cover, and other BMPs for storage of hazardous materials during construction and operation. Prior to construction and operation, the Authority-designated contractor will provide the Authority with a hazardous materials and waste plan describing responsible parties and procedures for hazardous materials transport, containment, and storage BMPs that will be implemented during construction and operation.
- **HMW-IAMF#9, Environmental Management System:** To the extent feasible, the Authority is committed to identifying, avoiding, and minimizing hazardous materials in the material selection process for construction, operation, and maintenance of the HSR system. The Authority will use an Environmental Management System to describe the process that will be used to evaluate the full inventory of hazardous materials as defined by federal and state law employed on an annual basis and will replace hazardous materials with nonhazardous materials. The Authority-designated contractor will implement the material substitution recommendation contained in the annual inventory.
- **HMW-IAMF#10, Hazardous Materials Plans:** Prior to operations and maintenance (O&M) activities, the Authority will prepare hazardous materials monitoring plans. These will use a basis source, such as a hazardous materials business plan as defined in Title 19 California Code of Regulations and an SPCC plan.

In addition to the IAMFs described above, the following IAMFs are applicable to hazardous materials, including where these are naturally occurring, as noted. Please refer to Volume 2, Appendix 2-A for full descriptions of each IAMF listed below:

- **HYD-IAMF#1:** Stormwater Management
- **HYD-IAMF#3:** Prepare and Implement a Construction Stormwater Pollution Prevention Plan
- **SS-IAMF#4:** Oil and Gas Wells
- **GEO-IAMF#1:** Geologic Hazards
- **GEO-IAMF#3:** Gas Monitoring (applies to oil and gas field, landfills)

In Section 3.10.6, Environmental Consequences, each impact narrative describes how these project features are applicable and, where appropriate, effective at avoiding or minimizing potential impacts to less-than-significant levels under CEQA.

3.10.4.3 Methods for Impact Analysis

This section describes the sources and methods the Authority used to analyze potential impacts from hazardous materials, including hazardous wastes, that could be encountered or accidentally released during construction or operation of the HSR project. These sources and methods apply

to both NEPA and CEQA analyses unless otherwise indicated. Refer to Section 3.1.5.4 for a description of the general framework for evaluating impacts under NEPA and CEQA. Refer to the *Los Angeles to Anaheim Project Section Hazardous Materials and Wastes Technical Report* (Authority 2025a) for more information regarding the methods and data sources used in this analysis. Laws, regulations, and orders (refer to Section 3.10.2, Laws, Regulations, and Orders) that regulate hazardous materials (which include hazardous substances and hazardous wastes) were also considered in the evaluation of impacts from hazardous materials. An analysis of the potential for accidental release of hazardous materials during construction and operation of the project section assumed that laws and regulations pertaining to hazardous materials management would be complied with and that IAMFs would be implemented during design and construction. The analysis also includes reviews of data and impact analyses in other Draft EIR/EIS sections, as noted in Section 3.10.1.

Properties and landfills listed in government databases related to storage, handling, spills, releases, and cleanup of hazardous materials (hazardous substances and wastes) and petroleum hydrocarbons were evaluated. The list of these sites was obtained from Environmental Data Resources (renamed to EDR Lightbox), which maintains an extensive database of such properties. Other environmental database records (e.g., EnviroStor, GeoTracker) were also searched and evaluated along with other historical records, topographic maps, and aerial photographs for potential effects of known or suspected hazardous materials and waste at sites in the proximity of the project footprint. Sites where conditions that indicate the possibility of an existing release, a past release, or a threat of a release of the hazardous material into structures on the property or into soil, groundwater, or surface water of the property and where hazardous vapor are or may be present were identified as PEC sites.

A complete list of the sites obtained from Environmental Data Resources for the project is provided in the appendices of the *Los Angeles to Anaheim Project Section Hazardous Materials and Wastes Technical Report* (Authority 2025a), along with details about their evaluation. Orphan properties, those potentially contaminated sites for which there is inadequate or inaccurate information to allow for the sites to be geocoded and mapped at their appropriate location, were evaluated to the extent practicable; these sites are noted on figures with the labeling of orphan site (“O”), followed by orphan site number (“O-XX”).

In addition to regulatory database review, standard environmental record sources, consisting of historical aerial photographs, Sanborn fire insurance company maps, and historical topographic maps, were reviewed to develop a history of the previous land uses in the project section. The California Department of Conservation’s Geologic Energy Management Division (CalGEM) maps were also reviewed to determine the presence of oil fields and oil and gas wells near the project section. In addition, soil survey maps were reviewed to identify the types of naturally occurring rocks and soils in the project section to understand the likelihood of encountering naturally occurring hazardous materials (e.g., asbestos in serpentine rock formations). These records were viewed from north to south to identify features that may indicate past use or storage of hazardous materials within the environmental database review RSA. Such features included agricultural lands where pesticides and herbicides may have been applied, aboveground storage tanks where petroleum products may have been used and stored, airports, drilling derricks and retention ponds where petroleum products could have been released, and industrial properties where solvents, petroleum products, and hazardous substances may have been used and hazardous and extremely hazardous substances or wastes may have been stored or released.

The analysis documented in the *Los Angeles to Anaheim Project Section Hazardous Materials and Wastes Technical Report* (Authority 2025a) categorizes PEC sites as Category A (high priority), Category B (medium priority), or Category C (low priority), based on factors including affected media, contaminants of concern, cleanup status, and proximity to the Shared Passenger Track Alternatives. A subset of sites in the analysis were taken from the *Burbank to Los Angeles Project Section Hazardous Materials and Wastes Technical Report* (Authority 2021), and these sites are labeled as high risk, medium risk, or low risk to differentiate them from the other sites in the Environmental Data Resources report. Table 3.10-3 describes the ranking system applied to the identified PEC sites. For the purposes of the analysis carried forward from the technical report

to this EIR/EIS, potential impacts associated with implementation of the project on Category A (high priority), Category B (medium priority), or Category C (low priority) PEC sites are discussed further under Section 3.10.5.5, Potential Environmental Concern Sites, and under Impact HMW-4 and Impact HMW-10 (Authority 2025a).

Table 3.10-3 Potential Environmental Concern Sites' Ranking Criteria

PEC Rank	Ranking Criteria
Category A (high priority)	Properties identified by EDR, GeoTracker, or EnviroStor where a release of hazardous materials was reported within or adjoining areas of potential disturbance and an active assessment or remediation is in progress or a "no further action" designation has not been granted by regulatory agencies (Authority 2025a).
Category B (medium priority)	Properties identified by EDR, GeoTracker, or EnviroStor where a release of hazardous materials was reported within or adjoining areas of potential disturbance and a "no further action" designation has been granted by regulatory agencies or where known/existing dry cleaner facilities are in the project footprint or within 150 feet of it. Contamination may still be present at Category B sites but the closure was either risk based or predicated on the implementation of either engineering or administrative controls (Authority 2025a).
Category C (low priority)	Properties where no release of hazardous materials has been reported (Authority 2025a).
High risk	Review indicates that contamination is present and likely to be encountered during construction, or abatement of building materials may be required prior to construction (Authority 2021).
Medium risk	Review indicates that contamination is or may be present but is not likely to be encountered during excavation (Authority 2021).
Low risk	Review indicates that there is no contamination, and abatement of building materials would not be required (Authority 2021).

Sources: Authority 2021, 2025a
EDR = Environmental Data Resources; PEC = potential environmental concern; RSA = resource study area

To further evaluate site conditions, site reconnaissance of Category A, B, and C properties in Table 3.10-A1 of Appendix 3.10-A was conducted in 2016 and in 2023. PEC sites identified were subject to site reconnaissance, which was limited to viewing the PEC sites from public rights-of-way to confirm addresses and locations. Land use throughout the project alignment was confirmed during observations conducted in 2023. Dates of site visits are listed in Table 3.10-A1. Further site reconnaissance details (including methodology used) are found in Sections 4.2.4, Site Reconnaissance, and 5.5, Summary of Site Reconnaissance, of the *Los Angeles to Anaheim Project Section Hazardous Materials and Wastes Technical Report* (Authority 2025a). Aerial photography, maps, and project section CabCam[2] footage were also reviewed to obtain a general overview of current usage of properties adjoining/nearby the project section.

The 2015 to 2017 environmental database review was also updated in 2023 with an assessment of new data obtained from record searches via online sources (specifically GeoTracker and EnviroStor databases) and review of changed site conditions. Resulting PEC designations were modified, as applicable.

[2] A camera system mounted to a vehicle or train that records while the vehicle or train is moving.

A baseline assessment conducted in the project area did not include a survey to determine the potential presence of lead or asbestos. However, industrial, commercial, and residential structures along the project alignment were evaluated through review of historical aerial photographs; site visits were conducted in 2016 to confirm addresses, locations, and site use of properties within and near the project alignment. The *Los Angeles to Anaheim Project Section Hazardous Materials and Wastes Technical Report* (Authority 2025a) details this analysis. Because access to private property was limited, the assessors observed from public rights-of-way only. Some structures observed in the project area were built prior to 1970 and may, therefore, contain lead-based paint (LBP). A survey will be required to determine the presence of LBP, PCBs, and asbestos-containing material (ACM) in structures slated for demolition or remodeling. In addition, based on the location of the urbanized project footprint near highways, industrial areas, and the former Exide Technologies property, all areas are assumed to contain aerially deposited lead.

To evaluate potential impacts from hazardous materials on sensitive receptors near the project section, the Authority identified schools within 0.25 mile of the Shared Passenger Track Alternatives through the different school districts' websites. The Environmental Systems Research Institute geographic information systems database was searched to identify school sites within 0.25 mile of the project footprint. The school RSA was revised based on internal reviews and consistency with environmental methodology guidelines.

3.10.4.4 Method for Evaluating Impacts Under NEPA

NEPA implementing procedures, regulations, and guidance provide the basis for evaluating project effects (as described in Section 3.1.1.). The criteria of context and intensity are considered together when determining the severity of changes introduced by the project.

- **Context:** For the disturbance of existing hazardous waste sites or the introduction of hazardous materials during construction and operation of the project, the *context* would consider the presence of documented contaminated sites, the distance of such sites from the project footprint, the presence of sensitive receptors in the RSAs established for the alignment (refer to Table 3.10-2), the soil properties in which a hazardous materials release has occurred or could occur, the expected depth to and flow direction of groundwater, potential soil vapor impacts, and the presence of nearby surface waterbodies. For example, the use and transport of hazardous materials would be subject to more stringent regulations within 0.25 mile of a school than if schools were not present.
- **Intensity:** For this analysis, *intensity* is determined by the severity of the effect. An evaluation of intensity would consider the amount of hazardous materials present, the characteristics of the material, and whether engineering or administrative controls are in place to mitigate the potential exposure of humans or the environment to the material. For example, PEC sites that have large, mobile subsurface plumes of persistent contaminants would be considered to pose higher risk than PEC sites that have localized, immobile sources of hazardous materials.

3.10.4.5 Method for Determining Significance Under CEQA

CEQA requires that an EIR identify the significant environmental effects of a project (State CEQA Guidelines Section 15126). By contrast, under NEPA, significance is used to determine whether an EIS would be required; NEPA requires that an EIS is prepared when the proposed federal action (project) as a whole has the potential to "significantly affect the quality of the human environment." Accordingly, Section 3.10.9, CEQA Significance Conclusions, summarizes the significance of the environmental impacts related to hazardous materials for the Shared Passenger Track Alternatives. The Authority is using the following thresholds to determine if a significant impact related to hazardous materials would occur as a result of the Shared Passenger Track Alternatives. A significant impact is one that would:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;

- Create a significant hazard to the public or the environment as a result of the reasonably foreseeable upset and accident conditions that involve the release of hazardous materials into the environment;
- Be located on a site that is on the Cortese List and the project activities that take place on that site have the potential to create a significant hazard to the public or the environment as a result of the release of hazardous materials or wastes associated with the listed site; or
- Emit hazardous air emissions or handle extremely hazardous substances or mixtures containing extremely hazardous substances within 0.25 mile of a school and would pose a health and safety hazard to students or employees.

3.10.5 Affected Environment

This section describes the affected environment that provides context for the environmental analysis and evaluation of impacts associated with hazardous materials in the RSAs listed in Table 3.10-2 and presented on Figure 3.10-1, including areas with general environmental concerns involving transport, use, storage, and disposal of hazardous materials; potential hazardous substances in building materials, associated with road and railway corridors, naturally occurring asbestos; landfills; oil and gas wells; PEC sites; and schools.

Content in the affected environment takes into account issues and concerns gleaned during public outreach, which can be found in Chapter 9, Public and Agency Involvement.

Appendix 3.10-A presents an overview figure of the project section and detailed maps depicting PEC sites along the project alignment.

The project section is within an existing railroad corridor where freight and passenger rail operate, and it overlies existing utility corridors and is near industrial facilities. Older building or structures and roadways in and near the project section may contain ACM, LBP, or PCBs. Such constituents are considered harmful to human health or the environment. Constituents that may be present in the project section are discussed below.

3.10.5.1 Transport, Use, Storage, and Disposal of Hazardous Materials and Wastes

The project section is within an existing railroad corridor where freight and passenger rail is operated by Los Angeles County Metropolitan Transportation Authority (Metro), BNSF Railway (BNSF), Amtrak, and Union Pacific Railroad (UPRR). It is also near major truck routes, such as Interstates (I-) 5, 10, and 215, and State Route (SR) 66. Hazardous materials, including hazardous wastes, and petroleum products are routinely shipped along these transportation corridors. In addition, hazardous material transport to and storage at landfill and recycling facilities and industrial facilities is assumed along and in the vicinity of the project section.

3.10.5.2 Potential Hazardous Substances in Roads and Railroad Corridor

Yellow paint and tape used for pavement marking before 1997 likely contain lead that could exceed the hazardous waste criteria for lead under California Code of Regulations, Title 22. These materials would require disposal at a Class I/II disposal facility authorized to accept this type of waste. In addition, ACM may be found in roadway materials, such as expansion joints used before the 1980s in pavement.

Leaded gasoline was used as a vehicle fuel in the United States through the 1980s. Lead emitted from vehicles during this time has been deposited on soils along roadways, as has lead emitted from industrial operations, and is termed *aerially deposited lead*. Surface and near-surface soils along heavily used roadways and near industrial facilities with lead in their processes have the potential to contain elevated lead concentrations.

Other contaminants common in railway corridors include wood preservatives (e.g., creosote, arsenic, and pentachlorophenol) in railroad ties and heavy metals in ballast rock. ACM may also occur in ballast rock and soils associated with railroad tracks. These materials may occur in the

project alignment because it is within an existing freight and passenger rail corridor. In addition, herbicide residues may be present in soils in and adjacent to these rail corridors as a result of historical and ongoing weed control.

3.10.5.3 Potential Hazardous Substances at Utility Corridors

The project alignment and nearby areas contain public utilities associated with urban areas. Hazardous substances common in utility corridors include PCBs, classified as chlorinated hydrocarbons, which were manufactured from 1929 until their production was banned in 1979. PCBs were used in hundreds of industrial and commercial applications because of their nonflammability, chemical stability, high boiling point, and electrical insulating properties. Equipment that might contain PCBs includes electrical transformers and capacitors, motor oil and hydraulic fluid, and thermal insulation material (e.g., fiberglass, felt) (USEPA 2016c). The site reconnaissance observed the presence of equipment with potential to contain PCBs that were likely manufactured before 1976. Therefore, PCBs may be present within the project alignment.

3.10.5.4 Naturally Occurring Hazards

Naturally occurring asbestos includes fibrous minerals found in certain types of rock formations (e.g., serpentinite, green schist). Natural weathering or human disturbance of the rocks can break naturally occurring asbestos down to microscopic fibers that are easily suspended in air. When airborne asbestos is inhaled, these thin fibers irritate tissues and resist the body's natural defenses. Asbestos causes cancer of the lungs and the lining of internal organs, as well as asbestosis and other related diseases. Naturally occurring asbestos is not expected to be encountered during construction activities because the project section is underlain by alluvial soils. No outcroppings of bedrock containing asbestos (e.g., serpentinite) are known to be within or near the project alignment.

3.10.5.5 Potential Environmental Concern Sites

Commercial and industrial uses are concentrated along the project section within the environmental database review RSA (as described in Table 3.10-2) and are areas where businesses have used hazardous materials over long periods. PEC sites are often associated with these areas and can include industrial facilities where spills or accidents have occurred as well as where quantities of hazardous wastes regulated by the CUPA may be generated. Automobile service facilities that collect used engine oil and health care providers that produce medical waste are examples of such waste generators. In addition to the concentrated use of hazardous materials and the generation of hazardous wastes, it is assumed that hazardous material transport and storage activity is more intense in industrial areas than in other areas.

Based on research and database queries, there are a total of 305 PEC sites documented in this analysis throughout the urbanized railroad corridor in the environmental database RSA. Of the 305 total PEC sites, 300 properties are categorized in Appendix 3.10-A (73 Category A, 208 Category B, and 19 Category C). In addition to the 300 PEC sites listed as Categories A, B, and C, five more PEC sites (property identification numbers 352 and 354 through 357 [one Category High, two Category Medium, and two Category Low]) in Appendix 3.10-A were taken from and categorized consistent with the *Burbank to Los Angeles Project Section Hazardous Materials and Wastes Technical Report* (Authority 2021). These 305 sites range from leaking underground storage tanks to active remediation sites. Within the PEC sites RSA, there are 210 PEC sites considered to be close enough to potentially affect the project alignment. Of these 210 PEC sites, there is one listed and one proposed Superfund site, which are discussed in detail in Section 3.10.5.6, Superfund Sites.

The "Cortese List" sites are updated quarterly and have active cleanup status or land use restrictions (designated as "Cortese" or "HIST Cortese" in Environmental Data Resources reports). These sites are primarily associated with past land use and development activities (Authority 2025a). The "HIST Cortese" database is no longer updated by the state as of 2001 and includes many legacy leaking underground storage tank sites that have been granted "no further action" status or similar.

Table 3.10-4 lists the PEC sites associated with particular areas of interest, including the light maintenance facilities (LMF) and HSR station options. The total number of PEC sites and PEC sites that are on the Cortese List within the LMF and station footprints and 150-foot buffer is in Table 3.10-4. As summarized in Table 3.10-4, 22 PEC sites lie within the footprint and within 150 feet of the potential LMF and station locations; four of these are on the Cortese List, a subset of PEC sites.

Table 3.10-4 Potential Environmental Concern Sites and Subset of these Sites on the Cortese List

Location Name	Number of PEC Sites (within project footprint and 150-foot buffer from project footprint)	Number of PEC Sites (within project footprint)	Number of PEC Sites on the Cortese List (within project footprint and 150-foot buffer from footprint)	Number of PEC Sites on the Cortese List (within project footprint)
26th St LMF (Shared Passenger Track Alternative A)	8	5	1	1
15th St LMF (Shared Passenger Track Alternative B)	6	3	1	1
ARTIC HSR Platform and Station	0	0	0	0
Norwalk/Santa Fe Springs HSR Station Option	2	1	2	1
Fullerton HSR Station Option	6	2	0	0
Total	**22**	**11**	**4**	**3**

ARTIC = Anaheim Regional Transportation Intermodal Center; HSR = high-speed rail; LMF = light maintenance facility; PEC = potential environmental concern

Eight PEC sites are in and near the 26th Street LMF (Appendix 3.10-A, Figures 5 and 6), with one of these being a PEC site on the Cortese List (map ID 46; Appendix 3.10-A, Figure 5). Site number 46 is the Exide Technologies property at 2700 S Indiana Street, Vernon, CA 90058, a proposed Superfund site (discussed further in Section 3.10.5.6).

Six PEC sites are within and near the 15th Street LMF (Appendix 3.10-A, Figures 3 and 4), with one of these being a PEC site on the Cortese List (map ID 17; Appendix 3.10-A, Figure 4). Site number 17 is the City of Los Angeles Asphalt Plant Number 1 at 2484 E Olympic Boulevard, Los Angeles, CA 90021. The owner terminated the property's voluntary cleanup agreement in 2017, and its current status is "needs evaluation." The City of Los Angeles has operated this asphalt plant since the 1940s. During this property's use by the City of Los Angeles, many underground storage tanks containing gasoline and diesel fuel were installed and removed.

There are no PEC sites within, or close to, Anaheim Regional Transportation Intermodal Center (Appendix 3.10-A, Figures 23 and 24).

Two PEC sites are within and near the Norwalk/Santa Fe Springs HSR Station Option (Appendix 3.10-A, Figures 13 and 14), with both of these being active PEC sites on the Cortese List. Site number 112 (map ID 112; Appendix 3.10-A, Figure 13) is listed as the Neville Chemical Company. DTSC has been overseeing remediation of this site since 2006, and contaminants of concern in soil and groundwater include halogenated organic compounds, 2,4-dichlorophenol, and volatile organic compounds. The site has a land use restriction in place and, as of 2023, is undergoing groundwater monitoring. The depth to groundwater in this area is around 100 feet below grade. The second PEC site on the Cortese List is within 150 feet of the Norwalk/Santa Fe Springs HSR Station Option site (map ID 111; Appendix 3.10-A, Figure 13); however, it is

inactive, with the case related to historical gasoline impacts on soil closed and “no further action” determined to be required (1999).

Six PEC sites are within and near the Fullerton HSR Station Option; none are on the Cortese List (Appendix 3.10-A, Figures 19 and 20). Map IDs 154, 155, 158, and 162 are within 150 feet of the station footprint; only map IDs 155 and 162 have documented releases and map ID 155 is potentially responsible for the Orange County North Basin Superfund site (discussed in Section 3.10.5.6). Map ID 162 had soil impacts from polyaromatic hydrocarbons but received a “Certificate of Completion” from DTSC in 2014. Two of the PEC sites are within the Fullerton HSR Station Option footprint (map IDs 160 and 161; Appendix 3.10-A, Figures 19 and 20). Site 160 is listed as Southern California Gas/Fullerton Manufactured Gas Plant – 144 West Walnut Avenue with a “no further action” status for a cyanide and metals release to soil. Site 161 is listed as World Citrus West – 130 West Santa Fe and with a “case closed” status for a gasoline release to soil.

Refer to Appendix 3.10-A for more detailed information on the PEC sites (also defined in Section 3.10.4.3, Methods for Impact Analysis), including the name, address, historical use, contaminants of concern, and other information. In addition, Appendix 3.10-A contains maps depicting locations of the PEC sites within the environmental database review RSA (Figures 2 through 25 in Appendix 3.10-A).

3.10.5.6 Superfund Sites

The following Superfund sites are a subset of the PEC sites mentioned above. However, because of the extent of their potential impact, they are described in additional detail here. Additional research was conducted in EnviroStor and GeoTracker in 2025 for these two Superfund sites.

The Exide Technologies property at 2700 S Indiana Street, Vernon, CA 90058 (map ID 46 and USEPA ID CAD097854541) is a proposed Superfund site (as of September 2024). The location of the former Exide Technologies Facility is depicted on Figure 3.10-2. Exide was a lead recycling facility that operated from 1922 to 2014. Groundwater beneath the site is contaminated with trichloroethylene at concentrations exceeding USEPA’s Safe Drinking Water Act Maximum Contaminant Level. Moreover, lead contamination in soils has been found in on-site acid pits as well as in the residential neighborhoods around the site. DTSC has conducted extensive site characterization activities at the site and surrounding areas since 2013. In April 2025, DTSC approved the final closure of the facility under RCRA and the Hazardous Waste Control Law, pursuant to the facility’s DTSC-approved Closure Plan and Closure Implementation Plan to ensure that lead-containing dusts are safely removed from on-site structures prior to their deconstruction. Most on-site structures have been decontaminated, deconstructed, and removed as of April 2025, and any remaining structures would be addressed as part of future remedial actions under CERCLA and the Hazardous Substance Account Act; DTSC’s continued oversight through CERCLA and the Hazardous Substance Account Act will ensure that above-grade and below-grade contamination is managed appropriately to protect human health and the environment. Because of the extensive nature of potential impacts associated with the Exide site and because groundwater monitoring and site characterization activities are ongoing, a timeline for completion of remediation activities associated with CERCLA and the Hazardous Substance Control Law compliance is currently unknown. Sampling to date suggests that the entire site may be covered by impacted fill, and the extent of future cleanup activities would be dictated by the results of the ongoing data gap investigation and subsequently prepared Remedial Investigation Report and Feasibility Study/Remedial Action Plan for the selected remedy. Groundwater monitoring wells on the property exist in the project alignment and more information about their location and extent of contamination is available on EnviroStor in the facility’s annual groundwater monitoring reports.

The Orange County North Basin is a Superfund site (listed in September 2020) that features a contaminated groundwater plume originating from multiple sources in Orange County, California. The North Basin groundwater is contaminated with volatile organic compounds and other chemicals originating from industrial activities in the area. The plume extends to mixed residential, commercial, and industrial areas in Anaheim, Fullerton, and Buena Park. In the past,

the plume was also partially beneath part of Placentia, but the plume has since moved southwest. The plume has affected the Orange County Groundwater Basin. In 2016, USEPA entered into an administrative agreement (Docket Number 2016-03) with the Orange County Water District in which the water district agreed to conduct a remedial investigation and feasibility study to further characterize areas with elevated contaminant concentrations and develop and evaluate alternatives for an interim remedy for parts of the plume that contain the highest volatile organic compound concentrations to hydraulically contain contaminated groundwater originating from the majority of known or suspected sources in the Orange County North Basin study area. The location of the Orange County North Basin's project area within the Superfund site (OCWD 2025) is depicted on Figure 3.10-3, and is beneath some of the project alignment and the Fullerton HSR Station Option footprint (OCWD 2025).

A limited number of groundwater monitoring wells have been installed by the Orange County Water District to characterize groundwater in the project area, but are not intended to characterize groundwater contamination throughout the full extent of the Superfund site. The Orange County Water District completed a remedial investigation report for its project area and a feasibility study report is currently in review with USEPA. Following completion of the feasibility study report, USEPA will prepare a proposed remedial action plan for an interim remedy and host a public meeting to inform the public of the proposed plan. For the overall Superfund site, USEPA completed the first phase of the comprehensive site-wide remedial investigation and feasibility study, which involved installation of additional monitoring wells to further characterize the entire site. A report on the sampling was completed November 6, 2024.

DTSC and the Santa Ana Regional Water Quality Control Board continue to actively initiate and oversee facility-led investigation and cleanup of surface contamination (soil and shallow groundwater) at several of the facilities identified as possible contributors to the plume. Among the multiple industrial sites within the North Basin area that appear to have contributed to the groundwater contamination are two PEC sites listed in Appendix 3.10-A as map ID 155 (Autonetics/Raytheon at 311 S Highland; USEPA ID CAN000900354) and map ID 166 (Fullerton Manufacturing/Raytheon at 310 E Walnut; USEPA ID CAN000900337). Past releases at these locations are likely to have contributed to the Orange County North Basin's groundwater contamination as a result of migration of contaminants from soil at these sites to groundwater and the operators of these sites are defined as "potentially responsible parties" in the National Priorities List support documentation.

Because of the extensive nature of potential impacts associated with the Orange County North Basin site and because groundwater monitoring and site characterization activities are ongoing, a timeline for completion of remediation activities associated with CERCLA and the Hazardous Substance Control Law compliance is currently unknown.

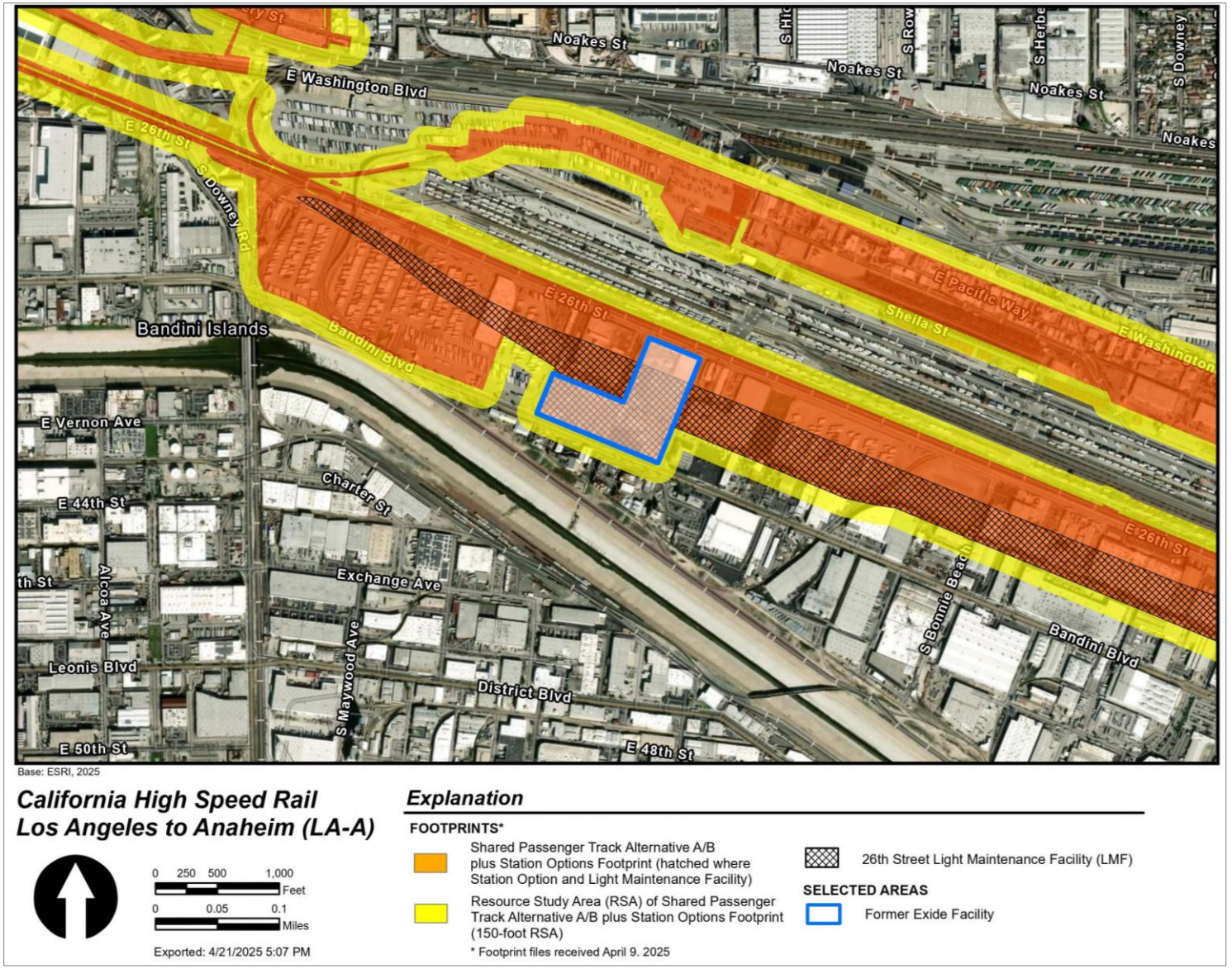


Figure 3.10-2 Location of the Exide Technologies Parcel in Vernon, California

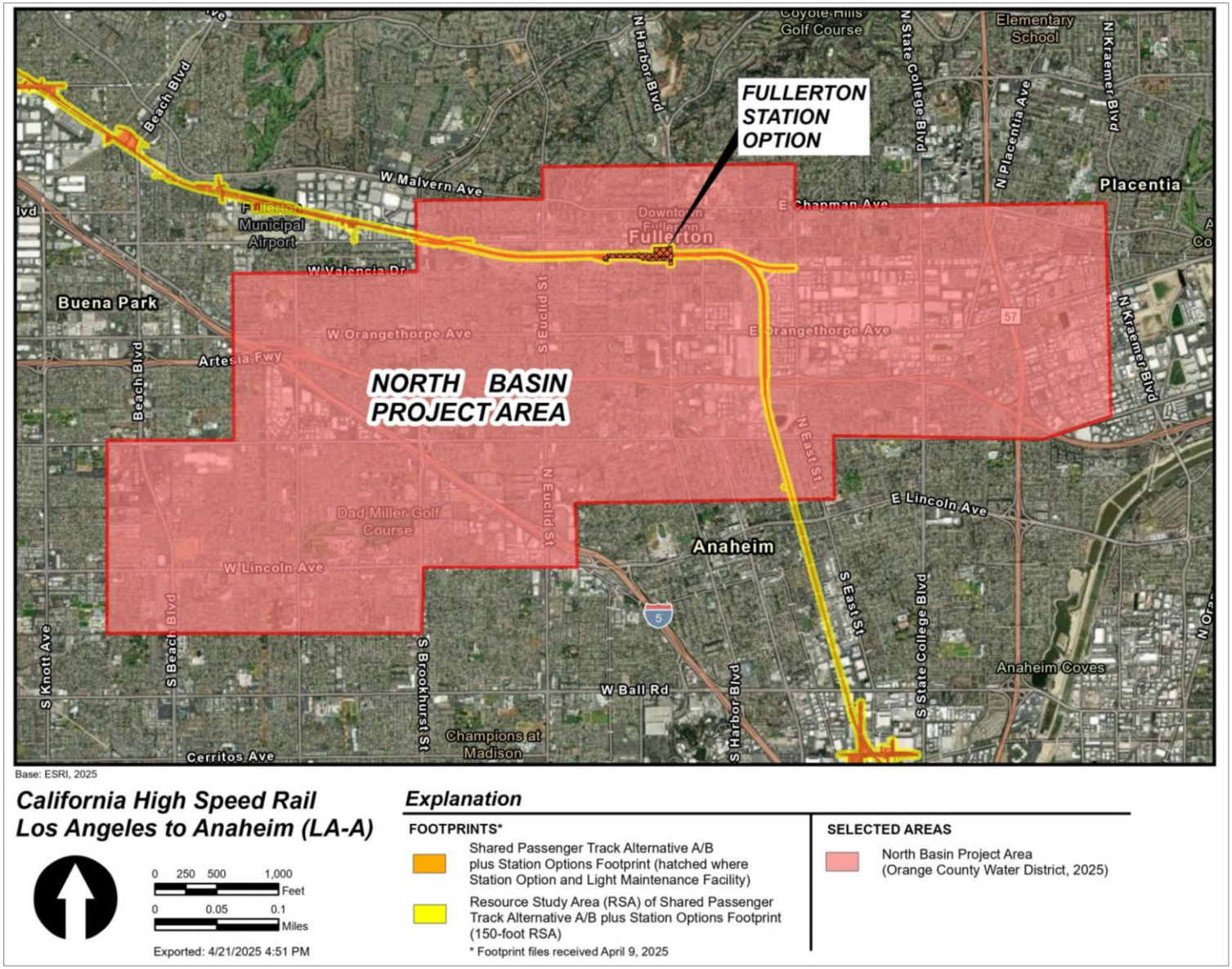


Figure 3.10-3 Location of the North Basin Project Area in Orange County, California

3.10.5.7 Potential Hazardous Substances in Building Materials

Historically, lead was used as a pigment and drying agent in oil-based paint. In 1978, the federal government banned the consumer use of lead-containing paint (USEPA 2016a). Structures built before 1978 may contain LBP on both interior and exterior surfaces. Additionally, LBP may have been used in commercial/industrial buildings subsequent to 1978, as well as in residential structures (paint purchased prior to 1978 but stored and used in subsequent years). Weathering and poor maintenance of painted surfaces (primarily exterior surfaces) of buildings or other structures on or adjoining the project section may have resulted in LBP peeling off and affecting soils at these structures.

Asbestos is a mineral fiber that was commonly used prior to 1980 in various building construction materials (e.g., floor tiles, roofing materials, thermal system insulation, mastics) for insulation, strength, and as a fire-retardant. Such ACMs may have been used in construction well into the 1980s and 1990s and, because of the possible storage of surplus materials/supplies, could still be used at present day construction sites. Some modern building materials, such as roofing felt, vinyl asbestos floor tile, ceiling tiles, and transite, still contain asbestos. Asbestos has also been used in manufactured items such as automobile brakes, heat-resistant fabrics, gaskets, and coatings. When repair, remodeling, or demolition activities damage or disturb ACM, microscopic fibers become airborne and can be inhaled into the lungs. Asbestos is linked to lung cancers and the lining of internal organs, as well as to asbestosis and other diseases that inhibit lung function (USEPA 2016b).

PCBs, classified as chlorinated hydrocarbons, were manufactured from 1929 until their production was banned in 1979. PCBs were used in hundreds of industrial and commercial applications because of their nonflammability, chemical stability, high boiling point, and electrical insulating properties. Equipment that might contain PCBs includes electrical transformers and capacitors, motor oil and hydraulic fluid, and thermal insulation material (e.g., fiberglass and felt) and building materials such as sealants, caulks, joint compounds (USEPA 2016c).

3.10.5.8 Educational Facilities

The locations of educational facilities relative to the project area are important to consider because children are particularly sensitive to hazardous materials. Specific regulations apply to projects that could use or disturb potentially hazardous products near or at schools. California Public Resources Code Section 21151.4 requires projects that would be within 0.25 mile of a school and might be reasonably expected to emit or handle hazardous materials to consult with the school district regarding potential hazards.

There are 40 educational facilities within 0.25 mile of the project footprint (Table 3.10-5). Specific information associated with the identified educational facilities is included in Table B-5 of the *Los Angeles to Anaheim Project Section Hazardous Materials and Wastes Technical Report* (Authority 2025a). The listed educational facilities are also plotted on Figures 2 through 25 in Appendix 3.10-A.

Table 3.10-5 Educational Facilities within 0.25 Mile of the Project Footprint

Facility Name	Street Address	Approximate Distance/Direction from Project Footprint
FIRST 5 LA	750 N Alameda St, Los Angeles 90012	781 feet west
Union Station Gateway Child Development	1 Gateway Plaza Dr, Los Angeles 90012	754 feet northeast
Harry Pregerson Child Care Center	255 E Temple St, Los Angeles 90012	1,256 feet west

Facility Name	Street Address	Approximate Distance/Direction from Project Footprint
Proyecto Pastoral at Dolores Mission [Women's Cooperative Child Care Center]	135 N Mission Rd, Los Angeles 90033	674 feet east
Nishi Hongwanji Child Development Center – Day Care Center	815 E 1st St, Los Angeles 90012	895 feet west
Felicitas and Gonzalo Mendez High	1200 Plaza Del Sol E, Los Angeles 90033-2730	909 feet east
Childtime of Commerce	4820 S Eastern Ave #F, Commerce 90040	218 feet south
Maof Child Care Center	9125 Burke St, Pico Rivera 90660	908 feet southeast
Plaza de la Raza / Maizeland Elementary	7601 Cord Ave, Pico Rivera 90660	292 feet northeast
St. Marianna de Paredes School	7911 Buhman Ave, Pico Rivera 90660	804 feet southwest
Pioneer High School	10800 Benavon St, Whittier 90606	50 feet north
Los Nietos Middle School	11425 Rivera Rd, Whittier 90606	248 feet northeast
Rio Hondo College Fire Academy	11400 Greenstone Ave, Santa Fe Springs 90670	915 feet east
John Glenn High School	13520 Shoemaker Ave, Norwalk 90650	141 feet southwest
Eagle's Nest Preschool and Infant Center	14340 Valley View Ave, La Mirada 90638	1,082 feet northeast
YMCA of Greater Whittier - La Mirada Youth Services Center	14540 San Cristobal Dr, La Mirada 90638	631 feet northeast
Escalona Elementary School	15135 Escalona Rd, La Mirada 90638	1,074 feet northeast
Froebel Daycare	15932 Dalmatian Ave, La Mirada 90638	154 feet northeast
La Mirada Adult Center (Cerritos College La Mirada Campus)	15920 Barbata Rd, La Mirada 90638	708 feet northeast
LiMai Montessori Academy	5309 Beach Blvd, Buena Park 90621	490 feet northeast
Jesus' Hands	5621 Beach Blvd, Buena Park 90621	453 feet southwest
Dream-I Education Center	5832 Fullerton Ave, Buena Park 90621	1,153 feet southwest
Evergreen Preschool	5882 Beach Blvd, Buena Park 90621	1,013 feet southwest
Sunny Hills Preschool	8252 Artesia Blvd, Buena Park 90621	847 feet southwest
Fullerton Children's Academy	3516 W Commonwealth Ave, Fullerton 92833	1,129 feet south
Bumble Bee Christian Learning Center	2353 Williamson Ave, Fullerton 92833	687 feet west
Arborland Montessori	1700 W Valencia Dr, Fullerton 92833	1,195 feet south
Wilshire Avenue Preschool	212 E Wilshire Blvd, Fullerton 92832	1,085 feet northeast
Color Our World Daycare	1613 W Valencia Dr, Fullerton 92833	969 feet south
Pacific Drive Elementary School	1501 W Valencia Dr, Fullerton 92833	288 feet south
Fullerton First United Methodist Preschool	114 N Pomona Ave, Fullerton 92832	627 feet north

Facility Name	Street Address	Approximate Distance/Direction from Project Footprint
Maple Elementary	244 E Valencia Dr, Fullerton 92832-2440	750 feet south
Richman Elementary School	700 S Richman Ave, Fullerton 92832	1,029 feet south
Anaheim Montessori Academy	744 N East St, Anaheim 92805	1,201 feet south
Zion Lutheran Early Childhood Education Center (ECEC)	222 N East St, Anaheim 92805	1,200 feet east
Zion Lutheran School	1244 E Cypress St, Anaheim 92805	1,201 feet east
Thomas Jefferson Elementary	504 E South St, Anaheim 92805	605 feet west
Olive Street Elementary	890 S Olive St, Anaheim 92805	590 feet west
Little Blessings Preschool Academy	1026 S. East St., Anaheim 92805	1,209 feet east
QPE Technical Institute	1557 N Gemini Pl, Anaheim 92801	0 feet (within project footprint)

Source: GreenInfo Network 2021

3.10.5.9 Landfills

Although there are no active landfills in the environmental database review RSA, five Class III sites in Los Angeles County and three Class III sites in Orange County would serve the Shared Passenger Track Alternatives' construction and operational demands for disposal of solid wastes. There is also a potential for the presence of unpermitted historical landfills or otherwise inactive landfills in the vicinity of the project alignment. Section 3.6 provides detailed information on the permitted tonnage and capacity, remaining capacity, and estimated closure dates for the landfills. Refer to Table B-4 (Appendix B) of the *Los Angeles to Anaheim Project Section Hazardous Materials and Wastes Technical Report* (Authority 2025a) and Section 3.4 of the *Los Angeles to Anaheim Project Section Supplement to the Hazardous Materials and Wastes Technical Report* (Authority 2025b). Two Class I landfills active in California are Clean Harbors (Buttonwillow) and Chem Waste Management (Kettleman Hills). These respective Class I landfills accept both hazardous and nonhazardous wastes and are approximately 30 miles west and 80 miles northwest of Bakersfield, which is more than 100 miles north-northwest of the northern terminus of the project section at U.S. Highway 101.

3.10.5.10 Oil and Gas Wells

Most major oil fields in Southern California occur within Cenozoic formations in the vicinity of anticlines and faults and were developed in the early 1900s. A review of CalGEM maps determined that the Shared Passenger Track Alternatives would traverse three oil fields: the abandoned Union Station (Los Angeles), Bandini (Los Angeles/Commerce/Vernon area), and Santa Fe Springs (Santa Fe Springs) oil fields.

According to the database listing for oil and gas wells published by CalGEM, there is a total of 677 oil production wells and associated water flood/disposal wells within 0.25 mile of the project footprint (Table 3.10-6).

Table 3.10-6 Oil and Water Wells in or Near the Project Alignment

Type of Well		Location (in proximity to the project alignment)		
		Within 0.25 mile	Within 150 feet	Within the footprint
Oil production wells	Oil producing	21	4	0
	Plugged/abandoned	459	63	13
	Idle	132	7	2
	Canceled	5	0	0
Water flood/disposal wells	Active	39	1	0
	Plugged/abandoned	4	0	0
	Idle	17	4	0
Unspecified/other		0	0	0
	Total	**677**	**79**	**15**

Source: CalGEM 2023

The accuracy of the CalGEM maps is typically within 100 to 200 feet of the actual plotted location. Therefore, wells that are indicated up to 200 feet away from the alignment may, in fact, be closer. Prior to ground-disturbing activities, field observations and additional research will be conducted (as noted in **HMW-IAMF#1** and **SS-IAMF#4**) to find and locate wells within 0.25 mile of the project footprint.

Subsurface methane gas is typically associated with oil exploration activities. Methane gas can migrate upward through faults and improperly plugged/abandoned oil wells. The presence of methane gas, as well as hydrogen sulfide gas, would be considered and addressed in areas along the project section where current/former oil exploration activities have been documented.

3.10.6 Environmental Consequences

3.10.6.1 Overview

This section discusses the potential impacts related to hazardous materials from construction and operation of the project alternatives and station options. Each resource category addresses potential impacts from the No Project Alternative and the Shared Passenger Track Alternatives. For this resource topic, any differences in the impacts for the station options are described in the analysis.

Construction activities have the potential to result in temporary direct and indirect effects from the transport, use, storage, and disposal of hazardous materials. Construction would temporarily increase the regional transport, use, storage, and disposal of hazardous materials, and would involve multiple entities, including hazardous materials coordination for work within California Department of Transportation right-of-way. Additionally, staging and construction activities could inadvertently disturb sites with previously undocumented contamination or could affect previously identified sites with contaminated soil and groundwater, of which there are 210 within the PEC sites RSA. This section generally does not evaluate the potential to encounter contaminated groundwater (refer to Section 3.8 for more information). Even if staging does not include excavation or direct soil movement, activities such as vehicle traffic, placement of heavy equipment, and minor grading to level the staging area can compact or disturb surface soils. This can break surface crusts, increase erosion, or mobilize contaminated dust and particulates. To the extent feasible, project designs would avoid known sites (e.g., by elevating segments of the rail line). Where avoidance is not possible, coordination with regulatory entities and applicable entities with jurisdiction (e.g., work in California Department of Transportation right-of-way),

development of response plans, provision of monitors, and other measures would be implemented as appropriate to ensure no substantial hazard to the community would result.

With regard to O&M, long-term effects of the Shared Passenger Track Alternatives would be of lesser concern relative to those associated with site preparation and construction activities. Hazardous materials would be newly introduced and used during upkeep of the HSR and associated facilities. Project operations would require only minor amounts of hazardous materials, such as the periodic use of herbicides in the right-of-way to control weeds, and greases to lubricate switching equipment along the trackway. Potential effects from transport, use, storage, and disposal of hazardous materials would be direct and intermittent during operations.

The project design includes several IAMFs to minimize hazardous materials impacts from HSR construction and operation (refer to Volume 2, Appendix 2-A). For instance, the project will prepare Phase I and Phase II ESAs (**HMW-IAMF#1**), a CMP (**HMW-IAMF#4** and **GEO-IAMF#1**), and a hazardous materials and waste plan (**HMW-IAMF#7**).

The analysis of impacts of the Shared Passenger Track Alternatives is described and organized as follows:

Construction Impacts

- Impact HMW-1: Transport, Use, Storage, and Disposal of Hazardous Materials and Hazardous Wastes
- Impact HMW-2: Upset and Accident Conditions Involving the Release of Hazardous Materials into the Environment
- Impact HMW-3: Inadvertent Disturbance of Unknown Hazardous Materials and Wastes
- Impact HMW-4: Construction within or Near Sites of Potential Environmental Concern or Cortese List Sites
- Impact HMW-5: Increased Exposure to Lead-Based Paint and Asbestos as a Result of Roadway and Building Demolition
- Impact HMW-6: Handling of Hazardous Materials, Substances, or Waste within 0.25 Mile of a School
- Impact HMW-7: Risks During Construction on or Near Landfills and Oil and Gas Wells

Operational Impacts

- Impact HMW-8: Operations and Maintenance Transport, Use, Storage, or Disposal of Hazardous Materials and Hazardous Wastes
- Impact HMW-9: Operations and Maintenance Upset and Accident Conditions Involving the Release of Hazardous Materials into the Environment
- Impact HMW-10: Operations and Maintenance Near Sites of Potential Environmental Concern (including Cortese List Sites)
- Impact HMW-11: Operations and Maintenance Handling of Hazardous Materials or Waste within 0.25 Mile of a School

3.10.6.2 No Project Alternative

Under the No Project Alternative, the proposed project would not be built. Currently known programmed and funded improvements and recent development trends in the project section are anticipated to continue, including operation of the existing regional transportation systems. Other planned and committed projects would be built within the planning horizon for the HSR, which is 2040. These planned improvements and growth initiatives would require the storage, transport, use, and disposal of hazardous materials during construction and operation that would be comparable in type and quantity to similar past and ongoing transportation improvement projects when hazardous materials are present or used in project construction. These future

improvements would generate a mix and varying quantities of hazardous wastes based on the magnitude of the improvements and contamination at any given site subject to development. PEC sites identified in the environmental database review RSA are associated with commercial and industrial facilities and uses, and O&M of major highway and railway corridors in the project vicinity. No Project Alternative improvements within those same corridors could compound effects and contamination-related risks associated with these sites.

Planned improvements in areas of existing oil or gas fields also have the potential to result in impacts under the No Project Alternative. Construction of improvements, including transportation projects, in these areas could result in the release of hazardous materials from the rupture of a pipeline or disturbance of a well casing. Risks associated with encountering oil and gas wells, such as spills, fires, or explosions, could threaten the safety of the public. Planned improvements, including transportation projects, would require compliance with regulatory requirements for abandonment and relocation of oil or gas wells, as well as release of hazardous materials, and hazardous gases or other subsurface materials that may be present.

It is presumed that by 2040, some of the existing PEC sites may have undergone additional investigation and, if necessary, may have undergone remediation under appropriate regulatory agency oversight. However, investigation and remediation of potentially hazardous materials, including contaminated soil or groundwater, may not have occurred under the No Project Alternative, and the potential for future transportation improvements to result in impacts related to hazardous materials at PEC sites would continue. Upsets and accidents related to hazardous materials could occur with continued operation of commercial and industrial facilities or during transportation of hazardous materials, and such upsets and accidents may affect the environment. However, as discussed in Section 3.10.2, accidents or spills of hazardous materials, including hazardous waste, are regulated and cleanups are required.

There are existing schools, hospitals, parks, and other places of congregation near existing transportation systems. Based on forecasted population growth in the region, existing and future transportation systems (including both highway and conventional rail) would experience more traffic and congestion resulting from construction and operation of transportation system improvements under the No Project Alternative. The increase in traffic and expansion of the transportation systems would potentially result in a corresponding increase in inadvertent releases of hazardous materials near these facilities caused by accidents and disturbance of hazardous materials during construction of transportation system improvements.

Under the No Project Alternative, recent development trends are anticipated to continue, leading to use of the types and relative quantities of hazardous materials for construction and operation that would be comparable to those necessary for the Shared Passenger Track Alternatives. Each future project is expected to generate a comparable mix and quantity of hazardous wastes proportional to the magnitude of the improvements. Because many of the PEC sites identified in Section 3.10.5.5 are associated with major highway and rail transportation corridors in the project vicinity, future No Project Alternative improvements within the same corridors could result in impacts on the environment if they require disturbance of PEC sites.

However, implementation of standard BMPs and compliance with existing regulations would minimize potential effects.

3.10.6.3 Project Impacts

Construction and operations of the Shared Passenger Track Alternatives could result in temporary and permanent impacts on the public and environment from release or disturbance of hazardous materials. Construction and O&M are more fully described in Chapter 2, Alternatives. For the purposes of this analysis, construction impacts are also inclusive of permanent impacts associated with construction and implementation of the Shared Passenger Track Alternatives, and operational impacts refer exclusively to impacts that would result from O&M of the Shared Passenger Track Alternatives.

Construction of the Shared Passenger Track Alternatives would involve demolition of existing structures; clearing and grubbing; handling, storing, hauling, excavating, and placing fill; possible

pile driving; and construction of aerial structures, bridges, road modifications, utility upgrades and relocations; installation of HSR electrical systems, power poles, and railbeds; and reduction of permeable surface area.

Operations would involve the use of small amounts of hazardous materials like solvents, paints, and cleaners for and generation of wastes from O&M of the LMF, tracks, stations, and railroad right-of-way as well as other systems required for HSR operations such as power systems, train control, signalizing, and communications. Although operating trains would generate brake dust, the use of hazardous materials and generation of hazardous waste would be limited mostly to the maintenance and repair of trains. Effects associated with O&M would largely be a function of the size of the facility, location, and usage (frequency and type of activity). The use of hazardous materials along the trackway (for example for weed control or to lubricate switching equipment) would be intermittent, as would the routine transport, storage, use, and disposal of small amounts of hazardous materials at stations and the LMF. The volume of hazardous materials to be transported, stored, used, or disposed of during operations would be reduced compared to construction, but these activities could still result in accidental releases of hazardous materials from improper handling. Risks related to routine transport, storage, use, or disposal of hazardous materials during project operation would also be intermittent.

The following sections separately describe each construction and operational impact for the Shared Passenger Track Alternatives.

Construction Impacts

Impact HMW-1: Transport, Use, Storage, and Disposal of Hazardous Materials and Hazardous Wastes

Shared Passenger Track Alternative A

Construction would temporarily increase the regional transport, use, storage, and disposal of hazardous materials commonly used at construction sites, including diesel fuel, welding materials, lubricants, paints and solvents, and cement products containing strong basic or acidic chemicals, and hazardous wastes generated from use of hazardous materials during construction (e.g., used oils, excess paints). These materials could present a risk to public health and safety if improperly used or inadvertently spilled during construction of Shared Passenger Track Alternative A.

Although transportation accidents such as collisions or derailments involving hazardous materials are infrequent, they could occur during transport of materials such as gasoline, diesel, compressed gases, or other hazardous materials during construction of Shared Passenger Track Alternative A or during transport of hazardous wastes generated during construction or cleanup of contaminated sites. In such accidents, hazardous materials, including chemical vapors and toxic fumes, could be released into the environment and may migrate from the accident site. Fire and explosion are also possible in an accident involving hazardous materials. The impacts could occur on freight rail and truck routes designated for transport of hazardous materials, including the West Bank, BNSF San Bernardino Subdivision, incidental freight line, I-5, I-10, SR 60, U.S. Highway 101, I-105, I-605, I-710, SR 22, SR 57, and SR 91. Impacts associated with transport of hazardous waste could occur on I-5, which is the primary corridor used to reach the hazardous waste disposal sites north of Bakersfield (Buttonwillow and Kettleman Hills). Details about freight rail operations and levels of traffic on the truck routes that would be affected should an accident occur are discussed in Section 3.2, Transportation.

IAMFs requiring conformance with state and federal regulations governing the transport of hazardous materials would be included as a part of Shared Passenger Track Alternative A. **HMW-IAMF#7** requires compliance with federal and state regulations during transport of hazardous materials. The federal regulations implementing the 1975 Hazardous Materials Transportation Act (49 U.S.C. 5101 et seq. and 49 CFR Parts 101, 106, 107, and 171 to 180) govern the transportation process from pick-up to delivery of hazardous materials and include requirements for proper handling and packaging of hazardous materials, as well as material designations and labeling during transport. California Highway Patrol enforces requirements for

hazardous material shipments (e.g., preparation and container identification, shipping documentation, licenses) and regularly inspects transporters' vehicles and equipment. The California Department of Transportation maintains emergency chemical spill identification teams throughout the state that can respond quickly in the event of a transportation-related spill. Per **HMW-IAMF#7**, construction contractors will prepare a hazardous materials and waste plan specifying procedures and responsible parties for transport of hazardous materials.

Use and storage of hazardous materials would temporarily increase during construction, has the potential for exposing workers to these materials, and presents a risk of upsets that could result in releases of hazardous materials to the environment. Compliance with applicable laws for safe storage, transport, and use of hazardous materials is required per **HMW-IAMF#7**. Additionally, contractors will develop hazardous materials monitoring plans per **HMW-IAMF#10** and will be required to comply with the conditions of the SWRCB Construction General Permit to control the storage and use of hazardous materials during construction (**HMW-IAMF#8** and **HYD-IAMF#3**) in a manner that eliminates or reduces—to the maximum extent feasible—discharges of potential hazardous pollutants to stormwater. Contractors will also be required to prepare spill prevention plans, including SPCC plans, for managing storage of hazardous materials (**HMW-IAMF#6**). Small spills will be managed in accordance with these plans, with training provided to each individual prior to their work with hazardous materials and the appropriate types and amounts of spill cleanup materials and personal protective equipment immediately available as required by the State of California per the Hazardous Waste Control Law (California Health and Safety Code, Section 25100 et seq.). Additionally, CUPAs, discussed in Section 3.10.2.2, provide for the proper storage and management of hazardous materials, as well as for managing accidental spills and leaks; enforcement of these regulations prevents releases of hazardous materials to the environment. Examples of practices required per these IAMFs include storing hazardous materials in containers that are in good condition and not leaking; keeping containers closed except when adding or removing hazardous materials; locating hazardous materials storage and handling areas away from natural watercourses, storm drains, and sensitive receptors; and promptly cleaning up accidental spills of hazardous materials. Following mandated BMPs would effectively minimize direct risk to workers and the public as well as indirect risk to off-site resources because they prevent or require quick response to spills or accidental releases of hazardous materials during construction. The Authority is committed to identifying, avoiding, and minimizing hazardous materials used during construction of the HSR system through a material selection process that is integrated in the project design (**HMW-IAMF#9**). An Environmental Management System will be used to track the full inventory of hazardous materials during construction of the HSR system and requires contractors to evaluate and substitute hazardous materials with nonhazardous materials when practicable.

The risks of exposure to hazardous materials would also temporarily increase during construction on sites with contaminated soil, soil vapor, and groundwater (including Superfund sites described in Section 3.10.5.6), as well as contamination from soil in airborne dust generated during excavation and during demolition of buildings with ACM, LBP, and PCBs. Requirements for safely handling contaminated soils and other contaminated media will be specified in a CMP based on an Authority-prepared soil management plan that would identify known or suspected contamination (**HMW-IAMF#4**) in addition to the IAMFs described above (**HMW-IAMF#7**, **HMW-IAMF#8**, **HYD-IAMF#3**) that will limit discharges of contaminants to the environment via BMPs. In addition, the Occupational Safety and Health Administration (29 CFR Part 1910.120 and California Code of Regulations Title 8, Section 5192) requires training for workers engaged on cleanup sites, which serves to reduce hazards to workers by mandating hazard identification, monitoring, and implementation of hazard controls, including personal protective equipment. **HMW-IAMF#5** requires demolition plans for safe dismantling and disposal of hazardous building components and debris.

Generation of hazardous wastes would also likely increase during construction of Shared Passenger Track Alternative A because of excavation of soils contaminated by petroleum hydrocarbons, pesticides, herbicides, asbestos, heavy metals, or other hazardous materials (this is particularly noteworthy in areas near Superfund sites, where affected soils are expected to be

higher)[3]; demolition of roadways and structures; and modifications of tracks necessary to support staging and construction, because these may contain ACM, PCBs, and LBP. DTSC and other state agencies enforce the Hazardous Waste Control Law, which regulates the identification, generation, transport, storage, and disposal of materials deemed hazardous by the State of California. These regulations minimize the potential for accidental releases during site cleanup and transport of hazardous wastes. Waste generators must provide emergency response for the waste released on site and during transport (the transporter is also required to report any spills during the transport of hazardous waste).

IAMFs such as **HMW-IAMF#4**, **HMW-IAMF#5**, **HMW-IAMF#6**, **HMW-IAMF#7**, **HMW-IAMF#8**, **HMW-IAMF#9**, **HMW-IAMF#10**, and **HYD-IAMF#3** applicable to the transport, use, storage, and disposal of hazardous materials will avoid and minimize impacts on the public and environment as part of the project design.

Shared Passenger Track Alternative B

Instead of the development of an LMF at 26th Street (associated with Shared Passenger Track Alternative A), there would be an LMF at 15th Street under Shared Passenger Track Alternative B. Overall impacts for Shared Passenger Track Alternative B would be greater than those of Shared Passenger Track Alternative A because of the potential for higher contaminated soil volumes. As stated in the *Los Angeles to Anaheim Project Section Supplement to the Hazardous Materials and Wastes Technical Report* (Authority 2025b), Shared Passenger Track Alternative B would have an additional trench segment under Olympic Boulevard, which accounts for the higher soil volumes. However, the rest of the Shared Passenger Track Alternative A analysis would apply to Shared Passenger Track Alternative B and result in similar conclusions.

The potential for the release of, and exposure to, hazardous materials during construction activities, transport, and handling of affected soils would still exist under both alternatives; however, because of the location of the Shared Passenger Track Alternatives in relation to PEC sites, the likelihood of encountering known contaminated soils is higher for Shared Passenger Track Alternative B than for Shared Passenger Track Alternative A (discussed above and in more detail under Impact HMW-4), so the volume of contaminated soils that may require disposal at hazardous waste or designated waste facilities would likely be higher under Shared Passenger Track Alternative B.

Therefore, construction of Shared Passenger Track Alternative B would result in more overall impacts from transport, storage, use, and disposal of hazardous materials. However, Shared Passenger Track Alternative A involves more soil disturbance on the Exide property, a proposed Superfund site identified in Section 3.10.5.6, which increases the potential severity of contaminated soil likely encountered under Shared Passenger Track Alternative A. Shared Passenger Track Alternative B will incorporate the same IAMFs as Shared Passenger Track Alternative A (**HMW-IAMF#4**, **HMW-IAMF#5**, **HMW-IAMF#6**, **HMW-IAMF#7**, **HMW-IAMF#8**, **HMW-IAMF#9**, **HMW-IAMF#10**, and **HYD-IAMF#3**), thereby minimizing impacts for Shared Passenger Track Alternative B.

High-Speed Rail Station Options

High-Speed Rail Station Option: Norwalk/Santa Fe Springs

With inclusion of the Norwalk/Santa Fe Springs HSR Station Option, impacts would be the same as those of the Shared Passenger Track Alternatives in the station area. Construction of the HSR station platform, facilities, and parking would be in the same area that would be modified under the Shared Passenger Track Alternatives, and would also include the transport, storage, use, and disposal of hazardous materials. As stated in Table 3-6 of the *Los Angeles to Anaheim Project Section Supplement to the Hazardous Materials and Wastes Technical Report* (Authority 2025b),

[3] Estimated contaminated soil volumes can be found in Table 3-6 in the *Los Angeles to Anaheim Project Section Supplement to the Hazardous Materials and Wastes Technical Report* (Authority 2025b).

earthwork amounts for the Norwalk/Santa Fe Springs HSR Station Option would be the same as for the modifications occurring under the Shared Passenger Track Alternatives; therefore, no additional soil would be excavated and transported for disposal. Therefore, the HSR station option will incorporate the same IAMFs as Shared Passenger Track Alternative A (**HMW-IAMF#4**, **HMW-IAMF#5**, **HMW-IAMF#6**, **HMW-IAMF#7**, **HMW-IAMF#8**, **HMW-IAMF#9**, **HMW-IAMF#10**, and **HYD-IAMF#3**), which will minimize impacts.

High-Speed Rail Station Option: Fullerton

With inclusion of the Fullerton HSR Station Option, impacts associated with the transport, use, storage, and disposal of hazardous materials would be the same as those of the Shared Passenger Track Alternatives within the station area. Construction of the station option would also include the transport, storage, use, and disposal of hazardous materials. Although the construction area for the HSR station elements would be larger than what would be modified under the Shared Passenger Track Alternatives, the potential for accidental release of and exposure to hazardous materials would be the same, because the same materials and construction activities would be used. Because the construction area for the Fullerton HSR Station Option is larger and includes more extensive excavations than those required for implementation of the Shared Passenger Track Alternatives (where most excavations would be shallow and limited to roadway realignment, new tracks, and building foundations), there would be a greater potential to encounter and handle affected soils during excavation, resulting in a greater potential for exposure to hazardous materials from contaminated soils. The HSR station option will incorporate the same IAMFs as Shared Passenger Track Alternative A (**HMW-IAMF#4**, **HMW-IAMF#5**, **HMW-IAMF#6**, **HMW-IAMF#7**, **HMW-IAMF#8**, **HMW-IAMF#9**, **HMW-IAMF#10**, and **HYD-IAMF#3**), which will reduce impacts to less-than-significant levels.

CEQA Conclusion

HMW-IAMF#4, **HMW-IAMF#5**, **HMW-IAMF#6**, **HMW-IAMF#7**, **HMW-IAMF#8**, **HMW-IAMF#9**, **HMW-IAMF#10**, and **HYD-IAMF#3** are included as part of the project. The impacts under CEQA would be less than significant. Construction activities would temporarily increase the regional transport, use, storage, and disposal of hazardous materials, which could increase the probability of inadvertent spills. However, the IAMFs include effective measures to avoid creation of a significant hazard to the public or the environment. Therefore, impacts under CEQA would be less than significant and CEQA does not require mitigation.

Impact HMW-2: Upset and Accident Conditions Involving the Release of Hazardous Materials into the Environment

Shared Passenger Track Alternative A

Hazardous materials are substances that are flammable or combustible, explosive, toxic, noxious, corrosive, or radioactive, or are oxidizers or irritants. A hazardous material spill or release can pose a risk to life, health, the environment, or property. An incident can result in the evacuation of a few people, a section of a construction operation, or an entire construction site.

Accidental releases can result from the improper storage or handling of hazardous materials, transport-related accidents (Impact HMW-1), seismic activity, or inclement weather. Accidental releases can also result from the rupture of oil or gas lines or disturbance of wells (this is discussed in more detail under Impact HMW-3 and Impact HMW-7). Accidental releases can also occur when encountering unknown or unanticipated contamination during soil disturbance (this is discussed in detail under Impact HMW-3). The degree of effect from a hazardous-material-related release or spill is dependent on the proximity of the spill to population centers, concentrated development, and environmentally sensitive areas, nearby waterways, or the groundwater table.

The pathways through which the community could be exposed to hazardous materials include:

- Dermal contact
- Ingestion or inhalation from air emissions and dust

Pathways by which contaminated media may migrate and create potential for exposure of the community or the environment include:

- Inadvertent migration of hazardous materials from the release site as a result of improper containment or decontamination procedures
- Lack of containment during inclement weather
- Stormwater runoff
- Percolation into the soil substrate

Various IAMFs will be incorporated as part of the project design, including **HMW-IAMF#4** and **GEO-IAMF#3**, which require the preparation of a CMP to minimize releases of hazardous materials or disruption of contaminated areas, provide protocols for the disturbance and handling of unanticipated contamination (including contamination associated with the rupture of oil or gas lines or disturbance of wells), and address implementation of gas monitoring during construction. **HMW-IAMF#6** includes the preparation of an SPCC plan that introduces BMPs to prevent hazardous materials releases (including cleanup procedures should a release occur). **HYD-IAMF#3** will avoid release of hazardous materials in stormwater flow by requiring that the contractor prepare and implement a construction stormwater pollution prevention plan[4] (a stormwater pollution prevention plan requires the implementation of BMPs during the handling of hazardous materials). **HMW-IAMF#7** requires compliance with applicable regulations during construction, and **HMW-IAMF#8** requires compliance with applicable permit requirements. Lastly, **HMW-IAMF#9** requires the Authority to identify, avoid, and minimize hazardous materials to the extent feasible and thereby minimizes the effect of an accidental release of hazardous materials. In addition, BMPs for hazardous materials storage and handling will be followed, procedures for spill prevention will be in place prior to construction, and the full inventory of hazardous materials in use during construction of Shared Passenger Track Alternative A will be available to first responders.

Incorporation of IAMFs would minimize effects from inadvertent spills resulting from improper use through compliance with regulations for the transport of hazardous materials; compliance with SWRCB Construction General Permit conditions; compliance with Occupational Safety and Health Administration 29 CFR Part 1910.120 and California Code of Regulations Title 8, Section 5192; and establishment of an Environmental Management System and spill prevention plan prior to construction. The severity of impacts associated with upset and accident conditions involving the release of hazardous materials would depend on the volume and type of material released, would be short term, and would correspond to the construction period.

Other IAMFs will reduce risks associated with excavation, storage, transport, and release of contaminants or contaminated media during construction: **HMW-IAMF#1, GEO-IAMF#1**, and **HYD-IAMF#1**. **HMW-IAMF#1** reduces the potential for upset conditions and accidents related to handling contaminated media by requiring ESAs prior to construction and during the right-of-way acquisition phase to identify known or potential presence of contamination. **GEO-IAMF#1** reduces the risk of contaminant release caused by erosion or airborne dust generation into the environment by addressing safe handling of naturally occurring hazardous materials, and **HYD-IAMF#1** reduces the risk of contaminant releases as a result of leaks and spills by requiring implementation of a stormwater pollution prevention plan during construction.

Shared Passenger Track Alternative B

Impacts for Shared Passenger Track Alternative B would be similar to those described for Shared Passenger Track Alternative A. Accidental releases related to improper handling and storage of hazardous materials, transport-related accidents, seismic activity, inclement weather, or rupture

[4] A stormwater pollution prevention plan is a site-specific document that identifies potential sources of stormwater pollution during construction, describes practices to reduce pollutants in stormwater discharges from a construction site, and identifies procedures the operator will implement to comply with the terms and conditions of a Construction General Permit.

of oil or gas lines or disturbance of wells all have the same potential to occur under Shared Passenger Track Alternative B. However, instead of the development of an LMF at 26th Street (associated with Shared Passenger Track Alternative A), there would be an LMF at 15th Street under Shared Passenger Track Alternative B, which would have a minor to moderate likelihood of encountering known hazardous waste–affected soils (compared to a major likelihood of encountering known affected soils under Shared Passenger Track Alternative A's 26th Street LMF), although the overall volumes of soil excavated and disposed of would be greater.

Therefore, construction of Shared Passenger Track Alternative B would include the transport, storage, use, and disposal of hazardous materials, which could potentially release hazardous materials into the environment. Also, as with Shared Passenger Track Alternative A, there is potential to encounter known, suspected, and unanticipated contamination. Shared Passenger Track Alternative B will incorporate the same IAMFs used for Shared Passenger Track Alternative A (**HMW-IAMF#1**, **HMW-IAMF#4**, **HMW-IAMF#6**, **HMW-IAMF#7**, **HMW-IAMF#8**, **HMW-IAMF#9**, **GEO-IAMF#1**, **GEO-IAMF#3**, and **HYD-IAMF#1**), which will minimize impacts.

High-Speed Rail Station Options

High-Speed Rail Station Option: Norwalk/Santa Fe Springs

With inclusion of the Norwalk/Santa Fe Springs HSR Station Option, impacts would be the same as those described for the Shared Passenger Track Alternatives in the station area. Construction of the HSR platform, facilities, and parking is in the same area that would be modified under the Shared Passenger Track Alternatives, and would also include the transport, storage, use, and disposal of hazardous materials, which could potentially release hazardous materials and waste into the environment. Also, similar to the Shared Passenger Track Alternatives, there is potential to encounter known, suspected, and unanticipated contamination; the potential for accidental release related to contaminated spoils within the HSR station option is the same, because the same earthwork activities would be required in the same area. The HSR station option will incorporate the same IAMFs used for Shared Passenger Track Alternative A (**HMW-IAMF#1**, **HMW-IAMF#4**, **HMW-IAMF#6**, **HMW-IAMF#7**, **HMW-IAMF#8**, **HMW-IAMF#9**, **GEO-IAMF#1**, **GEO-IAMF#3**, and **HYD-IAMF#1**), which will minimize impacts.

High-Speed Rail Station Option: Fullerton

With inclusion of the Fullerton HSR Station Option, impacts would be similar to those of the Shared Passenger Track Alternatives. Construction of the HSR platform, facilities, and parking would also include the transport, storage, use, and disposal of hazardous materials, which could potentially release hazardous materials into the environment. The construction area for the HSR station elements would be larger than what would be modified under the Shared Passenger Track Alternatives, and there would be greater potential to encounter affected soils associated with PEC sites during excavation, resulting in a greater potential for accidental release of hazardous materials from contaminated soils. The HSR station option will incorporate the same IAMFs used for Shared Passenger Track Alternative A (**HMW-IAMF#1**, **HMW-IAMF#4**, **HMW-IAMF#6**, **HMW-IAMF#7**, **HMW-IAMF#8**, **HMW-IAMF#9**, **GEO-IAMF#1**, **GEO-IAMF#3**, and **HYD-IAMF#1**), which will minimize impacts.

CEQA Conclusion

With incorporation of **HMW-IAMF#1**, **HMW-IAMF#4**, **HMW-IAMF#6**, **HMW-IAMF#7**, **HMW-IAMF#8**, **HMW-IAMF#9**, **GEO-IAMF#1**, **GEO-IAMF#3**, and **HYD-IAMF#1**, the impact under CEQA would be less than significant. Although construction activities would temporarily increase the risk of upset or accidental release of hazardous materials, the IAMFs include effective measures to avoid creation of a significant hazard to the public or the environment. Therefore, impacts under CEQA would be less than significant and CEQA does not require mitigation.

Impact HMW-3: Inadvertent Disturbance of Unknown Hazardous Materials and Wastes

Shared Passenger Track Alternative A

Not all hazardous material contamination is known and mapped. Inadvertent disturbance of hazardous materials could occur during construction activities. During construction, trenching and other ground-disturbing activities could encounter or disturb previously undocumented soil or

groundwater contamination in the project section. Impacts can also occur through the inadvertent dispersal of affected media into the environment. Dewatering activities at a site containing previously undocumented contamination, for example, may result in the release of contamination currently contained in groundwater into nearby waterways or farther in the groundwater table. Construction activities may also disturb ACM during demolition of roadways or other structures built prior to 1980 or potentially during the 1990s, resulting in the airborne release of asbestos fibers. Building demolition would increase the potential risk related to release of airborne asbestos fibers. Also, ACM, PCBs, electronic waste, and lead could be encountered during demolition of other structures or roadway modifications in yellow tape or paint as well as aerially deposited lead in soils along roadways. PCBs could be encountered during the handling of utility infrastructure. Track modifications could disturb treated wood preservatives, heavy metals, ACM, and other common contaminants in ties, ballast rock, and soils associated with railroad corridors. These types of materials, if encountered, would need to be cleaned up, transported, and disposed of at a Class I/II facility.

Compliance with regulations that control the transport, use, storage, and disposal of hazardous materials will limit the potential for an inadvertent release of hazardous materials during construction as part of the project design (**HMW-IAMF#7**), as described in Impact HMW-1.

As part of the project design, the Authority will develop a soil management plan that includes information and data regarding known and suspected contamination. In accordance with the soil management plan, the construction contractor would develop a CMP prior to construction activities that includes provisions for responding to the disturbance of undocumented contamination and addresses the potential for a release of hazardous materials in soil and groundwater (**HMW-IAMF#4**). The CMP will include countermeasures to implement in the event that undocumented contamination is disturbed during construction, which will protect the health and safety of construction workers, the public, and the environment.

Under the state CUPA program, responsibility for responding to the discovery of undocumented contamination is delegated to the Los Angeles County Emergency Preparedness and Response Unit and the Orange County Environmental Health Hazardous Materials Team. If soil, groundwater, or other environmental media with suspected contamination is encountered unexpectedly during construction activities (e.g., identified by odor or visual staining or by unearthing underground storage tanks, abandoned drums, or other hazardous materials), work will cease in the vicinity of the suspect material, the area will be secured as necessary, and appropriate measures will be taken to protect human health and the environment per the CMP. Appropriate measures include notifying regulatory agencies (the contractor would notify the Authority and the Authority would notify the appropriate agency if contamination is discovered) and complying with relevant agencies' laws, regulations, and policies. As part of **HMW-IAMF#4**, the Authority will work with these agencies if undocumented contamination is encountered during construction. These provisions would minimize the potential for hazardous materials to be released into the environment as a result of inadvertent disturbance of undocumented contamination.

Project design also includes **HMW-IAMF#5**, which prevents the accidental release of PCBs, lead, and asbestos during demolition activities (described in more detail under Impact HMW-5).

Shared Passenger Track Alternative B

Impacts for Shared Passenger Track Alternative B would be similar to those of Shared Passenger Track Alternative A. Instead of the development of an LMF at 26th Street (associated with Shared Passenger Track Alternative A), there would be an LMF at 15th Street under Shared Passenger Track Alternative B. Construction of Shared Passenger Track Alternative B could result in additional soil disturbance (compared to Shared Passenger Track Alternative A) because of additional land clearing required for the 15th Street LMF. Although the 26th Street LMF would not be built in Vernon, other project elements would be built in that area, including 26th Street relocation and shifting of freight tracks (these activities require soil disturbance and overlap with the aforementioned Exide Superfund site). The amount of land area disturbed would be greater for Shared Passenger Track Alternative B, so there would be a greater likelihood to encounter

and inadvertently disturb undocumented contaminated media. This would be addressed by incorporating the same IAMFs used for Shared Passenger Track Alternative A (**HMW-IAMF#4**, **HMW-IAMF#5**, and **HMW-IAMF#7**), which will minimize impacts, including for Shared Passenger Track Alternative B, which includes additional soil disturbance.

High-Speed Rail Station Options

High-Speed Rail Station Option: Norwalk/Santa Fe Springs

With inclusion of the Norwalk/Santa Fe Springs HSR Station Option, impacts would be the same as those of the Shared Passenger Track Alternatives in the station area. Construction of the HSR platform, facilities, and parking is in the same area that would be modified under the Shared Passenger Track Alternatives, and could also inadvertently disturb hazardous materials because not all hazard contamination is known and mapped. The HSR station option will incorporate the same IAMFs used for Shared Passenger Track Alternative A (**HMW-IAMF#4**, **HMW-IAMF#5**, and **HMW-IAMF#7**), which will minimize impacts.

High-Speed Rail Station Option: Fullerton

With inclusion of the Fullerton HSR Station Option, impacts would be similar to those of the Shared Passenger Track Alternatives in the station area. The construction area for the HSR platform, facilities, and parking would be in a larger area (and result in the disturbance of two additional PEC sites) than what would be modified under the Shared Passenger Track Alternatives. Construction of the station option could inadvertently disturb hazardous materials because not all hazard contamination is known and mapped. The HSR station option will incorporate the same IAMFs used for Shared Passenger Track Alternative A (**HMW-IAMF#4**, **HMW-IAMF#5**, and **HMW-IAMF#7**), which will minimize impacts.

CEQA Conclusion

HMW-IAMF#4, **HMW-IAMF#5**, and **HMW-IAMF#7** are included as part of the project design. The impact under CEQA would be less than significant. The IAMFs include effective measures to avoid and effectively minimize creation of a significant hazard to the public or the environment through development of construction management and demolition plans that would minimize potential impacts from the inadvertent disturbance of hazardous materials from undocumented sites, and through compliance with regulations for the handling and transport of hazardous materials. Therefore, impacts under CEQA would be less than significant and CEQA does not require mitigation.

Impact HMW-4: Construction within or Near Sites of Potential Environmental Concern or Cortese List Sites

Shared Passenger Track Alternative A

Construction of Shared Passenger Track Alternative A would occur within or near 305 PEC sites (refer to Authority 2025a and Appendix 3.10-A). Note that 210 of these PEC sites (Appendix 3.10-A) are within 150 feet of the project footprint. Of these 210 PEC sites, there is one listed and one proposed Superfund site, which are discussed in detail in Section 3.10.5.6. These sites are notable because of the extent of their potential impacts. Risks associated with construction within or near sites with contamination include direct and indirect exposure of the workforce and local sensitive receptors to contaminants, the potential to exacerbate or spread existing environmental contamination, and the creation of environmental contamination via incidental mobilization of unknown or contained environmental contamination (e.g., nonleaking underground storage tanks).

As part of the project design, during property acquisition for project construction, a Phase I ESA corridor study will be conducted to characterize the properties in the project section proposed for acquisition, and other properties with on-site contamination that can affect the project to be incorporated into project plans before construction activities begin (**HMW-IAMF#1**). The Phase I ESA will be conducted for all properties, regardless of the PEC site category (A, B, or C), but would be especially critical for those characterized as categories A and B, because they are the most likely to result in recognized environmental conditions and thereby potential impacts during construction. The Phase I ESA corridor study will be conducted per ASTM International standards

with parcel-level details, and a written report will present results, conclusions, and recommendations. Additional phases of ESAs could be conducted, depending on the findings of the initial Phase I ESA:

- **Phase II.** If the Phase I ESA uncovers potential for contamination, a Phase II ESA will be performed to confirm whether the impacts identified in the Phase I ESA exist. A Phase II ESA includes review of characterization and cleanup documents and site testing and may include testing of soil, groundwater, or other potentially contaminated media. A written report will be prepared to describe:
  - The origin of the contamination (e.g., historical use of the site)
  - The nature of the contaminants (i.e., contaminants of concern) and the resources contaminated (e.g., soil, groundwater, surface water)
  - The depth to contamination relative to depths required for trenching or other invasive site preparation activities
  - The extent of contamination, if detected (e.g., the distance from the outermost known reach of contamination to the boundary of proposed construction activities)
  - Screening levels, data gaps, and recommendations for contaminants of concern
- **Phase III.** If the Phase II ESA concludes that the site is contaminated, a Phase III ESA will be prepared as a third step. A Phase III ESA will describe the design and implementation of required mitigation or remediation measures. Remediation could include excavation, bioremediation, or other measures required to clean up the site.

Because of the potential for off-site migration of contaminants, PEC sites outside the project footprint could pose potential risks of exposure to contaminants for construction workers, the public, or the environment in the vicinity of the site, as presented in Appendix 3.10-A. Construction crews may encounter soil and soil vapor affected by contaminants and may work in areas with existing vapor barriers, wells, and associated infrastructure that may be damaged during construction (**HMW-IAMF#3**). Interference with ongoing remediation activities could interrupt cleanup, increase the risk of a release of contaminants, and adversely affect groundwater treatment system operation, and consequently affect the public water supply. It may be feasible to avoid disturbing contaminants and hazardous gases from releases at PEC sites during construction by following the stipulations in the CMP prepared as part of **HMW-IAMF#4** and **GEO-IAMF#3,** which would incorporate information (including the review of existing documents for known contamination, extent of contamination, contaminants, and land use restrictions requirements) regarding known and suspected contamination and includes requirements for protection of human health and the environment to be implemented on sites that may be contaminated. Work at PEC sites (including sites subject to cleanup) would require coordination with regulatory agencies such as DTSC before construction could advance. Project construction activities close to PEC sites may require disturbance of existing or potential contamination. Activities involving track construction would only disturb shallow soils, and activities involving construction at larger project features, such as stations and grade separations, would require substantial soil disturbance.

Depending on the nature, extent, and duration of project activities (e.g., the need for subsurface ground disturbance, the extent and type of contamination), requirements for building at PEC sites could include further evaluation of the level of contamination and associated potential risks to human health (including risks to children in nearby educational facilities and other sensitive receptors) and the environment, as well as site remediation. ESA reports would detail specific parcels with observed and measured contamination to incorporate into project plans and would provide recommendations regarding mitigation to be incorporated into the project design.

Two PEC sites warranting listing on the National Priorities List would be disturbed and developed as part of project construction. These two sites are the Orange County North Basin Superfund site (groundwater plume covering approximately 8 square miles that overlaps with portions of the project alignment), and Exide site in Vernon (located where the 26th Street LMF would be built),

proposed for listing as a Superfund site.[5] These two sites present potentially extensive impacts because of the nature of their contamination, lack of full characterization, and complexity of remedial approaches.

For additional details, including contaminants of concern, documented extent of contaminants, and current environmental status related to the Exide and Orange County North Basin sites, refer to Section 3.10.5.6. Groundwater monitoring and site characterization to delineate the respective boundaries of these Superfund sites are currently ongoing and being performed under oversight of DTSC and USEPA. Because of the potential extent of impacts associated with the Superfund sites and because remediation completion is currently unknown, Appendix 3.10-A contains a status update of the Superfund sites evaluated during the preparation of the *Los Angeles to Anaheim Project Section Hazardous Materials and Wastes Technical Report* (Authority 2025a).

LMF construction under Shared Passenger Track Alternative A would involve the construction of several support buildings, as well as water storage, power supply, and stormwater treatment infrastructure on the Exide site in Vernon. Under Shared Passenger Track Alternative A, the entire Exide property would be developed for construction of the 26th Street LMF. Most excavation on this property would be shallow (i.e., not expected to encounter groundwater) and be limited to roadway realignment, new tracks, and building foundations, but encountering existing contaminated soil on site is anticipated. According to the *Los Angeles to Anaheim Project Section Supplement to the Hazardous Materials and Wastes Technical Report* (Authority 2025b), analysis of potential environmental impacts from PEC sites in and adjacent to the footprint of the 26th Street LMF indicates contamination is likely present and assigned a major (80 to 100 percent) category to the whole LMF footprint. Additional details are found in Section 3.1.1, Shared Passenger Track Alternative A, of the aforementioned supplement report. Analysis related to temporary and permanent impacts on groundwater volume, quality, and recharge is discussed under Impact HWR-5 and Impact HWR-6 in Section 3.8.

Only excavation associated within the Fullerton Trench under Shared Passenger Track Alternative A (and Shared Passenger Track Alternative B) near the Fullerton Municipal Airport is expected to encounter groundwater, which is outside the boundary of the Orange County North Basin. Within the Orange County North Basin, earthwork activities in proximity to map ID 155 (Autonetics/Raytheon at 311 S Highland; USEPA ID CAN000900354) depicted on Figure 19 of Appendix 3.10-A (potentially one of the responsible parties that contaminated groundwater in the Orange County North Basin) would likely encounter contaminated soil. In lieu of remediating contaminated sites, project design and engineering controls could be implemented to avoid contaminated sites if the extent of the contamination or the logistics of remediation are prohibitive. Engineering controls as part of the project design such as redesigning aboveground spans to avoid contaminated locations could be implemented and will reduce the potential for exposure to contamination.

For PEC sites subject to remediation, construction activities would be coordinated with remediation activities to avoid damaging or interfering with soil containment, vapor barriers, groundwater remediation infrastructure, or other remedial systems. Protection of existing vapor barriers is required by **HMW-IAMF#3**, and a CMP will be developed in accordance with **HMW-IAMF#4** to address work at contaminated sites and per **GEO-IAMF#3**, for work in underground construction areas and facilities where subsurface gases are present at PEC sites. Monitoring and response protocols for exposure of personnel to constituents of concern will also be included in the CMP, along with procedures for preventing the spreading of contamination and migration of hazardous materials to soil or groundwater. Practices required by **GEO-IAMF#3** will include using safe and explosion-proof equipment during construction and testing for gases regularly. Installation of passive or active gas venting systems, gas collection systems, and active

[5] The Exide site's listing on the National Priorities List has been proposed and is pending.

monitoring systems and alarms will be required in underground construction areas and facilities where subsurface gases are present. Once installed, active monitoring systems will detect if unsafe levels of gas accumulate in construction areas and will establish the effectiveness of gas venting systems (Impact HMW-7 discusses the monitoring of subsurface gases to address migration of hazardous gases from the oil fields, gas fields, and oil and gas wells during construction).

HMW-IAMF#4 reduces the potential for effects associated with the areas of known contamination and discovery of unanticipated contamination by requiring preparation of a soil management plan prior to completion of 30 percent design and a CMP prior to construction. The soil management plan will include requirements for protection of human health and the environment to be implemented by the Authority-designated construction contractor during construction at sites where contamination is or may be present. The soil management plan will also provide protocols for protection of existing remedial systems and contamination controls where construction could damage such systems, thereby minimizing potential unanticipated releases. The CMP requires specific procedures for work in areas with known or suspected contamination and remedial systems, and the development and implementation of site-specific health and safety protocols that address potential site hazards in compliance with California Division of Occupational Safety and Health regulations for handling contaminated media. Discovery of contamination may require oversight by the applicable regulator to ensure sufficient cleanup processes are implemented.

In addition, per **HMW-IAMF#6,** procedures for spill prevention at PEC sites will be addressed in the CMP, which will require handling and storing containers and drums in a manner that prevents spills; secondary containment for hazardous liquids; and a spill response/containment kit to be maintained on site. Note that spill prevention would apply to documented contamination as well as discovery of unanticipated contamination. Incorporation of procedures established in the SPCC plan included in the project design through **HMW-IAMF#6** will avoid and minimize temporary impacts.

Furthermore, incorporation of **HMW-IAMF#9** includes use of an Environmental Management System and materials selection process that will be employed by the Authority-designated contractor during decontamination or treatment of contaminated media, which will further preclude the spread of contamination from affected PEC sites by reducing the risk of spills or further releases and creation of contaminated media.

Therefore, **HMW-IAMF#1**, **HMW-IAMF#3**, **HMW-IAMF#4**, **HMW-IAMF#6**, **HMW-IAMF#9**, and **GEO-IAMF#3** will minimize impacts for most PEC sites. However, because of the extensive nature of potential impacts associated with the two Superfund sites discussed above and because the exact nature of the remediation, specifically the remedy, is not yet known, significant exposure to contaminants associated with these sites could occur during construction of Shared Passenger Track Alternative A. The two Superfund sites are being investigated, monitored, and remediated under the purview of USEPA, DTSC, and the Regional Water Quality Control Board, and therefore construction activities in areas affected by these sites would also require coordination with the applicable oversight agencies. With implementation of **HMW-MM#2**, **Coordination of HSR Design and Construction with Remediation of Exide Site and Orange County North Basin Superfund Site**, the Authority will be required to coordinate with the regulatory oversight agencies and the responsible parties on the design of the project alternatives (including the 26th Street LMF) and the Fullerton HSR Station Option. For the Exide site, coordination will include DTSC, USEPA, Los Angeles Regional Water Quality Control Board, South Coast Air Quality Management District, and City of Vernon. For the Orange County North Basin Superfund site, these agencies include USEPA, DTSC, Orange County Water District, and Santa Ana Regional Water Quality Control Board. **HMW-MM#2** also requires the Authority to engage with public interested parties at specific design milestones. As such, potential controls intended for the protection of human health and the environment and compliance with applicable cleanup requirements would be implemented as necessary.

Shared Passenger Track Alternative B

Impacts for Shared Passenger Track Alternative B would be similar to those of Shared Passenger Track Alternative A and could potentially release or disturb hazardous materials on or near PEC sites. According to the *Los Angeles to Anaheim Project Section Supplement to the Hazardous Materials and Wastes Technical Report* (Authority 2025b), analysis of potential environmental impacts from PEC sites within the RSA for the 15th Street LMF indicates a minor to moderate likelihood of encountering hazardous waste–affected soils (compared to a major likelihood of encountering affected soils under the 26th Street LMF). None of the proposed excavation on the Exide site or in the boundary of the Orange County North Basin groundwater plume is expected to encounter groundwater under the Shared Passenger Track Alternatives.

Impacts associated with the Orange County North Basin and its potentially responsible parties would be the same as those of Shared Passenger Track Alternative A. However, although the 26th Street LMF (that traverses the entire Exide site) would not be included under Shared Passenger Track Alternative B, construction associated with Hobart Yard modifications would still occur on a portion of the Exide site, which overlaps the project alignment (map ID 46). In contrast to Shared Passenger Track Alternative A, instead of locating LMF support buildings, water storage, power supply, and stormwater treatment infrastructure would be located on this proposed Superfund site. Although potential impacts associated with the Exide parcel would be reduced, Shared Passenger Track Alternative B would still overlap with a portion of the Exide parcel. Therefore, Shared Passenger Track Alternative B will incorporate the same IAMFs used for Shared Passenger Track Alternative A (**HMW-IAMF#1**, **HMW-IAMF#3**, **HMW-IAMF#4**, **HMW-IAMF#6**, **HMW-IAMF#9**, and **GEO-IAMF#3**), which will minimize impacts for most PEC sites. However, construction on the two Superfund sites requires implementation of **HMW-MM#2**, to ensure close coordination with the regulatory agencies and the responsible parties on the design of the project alternatives.

High-Speed Rail Station Options

High-Speed Rail Station Option: Norwalk/Santa Fe Springs

With inclusion of the Norwalk/Santa Fe Springs HSR Station Option, impacts would be the same as those of the Shared Passenger Track Alternatives in the station area. Construction of the HSR platform, facilities, and parking would be in the same area that would be modified under the Shared Passenger Alternatives, which could potentially release or disturb hazardous materials on or near map ID 112 (Figure 13 of Appendix 3.10-A) or other PEC sites. Map ID 112 is associated with the Neville Chemical Corporation listed with soil and groundwater impacts. In addition, according to the *Los Angeles to Anaheim Project Section Supplement to the Hazardous Materials and Wastes Technical Report* (Authority 2025b), the same earthwork activities would be required and therefore the likelihood of encountering hazardous wastes would be the same. Therefore, the HSR station option will incorporate the same IAMFs used for Shared Passenger Track Alternative A (**HMW-IAMF#1**, **HMW-IAMF#3**, **HMW-IAMF#4**, **HMW-IAMF#6**, **HMW-IAMF#9**, and **GEO-IAMF#3**), which will minimize impacts.

High-Speed Rail Station Option: Fullerton

With inclusion of the Fullerton HSR Station Option, impacts would be greater than those of the Shared Passenger Track Alternatives in the station area. The construction area for the HSR platform, facilities, and parking would be within a larger area than what would be modified under the Shared Passenger Track Alternatives and would include more extensive excavations. There are two additional PEC sites (map IDs 154 and 155 on Figure 19 of Appendix 3.10-A) within the Fullerton HSR Station Option footprint, compared to the area that would be modified under the Shared Passenger Track Alternatives. One of the PEC sites is listed as Oscar Cleaners (map ID 154) and is categorized as a Category B site with no releases, and the other is listed as Fullerton Manufacturing/Raytheon (map ID 155) and is categorized as a Category A site with contaminant releases to both soil and groundwater. However, these two additional PEC sites are not on the Cortese List. Because the construction area for the Fullerton HSR Station Option is larger and includes more extensive excavations than those required for implementation of the Shared Passenger Track Alternatives (where most excavations would be shallow and limited to roadway realignment, new tracks, and building foundations), there would be a greater potential for

encountering hazardous wastes from PEC sites. However, the HSR station option will incorporate the same IAMFs used for Shared Passenger Track Alternative A (**HMW-IAMF#1**, **HMW-IAMF#3**, **HMW-IAMF#4**, **HMW-IAMF#6**, **HMW-IAMF#9**, and **GEO-IAMF#3**), which will minimize impacts. Implementation of **HMW-MM#2** would also be required with inclusion of the Fullerton HSR Station Option because construction within the Orange County North Basin Superfund project area (Figure 3.10-3) would potentially cause a significant hazard associated with encountering hazardous wastes from the site.

CEQA Conclusion

HMW-IAMF#1, **HMW-IAMF#3**, **HMW-IAMF#4**, **HMW-IAMF#6**, **HMW-IAMF#9**, and **GEO-IAMF#3** are included as part of the project design and would reduce potential impacts to less-than-significant levels for PEC sites, including Cortese List sites, other than the Orange County North Basin Superfund site and the Exide site in Vernon (proposed to be listed on the National Priorities List). With respect to the Orange County North Basin site and the Exide site in Vernon, in an abundance of caution owing to the extent of the contamination and the status of the characterization and remedial design as not yet complete, the impact under CEQA would be potentially significant because construction on or near the Orange County North Basin site and the Exide site in Vernon (both alternatives) would potentially cause a significant hazard to the public or the environment from a release of hazardous materials. The impact under CEQA related to construction of the project associated with these two specific sites would be potentially significant and would therefore require mitigation. With implementation of **HMW-MM#2**, involving close coordination with the regulatory oversight agencies and the responsible parties on the design of the project alternatives (including the 26th Street LMF) and the Fullerton HSR Station Option, and engagement with public interested parties at specific design milestones, the impact would be minimized; however, the impact would remain significant and unavoidable under CEQA. The Authority is continuing to study both the Orange County North Basin Superfund site and the Exide site, and this CEQA conclusion of a significant and unavoidable impact may be revised to less than significant in the forthcoming Final EIR/EIS if that additional study suggests no reasonable risk of significant impacts.

Impact HMW-5: Increased Exposure to Lead-Based Paint and Asbestos as a Result of Roadway and Building Demolition

Shared Passenger Track Alternative A

Construction of Shared Passenger Track Alternative A would result in commercial, residential, or industrial displacements, building demolition, as well as roadway and track modifications. Considering the history and timeline of development within the project corridor, it is likely that roadways, railroad tracks, or other structures that would be demolished or modified could have features or other structural components that contain asbestos. PCBs may be present in building materials subject to demolition. The inappropriate handling or prolonged exposure to ACM—specifically asbestos fibers—has been linked to mesothelioma and other serious health problems. In addition, lead could be released from soils along roadways or in yellow tape or paint during demolition activities.

The California Department of Industrial Relations/Occupational Safety and Health Administration has established comprehensive programs to address this issue. Specifically, in Title 8 of the California Code of Regulations, Section 1529, policies and procedures have been promulgated that establish requirements for the transport, disposal, storage, containment, and housekeeping activities associated with activities involving asbestos. Compliance with stipulations and requirements detailed in the California Code of Regulations, and likely the development of facility- or building-specific asbestos management plans, would be required to ensure full awareness, and disclosure of risks, to establish project-specific requirements for containment and housekeeping, and to protect workers and other local sensitive populations from exposure to dangerous levels of asbestos that may be generated during demolition of facilities or structures that contain asbestos in the construction materials (e.g., structural materials, insulation, fire proofing, tile/mastic, yellow tape, and paint).

Demolition could result in asbestos, PCBs, or lead exposure, which presents a potential safety risk to construction workers, the public, and the environment. Prior to demolition, the Authority would prepare design requirements that would require a contractor to prepare a demolition plan for the safe dismantling and removal of structural, roadway, or track components and debris, and would also include a plan for waste handling and proper asbestos, PCBs, and lead abatement (**HMW-IAMF#5**). If ACM, PCBs, and materials containing lead are handled appropriately from demolition through disposal, risks associated with exposure and contamination of the surrounding environment can be successfully minimized. Potential for exposure to asbestos, PCBs, or lead during demolition and associated effects would be primarily short term and temporary during construction, because that is when the materials are typically disturbed. However, it is also possible that the mishandling of these materials could result in long-term impacts on the environment (in the form of an accidental release resulting in contamination).

Asbestos fibers are generally released into the air when building materials containing asbestos are cut, torn, sanded, sawed, drilled, or scraped. Generally, ACM that is in good condition and will not be disturbed will not release asbestos fibers. Exposure to lead or lead contamination can occur during demolition of older structures (the disturbance of LBP can result in dust contaminated with lead). Moreover, PCB exposure and contamination can occur during the disturbance of thermal insulation material and building materials such as sealants, caulks, and joint compounds. Incorporation of a hazardous materials and waste plan as part of the project design, including procedures for hazardous waste transport, containment, storage, and disposal (**HMW-IAMF#7**), will also minimize potential health impacts on workers, the public, and the human environment.

Other hazardous waste that can be generated during project demolition includes PCB oils and chemically treated wood. Equipment that could contain PCBs includes electrical transformers and capacitors, motor oil and hydraulic fluid. Railroad ties are often treated with creosote (a carcinogen derived from the distillation of tar from wood or coal and used as a wood preservative). To address potential impacts associated with these materials, the Authority will prepare a demolition plan per the project design that will include proper handling, transport, and disposal of hazardous waste that could result from project demolition (**HMW-IAMF#5**). Construction-related hazardous waste is discussed in detail under Impact PU&E-5 in Section 3.6.

Shared Passenger Track Alternative B

Impacts for Shared Passenger Track Alternative B would be similar to those of Shared Passenger Track Alternative A. Although the 26th Street LMF would not be built, the buildings in that area would still be demolished under Shared Passenger Track Alternative B to build other project elements. Additional buildings would be demolished to build the 15th Street LMF; therefore, the amount of demolition waste would be greater for Shared Passenger Track Alternative B, which would increase the possibility of exposure to LBPs, PCBs, and ACMs. Shared Passenger Track Alternative B will incorporate the same IAMFs used for Shared Passenger Track Alternative A (**HMW-IAMF#5** and **HMW-IAMF#7**), which will reduce impacts.

High-Speed Rail Station Options

High-Speed Rail Station Option: Norwalk/Santa Fe Springs

With inclusion of the Norwalk/Santa Fe Springs HSR Station Option, impacts would be the same as those of the Shared Passenger Track Alternatives in the station area. Construction of the HSR platform, facilities, and parking would be in the same area that would be modified under the Shared Passenger Track Alternatives, and would not require additional building demolition. The HSR station option will incorporate the same IAMFs used for Shared Passenger Track Alternative A (**HMW-IAMF#5** and **HMW-IAMF#7**), which will minimize impacts.

High-Speed Rail Station Option: Fullerton

Impacts for the Fullerton HSR Station Option would be similar to those of the Shared Passenger Track Alternatives. Construction of the HSR platform, facilities, and parking would be in a larger area than would be modified under the Shared Passenger Track Alternatives, and would require demolition of several additional buildings, which would increase the possibility of exposure to

LBP, PCBs, and ACM. The HSR station option will incorporate the same IAMFs used for Shared Passenger Track Alternative A (**HMW-IAMF#5** and **HMW-IAMF#7**), which will minimize impacts.

CEQA Conclusion

HMW-IAMF#5 and **HMW-IAMF#7** are included as part of the project design. The impact under CEQA would be less than significant because potential asbestos, PCBs, or lead and other hazardous materials (e.g., in treated wood) exposure as a result of demolition would be effectively reduced as not to result in a significant hazard to the construction workers, the public, or the environment. The IAMFs include effective measures to avoid creation of a significant hazard. Impacts under CEQA would be less than significant; therefore, CEQA does not require mitigation.

Impact HMW-6: Handling of Hazardous Materials, Substances, or Waste within 0.25 Mile of a School

Shared Passenger Track Alternative A

Forty educational facilities are within the schools RSA (Table 3.10-5), which consists of the project footprint plus a 0.25-mile buffer. Hazardous materials would be used or stored within 0.25 mile of a school, which is considered to be a sensitive receptor. Additionally, hazardous wastes such as ACM, PCB, and LBP could be generated during demolition of existing structures, roadways, or track modifications within the project footprint. Also, the excavation of contaminated soils (from project implementation on or near a PEC site and from unknown or undocumented sources) during construction activities could result in the handling of hazardous waste within 0.25 mile of a school. This effect would be temporary and limited to the construction period.

Storage and transport of hazardous materials will be consistent with state and federal regulations (**HMW-IAMF#7**) and, project design measures, and permit conditions for transport, labeling, containment, cover, and other BMPs for storage and handling of hazardous materials during construction will be implemented via **HMW-IAMF#8** as part of the project design. Regulatory and permit requirements will apply near school sites to prevent accidental release of hazardous materials during transport, use, storage, or disposal. In addition, prior to construction, the Authority will prepare a soil management plan and provide it to the contractor to facilitate development of a CMP that addresses spill prevention and a response plan identifying response measures to be deployed in the event of an accidental release with **HMW-IAMF#6**. This plan will prescribe BMPs to prevent hazardous materials releases and to minimize the effect of a release were it to occur. BMPs include measures such as making sure containers used to store hazardous materials are in good condition and not leaking; keeping containers closed except when adding or removing hazardous materials; locating hazardous materials storage and handling areas away from natural watercourses, storm drains, and other sensitive receptors; and following recommended procedures for cleaning up accidental spills. In addition, the CMP will include specifications to address the release of contaminants or contaminated media via **HMW-IAMF#4** (including control of dust generated during construction and the handling of contaminated soil associated with excavation on an affected site), further reducing the potential release of on-site contaminants to the surrounding environment, including the educational facilities listed in Table 3.10-5.

Additionally, the Authority will prepare a demolition plan during project design that would address proper handling, transport, and disposal of hazardous waste that could result from project demolition (**HMW-IAMF#5**). These measures avoid the potential for an inadvertent release of hazardous materials and minimize the effects should a release occur in proximity to schools. However, even these requirements will not eliminate the possibility of a release of hazardous materials in quantities greater than the state threshold quantity given in subsection (l) of Section 25532 of the Health and Safety Code near schools within 0.25 mile of the project footprint.

HMW-MM#1, Limit Use of Extremely Hazardous Materials Near Schools During Construction, limits the use of extremely hazardous substances in quantities equal to or greater than the state threshold quantities specified pursuant to subdivision (j) of Section 25532 of the Health and Safety Code (as defined in 40 CFR Part 355.61) within 0.25 mile of a school. Prior to

construction activities, signage will be installed to delineate work areas within 0.25 mile of a school, informing the contractor not to bring extremely hazardous substances into the area. The contractor will be required to monitor use of extremely hazardous substances This mitigation measure for hazardous materials is consistent with California Public Resources Code Section 21151.4 and will be effective in reducing the effect of hazardous materials in proximity to schools.

Shared Passenger Track Alternative B

Impacts for Shared Passenger Track Alternative B would be the same as those of Shared Passenger Track Alternative A. Instead of the development of an LMF at 26th Street (associated with Shared Passenger Track Alternative A), there would be an LMF at 15th Street under Shared Passenger Track Alternative B. However, the same 40 educational facilities are within the schools RSA (the RSA for educational facilities is the project footprint plus a 0.25-mile buffer) for Shared Passenger Track Alternative B. Construction of Shared Passenger Track Alternative B would require the handling of hazardous materials, including extremely hazardous materials, within 0.25 mile of schools that could pose a health or safety hazard to students in the event of a release of hazardous materials. Shared Passenger Track Alternative B will incorporate the same IAMFs and would implement the same mitigation measures used for Shared Passenger Track Alternative A (**HMW-IAMF#4**, **HMW-IAMF#5**, **HMW-IAMF#6**, **HMW-IAMF#7**, **HMW-IAMF#8**, and **HMW-MM#1**), which will minimize impacts.

High-Speed Rail Station Options

High-Speed Rail Station Option: Norwalk/Santa Fe Springs

With inclusion of the Norwalk/Santa Fe Springs HSR Station Option, impacts would be the same as those of the Shared Passenger Track Alternatives in the station area. Construction of the HSR platform, facilities, and parking would be in the same area that would be modified under the Shared Passenger Track Alternatives, which is within 0.25 mile of John Glenn High School. The HSR station option will incorporate the same IAMFs and would implement the same mitigation measures used for Shared Passenger Track Alternative A (**HMW-IAMF#4**, **HMW-IAMF#5**, **HMW-IAMF#6**, **HMW-IAMF#7**, **HMW-IAMF#8**, and **HMW-MM#1**), which will minimize impacts on schools near the stations.

High-Speed Rail Station Option: Fullerton

With inclusion of the Fullerton HSR Station Option, impacts would be the same as those of the Shared Passenger Track Alternatives in the station area. Construction of the HSR platform, facilities, and parking would be in a larger area than would be modified under the Shared Passenger Track Alternatives, but would also be within 0.25 mile of Richman Elementary School, Fullerton First United Methodist Preschool, Willshire Avenue Preschool, and Maple Elementary School. The HSR station option will incorporate the same IAMFs and would implement the same mitigation measures used for Shared Passenger Track Alternative A (**HMW-IAMF#4**, **HMW-IAMF#5**, **HMW-IAMF#6**, **HMW-IAMF#7**, **HMW-IAMF#8**, and **HMW-MM#1**), which will minimize impacts on schools near the station.

CEQA Conclusion

HMW-IAMF#4, **HMW-IAMF#5**, **HMW-IAMF#6, HMW-IAMF#7**, and **HMW-IAMF#8** are included as part of the project design. The impact under CEQA would still be potentially significant because construction activities would require the handling of hazardous materials, including extremely hazardous materials, within 0.25 mile of schools. Improper handling of such materials in storage or during use and transport could pose a health or safety hazard to students in the event of an inadvertent release of hazardous materials. The construction contractor would develop and implement a spill prevention and response plan to reduce the risk of inadvertent releases and to ensure appropriate response measures are identified and readily deployable in the event of an accidental release. The Shared Passenger Track Alternatives would not completely avoid the potential to generate emissions during handling of hazardous materials and inadvertent release (i.e., spill) near educational facilities. Therefore, CEQA requires mitigation. The Authority would implement **HMW-MM#1**, which will limit the use of extremely hazardous materials near schools during construction.

With implementation of **HMW-MM#1**, the impact under CEQA would be less than significant because the construction contractor will be required to monitor and limit the handling of extremely hazardous materials, develop a spill prevention and response plan, and avoid the handling (i.e., storage, transport, and use) of such substances or a mixture containing these substances in a quantity equal to or greater than the state threshold specified pursuant to subdivision (j) of Section 25532 of the Health and Safety Code within 0.25 mile of schools, to avoid a health or safety hazard to students.

Impact HMW-7: Risks During Construction on or Near Landfills and Oil and Gas Wells

Shared Passenger Track Alternative A

Two closed landfills are within the landfills RSA that have also been identified as PEC sites: map ID 227 in Vernon and map ID 105 in Norwalk, as presented in Appendix 3.10-A (Figures 5 and 13). Although both sites are within 1,000 feet of Shared Passenger Track Alternative A's footprint and therefore within the landfills RSA, neither site is within the project footprint and the risk of contamination to the project section is considered low based on their location and closed case statuses. PEC site #227 has a closed status as of 1965 with no additional information available on EnviroStor or GeoTracker. PEC site #105 had a 10,000-gallon underground diesel tank removed in 1990 and received a No Further Action letter in 1997 for diesel tank removal only, but the 1997 letter stated that the site still contained chlorinated volatile organic compounds and was under a water quality monitoring program. PEC site #105 is associated with former a Class II landfill, which received liquid wastes from 1961 to 1972.

Prior to ground-disturbing activities, the contractor will prepare a technical memorandum pursuant to **HMW-IAMF#2** verifying to the Authority that methane protection measures will be implemented for work within 1,000 feet of a landfill, including gas detection systems and personnel training. This minimizes the potential that methane gas would be released from a landfill as a result of construction. There are six additional closed landfills outside the project footprint and the potential risk of explosion from these is addressed in Section 3.9.

The project section would traverse four oil fields and have 677 oil production wells and associated water flood/disposal wells present within 0.25 mile of the project footprint (Table 3.10-6); therefore, there are potential risks related to encountering oil wells in the project section. There are 14 oil wells within the project footprint, 12 of which are plugged or abandoned, and the remaining 2 are idle and buried.

Petroleum products, including crude oil, are considered in this analysis because they may pose a hazard to human health and safety or to the environment if released from the oil wells. Release could occur through rupture of a pipeline or a well casing that is disturbed during construction. Prior to construction, the contractor will prepare a plan addressing spill prevention as part of the **HMW-IAMF#6**. This plan will prescribe BMPs that must be followed to respond to inadvertent releases, including from oil and gas wells. Spill response preparedness would minimize the effect of an inadvertent release should one occur.

The plan will also address identification and inspection, prior to ground-disturbing activities, of active and abandoned oil and gas wells within 200 feet of the proposed HSR tracks, and active wells will be abandoned and relocated in accordance with CalGEM standards and in coordination with the well owners. Abandoned wells will be inspected and re-abandoned, as necessary, in accordance with the same standards and in coordination with the well owner through **SS-IAMF#4**.

Hazards related to potential migration of hazardous gases from the oil fields, gas fields, oil and gas wells, or other subsurface sources can be reduced or eliminated by following federal and state Occupational Safety and Health Administration regulatory requirements for excavations, and by consulting with other agencies as appropriate, such as CalGEM and DTSC, regarding known areas of concern. The Authority will identify, inspect, abandon, and relocate active wells per **SS-IAMF#4** and **GEO-IAMF#3** and monitor for subsurface gases and use explosion-proof equipment during project construction in areas where explosion hazards exist. Both measures will be implemented as part of the CMP required under **HMW-IAMF#4** and **GEO-IAMF#3**. In addition,

a spill prevention plan will be in place, and spill containment equipment will be at the site during removal or decommissioning of wells, also as part of **HMW-IAMF#4**.

Disturbance or releases of hazardous materials during construction on or near oil and gas wells could present health and safety risks to the public, construction workers, and the environment. However, potential risks would be minimized through IAMFs intended to avoid creation of a hazard to the public, construction workers, or the environment. Successful implementation of these measures would prevent or minimize the likelihood of a hazardous materials release and prepare workers in the event that a release does occur.

Shared Passenger Track Alternative B

Impacts for Shared Passenger Track Alternative B would be similar to those of Shared Passenger Track Alternative A. Instead of the development of an LMF at 26th Street (associated with Shared Passenger Track Alternative A), there would be an LMF at 15th Street under Shared Passenger Track Alternative B, which would increase the area where there could be disturbance of hazardous materials associated with unknown or undocumented landfills operations and oil and gas wells because not all contamination is known and mapped. As mentioned previously, the increase in the disturbance area is associated with the additional land clearing required for the 15th Street LMF. The amount of land area disturbed would be greater for Shared Passenger Track Alternative B, resulting in a greater likelihood to encounter and inadvertently disturb undocumented contaminated media. Shared Passenger Track Alternative B will incorporate the same IAMFs used for Shared Passenger Track Alternative A (**HMW-IAMF#2**, **HMW-IAMF#4**, **HMW-IAMF#6**, **GEO-IAMF#3**, and **SS-IAMF#4**), which will minimize impacts.

High-Speed Rail Station Options

High-Speed Rail Station Option: Norwalk/Santa Fe Springs

With inclusion of the Norwalk/Santa Fe Springs HSR Station Option, impacts would be the same as those of the Shared Passenger Track Alternatives in the station area. Construction of the HSR platform, facilities, and parking would be in the same area that would be modified under the Shared Passenger Track Alternatives, which does not include landfills or oil and gas wells in the RSA, but does include two CalGEM oil wells. However, the HSR station option will incorporate the same IAMFs used for Shared Passenger Track Alternative A (**HMW-IAMF#2**, **HMW-IAMF#4**, **HMW-IAMF#6**, **GEO-IAMF#3**, and **SS-IAMF#4**), which will minimize impacts.

High-Speed Rail Station Option: Fullerton

With inclusion of the Fullerton HSR Station Option, impacts would be similar to those of the Shared Passenger Track Alternatives. Construction of the HSR platform, facilities, and parking would be on an area larger than what would be modified under the Shared Passenger Track Alternatives, but would be within the same distance to the one oil well location in the oil and gas wells RSA (Appendix 3.10-A, Figures 19 and 20). The larger area of disturbance would increase the area where there could be disturbance of hazardous materials associated with unknown or undocumented landfill operations and oil and gas wells because not all contamination is known and mapped. However, the HSR station option will incorporate the same IAMFs used for Shared Passenger Track Alternative A (**HMW-IAMF#2**, **HMW-IAMF#4**, **HMW-IAMF#6**, **GEO-IAMF#3**, and **SS-IAMF#4**), which will minimize impacts.

CEQA Conclusion

HMW-IAMF#2, **HMW-IAMF#4**, **HMW-IAMF#6**, **GEO-IAMF#3**, and **SS-IAMF#4** are part of the project design. The impact under CEQA would be less than significant because with these measures, construction on or near landfills or oil and gas wells would not result in hazardous materials spills or releases that would create a significant hazard to the public, construction workers, or the environment. The impact under CEQA would be less than significant; therefore, CEQA does not require mitigation.

Operational Impacts

Impact HMW-8: Operations and Maintenance Transport, Use, Storage, and Disposal of Hazardous Materials and Hazardous Wastes

Shared Passenger Track Alternative A

Operations would involve the use of small amounts of hazardous materials like solvents, paints, and cleaners for and generation of wastes from O&M of the LMF, tracks, stations, and railroad right-of-way as well as other systems required for HSR operations such as power systems, train control, signalizing, and communications. Operating trains would generate brake dust. However, dust would be primarily limited to track ballast areas. Additionally, **HYD-IAMF#1** will help minimize the potential impacts associated with the release of hazardous brake dust. Pervious areas, biofiltration devices, infiltration devices, and media filters as part of **HYD-IAMF#1** are capable of removing both particulate and dissolved metals from runoff. Brake dust that flows through these stormwater treatment measures would be filtered out. Therefore, the use of hazardous materials and generation of hazardous waste would be limited mostly to the maintenance and repair of trains. Effects associated with O&M would largely be a function of the size of the facility, location, and usage (frequency and type of activity). The use of hazardous materials along the trackway (for example for weed control or to lubricate switching equipment) would be intermittent, as would the routine transport, storage, use, and disposal of small amounts of hazardous materials at stations and the LMF. The same transportation corridors would be used to transport hazardous materials for operations as during construction (Impact HMW-1). However, the volume of hazardous materials to be transported, stored, used, or disposed of during operations would be reduced compared to construction. Although the overall volume of hazardous materials would be reduced during operations, the routine transport, storage, use, or disposal of hazardous materials could also result in accidental releases of hazardous materials from improper handling. Risks related to routine transport, storage, use, or disposal of hazardous materials during project operation would be intermittent.

HMW-IAMF#7 requires the Authority to handle hazardous materials in compliance with applicable state and federal regulations during O&M activities, as described in Section 3.10.2 and Impact HMW-1. These regulations will apply throughout the project alignment and for any applicable transportation activities to avoid and prevent accidental release of hazardous materials during routine transport, storage, use, or disposal.

Prior to O&M activities, the Authority will prepare hazardous materials monitoring plans, pursuant to **HMW-IAMF#10**. Preparation and compliance with these plans would minimize the potential for effects from hazardous materials used during O&M of Shared Passenger Track Alternative A. **HYD-IAMF#1** will also require the use of low-impact development techniques to control stormwater runoff from track ballast. For example, brake dust metals will be kept on site and will not leave the project footprint.

The Authority will register the project with the State of California as a hazardous waste generator and implement the requirements for storage, labeling, contingency planning, training, shipping, reporting, and disposal for project activities, pursuant to California Code of Regulations Title 22, Section 66260.

Additionally, operations will require proper management of hazardous materials routinely used through development of an Environmental Management System pursuant to **HMW-IAMF#9**, which will annually replace new state- and federally listed hazardous materials with nonhazardous materials.

Shared Passenger Track Alternative B

Impacts for Shared Passenger Alternative B would be the same as those of Shared Passenger Track Alternative A. Instead of the development of an LMF at 26th Street (associated with Shared Passenger Track Alternative A), there would be an LMF at 15th Street under Shared Passenger Track Alternative B. Operation of the 15th Street LMF B would also require the use of the same hazardous materials. Shared Passenger Track Alternative B will incorporate the same IAMFs

used for Shared Passenger Track Alternative A (**HMW-IAMF#7**, **HMW-IAMF#9**, **HMW-IAMF#10**, and **HYD-IAMF#1**), which will minimize impacts.

High-Speed Rail Station Options

High-Speed Rail Station Option: Norwalk/Santa Fe Springs

With inclusion of the Norwalk/Santa Fe Springs HSR Station Option, impacts would be the same as those of the Shared Passenger Track Alternative in the station area. O&M of the station facilities would not require the use of different or additional hazardous materials (e.g., solvents, paints, cleaners); these materials would primarily be used along the HSR guideway, at switching equipment locations, and at the maintenance facilities, rather than passenger stations. The HSR station option will incorporate the same IAMFs used for Shared Passenger Track Alternative A (**HMW-IAMF#7**, **HMW-IAMF#9**, **HMW-IAMF#10**, and **HYD-IAMF#1**), which will minimize impacts.

High-Speed Rail Station Option: Fullerton

With inclusion of the Fullerton HSR Station Option, impacts would be the same as those of the Shared Passenger Track Alternatives in the station area. O&M of the station would not require the use of different or additional hazardous materials (e.g., solvents, paints, cleaners); these materials would primarily be used along the HSR guideway, at switching equipment locations, and at the maintenance facilities, rather than passenger stations. The HSR station option will incorporate the same IAMFs used for Shared Passenger Track Alternative A (**HMW-IAMF#7**, **HMW-IAMF#9**, **HMW-IAMF#10**, and **HYD-IAMF#1**), which will minimize impacts.

CEQA Conclusion

HMW-IAMF#7, **HMW-IAMF#9**, **HMW-IAMF#10**, and **HYD-IAMF#1** are included as part of the project design. The impact under CEQA would be less than significant because the limited potential for release of hazardous materials during the intermittent transport, use, storage, and disposal of such substances used during operations would not result in a significant hazard to the public or the environment with implementation of the controls required in these IAMFs. The IAMFs include effective measures to avoid creation of a significant hazard to the public or the environment. These measures allow for proper management of hazardous materials routinely used during operations. Impacts under CEQA would be less than significant; therefore, CEQA does not require mitigation.

Impact HMW-9: Operations and Maintenance Upset and Accident Conditions Involving the Release of Hazardous Materials into the Environment

Shared Passenger Track Alternative A

Long-term operation of Shared Passenger Track Alternative A would involve the intermittent transport, storage, use, and disposal of hazardous materials for O&M of the stations, tracks, and railroad right-of-way as well as other systems required for HSR operations such as power systems, train control, signalizing, and communications. At the Level-III LMF at 26th Street, in addition to daily inspections and testing, maintenance activities would consist of predeparture cleaning of trains involving the use of hazardous materials and generation of waste in the city of Los Angeles. Maintenance activities at the LMF would occur daily but the use of hazardous materials and generation of hazardous wastes would be intermittent.

Releases or spills can occur from the improper storage and handling of hazardous materials, train derailment, vehicle or rail collision or similar accidents, seismic activity, or inclement weather. Potential hazardous material releases along rail corridors can also include, but are not limited to, valve leakage or safety valve releases, which could emit hazardous material in the form of liquids or gases. The degree of effect from a release or spill of hazardous materials is dependent on the type of release and proximity of the spill to population centers, concentrated development, and environmentally sensitive areas.

The pathways through which the community or the environment (e.g., local air quality, biota) could be exposed to hazardous materials include dermal contact; ingestion or inhalation of contaminants in air emissions and dust; and inadvertent migration, including stormwater runoff and percolation into the soil, of hazardous materials from the release location as a result of improper containment or decontamination or lack of containment during inclement weather.

The design of the project includes measures (**HMW-IAMF#10**) to minimize the risk of accidental releases of hazardous materials during operations, including a requirement to develop a Hazardous Materials Business Plan and SPCC plan for long-term operations. The SPCC plan for long-term operations will identify emergency contact information in the event of a release, site-specific chemical inventories, and vicinity and facility maps (the SPCC plan applies to materials including oil or oil products, such as diesel fuel, gasoline, lube oil, and hydraulic oil). This information will allow emergency responders to more quickly and adequately respond in the event of an inadvertent release of hazardous materials and minimize effects of exposure to humans and the environment. In addition, the Authority is committed to minimizing the use of hazardous materials through the material selection process and the use of an Environmental Management System to track the full inventory of hazardous materials used for O&M with **HMW-IAMF#9**. **HMW-IAMF#7**, which requires compliance with established state and federal regulations during O&M activities, requires proper handling of materials and wastes to prevent accidental releases and spillage or minimize impacts of such releases should they occur. With incorporation of these measures, the risks of upsets and accident conditions will be limited.

Shared Passenger Track Alternative B

Impacts for Shared Passenger Alternative B would be the same as those of Shared Passenger Track Alternative A. Instead of the development of an LMF at 26th Street (associated with Shared Passenger Track Alternative A), there would be an LMF at 15th Street under Shared Passenger Track Alternative B, but would involve the same types of maintenance activities. O&M under this alternative could potentially cause an upset and accident of hazardous materials. Shared Passenger Track Alternative B will incorporate the same IAMFs as Shared Passenger Track Alternative A (**HMW-IAMF#7**, **HMW-IAMF#9**, and **HMW-IAMF#10**), which will minimize impacts.

High-Speed Rail Station Options

High-Speed Rail Station Option: Norwalk/Santa Fe Springs

With inclusion of the Norwalk/Santa Fe Springs HSR Station Option, impacts would be the same as those of the Shared Passenger Track Alternatives in the station area. O&M of the HSR station elements would not include activities that would result in different potential impacts related to an upset and accident of hazardous materials. The HSR station option will incorporate the same IAMFs used for Shared Passenger Track Alternative A (**HMW-IAMF#7**, **HMW-IAMF#9**, and **HMW-IAMF#10**), which will minimize impacts.

High-Speed Rail Station Option: Fullerton

With inclusion of the Fullerton HSR Station Option, impacts would be the same as those of the Shared Passenger Track Alternatives in the station area. O&M of the HSR station elements would not include activities that would result in different potential impacts related to an upset and accident of hazardous materials. The HSR station option will incorporate the same IAMFs used for Shared Passenger Track Alternative A (**HMW-IAMF#7**, **HMW-IAMF#9**, and **HMW-IAMF#10**), which will minimize impacts.

CEQA Conclusion

HMW-IAMF#7, **HMW-IAMF#9**, and **HMW-IAMF#10** are included as part of the project design. The impact under CEQA would be less than significant. Although intermittent operational activities would increase the risk of accidental release of hazardous materials, the IAMFs include effective measures to avoid creation of a significant hazard to workers, the public, or the environment. The IAMFs include measures for compliance with established state and federal regulations involving handling and transport of hazardous materials; and implementation of a Hazardous Materials Business Plan, SPCC plan, and Environmental Management System. Impacts under CEQA would be less than significant; therefore, CEQA does not require mitigation.

Impact HMW-10: Operations and Maintenance Near Sites of Potential Environmental Concern (Including Cortese List Sites)

Shared Passenger Track Alternative A

PEC sites, including those on the Cortese List within the project footprint, are presented in Table 3.10-4. O&M activities related to Shared Passenger Track Alternative A would occur near

sites of known or unknown contamination. However, prior to construction, Phase I ESAs and soil testing would have already occurred during the right-of-way acquisition phase, pursuant to **HMW-IAMF#1**, rendering the potential disruption or exacerbation of a known or unknown site of contamination during operation to minor levels. Parcels that require a Phase II ESA (e.g., soil, groundwater, soil vapor subsurface investigations) will be identified using information and data obtained from the Phase I ESAs. Phase II and subsequent investigation may require coordination with federal, state, and local agency officials, as well as other stakeholders.

In addition, O&M would have limited potential for ground disturbance and risks would be correspondingly reduced when compared to construction. As a result, operation of Shared Passenger Track Alternative A near PEC sites, including those on the Cortese List, would not result in the disturbance or release of hazardous materials that could create a significant hazard to public health or the environment.

Shared Passenger Track Alternative B

Impacts for Shared Passenger Alternative B would be the same as those of Shared Passenger Track Alternative A. Instead of the development of an LMF at 26th Street (associated with Shared Passenger Track Alternative A), there would be an LMF at 15th Street under Shared Passenger Track Alternative B, which would involve the same type of O&M activities. O&M at the 15th Street LMF would be near additional PEC sites, but would have limited potential for ground disturbance that could potentially result in encounters with and exposure to hazardous materials. Shared Passenger Track Alternative B will incorporate the same IAMF used for Shared Passenger Track Alternative A (**HMW-IAMF#1**), which will minimize impacts.

High-Speed Rail Station Options

High-Speed Rail Station Option: Norwalk/Santa Fe Springs

With inclusion of the Norwalk/Santa Fe Springs HSR Station Option, impacts would be the same as those of the Shared Passenger Track Alternatives in the station area. O&M of the HSR station elements would not involve ground disturbance that could potentially result in encounters with and exposure to hazardous materials. The HSR station option will incorporate the same IAMF used for Shared Passenger Track Alternative A (**HMW-IAMF#1**), which will minimize impacts.

High-Speed Rail Station Option: Fullerton

With inclusion of the Fullerton HSR Station Option, impacts would be the same as those of the Shared Passenger Track Alternatives within the station area. O&M of the HSR station elements would not involve ground disturbance that could potentially result in encounters with and exposure to hazardous materials. The HSR station option will incorporate the same IAMF used for Shared Passenger Track Alternative A (**HMW-IAMF#1**), which will minimize impacts.

CEQA Conclusion

HMW-IAMF#1 and compliance with applicable regulatory requirements are included as part of the project. The impact under CEQA would be less than significant because operation of the project near PEC sites or Cortese List sites would not result in the release of hazardous materials that could create a significant hazard to the public or the environment. Therefore, CEQA does not require mitigation.

Impact HMW-11: Operations and Maintenance Handling of Hazardous Materials or Waste within 0.25 Mile of a School

Shared Passenger Track Alternative A

There would be long-term risks associated with the handling of small amounts of hazardous materials within 0.25 mile of the 40 educational facilities during HSR operations (Appendix 3.10-A; Authority 2025a, Appendix B-5). As noted in the *Los Angeles to Anaheim Project Section Hazardous Materials and Wastes Technical Report* (Authority 2025a), there are five schools near optional stations. John H. Glenn High School is within 0.25 mile of the optional Norwalk/Santa Fe Springs HSR platform and station facilities and Richman Elementary School, Maple Elementary School, Fullerton First United Methodist Preschool, and Willshire Avenue Preschool are within 0.25 mile of the optional Fullerton HSR platform and station facilities. However, handling of

hazardous materials for O&M of the HSR system would occur primarily at the 26th Street LMF. No educational facilities are within 0.25 mile of the proposed 26th Street LMF.

The HSR trains would operate on electric power, and therefore would have none of the emissions associated with the use of diesel fuel, natural gas, or other fuels. No extremely hazardous materials would be required to operate the passenger rail service or the LMF. However, there would be intermittent use of small amounts of hazardous materials for O&M of the HSR track, stations, and other systems. Maintenance activities (inspections, predeparture cleaning, testing) at the LMF would occur daily but the materials used would be similar to those used for other transportation facilities and the use of hazardous materials and generation of hazardous wastes at the LMF would be intermittent. Compliance with established state and federal regulations during O&M activities through **HMW-IAMF#7** will minimize the potential for improper handling of materials and wastes during routine transport, storage, use, or disposal of hazardous materials. As described under Impact HMW-10, preparation and implementation of a Hazardous Materials Business Plan, SPCC plan, and Environmental Management System will be required. With incorporation of **HMW-IAMF#9** and **HMW-IAMF#10**, there would be limited potential risks that O&M within 0.25 mile of a school could potentially expose students or staff to hazardous materials.

Shared Passenger Track Alternative B

Impacts for Shared Passenger Alternative B would be the same as those of Shared Passenger Track Alternative A. Instead of the development of an LMF at 26th Street (associated with Shared Passenger Track Alternative A), there would be an LMF at 15th Street under Shared Passenger Track Alternative B. No schools are within 0.25 mile (schools RSA) of the proposed 15th Street LMF. Shared Track Alternative B will incorporate the same IAMFs used for Shared Passenger Track Alternative A (**HMW-IAMF#7**, **HMW-IAMF#9**, and **HMW-IAMF#10**), which will minimize impacts.

High-Speed Rail Station Options

High-Speed Rail Station Option: Norwalk/Santa Fe Springs

With inclusion of the Norwalk/Santa Fe Springs HSR Station Option, impacts would be the same as those of the Shared Passenger Track Alternatives in the station area. John H. Glenn High School is within 0.25 mile of the Norwalk/Santa Fe Springs HSR Station Option. Therefore, O&M of the station within 0.25 mile of a school could potentially expose students or staff to hazardous materials. The HSR station option will incorporate the same IAMFs used for Shared Passenger Track Alternative A (**HMW-IAMF#7**, **HMW-IAMF#9**, and **HMW-IAMF#10**), which will minimize impacts.

High-Speed Rail Station Option: Fullerton

With inclusion of the Fullerton HSR Station Option, impacts would be the same as those of the Shared Passenger Track Alternatives within the station area. Richman Elementary School, Maple Elementary School, Fullerton First United Methodist Preschool, and Willshire Avenue Preschool are within 0.25 mile of the Fullerton HSR Station Option. Therefore, O&M of the station within 0.25 mile of a school could potentially expose students or staff to hazardous materials. The HSR station option will incorporate the same IAMFs used for Shared Passenger Track Alternative A (**HMW-IAMF#7**, **HMW-IAMF#9**, and **HMW-IAMF#10**), which will minimize impacts.

CEQA Conclusion

HMW-IAMF#7, **HMW-IAMF#9**, and **HMW-IAMF#10** are included as part of the project. The impact under CEQA would be less than significant because effective measures would be in place that limit the risk of a release of hazardous materials during O&M activities within 0.25 mile of the schools and the Shared Passenger Track Alternatives would not expose students or staff to hazardous materials. Impacts under CEQA would be less than significant; therefore, CEQA does not require mitigation.

3.10.7 Mitigation Measures

The Authority has identified the following hazardous materials mitigation measures for impacts under NEPA and significant impacts under CEQA that cannot be avoided or minimized adequately by IAMFs.

3.10.7.1 HMW-MM#1: Limit Use of Extremely Hazardous Materials Near Schools During Construction

Prior to construction, the contractor will prepare a memorandum establishing BMPs regarding hazardous materials related to construction activity for approval by the Authority. The memorandum will confirm that the contractor will not handle or store an extremely hazardous substance (as defined in California Public Resources Code Section 21151.4) or a mixture containing extremely hazardous substances in a quantity equal to or greater than the state threshold quantities specified pursuant to subdivision (j) of Section 25532 of the Health and Safety Code within 0.25 mile of a school. The memorandum will acknowledge that, prior to construction activities, signage will be installed to delineate work areas within 0.25 mile of a school, informing the contractor not to bring extremely hazardous substances into the area. The contractor will be required to monitor use of extremely hazardous substances. This construction mitigation measure for hazardous materials and wastes is consistent with California Public Resources Code Section 21151.4, and will be effective in reducing the impact to a less-than-significant level. The memorandum will be submitted to the Authority prior to construction involving an extremely hazardous substance and the contractor would implement during construction.

3.10.7.2 HMW-MM#2: Coordination of High-Speed Rail Design and Construction with Remediation of Exide Site and Orange County North Basin Superfund Site

Construction of the 26th Street LMF and construction associated with Hobart Yard modifications would occur in a portion of the area of the Exide site proposed for listing on the National Priorities List. Construction of the modifications to the Fullerton Metrolink/Amtrak Station, as well as the Fullerton HSR Station Option (if the station option is selected), would occur in the area of the Orange County North Basin Superfund site. Remedy design for the Exide site is in progress, and USEPA expects to select a final remedy for the Orange County North Basin Superfund site Decision Unit 01 by April 2026 and Decision Unit 02 by November 2027. Given that the contamination at these two sites warrants listing (the Exide site's listing has been proposed) on the National Priorities List, and that the remedial designs for these sites have not been finalized, close coordination with the regulatory oversight agencies and the responsible parties on the design within these two sites is required to ensure that (1) project design takes into consideration interim remedial actions implemented to date and proposed remedial designs; and (2) project design and construction methods address known and suspected contamination at these sites in a manner protective of human health and the environment.

In connection with advancing design of the selected HSR project alternative, it shall be the responsibility of the Authority to coordinate the project design at the Exide site and in the area of the Orange County North Basin Superfund site with responsible parties and the regulatory oversight agencies and to receive approvals from such agencies, as required. For the Exide site, these agencies include DTSC, USEPA, Los Angeles Regional Water Quality Control Board, South Coast Air Quality Management District, and City of Vernon. For the Orange County North Basin Superfund site, these agencies include USEPA, DTSC, Orange County Water District, and Santa Ana Regional Water Quality Control Board. As the designs progress, the Authority will coordinate the HSR design and construction methods with the responsible parties and the regulatory oversight agencies to ensure that the HSR design meets applicable cleanup requirements and the effectiveness of the cleanup remedies selected or proposed for the two sites is not impaired by construction and operation of the selected HSR project alternative.

In connection with advancing HSR design within the two sites, the Authority will also communicate with public interested parties who expressed an interest in the potential impacts on

human health and safety of project construction and operations on the Exide site and Orange County North Basin Superfund site. The Authority will provide these interested parties regular updates on the status of the project section design as it relates to the Exide site and the Orange County North Basin Superfund site and provide opportunities for meaningful input on the advancing design at the 30, 60, and 90 percent design milestones.

The list of public interested parties receiving the aforementioned updates will include any individual or entity who submitted a written comment letter to the Authority during the Draft EIR/EIS public comment period or to the Authority Board before its public meeting to certify the EIR/EIS, if the written comment explicitly requests to receive "updates specified in **HMW-MM#2** regarding HSR design at either the Exide Site or the Orange County North Basin site" and if the written comment includes a valid address. The Authority's Director of Environmental Services may, at their discretion, add individuals to this list who submit requests through other means.

Such updates shall take the form, at minimum, of a postcard or email, depending on the address specified by the requester, and shall (1) advise the public that the Authority has recently or will soon reach one of the aforementioned design milestones (30 percent, 60 percent, 90 percent) for the project at either the Exide site or the Orange County North Basin site, (2) summarize the regulatory agencies with whom the Authority has coordinated and identify their contact information to date, and (3) specify a comment period in which any written input from the public may be submitted for consideration. The Authority will take into consideration any timely submitted comments.

3.10.7.3 Impact of Mitigation

Implementation of **HMW-MM#1** would not result in secondary environmental impacts. The installation of signage to alert contractors of the presence of nearby schools would result in negligible visual impacts because they would be similar to other traffic signs in school areas. No other secondary impacts would occur in other areas. For this reason, there would be no secondary impacts related to implementation of this mitigation measure. Implementation of **HMW-MM#2** requires coordination with applicable regulatory agencies regarding the potential to disturb contaminated media. The Authority will also communicate with public interested parties who expressed an interest in the potential impacts on human health and safety of project construction and operations on the Exide site and Orange County North Basin Superfund site. However, conducting remediation activities under the oversight of the applicable regulatory agency would ensure that these activities would be properly conducted to mitigate the potential for adverse effects. In addition, implementation of **HMW-MM#2** would be beneficial in the long term because applicable properties would be cleaned up or subject to remedial controls to mitigate risks associated with remaining contamination, so construction could proceed. For this reason, there would be no secondary impacts related to implementation of this mitigation measure.

3.10.7.4 Early Action Projects

Table 3.10-7 lists the mitigation measures required for the early action projects.

Table 3.10-7 Mitigation Measures Required for Early Action Projects

Early Action Project	Impacts	Mitigation Measures
Pioneer Boulevard Grade Separation (Appendix 3.10-A, Figure 10)	HMW-6: Handling of Hazardous Materials, Substances, or Waste within 0.25 Mile of a School during Construction ▪ Temporary use, transport, and storage of hazardous materials during construction within 0.25 mile of the Pioneer High School	HMW-MM#1

Early Action Project	Impacts	Mitigation Measures
Norwalk/Santa Fe Springs Station Relocation (Appendix 3.10-A, Figure 13)	HMW-6: Handling of Hazardous Materials, Substances, or Waste within 0.25 Mile of a School during Construction ▪ Temporary use, transport, and storage of hazardous materials during construction within 0.25 mile of the La Mirada Adult Center	HMW-MM#1
Buena Park Metrolink Station Relocation (Appendix 3.10-A, sheet 16)	HMW-6: Handling of Hazardous Materials, Substances, or Waste within 0.25 Mile of a School during Construction ▪ Temporary use, transport, and storage of hazardous materials during construction within 0.25 mile of the La Mirada Adult Center	HMW-MM#1
Fullerton Metrolink Station (Appendix 3.10-A, Figures 19 and 20)	HMW-6: Handling of Hazardous Materials, Substances, or Waste within 0.25 Mile of a during Construction ▪ Temporary use, transport, and storage of hazardous materials during construction within 0.25 mile of the Pioneer High School	HMW-MM#1

3.10.8 NEPA Impacts Summary

This section summarizes the impacts of the Shared Passenger Track Alternatives and compares them to the anticipated impacts of the No Project Alternative. Under NEPA, project effects are evaluated based on context, intensity, and duration. Effects are assessed after implementation of mitigation measures.

3.10.8.1 No Project Alternative

The No Project Alternative represents the transportation system and major planned land use changes anticipated by 2040. Under the No Project Alternative, recent development trends in the project section are anticipated to continue, including operation of the existing regional transportation systems, leading to growth of the population in the environmental database review RSA. Existing highway, airport, and conventional rail systems described in adopted regional transportation plans and municipal general plans would likely be implemented. There are also planned industrial, residential, and associated infrastructure development projects such as shopping centers and wastewater conveyance upgrades.

These growth initiatives and planned improvements would require the storage, transport, use, and disposal of hazardous materials and generate a mix and quantity of hazardous wastes based on the magnitude of the improvements and contamination at any given site. PEC sites in the environmental database review RSA are associated with commercial and industrial facilities and uses, as well as O&M of major highway and railway corridors in the project vicinity. No Project Alternative improvements within those same corridors could compound effects and contamination-related risks associated with these sites. Transportation and planned improvements in areas of existing oil or gas fields also could threaten the safety of the public and risks would be comparable to development of similar past and ongoing improvement projects in these areas. Some but not all existing PEC sites in the environmental database review RSA would be investigated and undergo remediation by 2040 and the potential for effects on planned and future improvements would remain. Upsets and accidents may create PEC sites that could affect future improvements under the No Project Alternative, although accidents or spills of hazardous materials are regulated and cleanups are required. Based on forecasted population growth in the region, existing and future transportation systems would experience more traffic and

congestion. This would likely increase the risk of accidents and other incidents that could release hazardous materials to the environment and threaten or affect educational facilities, hospitals, parks, and other places where the public gathers, either directly (e.g., a structure fire) or indirectly (e.g., contaminating a potable water source). However, planned improvements and transportation projects under the No Project Alternative would likely include the implementation of mitigation to address the effects of exposure to hazardous materials.

3.10.8.2 Shared Passenger Track Alternatives

Construction of the Shared Passenger Track Alternatives could result in temporary and permanent impacts on the public and environment from release or disturbance of hazardous materials.

- **Impact HMW-1 and Impact HMW-2:** Transport, storage, use, and disposal of hazardous materials and generation, storage, or disposal of hazardous wastes, including fuels used during construction of the project could result in the release of hazardous materials. Incorporation of **HMW-IAMF#1**, **HMW-IAMF#4**, **HMW-IAMF#5**, **HMW-IAMF#6**, **HMW-IAMF#7**, **HMW-IAMF#8**, **HMW-IAMF#9**, **HMW-IAMF#10**, **GEO-IAMF#1**, **GEO-IAMF#3**, **HYD-IAMF#1**, and **HYD-IAMF#3** will address effects from the release of hazardous materials by ensuring that hazardous materials are transported in compliance with state and federal regulations, BMPs for hazardous materials storage and handling are followed, procedures for spill prevention are in place prior to construction, and the full inventory of hazardous materials in use during construction of the project is available to first responders.
- **Impact HMW-3:** During construction, trenching and other ground-disturbing activities could encounter or disturb previously undocumented or unknown hazardous materials or contamination. The Authority will develop a soil management plan with requirements for the contractor to develop a CMP prior to construction that includes provisions for responding to the disturbance of known, suspected, and unanticipated contamination (**HMW-IAMF#4**). Additional features include compliance with regulations that control the transport, use, storage, and disposal of hazardous materials (**HMW-IAMF#7**) and procedures for the safe dismantling and prevention of accidental release of lead, PCBs, and asbestos (**HMW-IAMF#5**). These provisions will minimize hazardous materials exposure of workers or the public and release to the environment as a result of inadvertent disturbance of undocumented contamination.
- **Impact HMW-4:** Construction on or near PEC sites could expose workers, the public, or the environment to hazardous materials. The following would minimize the impacts associated with construction on or near these sites.
  - During property acquisition for project construction, a parcel-level Phase I ESA will be conducted to characterize the properties proposed for acquisition (**HMW-IAMF#1**). Additional phases of ESAs could be conducted based on the results of the Phase I assessment.
  - Construction activities on or near PEC sites subject to remediation would be coordinated to avoid damaging or interfering with soil containment, vapor barriers, groundwater remediation infrastructure, or other remedial systems. Protection of existing vapor barriers is required by **HMW-IAMF#3**.
  - A CMP will be developed prior to construction that includes provisions for responding to the disturbance of undocumented contamination (**HMW-IAMF#4** and **GEO-IAMF#3**).
  - A spill prevention plan (**HMW-IAMF#6**) will establish procedures to minimize potential accidents during handling of contaminated soils or groundwater and potential accidents during remediation and the Environmental Management System (**HMW-IAMF#9**) will require a selection of materials that are less hazardous to be used in decontamination or treatment of contaminated media.

However, because of the extensive nature of potential impacts associated with the two Superfund sites (one listed and one proposed to be listed), because of incomplete characterization and remedy selection, and because completion of remediation activities at each site is currently unknown, significant exposure to contaminants associated with these sites could occur during construction of Shared Passenger Track Alternative A. These two sites are being monitored and remediated under the purview of USEPA, DTSC, and the Regional Water Quality Control Board and, therefore, construction activities in areas affected by these sites would also require coordination with the applicable oversight agency. With implementation of **HMW-MM#2**, involving close coordination with the regulatory oversight agencies and the responsible parties on the design of the project alternatives (including the 26th Street LMF) and the Fullerton HSR Station Option, and engagement with public interested parties at specific design milestones, impacts would be reduced but remain adverse.

- **Impact HMW-5:** Demolition of roadways, track modification, and dismantling and removal of building or other structure components or debris could accidentally release PCBs, lead, and asbestos, exposing workers and the public to hazardous materials during demolition prior to construction of the project. **HMW-IAMF#5** and **HMW-IAMF#7** include measures that will ensure the safe demolition and removal of materials and debris and safe storage and transport for disposal, preventing the accidental release of lead and asbestos.
- **Impact HMW-6:** Construction would involve the transport, storage, and use of hazardous materials or mixtures within 0.25 mile of schools, a health or safety hazard to students or employees in the event of a release of hazardous materials. Incorporation of **HMW-IAMF#4**, **HMW-IAMF#5**, **HMW-IAMF#6**, **HMW-IAMF#7**, and **HMW-IAMF#8** will address effects. **HMW-MM#1** will limit the use of extremely hazardous materials within 0.25 mile of a school.
- **Impact HMW-7:** Construction on or near closed landfills and oil and gas wells could increase the risk of exposure or accident of the public and workers to hazardous materials. **HMW-IAMF#2** will minimize the risk of explosion related to methane gas release from closed landfills. IAMFs will reduce the risk of accidents associated with encountering oil or gas wells, such as spills, fires, or explosions that could compromise the safety of construction workers and the public. The Authority will identify, inspect, and abandon wells within 200 feet of the HSR tracks, as well as relocate active wells (**SS-IAMF#4**). In addition, the Authority will be required to monitor for subsurface gases and use safe and explosion-proof equipment during project construction in areas where explosion hazards exist (**GEO-IAMF#3**). Furthermore, a spill prevention plan will be in place (**HMW-IAMF#6**), and spill containment equipment will be at the site during removal or decommissioning of wells (**HMW-IAMF#4**).

Operation of the Shared Passenger Track Alternatives could result in temporary and permanent impacts on the public and environment from release or disturbance of hazardous materials and wastes.

- **Impact HMW-8:** O&M could affect the environment and the public through the transport, use, storage, and disposal of hazardous materials for maintenance of HSR trains, track, LMF, and stations. The transport, use, storage, and disposal of hazardous materials would primarily occur at the LMF (primarily lubricants and solvents for maintaining trains), although smaller quantities of hazardous materials could be intermittently used on tracks, or stations. Storage and handling of hazardous materials, as well as disposal off site, would be done in accordance with applicable local, state, and federal regulations, which would reduce the potential for accidents and spills. Incorporation of an Environmental Management System and hazardous materials monitoring plans will address impacts (**HMW-IAMF#7**, **HMW-IAMF#9**, and **HMW-IAMF#10**). **HYD-IAMF#1** will help minimize the potential impacts associated with the release of hazardous brake dust generated during project operations.
- **Impact HMW-9:** O&M could result in the accidental release of hazardous materials, presenting health and safety risks to the public, and workers, and contamination of the environment. IAMFs include measures that require preparation of a Hazardous Materials

Business Plan, SPCC plan, and Environmental Management System that will limit the risks of upsets and accident conditions (**HMW-IAMF#7**, **HMW-IAMF#9**, and **HMW-IAMF#10**).

- **Impact HMW-10:** O&M on or near sites of undocumented or known contamination and associated risks would be negligible, because these types of sites will be identified, tested, and remediated as feasible (**HMW-IAMF#1**). In addition, O&M activities would have limited potential for ground disturbance and, therefore, exposure to potential contamination migrating from these sites is considered highly unlikely. The potential impacts associated with operations on or near affected sites are discussed under Impact HMW-10.
- **Impact HMW-11:** O&M would require limited and intermittent handling of small amounts of hazardous materials, substances, or wastes within 0.25 mile of schools. A Hazardous Materials Business Plan, SPCC plan, and Environmental Management System will be prepared and implemented (**HMW-IAMF#7**, **HMW-IAMF#9**, and **HMW-IAMF#10**). HSR trains would operate on electric power with no hazardous air emissions and the single at-grade crossing is not within 0.25 mile of a school, eliminating the potential for accidents between the train and vehicles transporting hazardous materials.

Table 3.10-8 presents a comparison of the potential impacts of the project alternatives followed by a summary of the impacts.

Table 3.10-8 Comparison of Project Alternative Impacts on Hazardous Materials and Waste

Impacts	Shared Passenger Track Alternative A	Shared Passenger Track Alternative B	With Inclusion of HSR Station Option		NEPA Conclusion Before Mitigation	Mitigation	NEPA Conclusion Post Mitigation			
			Norwalk/Santa Fe Springs	Fullerton			Shared Passenger Track Alternative A	Shared Passenger Track Alternative B	With Inclusion of HSR Station Option	
									Norwalk/Santa Fe Springs	Fullerton
Impact HMW-1: Transport, Use, Storage, and Disposal of Hazardous Materials and Hazardous Wastes	Construction would temporarily increase the regional transport, use, storage, and disposal of hazardous materials, including diesel fuel, lubricants, paints and solvents, and cement products containing strong basic or acidic chemicals. Project features (including preparation of a soil management plan, CMP, and spill prevention plan; compliance with applicable state and federal permits and regulations; and an Environmental Management System) will avoid and minimize impacts on the public and environment as part of the project.	More significant than Shared Passenger Track Alternative A because of the potential for higher contaminated soil volumes. The likelihood of encountering known contaminated soils is higher for Shared Passenger Track Alternative B, so the volume of contaminated soils that may require disposal at hazardous waste or designated waste facilities would likely be higher under Shared Passenger Track Alternative B. However, Shared Passenger Track Alternative A Involves more soil disturbance on the Exide property, which increases the potential severity of contaminated soil likely encountered.	Same impacts as the Shared Passenger Track Alternatives within the station area.	More significant impacts than the Shared Passenger Track Alternatives within the station area. The construction area for the Fullerton HSR Station Option is larger and includes more extensive excavations than those required for implementation of the Shared Passenger Track Alternatives; therefore, there would be a greater potential to encounter and handle affected soils.	No adverse effect (all alternatives and HSR station options)	No mitigation needed	N/A	N/A	N/A	N/A
Impact HMW-2: Upset and Accident Conditions Involving the Release of Hazardous Materials into the Environment	The accidental release of hazardous materials could present health and safety risks to the public, construction workers, and the environment. Project features are included to minimize effects from inadvertent spills through compliance with regulations for the transport of hazardous materials; compliance with SWRCB Construction General Permit conditions; and establishment of an Environmental Management System and SPCC plan prior to construction. The severity of impacts associated with upset and accident conditions involving the release of hazardous materials would depend on the volume and type of material released, would be short term, and would correspond to the construction period.	Similar to Shared Passenger Track Alternative A. Construction of the 15th Street LMF would have a minor to moderate likelihood of encountering hazardous waste–affected soils at the LMF site, compared to a major likelihood at the 26th LMF site.	Same impacts as the Shared Passenger Track Alternatives within the station area.	Similar impacts as the Shared Passenger Track Alternatives within the station area. Construction of the HSR station option elements would occur within a larger area and there would be a greater potential to encounter PEC sites during excavation.	No adverse effect (all alternatives and HSR station options)	No mitigation needed	N/A	N/A	N/A	N/A

Impacts	Shared Passenger Track Alternative A	Shared Passenger Track Alternative B	With Inclusion of HSR Station Option		NEPA Conclusion Before Mitigation	Mitigation	NEPA Conclusion Post Mitigation			
			Norwalk/Santa Fe Springs	Fullerton			Shared Passenger Track Alternative A	Shared Passenger Track Alternative B	With Inclusion of HSR Station Option	
									Norwalk/Santa Fe Springs	Fullerton
Impact HMW-3: Inadvertent Disturbance of Hazardous Materials and Wastes	During construction, ground-disturbing activities including, but not limited to, trenching, dewatering activities, demolition of roadways or other structures, and track modifications, could encounter or disturb previously undocumented soil or groundwater contamination. Compliance with regulations that control the transport, use, storage, and disposal of hazardous materials will limit the potential for an inadvertent release of hazardous materials during construction, and the Authority will develop a CMP that includes provisions for responding to the disturbance of undocumented contamination. Project design features also include measures that are intended to ensure the safe dismantling and removal of roadway components or other structures and debris and prevents the accidental release of lead and asbestos, thereby protecting workers and the public from potential exposure to hazardous materials during demolition.	Similar to Shared Passenger Track Alternative A. The amount of ground disturbance would be greater for Shared Passenger Track Alternative B to build the 15th Street LMF, so there would be a greater likelihood to encounter and inadvertently disturb undocumented contaminated media.	Same impacts as the Shared Passenger Track Alternatives within the station area.	Similar impacts as the Shared Passenger Track Alternatives within the station area. The amount of ground disturbance would be greater to build the HSR station option elements, so there would be a greater likelihood to encounter and inadvertently disturb undocumented contaminated media.	No adverse effect (all alternatives and HSR station options)	No mitigation needed	N/A	N/A	N/A	N/A
Impact HMW-4: Construction within or Near Sites of Potential Environmental Concern or Cortese List Sites	There are 305 PEC sites in the immediate vicinity of the project, including 74 sites categorized as Category A, 210 sites as category B (high and medium priority, respectively) and 21 as category C within 150 feet of the project footprint. Although the project could result in the release of hazardous materials that could affect public health and the environment, project features (including Phase I and II ESAs, work and vapor barriers, CMP, SPCC plan, and Environmental Management System) will address most effects from the release of hazardous materials during construction on or near PEC sites. Nonetheless, because of the extensive nature of potential impacts associated with the two Superfund sites (one listed and one proposed to be listed), because of incomplete characterization and remediation, and because completion of remediation activities at each site is currently unknown, significant exposure to contaminants associated with these sites could occur during construction.	Similar to Shared Passenger Track Alternative A. The likelihood of encountering hazardous materials through construction of the 15th Street LMF is minor to moderate, compared to the major likelihood of such outcomes through construction of the 26th Street LMF.	Same impacts as the Shared Passenger Track Alternatives within the station area.	Greater impacts than the Shared Passenger Track Alternatives within the station area. The construction area for the Fullerton HSR Station Option is larger and includes more extensive excavations than those required for implementation of the Shared Passenger Track Alternatives; therefore, there would be greater potential to encounter hazardous materials during construction.	Adverse effect (all alternatives and Fullerton HSR station option) No adverse effect (Norwalk/Santa Fe Springs HSR station option)	HMW-MM#2	Adverse effect	Adverse effect	N/A	Adverse effect

Impacts	Shared Passenger Track Alternative A	Shared Passenger Track Alternative B	With Inclusion of HSR Station Option		NEPA Conclusion Before Mitigation	Mitigation	NEPA Conclusion Post Mitigation			
			Norwalk/Santa Fe Springs	Fullerton			Shared Passenger Track Alternative A	Shared Passenger Track Alternative B	With Inclusion of HSR Station Option	
									Norwalk/Santa Fe Springs	Fullerton
Impact HMW-5: Increased Exposure to Lead-Based Paint and Asbestos as a Result of Roadway and Building Demolition	Demolition could result in asbestos or lead exposure, which presents a potential safety risk to construction workers, the public, and the environment. Effects related to roadway or other structure demolition would be short term and would occur during the demolition phase of project construction. Project features would address effects from asbestos and lead exposure through the development of a demolition plan with specific asbestos and lead abatement procedures prior to construction activities and procedures for the safe transport, containment, storage, and disposal of hazardous materials.	Similar to Shared Passenger Track Alternative A. Construction of the 15th Street LMF would require demolition of several additional buildings, which would increase the possibility of exposure to LBPs and ACMs.	Same impacts as the Shared Passenger Track Alternatives within the station area.	Similar impacts as the Shared Passenger Track Alternatives within the station area. Construction of the Fullerton HSR platform, facilities, and parking would be within a larger area than the area that would be modified under the Shared Passenger Track Alternatives and would require demolition of several additional buildings, which would increase the possibility of exposure to LBPs and ACMs.	No adverse effect (all alternatives and HSR station options)	No mitigation needed	N/A	N/A	N/A	N/A
Impact HMW-6: Handling of Hazardous Materials, Substances, or Waste within 0.25 Mile of a School	Forty educational facilities are within the RSA. Hazardous materials would be used or stored within 0.25 mile of a school. Hazardous wastes such as ACM and LBP could also be generated during demolition of existing structures, roadways, or track modifications. Project features would include measures to address effects from asbestos and lead exposure through the development of a demolition plan with specific asbestos and lead abatement procedures prior to construction activities; procedures for the safe transport, containment, storage, and disposal of hazardous materials; and preparation of Phase I and II ESAs and a CMP.	Same as Shared Passenger Track Alternative A.	Same impacts as the Shared Passenger Track Alternatives within the station area.	Same impacts as the Shared Passenger Track Alternatives within the station area.	Adverse effect (all alternatives and HSR station options)	HMW-MM#1	No adverse effect	No adverse effect	No adverse effect	No adverse effect

Impacts	Shared Passenger Track Alternative A	Shared Passenger Track Alternative B	With Inclusion of HSR Station Option		NEPA Conclusion Before Mitigation	Mitigation	NEPA Conclusion Post Mitigation			
			Norwalk/Santa Fe Springs	Fullerton			Shared Passenger Track Alternative A	Shared Passenger Track Alternative B	With Inclusion of HSR Station Option	
									Norwalk/Santa Fe Springs	Fullerton
Impact HMW-7: Risks During Construction on or Near Landfills and Oil and Gas Wells	Two closed landfills are within the RSA that have also been identified as PEC sites: #227 in Vernon (medium) and #105 in Norwalk (medium). Neither site is within the project footprint and the risk of potential exposure to contamination from these landfill sites is considered very low. Project features, such as methane protection measures, CMP, SPCC plan, and compliance with applicable state and federal regulations, will be included and prevent or minimize the likelihood of a hazardous materials release and prepare workers in the event that a release does occur.	Similar to Shared Passenger Track Alternative A. Construction of the 15th Street LMF would increase the amount of ground disturbance and excavation, which would increase the potential for disturbance of hazardous materials associated with unknown or undocumented landfills and oil and gas wells.	Same impacts as the Shared Passenger Track Alternatives within the station area.	Similar impacts as the Shared Passenger Track Alternatives within the station area. Construction of the Fullerton HSR Station Option platform, facilities, and parking would be within a larger area than the area modified under the Shared Passenger Track Alternatives, and would increase the potential for disturbance of hazardous materials associated with unknown or undocumented landfills and oil and gas wells.	No adverse effect (all alternatives and HSR station options)	No mitigation needed	N/A	N/A	N/A	N/A
Impact HMW-8: Operations and Maintenance Transport, Use, Storage, and Disposal of Hazardous Materials and Hazardous Wastes	Operations would involve the use of small amounts of hazardous materials for O&M. Prior to operations and maintenance activities, the Authority will prepare hazardous materials monitoring plans. Compliance with applicable state and federal regulations will address the potential for improper handling of hazardous materials. Additionally, operations will require proper management of hazardous materials routinely used through development of an Environmental Management System. The foregoing project features would allow for proper management of hazardous materials routinely used during operations.	Same as Shared Passenger Track Alternative A.	Same impacts as the Shared Passenger Track Alternatives within the station area.	Same impacts as the Shared Passenger Track Alternatives within the station area.	No adverse effect (all alternatives and HSR station options)	No mitigation needed	N/A	N/A	N/A	N/A
Impact HMW-9: Operations and Maintenance Upset and Accident Conditions Involving the Release of Hazardous Materials into the Environment	Long-term operation would involve the intermittent transport, storage, use, and disposal of hazardous materials for O&M. Project features include measures for compliance with established state and federal regulations involving handling and transport of hazardous materials and implementation of a Hazardous Materials Business Plan, SPCC plan, and Environmental Management System. With these measures, the risks of upsets and accident conditions will be limited.	Same as Shared Passenger Track Alternative A.	Same impacts as the Shared Passenger Track Alternatives within the station area.	Same impacts as the Shared Passenger Track Alternatives within the station area.	No adverse effect (all alternatives and HSR station options)	No mitigation needed	N/A	N/A	N/A	N/A

Impacts	Shared Passenger Track Alternative A	Shared Passenger Track Alternative B	With Inclusion of HSR Station Option		NEPA Conclusion Before Mitigation	Mitigation	NEPA Conclusion Post Mitigation			
			Norwalk/Santa Fe Springs	Fullerton			Shared Passenger Track Alternative A	Shared Passenger Track Alternative B	With Inclusion of HSR Station Option	
									Norwalk/Santa Fe Springs	Fullerton
Impact HMW-10: Operations and Maintenance Near Sites of Potential Environmental Concern (Including Cortese List Sites)	O&M activities would occur near sites of known or unknown contamination. O&M would have limited potential for ground disturbance and risks would be correspondingly reduced when compared to construction. Preparation of Phase I and II ESAs will occur prior to construction, rendering the potential disruption or exacerbation of a known or unknown site of contamination during operation to negligible levels. Operation of the project near PEC sites, including Cortese List sites, would not result in the release of hazardous materials that could create a substantial hazard to public health or the environment.	Same as Shared Passenger Track Alternative A.	Same impacts as the Shared Passenger Track Alternatives within the station area.	Same impacts as the Shared Passenger Track Alternatives within the station area.	No adverse effect (all alternatives and HSR station options)	No mitigation needed	N/A	N/A	N/A	N/A
Impact HMW-11: Operations and Maintenance Handling of Hazardous Materials or Waste within 0.25 Mile of a School	There would be long-term risks associated with the handling of small amounts of hazardous materials within 0.25 mile of 40 educational facilities during operations. There would be intermittent use of small amounts of hazardous materials for O&M. Project features will be in place to limit the risk of a release of hazardous materials during O&M activities within 0.25 mile of schools and the project would not pose a health and safety hazard to students or school employees.	Same as Shared Passenger Track Alternative A.	Same impacts as the Shared Passenger Track Alternatives within the station area.	Same impacts as the Shared Passenger Track Alternatives within the station area.	No adverse effect (all alternatives and HSR station options)	No mitigation needed	N/A	N/A	N/A	N/A

ACM = asbestos-containing materials; Authority = California High-Speed Rail Authority; CMP = Construction Management Plan; ESA = environmental site assessment; HSR = high-speed rail; IAMF = impact avoidance and minimization feature; LBP = lead-based paint; LMF = light maintenance facility; N/A = not applicable; NEPA = National Environmental Policy Act; PEC = potential environmental concern; O&M = operations and maintenance; PEC = potential environmental concern; RSA = resource study area; SPCC = spill prevention, control, and countermeasure, SWRCB = State Water Resources Control Board

3.10.9 CEQA Significance Conclusions

As described in Section 3.10.4.5, Method for Determining Significance Under CEQA, the impacts of project actions under CEQA are evaluated against thresholds to determine whether a project action would result in no impact, a less-than-significant impact, or a significant impact. Table 3.10-9 provides a summary of the CEQA determination of significance for construction and operational impacts for the Shared Passenger Track Alternatives.

Table 3.10-9 CEQA Significance Conclusions for Hazardous Materials and Wastes

Impact	Impact Description and Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation	Source of Impact
Construction				
Impact HMW-1: Transport, Use, Storage, and Disposal of Hazardous Materials and Hazardous Wastes	Less than significant for both project alternatives. Construction activities would temporarily increase the regional transport, use, storage, and disposal of hazardous materials, which could increase the probability of inadvertent spills. However, project features including preparation of a soil management plan, CMP, and SPCC plan; compliance with applicable state and federal permits and regulations; and an Environmental Management System will avoid and minimize impacts.	No mitigation measures are required	Not applicable	All alternatives and options
Impact HMW-2: Upset and Accident Conditions Involving the Release of Hazardous Materials into the Environment	Less than significant for both project alternatives. The accidental release of hazardous materials could present health and safety risks to the public, construction workers, and the environment. Project features are included to minimize effects from inadvertent spills through compliance with regulations for the transport of hazardous materials; compliance with SWRCB Construction General Permit conditions; and establishment of an Environmental Management System and SPCC plan prior to construction.	No mitigation measures are required	Not applicable	All alternatives and options
Impact HMW-3: Inadvertent Disturbance of Unknown Hazardous Materials and Wastes	Less than significant for both project alternatives. Compliance with regulations for the transport and handling of hazardous materials and development of construction management and demolition plans would minimize potential impacts from the inadvertent disturbance of hazardous materials from undocumented sites.	No mitigation measures are required	Not applicable	All alternatives and options

Impact	Impact Description and Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation	Source of Impact
Impact HMW-4: Construction within or Near Sites of Potential Environmental Concern or Cortese List Sites	Potentially significant for both project alternatives and the Fullerton HSR station option. Construction on or near Superfund sites (Orange County North Basin site, listed, and the Exide site, proposed to be listed) would potentially cause a significant hazard to the public or the environment from a release of hazardous materials.	HMW-MM#2	Significant and unavoidable	Shared Passenger Track Alternatives A and B and Fullerton HSR Station Option
Impact HMW-5: Increased Exposure to Lead-Based Paint and Asbestos as a Result of Roadway and Building Demolition	Less than significant for both project alternatives. Potential asbestos or lead exposure as a result of demolition would be effectively reduced through development of a demolition plan and a hazardous materials and waste plan and would not result in a significant hazard to construction workers, the public, or the environment.	No mitigation measures are required	Not applicable	All alternatives and options
Impact HMW-6: Handling of Hazardous Materials, Substances, or Waste within 0.25 Mile of a School	Potentially significant for both project alternatives. Construction activities would require the handling of hazardous materials, including extremely hazardous materials, within 0.25 mile of schools. Improper handling of such materials could pose a health or safety hazard to students or employees in the event of an inadvertent release of hazardous materials.	HMW-MM#1	Less than significant	All alternatives and options
Impact HMW-7: Risks During Construction on or Near Landfills and Oil and Gas Wells	Less than significant for both project alternatives. Two closed landfills are within the RSA that have also been identified as PEC sites; however, neither site is within the project footprint and the risk of potential exposure to contamination from these landfill sites is considered very low. Project features will be included to prevent or minimize the likelihood of a hazardous materials release and prepare workers in the event that a release does occur.	No mitigation measures are required	Not applicable	All alternatives and options
Operations				
Impact HMW-8: Operations and Maintenance Transport, Storage, Use, or Disposal of Hazardous Materials and Hazardous Wastes	Less than significant for both project alternatives. The limited potential for release of hazardous materials during the intermittent transport, use, storage, and disposal of such substances used during operations would not result in a significant hazard to the public or the environment.	No mitigation measures are required	Not applicable	All alternatives and options

Impact	Impact Description and Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation	Source of Impact
Impact HMW-9: Operations and Maintenance Upset and Accident Conditions Involving the Release of Hazardous Materials into the Environment	Less than significant for both project alternatives. Although intermittent operational activities would increase the risk of accidental release of hazardous materials, project features include effective measures to avoid creation of a significant hazard to workers, the public, or the environment.	No mitigation measures are required	Not applicable	All alternatives and options
Impact HMW-10: Operations and Maintenance Near Sites of Potential Environmental Concern (Including Cortese List Sites)	Less than significant for both project alternatives. Operation of the project near PEC sites or Cortese List sites would not result in the release of hazardous materials that could create a significant hazard to the public or the environment.	No mitigation measures are required	Not applicable	All alternatives and options
Impact HMW-11: Operations and Maintenance Handling of Hazardous Materials or Waste within 0.25 Mile of a School	Less than significant for both project alternatives. Measures would be in place that limit the risk of a release of hazardous materials during operations and maintenance activities within 0.25 mile of the schools and the project would not pose a health and safety hazard to students or school employees.	No mitigation measures are required.	Not applicable	All alternatives and options

CEQA = California Environmental Quality Act; CMP = Construction Management Plan; HSR = high-speed rail; IAMF = impact avoidance and minimization feature; PEC = potential environmental concern; RSA = resource study area; SPCC = spill prevention, control, and countermeasure; SWRCB = State Water Resources Control Board